



An Analysis of Tiny Houses through a Viewpoint on Preferences, Satisfaction, and Expectations of Residents

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ABSTRACT

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In recent years, there has been a significant increase in the prevalence of tiny houses, reflecting the worldwide trend of this favored living option. Scientific study on tiny houses has experienced a modest global growth in recent years, even though the notion of tiny houses has only been lately introduced to Turkish literature. Information on tiny houses is mostly available through various media channels, including television, newspapers, magazines, and social media platforms, in our country. This article seeks to examine the concept and current popularity of tiny houses, while also assessing user preferences and levels of satisfaction. User satisfaction was evaluated based on data obtained from twenty interviews conducted with owners of small-scale dwellings. The primary results suggest that individuals who exhibit a preference for residing in tiny houses have an awareness of the disparities and challenges they are likely to face. The appealing qualities of the house extends beyond its physical appearance. The mere existence of a location, regardless of its size, situated in a calm and peaceful environment, far from chaos and confusion, where individuals have a sense of belonging, is enough to satisfy their needs.

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1. Introduction

Throughout the course of history, individuals have utilized various forms of dwellings for habitation. The Tiny House Movement has emerged as a lifestyle option for individuals that favor minimalism, cost-efficiency, and environmental sustainability when it comes to their housing preferences. The movement originated with the establishment of the Tumbleweed Tiny House company in the United States in 2002 [1], and subsequently spread to Europe and Australia in response to the economic crisis in 2008. The transmission originated in our nation subsequent to the 2019 Covid outbreak [2]. The tiny house movement is a housing trend that is popular among those who want to shift from living in metropolitan apartments. Given their affordable availability, adaptability for temporary housing requirements, and capacity to

address disasters, the concept of living in tiny houses is becoming more attractive under present conditions [3]. Small houses garnered substantial attention in the aftermath of Hurricane Katrina in the United States [4]. After the earthquake on February 6, 2023, a housing community called 'Örnek Evler' was established in Hatay to accommodate survivors. This initiative was announced through social media [5].

Despite the rise in popularity of tiny houses, scientific research on the topic has not seen a corresponding growth. In the United States and Australia, the tiny house movement lacks scholarly research [4, 6-8]. Mutter (2013) observed a scarcity of scholarly studies on tiny houses. In his study, he conducted interviews with participants to inquire about their motivations, problems, and growth potential [1]. Furthermore, it is suggested that a bigger sample

size should be used when examining the motivations for choosing to live in tiny houses [7]. Wilson and Wadham's study revealed that the growing popularity of tiny houses is a multifaceted reaction to current economic challenges faced by individuals and society as a whole, serving as both a lifestyle choice and a practical solution. The tiny house movement symbolizes a community uniting on a small scale in opposition to the larger real estate industry [9].

The majority of research on tiny dwellings pertains to legal regulations [2]. Some of the research has focused on areas such as the potential of tiny houses to meet the housing needs of the homeless, the evaluation of their environmental impact, their integration into variable contexts in terms of urban planning, and the main motivations for living in tiny houses [10, 11]. Mangold and Zschau (2019) conducted study on the factors influencing the adoption of the tiny house lifestyle. The research contends that living in a compact house is a positive lifestyle based on user interviews [8]. A different study on tiny houses focuses on those opting for a minimalist lifestyle [12].

In a study conducted by Çizmecioglu and Tanriverdi Kaya (2022), it was concluded that the main theme of international publications on tiny houses is the main motivations of the users [2]. People living in tiny houses have motivations such as living a simpler life [8], being financially secure [13], and having better sharing with close people such as family and friends [14]. There is a limited number of academic publications on tiny dwellings in our country, and scientific study on living in tiny houses is scarce. Conversely, there has been a rise in the number of enterprises specializing in designing and manufacturing tiny dwellings in recent years.

Architects and engineers specializing in tiny house design and construction assert that tiny houses are ideal for individuals seeking to circumvent financial obligations including construction expenses, building permits, land assessments, taxes, and administrative charges. Tiny dwellings are also created with customized designs simultaneously [15, 16]. In order to understand which design factors are effective in

the widespread use of tiny houses, research needs to be concentrated in this field.

This research aims to investigate the increasing demand for tiny houses and the associated lifestyle in recent years. It will focus on identifying the specific user demographics, geographic locations, factors influencing their preferences, and their levels of satisfaction. The study aims to explore the motivations behind individuals who choose to live in tiny houses and their level of contentment with this lifestyle. To achieve this goal, in-depth interviews will be conducted with consumers to gain insight into their impressions of the tiny house, variables influencing their preferences, and satisfaction levels.

2. The Emergence and Development of the Concept of the Tiny House

Providing shelter, which is a basic biological need, resulted in the development of secure enclosed spaces in a straightforward manner many years ago. The original structures constructed to offer shelter might be regarded as the fundamental basis of the tiny house concept. This section explores the notion of tiny houses, which originated in the USA as part of the "Tiny House Movement." It delves into textual sources by architects and designers considered foundational to the movement and the evolution of tiny house designs.

2.1. The tiny house movement and the global development of tiny houses

The Tiny House Movement is a developing culture embraced by individuals who choose to simplify their living, prioritize personal freedom, and make their lives easier [17]. The origins of the concept of 'Tiny House', which has become increasingly recognized by the public in recent years, date back to the 19th century romanticism of Thoreau and Emerson [18]. In the book "Walden" written by Henry David Thoreau in the 1850s, the concept of a tiny house is expressed as a self-sufficient life that makes it easier to own a house by building a tiny house [19]. Frank Lloyd Wright's book "The Natural House," published in 1950, was influential in shaping the notion and lifestyle of living in tiny houses. Frank Lloyd

Wright outlines an ideal scenario of small, one-story, cost-effective homes constructed from natural materials in what he terms the "Usonian Dream," aligning with the concept of tiny houses. Following that, the houses designed by Wright were built and gained popularity among middle-class inhabitants [20].

Le Corbusier was an architect renowned for his designs of compact dwellings. Corbusier's encounters with restricted spaces throughout his travels motivated him to integrate these small living arrangements into his architectural designs. The architect built a little house called Le Cabanon, with dimensions of 3.66 m × 3.66 m, using architectural principles derived from careful observation and experimentation [21]. Lloyd Kahn, a writer, photographer, and architect, published the book "Shelter" in 1973, followed by "Home Work: Handbuilt Shelter" in 2004, which, along with his other works, played a vital role in popularizing the tiny house movement [22].

The widespread prominence of the tiny house concept has been impacted by the 1987 book "Tiny Houses" authored by renowned architect Lester Walker. [23]. Sarah Susanka, an American individual whose spouse is also an architect, is a key figure in popularizing the modern version of the tiny house movement. Furthermore, they have resided in a compact yet highly functional dwelling that they built themselves. In 1998, Susanka wrote a book called "The Not So Big House, A Blueprint for the Way We Really Live," which specifically Explorer the concept of tiny houses [22].

In 1999, Jay Shafer, a well-known advocate of the Tiny House Movement, published his first book on the subject, titled "The Small House Book". In 2000, he established the "TumbleweedTiny House Company" to create and produce "tiny houses" [22]. The notion of tiny houses has garnered worldwide acclaim through television programs, social media videos, documentaries, and several other media outlets [3, 4].

2.2. The beginning and development of tiny houses in Türkiye

Architects and designers enthusiastically adopted the Tiny House Movement and attempted to promote it widely through the release of publications, as shown in its historical record. While Turkey has a plethora of information available on social media on tiny houses, there is a scarcity of published scholarly papers on the subject in the country.

The emergence of tiny houses in Turkey began in 2020, coinciding with the outbreak of the Covid-19 pandemic [2, 24]. However, the widespread adoption of tiny houses in Turkey did not start with architects or designers embracing this idea. Instead, it spread by the increasing number of tiny house manufacturers and the recognition of tiny houses as an alternative for individuals who were unable to relocate from their homes during the pandemic.

3. Materials and Methods

A tiny house is typically defined as a residential unit that is smaller than 37 m², although there is no universally accepted standard definition. Tiny dwellings range in size from 6 to 37 square meters [1]. Typically, these houses consist of a kitchen, living space, sleeping area, and bathroom [25]. According to Jay Shafer, a tiny house is characterized by the adequate utilization of its available space rather than its size [26].

The growing popularity of tiny houses in our country has prompted the evaluation of whether customer expectations are being satisfied by using the obtained experiences. There is a scarcity of research studies, such as surveys and interviews, on tiny houses in the literature. The purpose of this study is to cast light on the preferences and levels of satisfaction of individuals who have previously adopted this way of life. The methodology employed in this study involves conducting interviews with individuals living in tiny houses. The initial phase of the research entailed conducting a literature review pertaining to the notion of a tiny house.

The city of Bursa was selected for the case study because of the recent rise in immigration rates, challenges in locating housing due to increased population density, and the subsequent preference for tiny residences. Interviews were conducted in the Alaaddinbey Neighborhood of Nilüfer District in Bursa Province because of its close proximity to the city center and the existence of densely populated residential areas. A series of interviews were conducted with 20 individuals who own tiny houses in the area. The purpose was to assess their levels of satisfaction and determine the factors influencing their desire for these dwellings. This analysis was based on the data acquired from their responses. Based on the research results, assessments were conducted about housing preferences and utilization. The insights will also be beneficial for designers and novice users.

3.1. Reasons why people living in tiny houses in Bursa prefer this lifestyle and their satisfaction levels

A set of interview questions were formulated in response to the literature review that was essential for measuring the level of satisfaction among individuals who have lived in tiny houses. Various sources on the development of tiny houses were used to explore factors affecting satisfaction and preferences due to the limited regional research on tiny house satisfaction and the need to compare with international sources [1, 8, 11]. The survey questions in master theses and papers analyzing user satisfaction in housing were taken as references [7, 27-29]. Interview questions were prepared together with the questions that examined area-specific dynamics in the context of the analyzed researches.

The questions were formulated in a manner that allowed individuals to assess their experiences pertaining to this particular way of living. Some of the questions were closed-ended, and although options were given in these questions, the opportunity to answer freely was also provided. In the preparation of the interview form, it is aimed to reveal the profile of tiny house users and to determine some criteria that feed this profile. In this context, the questions were prepared in a way to examine the reason for the users' preference for this lifestyle, the way of use,

physical, environmental and social dimensions as well as their experiences. In some questions, more than one option could be selected. As a result of the interviews with the manufacturer companies that sell tiny houses, it was concluded that these houses are more concentrated in Nilüfer district compared to other districts. The Alaaddinbey Neighborhood in Nilüfer District was chosen as the study area because it is a neighborhood with a high density of tiny houses. The findings obtained as a result of the interviews are presented in the next section.

4. Findings and Discussion

Following a predetermined set of interview questions, we conducted interviews with residents of the Alaaddinbey Neighborhood in the Nilüfer District of Bursa Province who chose to live in tiny houses. Table 1 presents the demographic characteristics of the participants.

The findings of the study indicate that 9 of the 20 participants fall within the age range of 35 to 44 years, 5 of them are 55 years or older, and 4 of them are 45 to 54 years of age. The age group with the fewest participants is 25-34, consisting of only 2 individuals. There were 11 male participants and 9 female ones. In relation to the participants' educational attainment, it is as follows: 8 hold a bachelor's degree, 6 have completed primary school, 4 have completed secondary school, and 2 have completed postgraduate studies. 2 of the participants are unmarried, while 18 are married. Out of the participants, 10 are self-employed, 6 are retired, and 4 are employed full-time. Out of the participants, 8 individuals have a monthly household income ranging from 30,000 TL to 40,000 TL, whilst 6 participants have a monthly income below 10,000 TL. Two participants have incomes ranging from 10,000TL to 20,000TL, two participants have from 20,000TL to 30,000TL, and two participants have incomes ranging from 40,000TL to 50,000TL. As indicated in Table 1, users with diverse demographic profiles demonstrate a preference for tiny houses [4].

Table 1. Demographic information of participants

Variable	Group	n	%
Gender	Female	9	45
	Male	11	55
Age	18<		
	18-24		
	25-34	2	10
	35-44	9	45
	45-54	4	20
	55>	5	25
Education	Primary education	6	30
	High School	4	20
	University	8	40
	Postgraduate	2	10
Marital Status	Single	2	10
	Married	18	90
	Divorced		
	Widow		
Job Status	Full time	4	20
	Part-time		
	Unemployed		
	Self-employment	10	50
	Housewife		
	Student		
	Retired	6	30
Household Income	10.000TL<	6	30
	10.000TL-20.000TL	2	10
	20.000TL-30.000TL	2	10
	30.000TL-40.000TL	8	40
	40.000TL-50.000TL	2	10
	50.000TL>		

Based on the statistics, it can be concluded that the preference for tiny dwellings and this lifestyle is primarily observed among middle-aged and older individuals who have greater levels of education, are either employed or retired, and are married. The presence of low-income customers who are able to obtain tiny houses supports the finding that tiny houses can serve as an appealing and affordable dwelling option [28, 29]. Thus, it may be asserted that couples with demanding work schedules prefer for this lifestyle for the purpose of getting away their professional commitments.

Table 2. Preference reason and usage duration of tiny house

Variable	Group	n	%
Location	Close to the city center	16	80
	Near the mountain		
	Close to the Sea		
	Village Center	2	10
Reasons for choosing to live in a tiny house	Village	2	10
	Spending time in nature	20	100
	A more minimalist life	2	10
	No zoning permit required	2	10
	Economical	2	10
	Providing the possibility to move the dwelling		
	A healthy life	2	10
Frequency of use of the tiny house	Grandchildren	1	5
	Continuous	2	10
	Weekends	12	60
Reason for not living permanently	Periodic	6	30
	Distance to work		
	Not comfortable enough		
	Having another house that is lived in permanently, using this house as a secondary house for seasonal/weekend vacations	18	90
	Lack of electricity	2	10
Time to experience the tiny house	1 year <	9	45
	1-3 year	5	25
	3-5 year		
	5 year >	6	30
Time spent indoors during the day outside sleep time	1-2 hour	15	75
	2-5 hour	3	15
	5 hour >	2	10
	Full day		
Time spent in the patio or garden of the tiny house	2 hour <	3	15
	2-5 hour	11	55
	5 hour >	6	30

Table 2 presents the reasons for preferring a compact dwelling and the length of time it is used. Based on the data presented in the table, 16 participants indicated that their tiny houses were located near the city center, whereas 4 participants mentioned that their houses were located in the village. When queried about their motivations for choosing to reside in a tiny house, all respondents unanimously cited their desire to spend time in and engage with nature.

This situation supports prior research [1, 11, 14]. A more minimalist life, not requiring a zoning permit, being economical, spending time with grandchildren, and maintaining a healthy life each have a share of 2 people. Twelve of the participants stated that they live in this house on weekends, 2 live here permanently and 6 live here periodically. When those who do not live in this house permanently were asked why, 18 of the participants stated that they have another house where they live permanently and 2 of them stated that they could not stay in this house due to lack of electricity.

All the data shows that the middle and older age group prefer these houses and lifestyle for physical and mental rest. The fact that 90% of the users prefer tiny houses on weekends or periodically in the summer months supports the fact that these houses are preferred for spending time with the family in nature and resting. The fact that the tiny houses of the participants are located close to the city center plays an advantageous role in terms of transportation so that they can be used on weekends or only during certain weeks. When asked about the duration of their residence in a tiny house, 9 respondents indicated a period of less than 1 year, 5 respondents indicated a period of 1-3 years, and 6 respondents indicated a period exceeding 5 years. This scenario demonstrates the prevalence of this way of life, particularly following the outbreak of the Covid-19 pandemic and the occurrence of the earthquake tragedy in February 2023 [30].

When the time spent of the participants indoors during the day was analyzed, 15 of them stated that they spent 1-2 hours outside of sleep time. 3 of them stated between 2-5 hours and 2 of them stated more than 5 hours. As for the time spent in the patio or garden of the tiny house, 11 of the participants spent between 2-5 hours, 3 of them spent less than 2 hours and 6 of them spent more than 5 hours. The fact that the users predominantly spend time outdoors supports the reasons for tiny house preferences such as spending time in nature, experiencing the outdoors, and living a minimalist life [11]. Table 3 presents the physical characteristics of the tiny houses as reported by the participants. The number of participants who did not

participate to the design process of their tiny house is 4. Due to the vast range of difficulties such as structure material selection and furniture design in mobile houses, the production methods have also become more varied. Although there are legal restrictions on production, there are many specialized industrial production companies [31]. Several tiny house production companies in Bursa were also surveyed, and it was determined that tiny houses are often manufactured with a standardized structure. However, modifications can be made to accommodate customer preferences.

Table 3. User opinions regarding tiny house design

Variable	Group	n	%
Participation to the design of the tiny house	No participation	4	20
	Changes made regarding windows	8	40
	Changes have been made regarding furniture	12	60
	Changes have been made to the dimensions	8	40
	Changes made regarding materials	8	40
	Changes made regarding colors	8	40
	Amendment on spatial layout	6	30
	Changes made regarding flexible use		
	Amendment on the flexibility of furniture		
	Whether the tiny house has the interior organization meeting spatial needs compared to apartments with conventional plan typology	Yes, it has	11
	No, it doesn't have	9	45
Whether the interior of the tiny house) is large enough to meet your needs	Yes, it is	10	
	No, it isn't	10	50
Satisfaction with the plan of the tiny house, the layout of the spaces, and the internal volume	Yes, I am satisfied	12	60
	No, I'm not satisfied	8	40
Number of floors of the tiny house	Single storey	13	65
	Two storeys	3	15
	Mezzanine	4	20

8 of the participants made changes in furniture in line with their needs. The number of participants who made changes related to windows, dimensions of the house, materials used and colors is 8 with a rate of 40%. Another question refers to whether tiny dwellings include interior furnishings that satisfy the spatial (functional) criteria in comparison to apartments with a standard floor plan typology. Upon evaluating user opinions regarding this issue, 11 users expressed that it is sufficient, while 9 users expressed that it is not sufficient. Nevertheless, a notable circumstance is that this dwelling category is unsuitable for a permanent residence for a family of four.

Regarding the interior space of the tiny house, some users have expressed concerns about its adequacy in meeting their needs. Specifically, they have mentioned that due to having a significant number of belongings, primarily due to having small children, the tiny house does not provide sufficient storage capacity. Consequently, they find it difficult to constantly carry their belongings. Previous comments indicated that the dwelling should be larger to accommodate a large number of household members. However, it was deemed sufficient for a temporary period based on the specific characteristics of the area and time. When asked about their satisfaction regarding the design, layout, and internal space of the tiny house, the feedback indicated that it was satisfactory. This was because it was not used continuously, it met the required width standards, it created a feeling of being spacious and it effectively fulfilled its intended purpose. When the cross-sectional relationship of the tiny houses is analyzed, it is evident that 13 participants reside in single-storey houses, while 3 live in two-storey houses, and 4 participants have a mezzanine level in their dwellings asserted that waste disposal services are not provided (Table 3).

Table 4 displays the social and environmental statistics related to the participants' tiny dwellings. Upon analyzing the capacity of participants to fulfill their daily requirements while residing in tiny houses, it was found that 11 of them were able to effortlessly meet their daily needs. Eight of them have sufficient storage capacity to last them for the duration of their stay

at home, eliminating the need for additional supplies for an extended period of time. One of them experiences challenges in fulfilling their everyday need (Figures 1,2). Two participants reported that they cultivate and harvest 90% of their vegetables in their garden (Figure 3).



Figures 1-2. Interior views of a tiny house



Figure 3. An image of a tiny house garden

Tiny houses are typically situated in rural locations, which are further distant from urban areas, and characterized by a prevailing natural environment. This could potentially result in security vulnerabilities, particularly during nighttime hours. Upon analyzing the participants' attitudes of security and their need for security measures, it was found that 6 of them reported having fences surrounding their houses. Four individuals reported having security cameras, whereas seven individuals reported not experiencing any security issues. Two participants reported instances of theft during their absence from the residence, but felt secure due to the presence of their dog. The users were observed to propose their own solutions to the security concern. Additionally, these individuals asserted that waste disposal services are not provided.

Table 4. User opinions regarding socio-physical qualities

Variable	Group	n	%
Opportunity to meet daily needs while living in a tiny house	Easily welcomed	11	55
	Stored so that it will not be needed for a long time	8	40
	Changes have been made regarding furniture	12	60
Perception of safety of tiny house	No security issues	7	35
	Surrounded by fence	6	30
	There is a security camera	4	20
	Not safe enough	3	15
Visual and auditory privacy problem	There is		
	None	20	100
Living in a tiny house is suitable for families with children, 5-day routine workers, disabled people and the elderly	Suitable	12	60
	Not suitable	8	40
Electricity in the area of tiny house, GSM, internet connection, base station	There is	14	70
	None	6	30
Social relationships & neighborhood	There are no neighbors around		
	There are neighbors nearby, but not negotiated	4	20
	There are neighbors nearby and under discussion	14	70
	It's a collection of tiny houses living in a settlement	2	10
Comfort conditions of the tiny house	Getting enough daylight	18	90
	Good thermal comfort level	13	65
	Adequate ventilation	18	90
	No problem in hot water supply	8	40
	Adequate lighting	20	100
	Good auditory comfort	14	70
	Solar panels	6	30
Contribution of implementation to sustainability	Compost toilet system		
	Rainwater usage for irrigation		
	Energy with lithium batteries storage	2	10
	Natural materials in the construction of the house	15	75

This assumption was challenged based on the idea that the simultaneous existence of households in tiny houses designed in a single unit with a minimal area and living space would lead to privacy issues. Upon examining the issue of visual and aural privacy in a tiny dwelling, it becomes apparent that the participants do not have any privacy concerns. When questioned about the appropriateness of residing in a tiny house for families with children, individuals who work a 5-day schedule, individuals with disabilities, and the elderly, 12 participants affirmed its acceptability. Upon analyzing the communication infrastructure in the region, including electricity, GSM, internet connection, and base stations, it was found that these services were available in the area where 14 individuals resided.

Out of the respondents, 12 expressed pleasure with the quality of materials used in tiny houses, while 10 expressed satisfaction with the level of workmanship. Out of the total, 8 individuals express dissatisfaction with the caliber of the workforce, while 2 individuals express dissatisfaction with the caliber of the supplies. The level of satisfaction with these parameters is dependent on the firm that developed the program. User pleasure is influenced by the type and quality of materials employed by manufacturers. 6% of respondents indicated that certain areas of the house necessitate regular upkeep due to the natural deterioration of the wooden materials used in construction. Two users specifically mentioned that the kitchen requires maintenance.

When assessing neighborly interactions and frequency, 14 individuals reported having neighbors in close proximity and regularly interacting with them. Four of the participants reported that there are homes in close proximity that they may potentially have as neighbors, but they have not had any interactions with them. Two individuals indicated that they reside in a community comprised of and enjoy highly amicable relationships with their neighbors. An influential component in tiny houses determining the level satisfaction with tiny houses is its pre-use design [32].

When questioned about the satisfaction of the participants regarding the comfort conditions of their tiny houses, all of them expressed contentment with the degree of illumination. Additionally, 18 participants confirmed that they received an adequate amount of daylight and that the ventilation was satisfactory. 13% reported that the thermal comfort and auditory comfort levels were satisfactory. Out of all the participants, only 8 reported having no problems with the hot water supply. Regarding the extent to which the tiny house contributes to sustainability, 15 participants indicated that the house was constructed using natural materials (Figure 4). Out of the total, six individuals have the capability to get hot water through the utilization of solar panels, while two individuals possess the ability to store energy using lithium batteries. Regarding the adequacy of the storage space in the tiny house, two individuals expressed that it is insufficient, while two others indicated that it is small.



Figure 4. An image of a wooden tiny house bedroom

Table 5 presents the participants’ satisfaction levels with their experiences of living in a tiny house. Eleven individuals reported that they embraced this lifestyle. Out of the 5 individuals, it was reported that they were unable to adapt to the lifestyle provided by the little house. Additionally, 2 individuals expressed their inability to reside in the tiny house on a long-term basis, while another 2 individuals mentioned their reluctance to stay during the winter season. Living permanently in a tiny house presents challenges in terms of adapting routines acquired from larger houses. Living in a compact house during winter is less desirable compared to summer since the usage of the garden is limited.

Table 5. Participants’ satisfaction levels with their experiences of living in a tiny house.

Variable	Group	n	%
Belonging to tiny house life	I’m embraced it very much	11	55
	I couldn’t quite used to	5	25
	I’m having difficulty	2	10
	I guess I can’t stay forever	2	10
Positive aspects of living in a tiny house	Intertwined with nature	16	80
	Ecological life	2	10
	Calm	7	35
	Tranquility	4	20
	Being away from the city	5	25
	Healthy lifestyle	2	10
	Away from noise	3	15
	Everything is easy to access	2	10
Negative aspects of living in a tiny house	Small	2	10
	Security problem	2	10
	Energy shortage	5	25
	Transportation difficulty	6	30
	Pest problem	3	15
	None	2	10
Parts of the tiny house that you regret and want to change as you use them	None	15	75
	The solar energy system must be large	3	15
	The terrace can be covered	1	5
	Can be fireplace	1	5

When asked about the three favorable characteristics of residing in a tiny house, the predominant user replies were as follows: Embracing a symbiotic relationship with nature, leading an ecologically conscious lifestyle, enjoying peace and serenity, reducing stress levels, engaging in gardening and cultivating a connection with the earth, seeking solace away from urban environment [33], good health, cultivating fruits and vegetables through gardening, a peaceful setting away from noise, a natural surrounding, convenient access to amenities, and a spacious garden area. Additionally, it should be noted that tiny houses offer a financially efficient housing option [25].

The primary concerns expressed by users regarding the drawbacks of residing in a tiny house include limited space, absence of a security system, energy issues, water supply interruptions, pump malfunctions, electricity

shortages, transportation challenges, waste management, commuting difficulties, presence of insects and snakes, and limited access to public transportation.

When asked about the aspects of the tiny house that they feel regretful about and wish to modify when they utilize it, the user's responses are notable: A solar energy system with increased capacity, elevated floor height, a sheltered terrace, and a fireplace. The predominant user comments, when queried about additional suggestions, included the need for an expanded garden space to accommodate dense populations and the desire for a more secure atmosphere.

5. Conclusion

This study involved conducting interviews with 20 residents of tiny houses in the Alaaddinbey Neighborhood of Nilüfer District, Bursa Province. The data acquired from the interviews were analyzed to determine the level of user satisfaction. The study took into account the demographic characteristics of tiny home users, as well as the physical and environmental features of the houses. Additionally, user satisfaction was evaluated. Within the realm of literature studies, interviews were performed with individuals who reside in tiny dwellings in order to ascertain their aspirations. The lack of a satisfaction survey that examines both the factors influencing desire and the extent to which expectations are met following the experience has highlighted the need for performing such a study. The main aim of this study is to help architects, interior designers, and other professional groups engaged in the design of tiny houses to consider the expectations of tiny house users in their upcoming projects.

A significant number of individuals who prefer to live in tiny houses do not do so for an extended period, often due to their ownership of another dwelling. Generally, the selected location is situated in close proximity to the city center, ensuring convenient transportation access for the majority of participants. The majority of residents are those who feel overwhelmed by urban living but desire to spend time immersed in the natural environment. While the limited space in tiny houses presents challenges for

users, such as the inability to store all their belongings in the accustomed order and the need to adapt to a narrower living area, it is worth noting that users consciously choose these tiny houses.

This aligns with previous research and helps to mitigate any potential dissatisfaction. The primary objective of the users is to engage in outdoor activities, particularly in the gardens of their residences, as opposed to spending their time indoors. Since tiny home owners usually place their homes in large gardens, they are all capable of achieving their goal of completely immersing themselves in nature. From this context, it can be concluded that a tiny house lacking a garden is undesirable since it prevents one from enjoying the natural environment beyond the boundaries of the dwelling. The majority of individuals residing in tiny dwellings do not encounter any substantial issues regarding security.

Typically, residences are enclosed by a fence to ensure security. However, it has been found that certain residents have encountered security risks, such as theft and the presence of unfamiliar individuals in the vicinity. The residences of individuals experiencing security issues are located in suburban areas, surrounded by other residential properties. Furthermore, it has been noted that those who have robust connections with their neighbors do not encounter any security issues. When designing tiny houses to meet security issues, various solutions can be proposed using technical methods such as security cameras, alarm systems, motion sensors, and timed lighting.

Based on the observations, the overall satisfaction of young individuals with their lives vary depending on their relationship with the environment. This pertains to how individuals engage with the environmental characteristics of the region and whether they have social connections within the nearby community. Regarding the satisfaction evaluation of the younger age cohorts, there was no explicit correlation observed between the design of the tiny houses. Considering that younger age cohorts generally exhibit a proclivity for socializing with their peers, it is recommended to

build communal areas that facilitate their connection with others.

Several users claim to utilize solar panels to generate electricity for their tiny houses. Some users intend to enhance energy efficiency by gradually increasing the quantity of panels. The inference is that certain comfort circumstances are contingent upon the state of the economy. Regrettably, individuals lacking sufficient financial means are unable to afford or access solar panels at the appropriate frequency or possess them altogether. If the cost of deploying technology such as solar panels cannot be met, alternative options including electrical installations on land can be considered. In the absence of power for heating, stoves constructed with appropriate materials and insulation can function as an effective alternative.

The majority of users modified the structural characteristics or interior decorations of a prefabricated tiny house. This demonstrates the benefits of constructing tiny houses that accommodate specific and distinct needs. It is important to acknowledge that participatory design approaches can be employed in this context. Nevertheless, it appears advantageous to provide adaptable solutions that are appropriate for various user categories and varying sizes of families.

As a result, most users expect that residing in a tiny house will enable them to avoid city life and fully engage in a natural way of living. According to feedback from residents, it can be confidently stated that these expectations are not only met, but exceeded. Users face several obstacles due to factors such as limited utilization and storage capacity, constrained interior space, and security concerns. These challenges are influenced by the number of residents and the dimensions of the residences. In this minimalist lifestyle, it is clear that people who are aware of the benefits of the settlement structure are drawn to this way of living. Individuals that adopt a minimalist lifestyle, emphasize spending time in nature, demonstrate resilience in the face of moderate problems, and want to live in environmentally-friendly and sustainable environments are likely to have much higher levels of enjoyment. It is important to note that

the ideal tiny house includes a garden that is suited for leisure activities.

The design of tiny houses is a crucial component that has a favorable impact on the degree of satisfaction. The spatial layout and furniture design optimize user satisfaction by enabling diverse utilization without compromising available space. It can be argued that individuals who have a limited desire to explore outside of their comfort zone, who do not derive pleasure from being in natural environments, who feel uncomfortable in small, enclosed spaces with low ceilings, who often host guests for extended periods of time, and who have hobbies that are not suitable for a tiny house, are unlikely to find satisfaction in this lifestyle.

This research provides recommendations for addressing user satisfaction in the design phase of tiny houses by determining user preferences, developing innovative spatial solutions that meet the requirements, producing neighborhood units for security, and utilizing suitable sustainable energy alternatives. These guidelines can function as a definitive reference. Due to the limited number of participants in this study, it is essential to conduct further satisfaction surveys on residing in tiny houses in the future, particularly in areas with varied geographical and socioeconomic characteristics. Potential areas for future investigation encompass examining the satisfaction of diverse social groups residing in regions with varying attributes, as well as proposing design implications to improve residential satisfaction in tiny houses.

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The Declaration of Ethics Committee Approval

This study does not require ethics committee permission or any special permission.

The Declaration of Research and Publication Ethics

The authors of the paper declare that they comply with the scientific, ethical and quotation rules of SAUJS in all processes of the paper and that they do not make any falsification on the data collected. In addition, they declare that Sakarya University Journal of Science and its editorial board have no responsibility for any ethical violations that may be encountered, and that this study has not been evaluated in any academic publication environment other than Sakarya University Journal of Science.

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