

# KONTRAK PENELITIAN TERAPAN UNGGULAN TINGGI

Tahun Anggaran 2020

Nomor : 1516/UN4.22/PT.01.03/2020

Pada hari ini Senin, Tanggal Delapan Belas bulan Mei tahun Dua ribu dua puluh, kami yang bertandatangan di bawah ini

1. Prof. Dr. Andi Alimuddin, M.Si : Ketua Lembaga Penelitian dan Pengabdian Kepada Masyarakat Universitas Hasanuddin, dalam hal ini bertindak untuk dan atas nama Universitas Hasanuddin yang berkedudukan di Jl. Perintis Kemerdekaan KM. 10 Kampus Unhas Tamalanrea Makassar selanjutnya disebut PIHAK PERTAMA.
2. Dr. Ir. Idawarni, MT. : Ketua Pelaksana/Dosen Fakultas Teknik Universitas Hasanuddin dalam hal ini bertindak sebagai pengusul dan Ketua Penelitian Tahun Anggaran 2020 untuk selanjutnya disebut PIHAK KEDUA.

PIHAK PERTAMA dan PIHAK KEDUA, secara bersama-sama mengikatkan diri dalam suatu kontrak Penelitian skema Penelitian Terapan Unggulan Perguruan Tinggi Tahun Anggaran 2020 dengan ketentuan dan syarat syarat sebagai berikut:

## Pasal 1

### Ruang Lingkup Kontrak

- (1) PIHAK PERTAMA memberikan pekerjaan kepada PIHAK KEDUA dan PIHAK KEDUA menerima pekerjaan tersebut dari PIHAK PERTAMA, untuk melaksanakan dan menyelesaikan Penelitian Tahun Anggaran 2020 dengan judul Revitalisasi Perumahan Kumuh Nelayan Rumput Laut dan Perikanan Dengan Konsep "Production And Tourism Settlement" Sebagai Upaya Menciptakan Eco Smart Village.

## Pasal 2

### Dana Penelitian

- (1) Besarnya dana untuk melaksanakan penelitian dengan judul sebagaimana dimaksud pada Pasal 1 adalah sebesar Rp. 126.702.600,- (Seratus Dua Puluh Enam Juta Tujuh Ratus Dua Ribu Enam Ratus Rupiah) sudah termasuk pajak.
- (2) Dana penelitian sebagaimana dimaksud pada ayat (1) dibebankan pada kepada Daftar Isian Pelaksanaan Anggaran (DIPA) Deputy Bidang Penguatan Riset dan Pengembangan, Kementerian Riset dan Teknologi/Badan Riset dan Inovasi Nasional Tahun Anggaran 2020.

## Pasal 3

### Tata Cara Pembayaran Dana Penelitian

- (1) PIHAK PERTAMA akan membayarkan dana Penelitian kepada PIHAK KEDUA secara bertahap dengan ketentuan sebagai berikut :
  - a. Pembayaran tahap pertama sebesar Rp. 116.916.900,- (Seratus Enam Belas Juta Sembilan Ratus Enam Belas Ribu Sembilan Ratus Rupiah) yang akan dibayarkan oleh PIHAK PERTAMA kepada PIHAK KEDUA setelah PIHAK KEDUA menyerahkan revisi proposal dan revisi anggaran (sesuai kontrak).
  - b. Pembayaran tahap kedua sebesar Rp. 9.785.700,- (Sembilan Juta Tujuh Ratus Delapan Puluh Lima Ribu Tujuh Ratus Rupiah) dibayarkan oleh PIHAK PERTAMA kepada PIHAK KEDUA setelah PIHAK KEDUA menyerahkan laporan lengkap hasil penelitian, Catatan Harian, Luaran penelitian (output sesuai janji di kontrak) dan Surat Pernyataan Tanggungjawab Belanja (SPTB) atas dana penelitian yang telah ditetapkan yang sudah di validasi oleh PIHAK PERTAMA.

## Article

# The Presence of a Family Communal Space as a Form of Local Wisdom towards Community Cohesion and Resilience in Coastal Settlements

Idawarni Asmal <sup>1,\*</sup> and Rudi Latief <sup>2</sup><sup>1</sup> Department of Architecture, Faculty of Technology, Hasanuddin University, Makassar 90245, Indonesia<sup>2</sup> Department Urban and Regional Planning, Faculty of Technology, Bosowa University, Makassar 90232, Indonesia

\* Correspondence: idawarniasmal@yahoo.com or idawarni@unhas.ac.id; Tel.: +62-813-5792-2950

**Abstract:** Family communal spaces have multiple functions and can accommodate the activities of individuals and families. These spaces accommodate the life of *gotong royong*, which is a form of solidarity and togetherness in the form of local wisdom of the Indonesian people. Families apply this traditional concept in space and create cohesion through intense interaction between families, which will have an impact on the security and resilience of settlement against negative things that come from society and the environment. The purpose of this study is to examine how interactions influenced by local wisdom and the environment create cohesion, which has an impact on community and environmental resilience in coastal settlements. The research method uses geographic methods with socio-spatial analysis and behavioral mapping methods with place-central mapping analysis. The study shows cohesion between families increases because of the high-intensity meetings and a sense of belonging and togetherness as a family. Unity with the environment is also formed because of their livelihood as fishermen who have close relationships with the sea and the coast. In addition to cohesion, the family communal space creates community and environmental resilience because of the additional functions as areas of family and environmental control.



**Citation:** Asmal, I.; Latief, R. The Presence of a Family Communal Space as a Form of Local Wisdom towards Community Cohesion and Resilience in Coastal Settlements. *Sustainability* **2023**, *15*, 8167. <https://doi.org/10.3390/su15108167>

Academic Editors: Hak-Seon Kim, Hyun-Jeong Ban, Jue Wang and Shuting Tao

Received: 1 December 2022

Revised: 11 May 2023

Accepted: 14 May 2023

Published: 17 May 2023



**Copyright:** © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

**Keywords:** resilience; coastal settlement; local wisdom; communal family space

## 1. Introduction

Communal spaces, in developed countries, are spaces planned to allow for all societal levels to interact and relax. Developing countries with high population levels, limited land availability, and economic problems have limitations regarding the provision of communal space. Communal space has many benefits for society and the environment. Scholars argue that communal space is public space on an environmental scale, playing an important role in people's daily lives, and is an everyday community space [1]. Thus, communal space is a public space. The definition of communal space, according to Vukmirovic et al. [2], is an open public space, a place where people can perform various activities. Alizadeh et al. [3] said that public spaces are central to social interactions and cohesion, overall urban life, and sustainable urban development. They play key roles in increasing social interactions and women's empowerment. Im Jo [4] noted that open public spaces are available to all people; these places are crucial in creating a sense of community, culture and social capital.

Some experts have suggested that a space in which people interact has several advantages; for example, Aelbrecht et al. [5] said that public spaces contribute to people's attachment to cities, neighborhoods and their local communities; create opportunities for social interaction, social mixing, inclusion and community-building; and support people's well-being and individual and group identities. Zhang et al. [6] said that public spaces are useful as a space for interaction for the elderly. Farida [7] stated that the use of a shared outdoor space can affect social interaction. Bishop and Marshall [8] said that there

is a relationship between social interaction and the quality of urban public spaces. Jamie Anderson et al. [9] stated that there is vitality in the use of public space. Vukmirovic et al. [2] and Zhu et al. [10] found that green open space had a significant impact on community involvement.

Communal spaces in rural coastal areas have a high intensity of social utilization, which shows their important function in daily community activities. Even though it is known that daily family activities take place at home, in this case, on the contrary, the function of the house is replaced by the communal space, especially at noon. Communal space in an environment can also create a sense of togetherness. Chitrakar [11], Gregory et al. [12], and Rogers et al. [13] said that communal space creates a sense of togetherness, belonging, and security in an environment so that there will be a sense of attachment to the community. Unger and Wandersman considered a sense of community in their study. Sense is a concept in the field of community psychology, defined as a part of a mutually supportive relationship [14]. The attitude of mutual belonging, mutual support, and mutual cohesion fosters a high value of solidarity in society. Im Jo [4] described reciprocal solidarity as resulting from social interactions between members within a geographic scope. Solidarity has taken root in traditional Indonesian rural life, becoming one of the characteristics of social life. This sense of solidarity among the Indonesian people, especially in South Sulawesi, is known as *gotong royong*, and is accommodated through the existence of communal spaces. Suwignyo [15] mentioned that *gotong royong* was traditionally understood as a collective spirit among neighbors, strengthening economic and social resilience; if this spirit did not exist, then the nature and village community would disappear and become more individual. The sense of community and belonging would then fade, impacting the community and the safety of the living environment. *Gotong royong*, as a form of solidarity, is a form of local wisdom among rural communities in Indonesia, including the *Makassar Bugis* tribe. The family group implements the *gotong royong* concept, and this sense is realized in the family communal space (FCS).

The FCS creates cohesion (a sense of individual attachment in the family group) through intense interactions between family groups in that space, which will have an impact on security, population resilience, and the environment. This can protect against negative aspects of the community and nature because the family will tackle problems together. Community cohesion is a conceptual framework that attempts to measure the social relationships within a community [16]. Social cohesion refers to the level of connectedness and solidarity between groups in society [17]. Several studies about the interactions that create social cohesion and lead to community and environmental safety have been conducted, such as the study by Marziyeh Salimi et al. [18]. This study discussed multi-ethnicity in open community spaces in poor urban areas, which affects the formation of social cohesion. Sari et al. [19], who suggested reinvigorating traditional social cohesion, referred to "*guyub*" and "*gotong royong*" in a society as having begun to erode due to the influence of tourists. Lawrence et al. [20] examined the defensible space theory and the concept of Crime Prevention through Environmental Design (CPTED), focusing on how to develop communal areas in which residents can expand their home area and perceived responsibility zone. Lawrence further said that residents will worry about how to protect the whole area from crime because they will wish to protect their private property. Baojuan et al. [21] made a general linear model of family cohesion, showing that family cohesion is positively related to security and negatively related to perceived stress. Other studies discuss the relationship between social cohesion and resilience; among others, Ludin et al. [22] discussed the relationship between social cohesion and disaster resilience, which can be used as a basis for sustainable disaster recovery. Likewise, Jewett et al. [23] said that social cohesion and community resilience provide opportunities before a disaster occurs. Other studies have discussed the relationship between social cohesion and resilience. Bergstrand and Mayer [24] said that this sense of place plays an important role in the creation and maintenance of social cohesion and, ultimately, community resilience. Jayles et al. [25] said that openness, trust, and cohesion in homogeneous communities

strengthen their resilience. This model was further developed by studying community resilience in two communities with different traits, finding that people with more disparate communities were less resilient, while encouraging communication between communities greatly increased resilience [25].

Kurnio et al. [26] noted that resilience knowledge, related to indigenous knowledge, has been an important factor in saving lives in Indonesia. The practices of indigenous communities in Indonesia, therefore, have become of interest to an international audience to increase knowledge of, and further improve, disaster risk reduction efforts.

As far as we know, there have been no other studies linking FCS with the kinship level of its users, nor on the thermal conditions of the space and the reasons why the family groups use it. In addition, to our knowledge, there is no study looking at communal space as a form of local wisdom of coastal communities. There are those who discuss local wisdom in public spaces, but the locations of these studies are, for example, Java and Bali, not coastal areas. This is what prompted us to examine the existence of FCS in the coastal settlement of South Sulawesi, where the people also have a habit of working together and gathering in green open spaces.

The purpose of this study was to investigate how the family communal space as a forum is able to create cohesion between families, and between families and the environment, and if then this cohesion has an impact on the community and environmental resilience in coastal settlements. The locus of this research is coastal areas which are generally populated by people whose livelihood is fishing.

## 2. Materials and Methods

### 2.1. Research Sites

The locus of the research is in the coastal area of Aeng Batu-Batu Village, North Galesong District, Takalar Regency, South Sulawesi, Indonesia. The settlement area is directly adjacent to the sea (Makassar Strait). Fishing is generally the livelihood of the village's residents, who are typically fishermen. Fishing equipment such as boats and nets are stored on the beach, even; some types of work, such as repairing fishing equipment, are also carried out on the beach. A total of 306 heads of households, with 1071 individuals in the total families, were included in the study. Figure 1, show the reseach location.

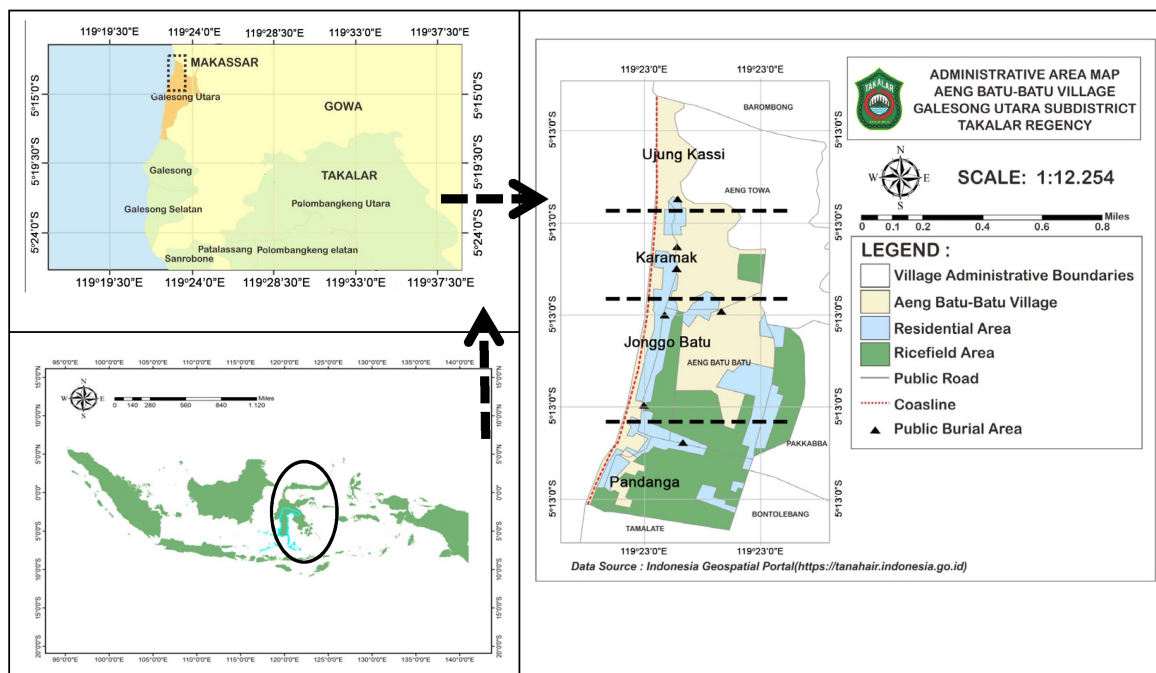


Figure 1. The research location.

Aeng Batu-Batu Village has four hamlets, which are directly adjacent to the sea: namely, Jonggobatu, Pandanga, Karamak, and Ujung Kassi.

This study used a combination of two methods: the geographic method with socio-spatial analysis and the behavioral mapping method with place-centered behavioral mapping analysis. The socio-spatial analysis in this research aimed to highlight the position of FCSs in the research area and describe the relationship between the location of FCSs and the kinship relations of their users graphically. Socio-spatial analysis studies the behavior of space-users who use aspects of these social and physical settings in data collection because, according to Lefebvre's socio-spatial approach [27], this can explain the social situation. In this study, we focused on the social life situation of the community using the FCS and the social situation regarding the various activities carried out by the family in that space. While for the Behavioral Mapping Method. The behavioral mapping method [28] was performed by creating is used to create a sketch or diagram of the area in which humans carry out activities on the map, identifying the type and frequency of their behavior, and showing the relationship between these behaviors, using a specific design. Place-centered behavioral mapping uses a diagram representation of the study location; this type of observation is more suitable for studying specific physical spaces [29]. The study population was the village of Aeng Batu-Batu Village, which is closer to the ocean. There were two samples: the physical setting included all the FCSs around the beach, noting the layout of communal spaces and the form and level of kinship among their users. The social setting looked at shared family activities that use this space, and space user data, including what, who, where, when, and how, regarding each action that took place in the family's communal space. The data were collected through direct observation and recordings.

## 2.2. Population and Sample

The population was the village settlement of Aeng Batu Batu, North Galesong. There were two samples, namely the FCSs and users. For the FCS sample, all FCSs were located along the area bordering the beach, while the user sample included respondents who used FCSs at the time of the survey, i.e., groups of extended families who live in settlements.

The sample given a questionnaire (not the sample for interviews or observation) used non-probability sampling, namely, accidental sampling. According to Sugiono [30], accidental sampling is based on chance; that is, anyone who happens to meet the researcher can be used as a sample if the person met by chance is deemed suitable as a data source.

## 2.3. Data Collection

Data collection was carried out in the form of observations, interviews, and the distribution of questionnaires at FCSs during the day, because family members spent a lot of time during the day at FCSs and thus it was easy to find and interview them. In addition, questions about FCSs and users could be answered more quickly, easily, and accurately because the questions matched how they felt when they were in that place.

To obtain data about the position of houses and kinship relationships from FCS users, interviews were carried out while showing maps taken from Google Earth Pro, asking them to indicate the position of their houses on the map as well as their level of kinship.

Data from observations were obtained from anyone who met and was using the FCSs, including gender (male and female), age group (adults, adolescents, and children), number of users, activities that users were currently doing, and physical form of the FCSs. In addition to observation, we strengthened the data collection by taking photos so that if there were missing or neglected data, we could check the data again through the photos.

The data collected through questionnaires concerned time (time duration of use and when space was used), the types of activities carried out, and the reasons for using the FCS. For those with the most answers, if the reason why they were interested in using the FCS was the thermal comfort factor, we cross-checked using a temperature gauge to corroborate this.

When distributing the questionnaires, researchers first asked for permission from the local government and from the community that met at the FCS. In addition, village staff were previously briefed to help explain if any of the respondents did not understand, because many of them still used the local language. In addition, the local government, represented by village staff, provided secondary data and helped distribute the questionnaires. The following Table 1 shows research questions given to respondents.

**Table 1.** Research questions.

| Data Collection | Stakeholder                 | Sample Collection Technique  | Research Question by Questionnaires                        |
|-----------------|-----------------------------|------------------------------|--|
| Structural      | Local people who use spaces | Accidental sample collection | Who is the user of the communal space?<br>(gender and age) |
|                 |                             |                              | How long is the FCS used each day?                         |
|                 |                             |                              | What kind of activity takes place in the FCS?              |
|                 |                             |                              | Why is the FCS used?                                       |

To collect data by distributing questionnaires, we used accidental sampling. The linear time function (LTF) formula was used, namely the sample number according to time estimates [31]:

$$n = (T - t_0):t_1 \quad (1)$$

T is the time available; for this study we carried out data collection in the morning and afternoon over 12 days. The morning starts at 10 a.m. to 12 a.m., followed by the afternoon from 2 p.m. to 5 p.m. (5 h), (5 h × 60 min × 10 days) = 3000 min. t<sub>0</sub> is a fixed time, 5-h daily timeframe, (5 h × 60 min = 300 min). t<sub>1</sub> is the time to fill out the questionnaire, approximately 20 min. The calculation of the number of samples taken from residents is as follows: N = (3000 – 300):20 = 135 samples.

To check the accuracy of the data obtained from the questionnaire, the researcher cross-checked, the data; this was carried out for the thermal comfort of the room by measuring the FCS' temperature and comparing it with other spaces used by residents for activities, such as houses (landed houses totaling 56 units and stage houses totaling 48 units) and green open space totaling 5 places. Temperature data were collected using the HOBO measuring instrument, namely an internal Ux100-003 Ux100Tmp/RH and an external MX2302. The tool was installed to record data every day (1 × 24 h). The relationship between temperature measurement and cohesion and resistance is indirect. However, as is known, these FCSs were located in a green open space adjacent to the sea/beach. In this space, temperature and wind play an important role and are always considered in a family's or person's decision regarding whether to use the space for activities. Outdoor thermal comfort is considered the most important factor influencing the use of public spaces, and the creation of activity spaces with a conducive thermal environmental increases the desire of residents to be active, improving public health [32]. In addition, temperature conditions will affect one's satisfaction in space; as stated in ANSI/ASHRAE Standard 55 [33], thermal comfort is a state of mind that expresses satisfaction with the thermal environment.

#### 2.4. Data Analysis

Analysis of data on patterns of distribution/house position and the kinship level of FCS users was carried out using spatial analysis. Maps taken from google earth were then converted using Cad Mapper to AutoCad. Maps in AutoCAD were stored in dxf files and input into ArcMap/ArcGIS; in ArcMap, maps were presented with the addition of a legend, wind direction, scale, and location coordinates. Files in ArcMap were exported in JPG using 300 dpi quality.

The questionnaire data collected from users were transferred to Excel and analyzed using bar graphs. A descriptive analysis was used to order respondents' choices from

the highest to lowest regarding their frequent use of the space to study the reasons why respondents spend time with their families in the communal space. In addition to graphical analysis, Statistical Product and Service Solution (SPSS) software was also used. This program was used for quantitative data to analyze correlations and relationships between the variables in the questionnaire. We used the Pearson product-moment validity test to test the validity of the questionnaire (the Pearson product-moment relationship is a symmetrical relationship because it can be analyzed using any variable). The results of these calculations obtain a value called the Pearson correlation coefficient. The correlation coefficient shows how strong the correlation is between variables. If the coefficient value is 0, it means that there is no relationship at all. Meanwhile, if the coefficient value is 1, then the relationship is perfect. If the coefficient value is  $>0$  to  $<0.2$ , then the relationship is very weak. If the coefficient value is  $0.2$  to  $<0.4$ , it means that there is a weak relationship, while a coefficient value of  $0.4$  to  $<0.6$  means that the relationship is quite strong. For coefficient values of  $0.6$  to  $<0.8$ , the relationship is strong. Likewise with the negative value, the closer the value is to 0, the lower the correlation, and the closer to  $-1$ , the stronger the correlation. Negative values indicate an inverse relationship while positive values indicate a unidirectional relationship.

For analysis, data were taken from the recording results of the HOBO temperature measuring device, then read on the computer via the HOBOWare data logger, and then the data were transferred to Excel. The data recorded in three places (landed house, stage house, and green open space) were averaged for each temperature, and the results were depicted in a line graph to see the difference in the temperature of the place and its position relative to the convenient temperature level for activities.

### 3. Results

As a result of the socio-geographical analysis, the following Figure 2 shows the location of the FCS and the residential position of users with their degree of kinship.

Almost all of the FCSs border and face the beach, and are close to the ocean. Each family group has at least one FCS. The spaces are generally used by the family group that established them; however, not infrequently, outsiders, visitors or other family groups also use the space because it is close to their home. However, families who use a FCS will feel discomfort if the place does not belong to their extended family. The following Figure 3a–f shows some FCSs and users.

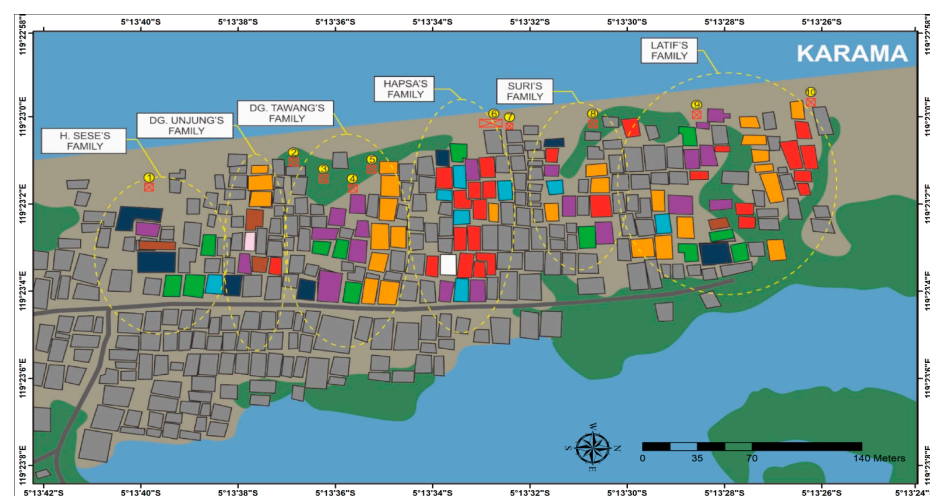
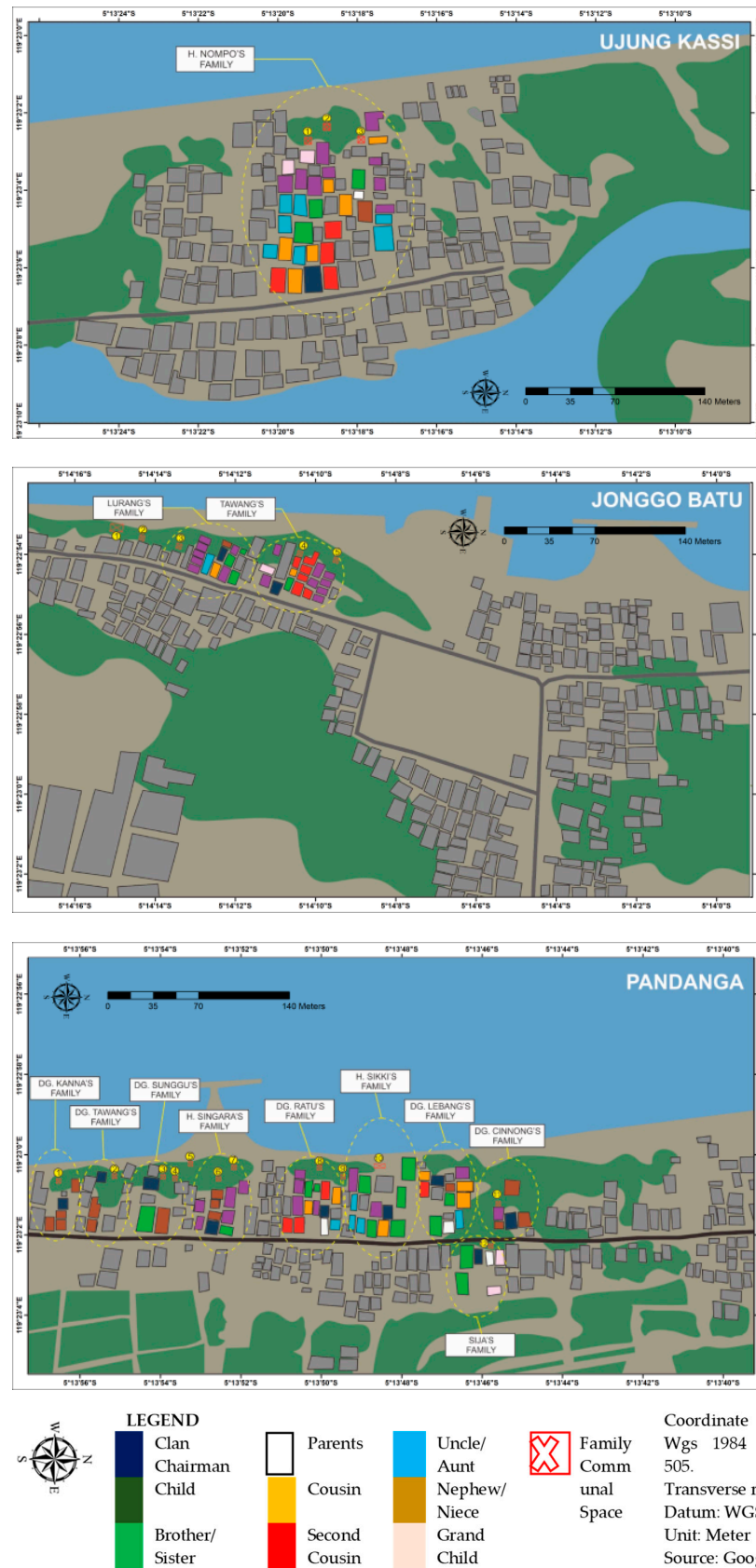


Figure 2. Cont.



**Figure 2.** The location of the FCS and the kinship ties of the users in Aeng Batu village. The boxes are the positions of the family houses in Aeng Batu-Batu village using FCS, and the color of the boxes indicates the degree of kinship between family members.



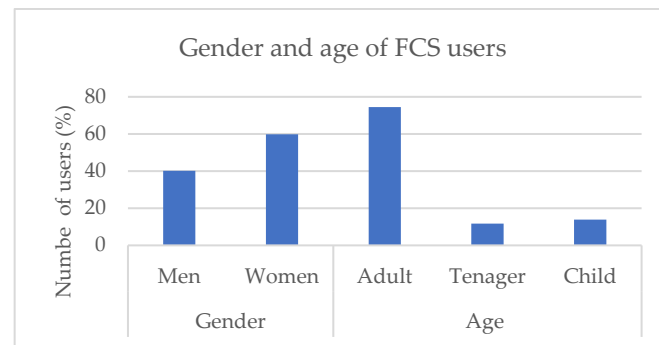
**Figure 3.** Characteristics of family communal spaces from the aspect of form and users (see Supplementary Materials). Bale-bale (bench) is a complement to the FCS. Its simple form made of wood or bamboo is used by those who have kinship ties to the space and who carry out various activities such as interacting, resting, playing, and working while controlling family members (children and husbands who are leaving or arriving from the sea), and who have property such as boats and fishing equipment; their use depends on the weather at sea. (a,b). Bale-bale without covering the roof and walls. (c). The FCS is equipped with a used spring bed. (d). Bale-bale with a tarpaulin roof covering. (e,f). Bale-bale with roof and wall coverings.

The social interaction forums in the communal spaces in Aeng Batu-Batu Village have simple shapes; some are only used spring beds, wooden/bamboo benches, and emergency buildings with plastic or zinc roofs. The containers are portable and can be moved according to the user's wishes. The users of these communal spaces look relaxed; this is reflected in the clothes they wear, the way they sit, and the way they talk/the close distance between them as they communicate. Intimate distance (0.5) involves intense sensory involvement with the bodies of others.

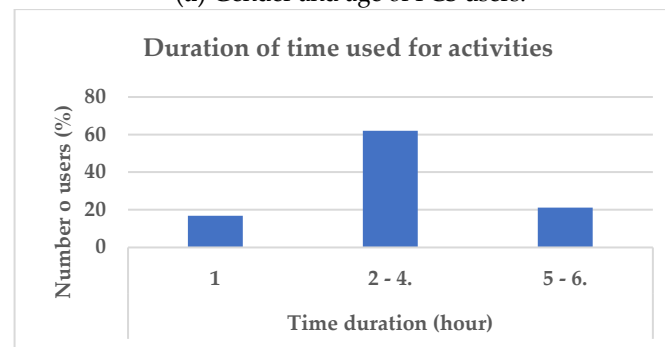
Family members generally spend time interacting, resting, playing, partying, eating together, caring for children (toddlers), and monitoring environmental conditions including weather conditions at sea. The time during which fishermen are in this open space is after going to sea (8 or 9 a.m., when they arrive home), ending before they return to sea (4 p.m.); therefore, they are in that space from approximately 9 a.m. to 3 p.m., while fisherwomen

are there after their domestic activities from the morning until the afternoon (from 9 a.m. to 3 p.m.). However, during this time they have to return home to carry out worship activities and to prepare food and tend to children's school needs (around 1–2 h). In addition to carrying out various activities, space users also carry out activities to monitor the surrounding environmental conditions (tidal water conditions and climate conditions) as well as foreigners/immigrants to their village, families leaving or returning to sea, and the property stored in the village.

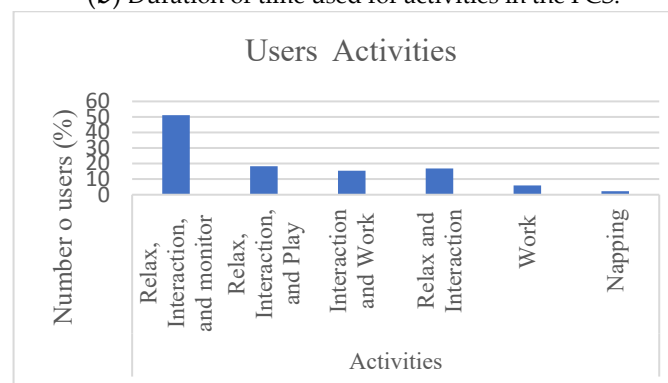
The following Figure 4a–c shows the frequency with which users visit these spaces, the types of activities they carry out, and how much time they spend in the community space.



(a) Gender and age of FCS users.



(b) Duration of time used for activities in the FCS.



(c) The types of activities that take place in the FCS.

**Figure 4.** Communal space user data.

FCS users who were surveyed totaled 137 people, 40.146% men and 59.854% women. Adults form 74.5% of total users, teenagers 11.7%, and children 13.8%. A total of 16.8% use the space for between five minutes and one hour, 62% for 2–4 h, and 21% for >4 h. Activities that take place are generally secondary activities such as relaxation, interaction, and environmental and family monitoring, which take up 51.01% of the total activities. Interaction and work comprise 15.3% of the total activities; relaxation and interaction 16.8%; work 5.9%; and the remainder of the activities is napping, at 1.5%. For male fishermen,

based on purposive interviews, data showed that some fishermen went to sea at 6 p.m. and returned at dawn, some left at dawn and returned at 12 noon, and some left at 4 p.m. to return at dawn, depending on the types of fish and equipment used, so that the presence of male fishermen in the FCS is less than that of women. The activities they carry out in the FCSs are generally resting, napping, and interaction, if work is carried out near their boat or under the house. Children generally only play in FCSs.

The most common space users are fishermen and families, especially housewives. Fishermen and their families (husband and wife) generally have a low level of education, in contrast to their children (second generation), whose education level is at least high school, and whose profession is no longer fisherman (source: staff in Aeng Batu-Batu village, 2022). These fishermen generally relax, interact with and monitor their family (children), the climate, and the surrounding environment. The following Table 2 is a correlation table showing the significance of the relationship between users and their activities and time spent in the FCS.

**Table 2.** Correlations of FCS users with activities and duration of time in FCS.

|               |                     | Gender    | Age    | Time Duration | Activities |
|---------------|---------------------|-----------|--------|---------------|------------|
| Gender        | Pearson Correlation | 1         | 0.056  | 0.080         | −0.375 **  |
|               | Sig. (2-tailed)     |           | 0.519  | 0.356         | 0.000      |
|               | N                   | 137       | 137    | 137           | 137        |
| Age           | Pearson Correlation | 0.056     | 1      | −0.155        | 0.146      |
|               | Sig. (2-tailed)     | 0.519     |        | 0.071         | 0.089      |
|               | N                   | 137       | 137    | 137           | 137        |
| Duration time | Pearson Correlation | 0.080     | −0.155 | 1             | −0.275 **  |
|               | Sig. (2-tailed)     | 0.356     | 0.071  |               | 0.001      |
|               | N                   | 137       | 137    | 137           | 137        |
| Activities    | Pearson Correlation | −0.375 ** | 0.146  | −0.275 **     | 1          |
|               | Sig. (2-tailed)     | 0.000     | 0.089  | 0.001         |            |
|               | N                   | 137       | 137    | 137           | 137        |

\*\* Correlation is significant at the 0.01 level (2-tailed).

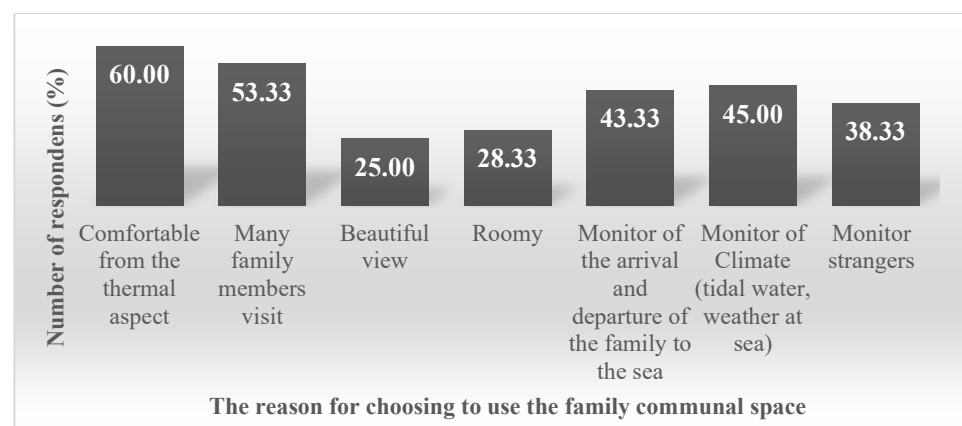
Table 2. Based on the calculation, the following results can be obtained:

- Pearson correlation between gender and age 0.056, gender and time duration 0.080, and gender and activity type −0.375 \*\*;
- Pearson correlation between age and gender 0.056, age and time duration −0.155, age and activities 0.146;
- Pearson correlation between time duration and gender 0.080, time duration and age −0.155, time duration and activities −0.275 \*\*;
- Pearson correlation between activities and gender −0.375 \*\*, activities and age 0.146, activities and time duration −0.275 \*\*;
- Then, based on the values of the correlation coefficient being 0.2 to <0.4, which is a relationship even though it is weak, others being >0 to <0.2, which is very weak, and the negative relationship, close to −1, it can be concluded that there is a correlation, although weak, between the type of activities and gender, and the type of activity with the time duration, Likewise, between activities and age the correlation is very

weak. The type of activity is related to gender, and the type of activity is related to the duration of time spent in the room, as well as the type of activity related to age.

The daily users of the social space are close relatives, whose dwellings are located close to each other because they were established on family land (inheritance). According to the purposive and non-structural interviews, the presence of the FCS is important. The most important function of the space is to strengthen their kinship bonds, because family members in the clan generally spend time on various activities in that space. In addition to strengthening kinship ties, according to users, the presence of a communal space provides a physical calm, makes users feel more relaxed, and makes it easier to meet other family members; it is more difficult to visit a family member's house, as the house owner is difficult to find because they may be outside the house (in the family communal space), and meetings at home feel more formal. Family members only go into the house if they have to conduct their main activities/household activities (cooking, washing, preparing food, tending to school children's needs, and preparing for going to sea). This is because (a) it is more comfortable, in terms of temperature, than conditions in the house; (b) the atmosphere is more crowded because other family members also complete the same activities in the room; (c) the view is more spacious and open to the sea; (d) the heart is calmed by hearing the sound of the waves; (e) users can monitor weather conditions at sea; (f) users can monitor the presence or departure of family members to sea.

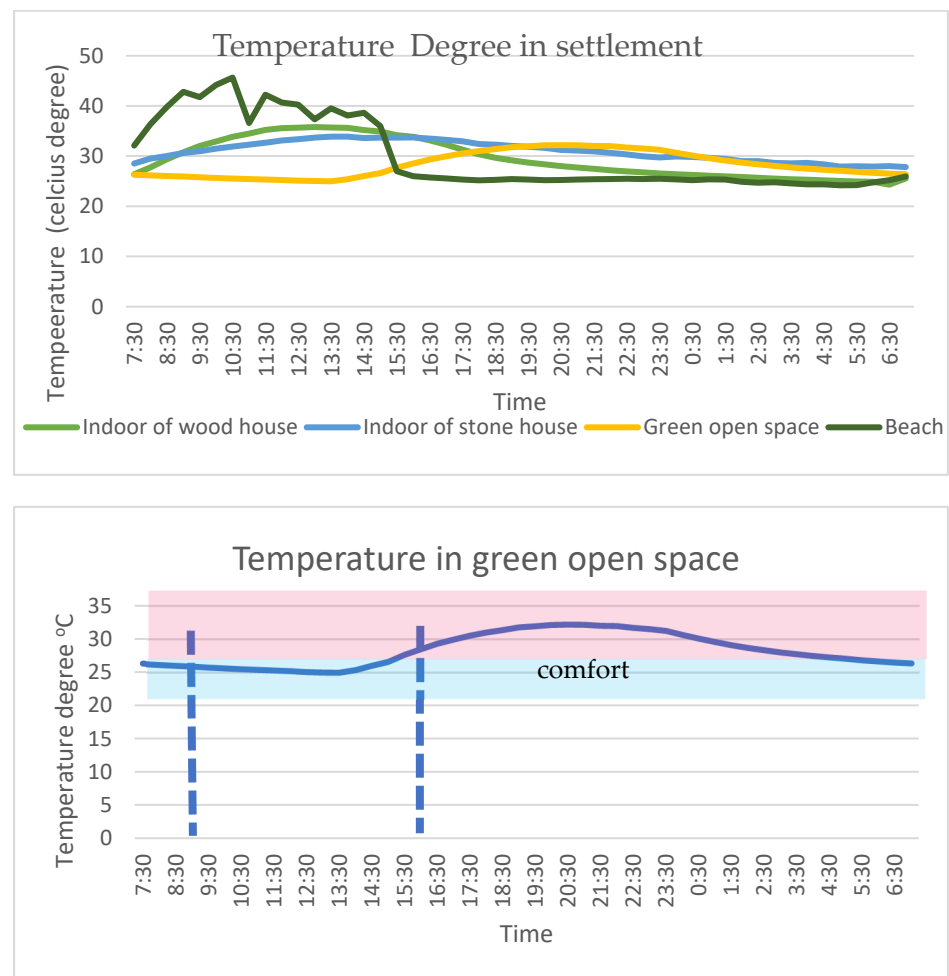
The following Figure 5 shows the frequency of the family members choice the FCS to carry out activities.



**Figure 5.** The choice of family members to carry out activities in the FCS.

The existing data are derived from female respondents who use FCSs a lot. Generally, families choose to conduct activities in the FCS because of the comfortable thermal environment (60%), because the atmosphere is crowded as almost all family members who have free time gather at this place (53.33%), because it allows for controlling other users of this space and family/children (38.33%), because it allows for monitoring of the climate and tidal conditions (45%), because it allows for monitoring of families traveling from and to the sea (43.33%), and because there are fields and beautiful views (28.33% and 25%).

Based on interviews with FCS users, these spaces are important because they can provide calm, comfort, and strengthen friendships among users. In addition, FCSs are places for large family informal meetings every day with a duration of 2–4 h, where they can enjoy activities together. Therefore, the communal space functions as a unifier. The following Figure 6 shows a comparison of the space thermal conditions of the spaces where people carry out their activities. The aim of the comparison is to show how green open space, which is the location of these FCSs, has comfortable thermal conditions compared to other spaces and is one of the attractions for users to be in it.



**Figure 6.** Thermal conditions of living spaces.

Regarding the thermal aspect, a HOBO thermal measuring instrument was used and the resulting data can be seen in the image of the green open social space (the locations of the FCSs, which were built near the beach, are in green open space areas), which had the lowest temperature from 5 a.m. to 3.30 p.m., positioned at the highest tide limit and directly related to the beach. Regarding the distance to the beach, the average distance was 15–25 m; therefore, the roar of the waves can be clearly heard from the room with a view of the beach, without any obstructions. During the day, the lowest temperature was found in the green open space until 3:40 p.m. These data are important because they are related to one of the most important factors influencing the community's decision to use the FCS, namely thermal comfort (Figure 5); according to Xiaohuan Xie et al. [34], the level of thermal comfort can greatly influence how often people choose to use these spaces. The comfort of this space means that families feel at home in it, which means that they are always together. This togetherness creates a feeling of cohesion, which, in turn, makes them a coherent unit, and increases their resilience to negative outside influences. Resilience and coherence are closely related [35].

Based on the results of observations made of social space users in Aeng Batu-Batu village using correlation analysis, it was found that the space shows a significant correlation with various family/clan activities, except as a playground for elementary-school-aged children, because children of that age are not bound to a particular place and time of play. According to information from the village staff at Aeng Batu-Batu, the village has been safe from criminal acts and from boats drifting when parked in chains for the last 10 years. This can be maintained by the presence of family social spaces, which indirectly function as control rooms. On one occasion, the research team saw several men in a communal space

working together to move a boat that was parked on the beach to a safer place because the tide was starting to rise, even though the boat was not known to these men.

## 4. Discussion

### 4.1. FCSs Increasing the Cohesion of Family Members

A family communal space is a place for families to build togetherness. The sense of togetherness is a form of local wisdom owned by the *Makassar Bugis* tribe. As shown in Figure 2, FCS users are bound by close kinship ties (parents, siblings, uncles, aunts, nephews, and even grandchildren). This is again emphasized in Figure 3, which shows that users interact very closely within the limits of personal distance presented in the FCS. Personal distances (0.5 m–1.5 m) were most often observed during interactions between people in close contact [36]. Permitting a person to enter personal space and entering somebody else's personal space are indicators of the perception of those people's relationships. An intimate zone is reserved for close friends, lovers, children, and close family members. Entering somebody's personal space is normally an indication of familiarity and sometimes intimacy [37]. Likewise, Figure 4b shows the average time of user togetherness: 2–4 h every day at the FCS, along with other family members. Family closeness, and the frequency and duration of meetings, will certainly increase family cohesiveness and create a strong sense of cohesion among family members. Cohesion is the ability of a group or community to unite and create a safe and comfortable atmosphere. Increased cohesion between families is strongly influenced by the attitude of *gotong royong* (sense of togetherness and belonging) which is a form of local wisdom owned by rural communities in Indonesia, especially the *Makassar Bugis* tribe. *Gotong royong* creates cohesion and generally occurs in a communal space. This is also in accordance with Chitrakar [11], Gregory et al. [12], and Rogers et al. [13]. They showed that communal space creates a sense of togetherness, sense of belonging, and sense of security in their environment, ensuring attachment to a community. Unger and Wandersman consider a sense of togetherness to be a sense of community: a sense that one is part of a network of mutually supportive relationships [13,38]. Mutual ownership, mutual support, and mutual cooperation foster high solidarity values among groups.

Cohesion not only occurs between space users, but also between space and place users, as stated by Macias and Williams [39] and Zhu et al. [40], who showed that time spent with neighbors can significantly increase pro-environmental lifestyles. This discussion shows the importance of the presence of an FCS as a forum for creating such cohesion. A community place can provide opportunities for social interaction, social mixing, and social inclusion, and can facilitate the development of community ties. A sense of community is often defined as a feeling that members have a sense of belonging, a feeling that members are important to each other and to the group [41]. However, the sense of place is described as a general term, including attachment to place, place identity, and place ties [42]. Likewise, family members who spend their free time in the FCS each day seem to depend on this place to interact and carry out other activities.

Why is the FCS chosen as a place to gather and complete activities by the community/family group? This question is answered in Figure 4, which shows the advantages of being in the FCS, and it can be seen that the family group has an attachment to carrying out various daily activities in that space. The family group's attachment to being in the FCS is not without reason. This is connected to the choice of a place that can be used to interact with environmental climatic conditions, as can be seen in Figure 5 (which shows that the reason for using the most-chosen FCS is the convenience of the space) and continued in Figure 6 (climatic conditions), which compares the average temperature conditions in each place that can be used for activities; it is proven that the green open space where the FCS is located has the lowest temperature during the day.

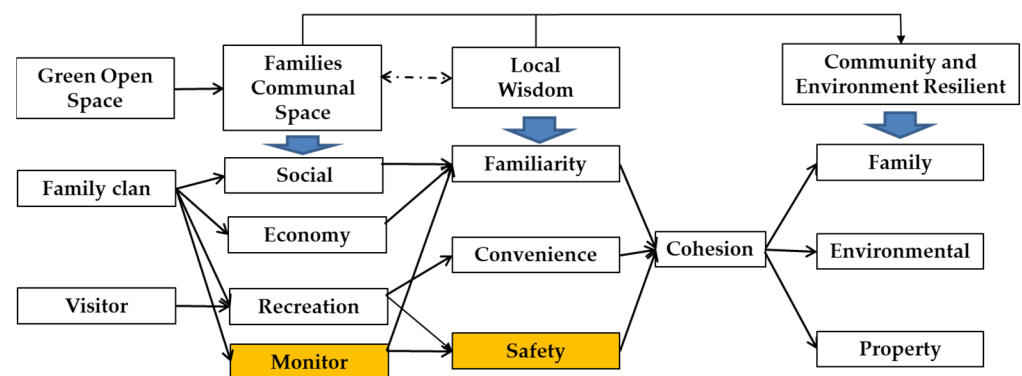
The temperature in the green open space in Aeng Batu-Batu when the fishermen's families started arriving, at around 9 a.m., was 25.91 °C. Based on the results of measurements from 9 a.m. to 3 p.m., the average temperature was around 25.53 °C; at 3 p.m., the

temperature reaches 26.6 °C, and the average humidity is 75%. Then, the temperature gradually increased (Figure 6). When considering the Guidelines for Building Hot and Humid Climates (ASHRAE) [33], areas with humid tropical climates such as Indonesia have relatively hot air temperatures that reach an average maximum value of 27 °C–32 °C, and an average minimum value of 20 °C–23 °C, with an average air humidity of 75–80%; the most comfortable environmental temperature conditions in the humid tropics range from 23.3 °C–26.1 °C, whereas according to SNI (Indonesian National Standard) [43], a sense of comfort is obtained at a temperature of 20.50 °C–27.10 °C, with a relative humidity of 50–80%. By looking at these standards and comparing them with the current environmental conditions, the FCS can be seen as a good place to visit due to the comfort created by the presence of protective trees and its location, which is adjacent to the sea (Figure 3). The three conveniences of using open public spaces are characterized by the presence of greenery, water, and sound effects, protection from rain and wind, sunlight in winter, and shade on hot summer days [2]. The FCSs formed by the community are in accordance with this: the spaces are shady and protected by trees, buildings generally have a roof for protection when it rains, and their location, adjacent to the sea, allows for listening to waves and seawater, which creates a feeling of calm and makes the places appealing to use. Jennings and Bamkole [42] noted that green spaces are suitable for leisure time, relaxation, and social interaction. The presence of urban green spaces can encourage positive social interactions that cultivate social cohesion in ways that enhance health and well-being.

#### 4.2. Communal Space as an Environmental and Family Control Space

The research found an association between high crime rates or fear of crime and a lack of environmental cohesion [44]. Village communities have a habit of spending a long time in their FCS for various activities, especially interactions, subconsciously creating an attachment to the place. This is a positive bond (Figure 3). This is in accordance with what has been stated by Barbara Brown et al. [45], in that place attachments are the positive bonds that people form with places, arising from the affective, behavioral, and cognitive ties between individuals or groups and their sociophysical settings. Across their lifespan, people frequently form deep attachments to their homes and neighborhoods, which facilitate stability, identity, and positive experiences. Ross and Jang [46] also report that social ties with neighbors support the effect of environmental disturbances on fear and mistrust. Thus, while the perception of crime may influence people's attitudes, it is possible that people with weaker societal senses perceive there to be more crime in their environment [47]. The family plays an important role in this, and it is important that the state recognizes the family as the basis of the state. Strong families create strong communities; strong communities make the country stronger [48]. The family is the core of civilization and the basic social unit of society [49]. There is a close connection between family and society [50]. The family unit plays an important role in making us better people individually as well as better citizens of our society [51]; these kinship relationships are often the basis of how people interact with society, which Figure 2 shows. Strong family unity will teach people to respect each other through differences and work together to achieve common goals [51]. The attitude of *gotong royong* in work has been rooted and entrenched in the Bugis Makassar rural community. *Gotong royong* with respect for one another adds to the cohesion between them. Family cohesion has been defined as the emotional bond that family members have with one another [52]. Public space has a positive relationship with a strong sense of community, which is associated with increased well-being, and increased feelings of safety and security [47]. Community cohesion is closely related to the ability to face the many risks originating from the environment and community organization [53]. Families spend time together. This gives the family time to get together, share experiences, and reconnect with one another. In spending time with the extended family, various activities become intertwined, as shown in Figure 4. There are three monitoring functions that can be carried out in communal spaces, namely monitoring of the space users and family/children, monitoring of the climate and tidal conditions,

and monitoring family during travel to and from the sea. The following table shows a significant correlation between the type of activity and the duration of time spent in FCS. The main type of family activity is relaxing while interacting/communicating and simultaneously controlling the family and the surrounding environment. These activities take up 51.01% of the total, with a duration of between 2 and 4 h. The number of activities that take place in the same period is common for women; women in rural areas can do some work in the same period, and the duration of the long activity time is also influenced by the comfort of room temperature [54]. From this explanation, it can be concluded that by looking at Figure 4 and Table 2, namely the association between the monitoring function and the duration of time spent on supervision, the FCS is shown to be useful in maintaining environmental security. The interactions that occur in FCS are spatial: almost all large families have spatial interactions in the FCS. Shuling Hu et al. [55] stated that human interaction has a spatial character. People have always tried to form their own geographical areas to create comfortable living space conditions. Therefore, they can claim to control and own certain areas for this purpose [56]. Environmental social cohesion has the potential to protect mental health [57,58]. Environmental social cohesion can be defined as the existence of social cohesion at the environmental level. Social cohesion can be defined as ‘the degree of relationship and solidarity between groups in society’ and consists of the absence of latent social conflicts (e.g., polarization, racial/ethnic tensions) and the presence of strong social ties [59] (e.g., trust, reciprocity, and relationships), and social and institutional conflict management. Environmental social cohesion operates at the neighborhood or community level. The environment can be interpreted as a geographical place with a social and cultural meaning for residents and non-residents alike and is a subsection of a larger place [60]. Social cohesion is important. There are three reasons for this: people who are more united are believed to be more resilient, can foster peace in the community, and contribute to local community development [56], and a cohesive society is characterized by resilient social relationships, a positive emotional connectedness between its members and the community [57]. Figure 7 below shows the schema of the article about the presence of FCS and its impact on society and the environment in creating resilience.



**Figure 7.** The scheme of the FCS' impact on family and environmental resilience.

Family groups always try to form their own geographical area, manifesting in the form of a communal family room. The space is established in a green open space. This space has various functions: social, economic, recreational, and environmental monitoring. These functions work well because they are supported by comfortable conditions (thermal aspect), and are beautiful, roomy, and busy (Figures 3, 5 and 6). The impact of intense family gatherings (average 2–4 h a day) (Figure 4) and the culture of *gotong royong*, which is a form of local wisdom, helps to increase cohesion (the sense of familiarity, togetherness, convenience, and safety) with other people and with the space. Likewise, the safety of the place and family is formed due to the functioning of the FCS as a user monitoring space. At this stage, interest is built between the place and the users. Place attachment is a bond between individuals or groups with places [61,62]. On the other hand, the existence of a

beautiful beach and a conducive atmosphere (safety) will invite people from outside to visit settlements, especially coastal areas. Frequent visits to FCSs by both family and outside visitors will create closeness/attachment. Cohesion will result in the resilience of families, property, and the environment against disturbances from within the family itself and from outside the family.

## 5. Conclusions

In this study, the family communal rooms were located in green open space close to the beach, and had the lowest temperature from 5 a.m. to 3.30 p.m., with an average of 25.7 °C (lowest temperature of 24.98 °C and highest of 27.27 °C during daytime activities). This is related to the reason that people choose to use these rooms as communal family spaces: 60% of users chose these rooms due to thermal comfort, while 53.33% chose these rooms due to them being busy with visitors and because they can be used to control or monitor the community (43%) and the surrounding environment (45%), among other functions. Regarding comfort, it is proven that FCSs had the lowest temperature compared to other rooms, namely an average of 25.3 °C from 9 a.m. to 3 p.m. The families who use the communal space are attached to each other because of their close kinship ties. In addition, the high frequency of togetherness in FCS will generate a sense of place towards that place which in turn creates a place attachment. A sense of collective attachment to place from users (extended family) will create cohesion in the form of a sense of belonging both between these families and with the environment, both physically and emotionally, which will certainly have an impact on the resilience of the family and the environment. This creates a sense of togetherness, belonging, and protection, as well as a sense of mutual support when dealing with all forms of threats and completing or carrying out an activity, making it easy to establish a cohesiveness based on the high sense of security and trust between the family when together in the community; all of these things are manifestations of *gotong royong*, which is part of the local wisdom of the local community. In addition, the bond between the family and the environment is also formed due to the community's livelihood: the main profession is fishermen, who have a close relationship with the sea. Related to this, the community spaces can also be used by the family to easily control or supervise conditions on the beach and sea. Therefore, the FCS has additional functions as a control room for the environment (crime, weather at sea) and family (children and other family members who go to and return from the sea), as well as property (boats and nets). The cohesion that exists between fellow users of FCS and between users and places creates associations with all good things that come from within society and from nature. This is what distinguishes the communal spaces of fishing settlements in coastal areas from communal spaces in general, outside the fishing community. It can be concluded that the existence of an FCS creates community and environmental resilience. In the future, research can focus on planning designs that are humane and environmentally friendly, so that the family communal spaces can safely and comfortably accommodate all family activities. The cohesion that is formed towards the place of activity becomes a place attachment, that is, there is an emotional bond with the place and with the family, and in the end results in resilience.

**Supplementary Materials:** The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/su15108167/s1>, Supplementary Materials are included in a separate file containing Excel data regarding the reasons for using the FCS and data regarding the thermal conditions (temperature) of places other than FCS that are used for activities, and Word data containing other figures of communal spaces for families in coastal areas.

**Author Contributions:** I.A. is the main author, who conducted the survey work and data collection, and wrote the article. R.L. is the second author, who contributed to the editing of the article. All authors have read and agreed to the published version of the manuscript.

**Funding:** From Hasanuddin University Decree No: 3469/UN4.1/KEP/2022, dated 8 June 2022, concerning Research and Community Service Grant Recipients in the scope of Hasanuddin University in the fiscal year of 2022. The research funds are charged to the DPAU PTNBH UNHAS Number: 7948/UN4.1/KEP/2021 dated 4 December 2021, the Hasanuddin University LPPM's 2022 Fiscal Year allocation.

**Institutional Review Board Statement:** Certificate of passing the Grant Recipient from the head of the Hasanuddin University Research and Community Service Institute. No: 1701/UN4.22/PT.01.05/2022.

**Informed Consent Statement:** Certificate from the village head of Aeng Batu-Batu. No: 03/744/DAB/X/2022.

**Data Availability Statement:** All existing data is based on field survey results and from the internet (maps). For field data, permission has been obtained from the relevant parties before going to the field.

**Acknowledgments:** The author would like to express his deepest gratitude to Hasanuddin University for the funds provided for this research. We also thank the residents of Aeng Batu-Batu Village and the local government for providing information related to this research.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

- Gallacher, P. *Everyday Spaces: The Potential of Neighborhood Space*; Thomas Telford: London, UK, 2005; 96 pages.
- Vukmirovic, M.; Gavrilovic, S.; Stojanovic, D. The Improvement of the Comfort of Public Spaces as a Local Initiative in Coping with Climate Change. *Sustainability* **2019**, *11*, 6546. [[CrossRef](#)]
- Alizadeh, H.; Bork-Hüffer, T.; Kohlbacher, J.; Mohammed-Amin, R.K. The contribution of urban public space to the social interactions and empowerment of women. *J. Urban Aff.* **2022**, 1–24. [[CrossRef](#)]
- Jo, Y.-I.; Lee, J.-L.; Koo, J.-H. Effect of Physical Environment and Programs on the Social Interaction of Youth Space Users in Seoul in the Case of Pilot Projects. *Sustainability* **2018**, *10*, 4515. [[CrossRef](#)]
- Aelbrecht, P.; Stevens, Q.; Nisha, B. *Public Space Design and Social Cohesion: An International Comparison*; Routledge: Abingdon, UK, 2018; p. 33.
- Zhang, Y.; Chen, G.; He, Y.; Jiang, X.; Xue, C. Social Interaction in Public Spaces and Well-Being among Elderly Women: Towards Age-Friendly Urban Environments. *Int. J. Environ. Res. Public Health* **2022**, *19*, 746. [[CrossRef](#)]
- Farida, N. Effects of outdoor shared spaces on social interaction in a housing estate in Algeria. *Front. Archit. Res.* **2013**, *2*, 457–467. [[CrossRef](#)]
- Bishop, K.; Marshall, N. Social Interactions and the Quality of Urban Public Space. In *Reference Module in Earth Systems and Environmental Sciences*; Encyclopedia of Sustainable Technologies; Elsevier: Amsterdam, The Netherlands, 2017; Volume 2, pp. 63–70.
- Anderson, J.; Ruggeri, K.; Steemers, K.; Huppert, F. Lively Social Space, Well-Being Activity, and Urban Design: Findings from a low-cost community-led public space intervention. *Environ. Behav.* **2016**, *49*, 685–716. [[CrossRef](#)]
- Zhu, Y.; Ding, J.; Zhu, Q.; Cheng, Y.; Ma, Q.; Ji, X. The Impact of Green Open Space on Community Attachment—A Case Study of Three Communities in Beijing. *Sustainability* **2017**, *9*, 560. [[CrossRef](#)]
- Chitrakar, R. Meaning of public space and sense of community: The case of new neighborhoods in the Kathmandu Valley. March 2016. *Int. J. Archit. Res. Arcnet-IJAR* **2016**, *10*, 213–227.
- Gregory, D.; Johnston, R.; Pratt, G.; Watts, M.; Whatmore, S. (Eds.) *The Dictionary of Human Geography*; John Wiley & Sons: Malden, MA, USA, 2011; p. 1072.
- Oliver, R.G.; Sinenart, S. Neighborhood design and sense of community: Comparing suburban neighborhoods in Houston Texas. *Landsc. Urban Plan.* **2009**, *92*, 325–334.
- Farahani, L.M. The Value of the Sense of Community and Neighbouring. *Hous. Theory Soc.* **2016**, *33*, 357–376. [[CrossRef](#)]
- Suwignyo, A. Gotong royong as social citizenship in Indonesia, 1940s to 1990s. *J. Southeast Asian Stud.* **2019**, *50*, 387–408. [[CrossRef](#)]
- Local Government Association. *Community Cohesion Is an Action Guide*; LGA Publications: London, UK, 2004; p. 96.
- Manca, A.R. *Social Cohesion. Encyclopedia of Quality of Life and Well-Being Research*; Springer Science + Business Media: Dordrecht, The Netherlands, 2014; pp. 6026–6028.
- Salimi, M.; Foroutan, M.; Naghdi, A. Analyzing Social Cohesion in Open Spaces of Multiethnic Poor Neighborhoods: A Grounded Theory Study. *J. Archit. Urban.* **2019**, *43*, 1–13. [[CrossRef](#)]
- Sari, S.R.; Suwarno, N.; Nuryanti, W.; Diananta, P. The Role of Social Cohesion to Reduce Social Conflict in Tourist Destination Area. *KOMUNITAS Int. J. Indones. Soc. Cult.* **2014**, *6*, 294–302. [[CrossRef](#)]
- Fennelly, L.J.; Perry, M.A. Chapter Defensible Space Theory and CPTED. In *CPTED and Traditional Security Countermeasures 150 Things You Should Know*, 1st ed.; CRC Press: Boca Raton, FL, USA, 2018; p. 3.

21. Ye, B.; Hu, J.; Im, H.; Liu, M.; Wang, X.; Yang, Q. Family Cohesion and Sleep Disturbances During COVID-19: The Mediating Roles of Security and Stress. *Int. J. Ment. Health Addict.* **2022**, 1–14. [\[CrossRef\]](#)
22. Ludin, S.M.; Rohaizat, M.; Arbon, P. The association between social cohesion and community disaster resilience: A cross-sectional study. *Health Soc. Care Community* **2019**, *27*, 621–631. [\[CrossRef\]](#)
23. Jewett, R.L.; Mah, S.M.; Howell, N.; Larsen, M.M. Social Cohesion and Community Resilience During COVID-19 and Pandemics: A Rapid Scoping Review to Inform the United Nations Research Roadmap for COVID-19 Recovery. *Int. J. Health Serv.* **2021**, *51*, 325–336. [\[CrossRef\]](#)
24. Bergstrand, K.; Mayer, B. The Community Helped Me: Community Cohesion and Environmental Concerns in Personal Assessments of Post-Disaster Recovery. *Soc. Nat. Resour.* **2020**, *33*, 386–405. [\[CrossRef\]](#)
25. Jayles, B.; Cheong, S.A.; Herrmann, H.J. Interactions between communities improve the resilience of multicultural societies. *Phys. A Stat. Mech. Its Appl.* **2022**, *607*, 128164. [\[CrossRef\]](#)
26. Kurnio, H.; Fekete, A.; Naz, F.; Norf, C.; Jüpner, R. Resilience learning and indigenous knowledge of earthquake risk in Indonesia. *Int. J. Disaster Risk Reduct.* **2021**, *62*, 102423. [\[CrossRef\]](#)
27. Lefebvre, H.; Smith, D.N. *The Production of Space*; Smith, D.N., Translator; Blackwell Publishing: Oxford, MI, USA; Cambridge, UK, 1992; p. 464.
28. Gottdiener, M.; Hutchison, R. *The New Urban Sociology*, 2nd ed.; McGraw Hill: Boston, MA, USA, 2000.
29. Sommer, R.; Sommer, B. *A Practical Guide to Behavioral Research: Tools and Techniques*; Oxford Press: New York, NY, USA, 2002.
30. Sugiyono. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*; PT Alfabet: Bandung, Indonesia, 2016; p. 334.
31. Sari, E.S. Audience Research: Introduction to Research Studies of Readers, Listeners and Viewers. In *Indonesian: Pengantar Studi Penelitian Terhadap Pembaca, Pendengar dan Pemirsa*; Andi Offset: Yogyakarta, Indonesia, 1993; p. 60.
32. Deng, Y.; Gan, D.; Tang, N.; Cai, Z.; Li, X.; Chen, S.; Li, X. Research on Outdoor Thermal Comfort and Activities in Residential Areas in Subtropical China. *Atmosphere* **2022**, *13*, 1357. [\[CrossRef\]](#)
33. ANSI/ASHRAE Standard 55-2004 Supersedes ANSI/ASHRAE Standard 55-1992; Thermal Environment Conditions for Human Occupancy. ANSI: Atlanta, GA, USA, 2004; p. 27. ISSN 1041-2336. Available online: [https://www.ashrae.org/file%20library/technical%20resources/standards%20and%20guidelines/standards%20addenda/55\\_2017\\_d\\_20200731.pdf](https://www.ashrae.org/file%20library/technical%20resources/standards%20and%20guidelines/standards%20addenda/55_2017_d_20200731.pdf) (accessed on 12 August 2021).
34. Xie, X.; Liao, H.; Wang, R.; Gou, Z. Thermal Comfort in the Overhead Public Space in Hot and Humid Climates: A Study in Shenzhen. *Buildings* **2022**, *12*, 1454. [\[CrossRef\]](#)
35. Jakovljevic, M. Empathy, Sense of Coherence and Resilience: Bridging Personal, Public and Global Mental Health and Conceptual Synthesis. *Psychiatr. Danub.* **2018**, *30*, 380–384. [\[CrossRef\]](#) [\[PubMed\]](#)
36. Brown, N. (Ed.) *Edward T. Hall, Proxemic Theory, 1966*; UC Santa Barbara CSISS Classics; California Digital Library University of California: California, CA, USA, 2001.
37. Hall, E.T. *The Hidden Dimension*; Doubleday: Garden City, NY, USA, 1966; p. 201.
38. Lalot, F.; Abrams, D.; Broadwood, J.; Hayon, K.D.; Platts-Dunn, I. The social cohesion investment: Communities that invested in integration programmes are showing greater social cohesion in the midst of the COVID-19 pandemic. *J. Community Appl. Soc. Psychol.* **2022**, *32*, 536–554. [\[CrossRef\]](#) [\[PubMed\]](#)
39. Macias, T.; Williams, K. Know Your Neighbors, Save the Planet Social Capital and the Widening Wedge of Pro-Environmental Outcomes. *Environ. Behav.* **2014**, *48*, 391–420. [\[CrossRef\]](#)
40. Zhu, Y.; Wang, Y.; Liu, Z. How Does Social Interaction Affect Pro-Environmental Behaviors in China? The Mediation Role of Conformity. *Front. Environ. Sci.* **2021**, *9*, 690361. [\[CrossRef\]](#)
41. Fisher, A.T.; Sonn, C.C.; Bishop, B.J. (Eds.) *Psychological Sense of Community: Research, Applications, and Implications*, 2002nd ed.; Part of the Book Series: The Springer Series in Social Clinical Psychology (SSSC); Kluwer Academic/Plenum Publishers: New York, NY, USA, 2002; p. 354.
42. Jennings, V.; Bamkole, O. The Relationship between Social Cohesion and Urban Green Space: An Avenue for Health Promotion. *Int. J. Environ. Res. Public Health* **2019**, *16*, 452. [\[CrossRef\]](#)
43. SNI (Indonesia National Standard) 03-6572-2001; Procedures for Design of Ventilation and Air Conditioning Systems. Universitas Negeri Yogyakarta: Yogyakarta, Indonesia, 2001. Available online: <http://staffnew.uny.ac.id/upload/132100514/pendidikan/perencanaan-pendingin.pdf> (accessed on 12 August 2021).
44. Lorenc, T.; Petticrew, M.; Whitehead, M.; Neary, D.; Clayton, S.; Wright, K.; Thomson, H.; Cummins, S.; Sowden, A.; Renton, A. Fear of crime and the environment: Systematic review of UK qualitative evidence. *BMC Public Health* **2013**, *13*, 496. [\[CrossRef\]](#)
45. Brown, B.; Altman, I.; Werner, C.M. Place Attachment. In *International Encyclopedia of Housing and Home*; Elsevier Ltd.: Amsterdam, The Netherlands, 2012; pp. 183–188.
46. Ross, C.E.; Jang, S.J. Neighborhood disorder, fear and mistrust: The buffering role of social ties with neighbors. *J. Community Psychol.* **2000**, *28*, 401–420. [\[CrossRef\]](#)
47. Francis, J.; Giles-Corti, B.; Wood, L.J.; Knuiaman, M. Creating Sense of Community: The Role of Public Space. *J. Environ. Psychol.* **2012**, *32*, 401–409. [\[CrossRef\]](#)
48. Peterborough City Council-Cambridgeshire County Council. *Strong Families, Strong Communities SECURING Best Outcomes for Children and Young People. Cambridgeshire and Peterborough Early Help Strategy*; Peterborough: Cambridgeshire, UK, 2021; 16 pages. Available online: <https://www.safeguardingcambspeterborough.org.uk/wp-content/uploads/2021/06/Early-help-strategy-final-version-12.05.21.pdf> (accessed on 12 August 2021).

49. The University of Delaware. *Building Strong Family Relationships*; The University of Delaware: Newark, DE, USA. Available online: <https://www.udel.edu/academics/colleges/canr/cooperative-extension/fact-sheets/building-strong-family-relationships/> (accessed on 12 August 2021).
50. Kapur, R. Family and Society. 2018. Available online: [https://www.researchgate.net/publication/323733863\\_Family\\_and\\_Society](https://www.researchgate.net/publication/323733863_Family_and_Society) (accessed on 12 November 2022).
51. Akhmedov, B.T. The Family as the Basic Unit of Society. *Int. J. Multicult. Multireligious Underst.* **2021**, *8*, 201–204.
52. Rivera, F.I.; Guarnaccia, P.J.; Mulvaney-Day, N.; Lin, J.Y.; Torres, M.; Alegria, M. Family Cohesion and its Relationship to Psychological Distress among Latino Groups. *Hisp. J. Behav. Sci.* **2008**, *30*, 357–378. [[CrossRef](#)]
53. Farrell, G. *Security through Social Cohesion: Proposals for a New Socio-Economic Governance. Trends in Social Cohesion, No. 628 10*; Council of Europe Publishing: Strasbourg Cedex, Germany, 2004; p. 137.
54. Asmal, I.; Syarif, E.; Ahmad, M. Harmonization of domestic and social life of fishermen women; a positive behavior for quality of life. *Enferm. Clin.* **2020**, *30*, 518–523. [[CrossRef](#)]
55. Hu, S.; Yu, B.; Luo, S.; Zhuo, R. Spatial pattern of the effects of human activities on the land surface of China and the spatial relationship with the natural environment. *Environ. Dev. Sustain.* **2022**, *24*, 10379–10401. [[CrossRef](#)]
56. Breedvelt, J.J.; Tiemeier, H.; Sharples, E.; Galea, S.; Niedzwiedz, C.; Elliott, I.; Bockting, C.L. The effects of neighbourhood social cohesion on preventing depression and anxiety 636 among adolescents and young adults: Rapid review. *BJPsych Open* **2022**, *8*, e97. [[CrossRef](#)]
57. Delhey, J. Social Cohesion and Its Correlates: A Comparison of Western and Asian Societies. *Comp. Sociol.* **2018**, *17*, 426–455. [[CrossRef](#)]
58. Kawachi, I.; Berkman, L. Social cohesion, social capital, and health. In *Social Epidemiology*; Berkman, L., Kawachi, I., Eds.; Oxford University Press: New York, NY, USA, 2000; pp. 174–190.
59. Kingsbury, M.; Clayborne, Z.; Colman, I.; Kirkbride, J.B. The protective effect of neighborhood social cohesion on adolescent mental health following stressful life events. *Psychol Med.* **2020**, *50*, 1292–1299. [[CrossRef](#)]
60. Burchi, F.; Loewe, M.; Malerba, D.; Leininger, J. Disentangling the Relationship Between Social Protection and Social Cohesion: Introduction to the Special Issue. *Eur. J. Dev. Res.* **2022**, *34*, 1195–1215. [[CrossRef](#)]
61. Scannell, L.; Gifford, R. Defining place attachment: A tripartite organizing framework. *J. Environ. Psychol.* **2010**, *30*, 1–10. [[CrossRef](#)]
62. Hernandez, B.; Martin, A.M.; Ruiz, C.; del Carmen Hidalgo, M. The role of place identity and place attachment in breaking environmental protection laws. *J. Environ. Psychol.* **2010**, *30*, 281–288. [[CrossRef](#)]

**Disclaimer/Publisher’s Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.