

## Article

# Leisure Activity Patterns of an Academic Environmental Group of Szczecin University Students—An Interdepartmental Analysis

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**Abstract:** The objective of this study was to verify the leisure time activity (LTA) patterns among students of three university courses (including students in their first, second, and third year of their bachelor's degree)—Physical Education (PE) vs. Sports Diagnostics (SD) vs. Tourism and Recreation (TaR)—at the University of Szczecin and their possible correlations with the faculty of the studying youth. The study involved a total of 219 respondents: 96 were studying TaR, 93 were studying PE, and 31 were studying SD. The research was based on the following questionnaires: the International Physical Activity Questionnaire (IPAQ) and a questionnaire created by the authors which covered the type of leisure time activity (LTA) with emphasis on leisure-time physical activity (LTPA) and its type, frequency, and whether students sought companionship while engaging in such activities. The data obtained were developed using statistical methods such as analysis of structure and correspondence analysis. Several research questions were put forward in the study. Surprisingly, TaR students were characterized by a greater variety of sports activities than the PE or SD students. The TaR students had also undertaken long trips more often than the PE students. No difference in the frequency of long trips was found between students from either course. Regardless of the type of university course studied, no significant differences were found between the genders in terms of spending free time alone vs. in the company of family/friends.

**Keywords:** university students; free time; interests; activities; analysis of structure; correspondence analysis



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## 1. Introduction

As obesity and its complications rates are increasing from one year to another [1], a constant rise in diabetes, cardiovascular diseases, reproductive health problems, and obesity-related malignancies [2–4] has been noted. Moreover, the incidence of depressive disorders, which also overlaps with obesity [5], shows a constant upward trend. As the obesity epidemic has grown over the decades, multiple factors that may influence its development have been investigated. Numerous factors like the influence of the family environment, race/ethnicity, food insecurity, Mediterranean diets, and sleeping disorders are no longer up for discussion [6]. However, physical activity (PA) remains an indisputable factor in maintaining health [7–9]. For this reason, attempts are being made to determine the conditions that influence appropriate PA, promoting not only physical health [10,11]

but broadly understood well-being that influences quality of life. So far, factors such as pet ownership, socioeconomic status [12], age, sex, and marital status [13] have been described as undoubtable influences on physical activity.

We have found a number of studies that have been conducted to investigate the LTA of students. There is some correlation between the type of LTA and gender [14], indicating motivators for active LTA [14,15] and possible barriers and benefits to PA among students [16]. So far, we have not found any studies on LTA among Polish students that would address the issue of differences in LTA between students in different university courses. Moreover, the existing literature on the subject is usually methodologically based on the IPAQ.

Therefore, in this paper, we are trying to investigate possible differences/similarities in leisure-time physical activity (LTPA) among students of three different subjects—Tourism and Recreation (TaR), Sport Diagnostics (SD), and Physical Education (PE)—at the University of Szczecin [17]. Moreover, taking into account the characteristics of the study group, we decided to extend the methodology with an original questionnaire adapted to the specific conditions of the study group.

The remainder of the manuscript is organized as follows: Section 2 presents a review of the literature, concluding with the research questions. Section 3 presents the research methodology and a brief description of the research questionnaire. In Section 4, we present the results of the empirical analysis. This is followed by the discussion in Section 5. The manuscript ends with the concluding remarks. We have also attached a portion of the questionnaire, which includes the questions relevant to our study.

## 2. Literature Review

Issues of leisure time, how it is used, and lifestyle are often discussed by sociologists [18], physiologists [7–11], economists [19], and educators [20,21]. According to them, there is a correlation between leisure time and work time. During leisure time outside of compulsory work, many habits and preferences are formed [22–25]. The concept of leisure time emerged with industrial society and, further, our newly information-driven society. In traditional society, this problem was not relevant, as there was no distinction between leisure and work time. The category of leisure time has become a unit for shaping the standard of living in industrialized countries, and its extent and scope are considered among the indicators of social welfare, cultural development, and even the level of health of social groups. A common phenomenon of our time is not only a reduction in the number of working hours but also a change in the rhythm of work and leisure. A characteristic of urbanized countries is the “weekend”, which affects the style and quality of life [26].

One of the most recent definitions of leisure time is provided by the Pedagogical Dictionary [27] (also adopted by UNESCO). According to Dumazadier [23], leisure time is defined as activities free from work and family responsibilities in the open air, apart from sleep and physiological needs, intended for rest, play, and the development of interests. The foreign literature distinguishes between the following terms:

- Free time (eng. free time; fr. le temps libre; ger. frei Zeit), which is a category of time;
- Leisure (fr. loisir; ger. freizeit), which has no equivalent in Polish, includes time and various activities and experiences associated with it [28].

In leisure time, the organization and type of activities depend on a person’s tastes, interests, and habits, age, type of work, other duties, amount of time (weekday, weekend, vacations, and feasts), financial situation, education, and gender. Every person, regardless of the above factors, feels the need for recreation and exercise. Some need it more, others less, but only a variety of its forms can satisfy the needs of a modern human being.

“The conception of rest, as complete relaxation, represents the acquisition by modern human of a kind of right to idleness. Only half a century ago, ‘doing nothing’ was something sinful, shameful for the working man; today it is a recognized, sanctified mental health and medical function of a vacation” [29]. Such “time wasting” is a form of self-therapy for a modern working person.

In the Polish literature, authors refer to leisure time recreation, proposed by the French sociologist Dumazadier, which should fulfill three basic functions: leisure, entertainment, and personal development. The latter refers to working on one’s own persona, resulting in physical fitness and mental fitness, and thus improving health and quality of life. The essence of recreation is having experiences and experiencing life. Human recreational behaviors and motivations cannot be explained without their cultural and social context, without placing them in a specific time and social and geographic space. Unlike leisure activities, which can be passive and active, recreation requires some mental or physical effort. Only active leisure time is thus recreation [23].

The term “recreation” is derived from the Latin “recreatio” meaning to recover, to be strong, to revive, to nourish, and to create anew. In English, the term was used as early as the 16th century to describe mental or spiritual comfort [30]. In the 17th and 18th centuries, it was used to describe an activity providing physical and mental rest after strenuous work, and in the 19th century, it meant rest in the face of destructive industrial work [31]. In Poland, the term was introduced in the 16th century and meant “a pause in the performance of some duty, or an activity serving rest with which this pause was filled”. Inseparably, the term recreation was associated with leisure time and a respite from daily duties. However, it did not mean idleness, but a specific form of activity [32]. In the 19th century, it was in the form of trips to a spa and for medical purposes, and in the 20th century, it was used to describe a division between the social classes [33]. At the turn of the twentieth and twenty-first centuries, the theory of leisure time by many societies took into account changes in value systems, post-materialist, in which spiritual values, i.e., happiness, well-being, quality of life, quality of health, and physical fitness, dominated [34]. Today’s emerging global society is slowly forming communities that are centered around shared values, passions, loves, and hobbies, bringing together communities of different classes, ages, or regions of the world [35]. In the modern world, it is not the amount of leisure time but the way and quality of its use that are becoming determinants of quality and lifestyle [36].

Lifestyle can be defined as “a set of daily behaviors of members of collective, specific behaviors with a specific content and configuration” [37]. It can also be defined as a developmental role, influencing the control of individual behavior and recreational choices [38]. It allows for social identification, as evidenced by the time budget, the nature of work, the consumption of material goods, the scale of intellectual and aesthetic needs, the manner of participation in public life, and leisure behavior [24,39]. These behaviors and activities are repetitive and cyclical in nature.

Recreational behavior resulting from lifestyle choices and various human needs depends on personal profiles. The need for self-actualization is the highest point of Maslow’s pyramid of needs. It is a need that stems from an individual’s desire to occupy oneself with what one feels is a calling—to satisfy one’s own ambitions for the sake of achieving rewarding goals. According to this theory, a person who undertakes higher-order activities (including self-actualization) is one who has satisfied lower-order needs.

In the late 1980s and 1990s, the “tourism career ladder” theory was proposed [40]. This theory was developed as a result of Maslow’s theory of the correlation of motivation and human needs and Pearce’s theory of tourism career development. It provides five levels of

tourist motivation, starting with the lowest: relaxation, agitation, relationships, self-esteem and development, and satisfaction.

The guiding premise of this division is the changing individual needs of tourists, which change with the experience gained during holidays. Accumulated experience allows tourists to develop the ability to express their own opinions and views on a particular subject. It allows one to clarify one's thinking and critically evaluate the thing or situation seen. In other words, the recreational and touristic behavior of tourists on holiday is guided by changing various motivations.

Tourist movements take place in what is known as the tourist space. It is a part of geographic space that consists of the natural elements of the Earth's surface (the natural environment), the lasting effects of human activity on the environment (the economic environment), and the human environment as understood by human society. This space is shaped by humans using it for the purposes of tourism of the geographic and social environment, discovery and exploitation, and satisfying the needs of leisure and knowledge and the desire to have experiences [41]. Leisure behavior in leisure time has been written about in the context of substandard activities, such as drug use, alcohol consumption by schoolchildren [42], or forbidden sexual practices [43,44]. Leisure time activities requiring physical involvement, such as playing tennis, sailing, and traveling, were discussed by Kelly and Godbey [45] and in the context of the positive impact of physical activities on health, self-satisfaction, and life satisfaction [46–48]. Similar issues of leisure skills in the context of life satisfaction in the student social group have been pursued by authors [49–51], proving that not only does physical activity affect a positive perception of the world, but also that socio-demographic factors (e.g., age, rural or urban upbringing, and background) influence and differentiate attitudes toward leisure activities. Authors have found that lower-intensity (recreational in nature) sports activity is associated with higher overall levels of well-being compared to high-intensity exercise. Jetzke and Mutz [47] showed that intrinsically motivated sports activities have a greater impact on well-being. Accordingly, playing sports for "pleasure" or "to feel fit" contributes more to a person's well-being than playing sports to "lose or control weight". The necessity and constant need for motivation to be active, for example, among a group of Chinese adolescents, has been written about [52,53]. In addition, the relationship of the provision of health education in studies at universities with increased student physical activity and health-promoting lifestyles has been positively evaluated [54–56]. Conversely, a study of students at the University of Santiago De Compostella in Spain found a significant association between physical inactivity and time spent in front of a screen, study time, low well-being, and smoking [57].

On the basis of the literature review, we have posed three research questions:

- Q1: Do the Physical Education (PE) and Sport Diagnostics (SD) students spend their free time more actively than those students studying Tourism and Recreation (TaR)?
- Q2: Are men more likely to spend their free time alone than women?
- Q3: Do TaR students undertake long trips more often than PE or SD students?

### 3. Materials and Methods

The research survey was based on questionnaires directed to students of three university courses: "Tourism and Recreation" (TaR) (95 respondents), "Physical Education" (PE) (93 respondents), and "Sport Diagnostics" (SD) (31 respondents).

The researchers obtained consent from all of the students who fully completed the questionnaires. Consent from the bioethics committee was also obtained to conduct research among a group of university students (resolution no. 8/2024 of 22 May 2024). Because virtually all of the students in each course participated in the survey, mostly only basic

descriptive methods could be used, and thus, the results could not be generalized. The survey may be treated as a case study, which could be the basis for further representative research. The survey covers a wide area of research. It consists of 11 questions (plus three demographic ones). In the present study, we applied only a part of it. In the Appendix A, we present a part of the survey—three questions relevant to the study (with questions number 3, 5, and 8) and the demographic ones (see Table A1 in Appendix A).

In order to answer the first research question (Q1) (do the PE and SD students spend their free time more actively than the Tourism and Recreation students?), we analyzed the answers to question 5: what do you like to do in your free time outside of classes at Szczecin University? Students could select a maximum of 10 out of 10 answers referring to the active spending of time and a maximum of 5 out of 5 answers referring to the passive spending of time. We compared the average number of undertaken active forms of spending free time between the students of both university courses and the average number of passive forms. Also, as some activities, considered active forms, cannot be understood as physically active, we analyzed five specific ones: cycling, playing ball games, walking, jogging, and swimming.

In order to answer the second research question (Q2) (are men more likely to spend their leisure time alone than women?), we analyzed the answers to question 3—with whom do you spend your free time the most often? We compared the numbers of men and women who prefer spending their free time alone.

In order to answer the third research question (Q3) (do TaR students undertake long trips more often than PE or SD students?), we analyzed the answers to question 8—how often do you go on long trips? To define long- and short-term tourist trips, the time criterion was used, i.e., holiday and weekend trips. As the answers to this question are measured on the ordinal scale, we compared the medians between the students in both university courses. We also compared the structures of their answers by means of the index of similarity of structure:

$$w_p = \sum_{i=1}^k \min(w_{1i}, w_{2i}) \quad (1)$$

where

$w_i = \frac{n_i}{n}$ —fraction of units in  $i$ -th category ( $i = 1, \dots, k$ );

$n_i$ —number of units in  $i$ -th category;

$n$ —number of units;

$k$ —number of categories.

The index of similarity of structure ranges in the interval [0, 1]. The closer to 1 it is, the more similar both structures are.

In the case of research question Q3, we could use the correspondence analysis [58]. It is a very useful technique for detecting latent relationships between variables. A contingency table is used for this purpose. It is the equivalent of a principal component analysis with the exception that the principal component analysis is carried out for numerical variables, while the correspondence analysis is carried out for categorical data. Relationships between variables in the correspondence analysis are plotted using ballots, on which the values of both variables are projected (one variable is called the row variable and the other is the column).

## 4. Results

The results of the empirical analysis on the background of the demographic characteristics of the students who participated in the survey are presented in Table 1.

**Table 1.** Demographic characteristics of the respondents. Source: own elaboration.

| Demographic Characteristics | Number of Students in the University Courses |     |    |    |
|-----------------------------|--|-----|----|----|
|                             | All  | Tar | SD | PE |
| Age                         |  |     |    |    |
| [17–20]                     | 64   | 45  | 6  | 13 |
| (20–23)                     | 120  | 40  | 18 | 62 |
| (23–26)                     | 24   | 7   | 4  | 13 |
| above 26                    | 11   | 3   | 3  | 5  |
| Sex                         |  |     |    |    |
| female                      | 116  | 67  | 13 | 36 |
| male                        | 103  | 28  | 18 | 57 |
| Place of residence          |  |     |    |    |
| Szczecin                    | 130  | 58  | 19 | 53 |
| (outside Szczecin)          | 89   | 37  | 12 | 40 |
| Total                       |  |     |    |    |
| total no. of respondents    | 219  | 95  | 31 | 93 |

The survey was filled by 219 students in total, of which 95 were Tourism and Recreation students, 31 were Sport Diagnostics (SD) students, and 93 were Physical Education (PE) students. The youngest student from the three courses was 17 years old and the oldest was 48 years old. Usually, the largest number of students was between 20 and 23 years old, with the exception of the TaR students, where the largest number of students was between 17 and 20 years old.

When we consider all three courses together, there were more female than male students (116 to 103). However, when we examine the structure by courses, we find that in the TaR studies, there were many more women than men (67 to 28), but for the SD and PE studies, the situation was the opposite (13 to 18 and 36 to 57, respectively).

In all types of studies, more students lived in Szczecin than outside Szczecin.

Having presented the structure of the respondents with respect to their demographic characteristics, we first analyzed how actively they spend their leisure time. In the subsequent stages of the empirical analysis, we present the results referring to the three research questions, starting with Q1 (do the Physical Education (PE) and Sport Diagnostics students (SD) spend their free time more actively than the Tourism and Recreation students (TaR)?).

We present the average number of active and passive forms of spending free time that the respondents undertook in Table 2. Active forms in total (the second column of Table 2) consist of all activities that require the active participation of the respondent. It also consists of activities, such as shopping, going on a picnic, going to the cinema or theater, etc. (see Table A1 in Appendix A). However, the third column in Table 2 restricts activities to those requiring physical activity (there are four of them—cycling, playing ball games, walking, jogging, and swimming). Therefore, the maximum number of all active forms is 10, the maximum number of active forms requiring physical effort is 4, and the maximum number of passive forms is 5. The values below in Table 2 present the average number of these forms that the respondents undertook.



**Table 2.** The average number of selected active and passive forms of spending free time. Source: own elaboration.

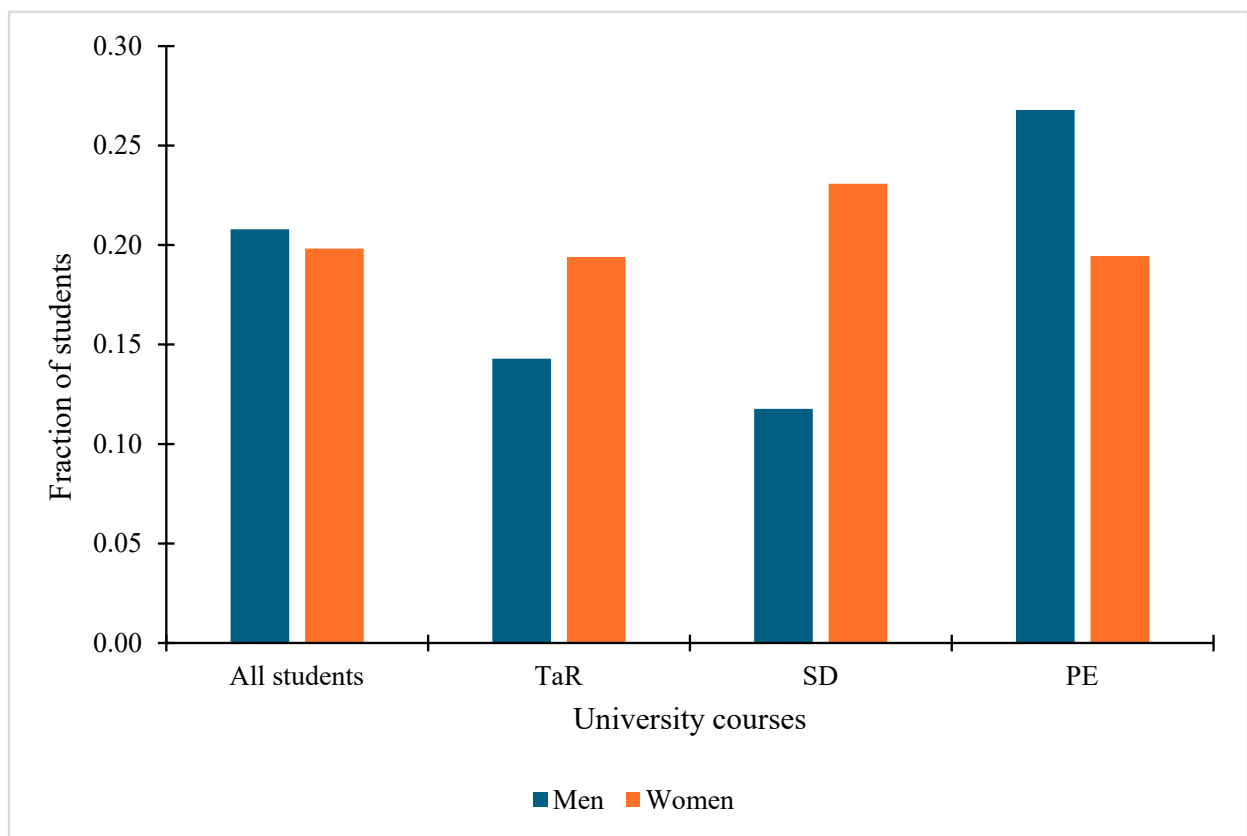
| Studies | Active Forms | Active Forms Requiring Physical Effort (Cycling, Playing Ball games, Walking, Jogging, and Swimming) | Passive Forms |
|---------|--------------|--|---------------|
| TaR     | 3.40         | 1.18   | 1.82          |
| SD      | 2.97         | 1.16   | 1.71          |
| PE      | 3.02         | 1.40   | 1.43          |

When analyzing all active forms of spending free time, the answer to research question Q1 is negative; on average, TaR students selected more activities than the PE or SD students. At the same time, TaR students selected more passive forms of spending free time in comparison to the PE or SD students. However, when we consider activities that require physical effort, on average, the SD course students selected slightly less of them. The PE course students undertook, on average, slightly more physically active forms. What is more, this difference is so small that it is practically impossible to say that the PE or SD students spend their free time more actively than the students in the TaR course.

In summary, the answer to research question Q1 is negative. The PE and SD students do not spend their free time more actively than the TaR students.

In the second stage of the empirical analysis, we tried to answer the second research question (Q2)—are men more likely to spend their free time alone than women? We analyzed it by comparing the percentage of male and female students who prefer spending their leisure time alone.

The percentage of male and female students spending their free time alone is presented in Figure 1.



**Figure 1.** Percentage of male and female students spending their free time alone. Source: own elaboration.

In general, a slightly higher percentage of male compared to female students (20.8% to 19.83%) preferred spending their free time alone. Therefore, for all students, the answer to research question Q2 is positive, but the difference is very small.

After analyzing each university course separately, we can observe a big difference among the TaR students. In total, 19.4% of female and 14.3% of male TaR students preferred spending their free time alone. Therefore, for the Tourism and Recreation studies, the answer to research question Q2 is negative.

When analyzing the preferences of the SD students, 3 out of 13 females (23.07%) and 2 out of 17 males (11.76%) preferred spending their free time alone. So, in this case, we can also answer research question Q2 negatively.

In the case of the PE course, the proportions are reversed—more male than female students prefer spending their free time alone (26.8% to 19.4%). Therefore, the answer to research question Q2 in this case is positive.

In the third and final stage of the empirical analysis, we tried to answer research question Q3—do TaR students undertake long trips more often than PE or SD students? In order to find the answer to this question, we analyzed the indices of similarity of structure obtained for the three analyzed university courses and tried to find associations between the frequency of long trips and the type of studies by means of correspondence analysis.

The structure of responses regarding the frequency of long trips is presented in Figure 2. We also present the similarities of these structures in Table 3.

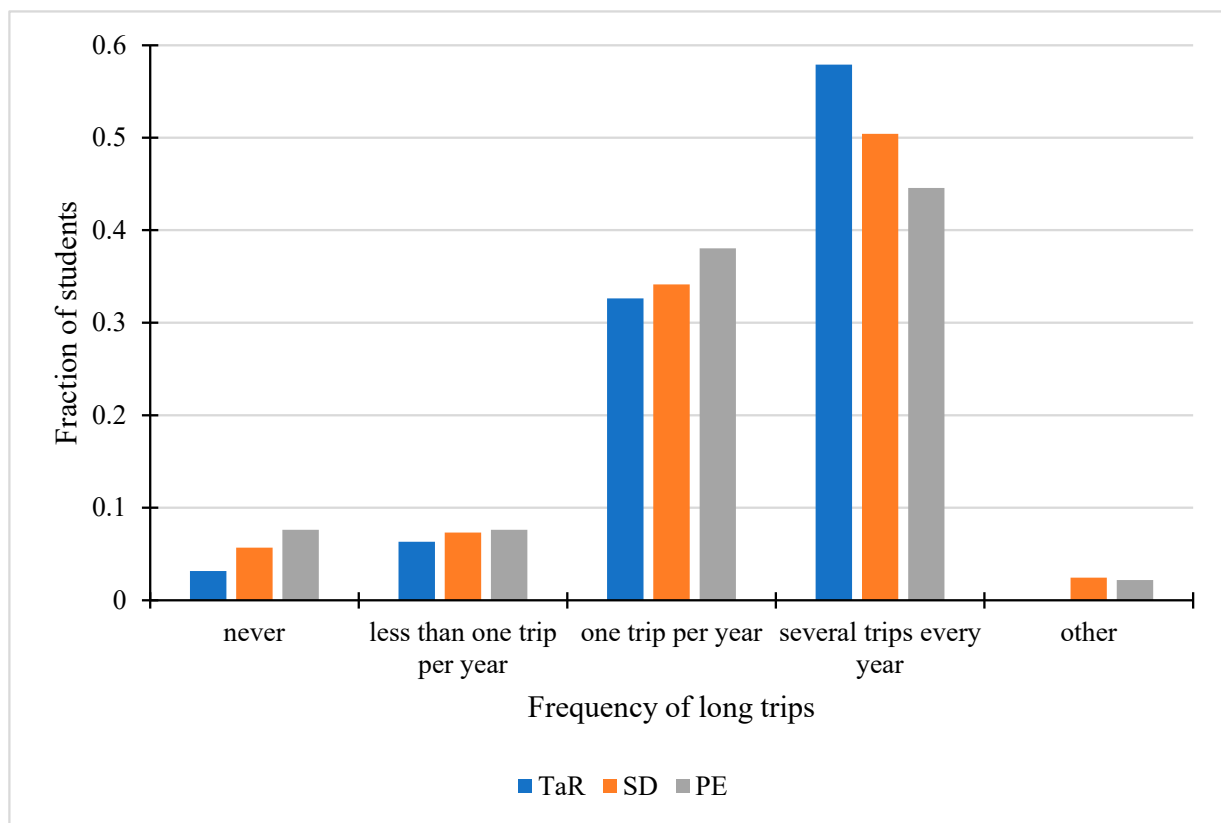


Figure 2. The frequency of long trips. Source: own elaboration.

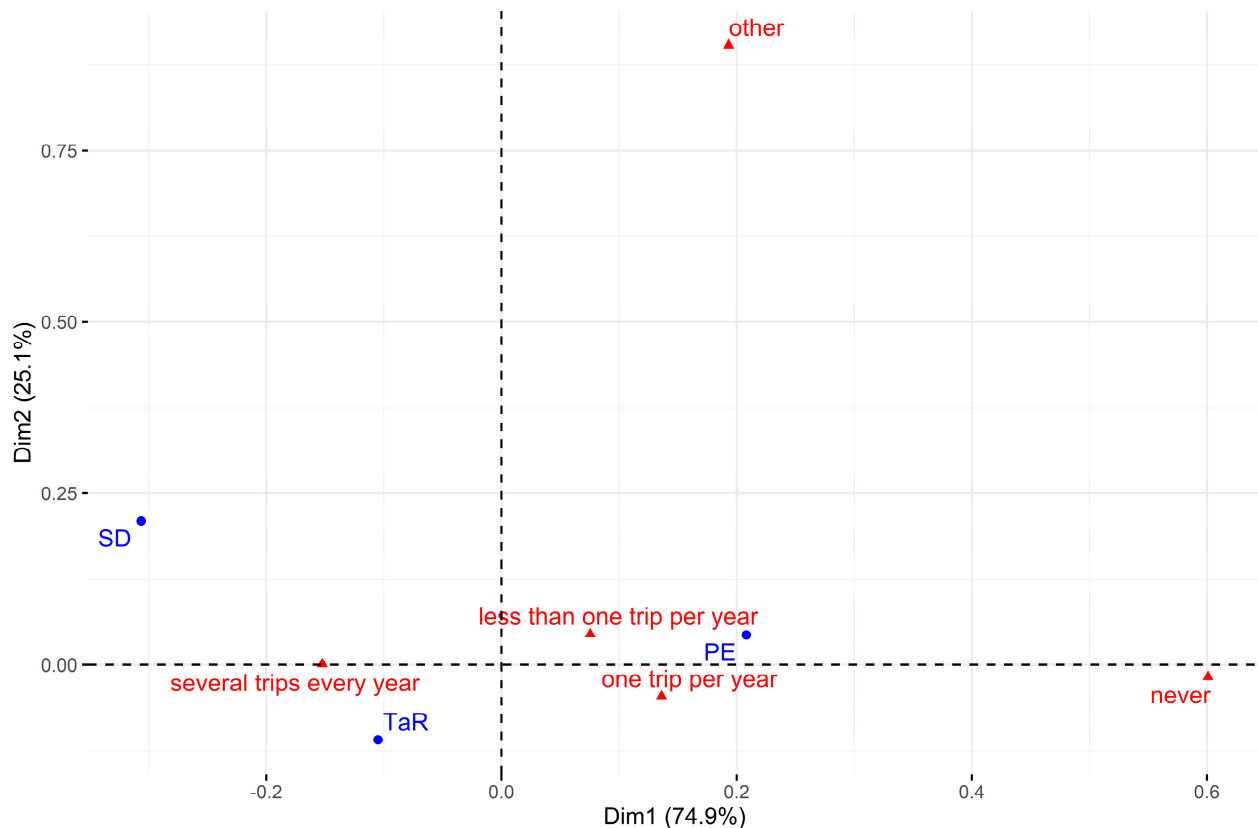
Table 3. Indices of similarity of structure. Source: own elaboration.

| Studies | TaR   | SD    |
|---------|-------|-------|
| SD      | 0.875 | -     |
| PE      | 0.867 | 0.767 |



Figure 2 indicates that there was no big difference between students of all three courses in the frequency of long trips. In all cases, the largest number of students undertook long trips several times a year and the second fraction of students of all three university courses had one long trip per year. Also, the three structures differed the most with respect to the former category. Calculated indices of the similarity of structure (Table 3) indicated that all three structures were similar to the high (PE to SD) or very high degree (TaR to SD and TaR to PE). Quite surprisingly, the biggest difference was noted between the students of the SD and PE courses. In order to check if there is any association between the frequency of long trips and the type of course, we conducted a correspondence analysis.

We present the resulting biplot in Figure 3.



**Figure 3.** Relationship between the frequency of long trips and types of studies. Source: own elaboration.

Figure 3 indicates that there exists an association between the frequency of long trips and types of university courses. The results of the TaR students corresponded strongly with the answer “several trips every year”. The results of the PE students corresponded strongly with the answer “one trip per year” and more weakly but still visibly with “less than one trip per year”. The answers of the SD students were more uniformly distributed. In the SD student group, we can only see a weak correspondence with the answer “several trips per year”. As very few students selected the answers “never” or “other”, these answers did not correspond with any type of university course. Therefore, we can probably conclude that the answer to research question Q3 is positive; we could say that the TaR students had undertaken long trips more often than the PE course students, who had undertaken such trips with less frequency. Students from the SD course could not have been assigned to any of the frequencies. However, it should be noted that the SD students represented the smallest group, so the results obtained for them should be interpreted with much greater caution.

## 5. Discussion

This paper reviews the possible similarities and differences in leisure-time physical activity undertaken by students of three different university courses, Tourism and Recreation (TaR), Physical Education (PE), and Sport Diagnostics (SD), implemented at the University of Szczecin. The curricula of both faculties (by design, they are faculties with students who participate in a high level of physical activity) are not only filled with theoretical classes but have a wide range of compulsory physical activities and outdoor workshops. After graduating, students have the knowledge and skills to carry out gainful tourism activities or teach various sporting disciplines. The aim of the research was also to verify the correlation of the choice of the area of study with the preferences of spending leisure time actively or passively by the students at the surveyed university.

The observations of the student group made it possible to derive several research questions differentiating this seemingly homogeneous group. It was assumed that Physical Education and Sports Diagnostics students spend their leisure time practicing activities that require high commitment and physical effort more often than Tourism and Recreation students. The analysis of the results of the study showed that the answer to research question Q1 could not be positive; the opposite of the expected result was obtained, and it was the Tourism and Recreation students who, on average, chose more active forms of leisure. The high intensity and frequency of obligatory training camps and sports trips among PE students (weekends and holidays) may be a contributing factor to this discrepancy. However, it can be observed that the interests and hobbies of students of both faculties coincide with the direction of studies pursued. The responses of Tourism and Recreation students are primarily centered on long- and short-distance travel, games, and leisure activities, followed by very diverse sports, such as team games, canoeing, fitness, horseback riding, and dancing. There is also a wide range of passive leisure activities undertaken: from listening to and creating music to exploring literature, pursuing cooking, painting, and gardening. The hobbies of the Physical Education students revolve primarily around sports activities. The highest number of responses was given to sports in general, soccer, and power triathlons. The range of passive leisure activities is also smaller and only concerns drawing, reading, and listening to music.

The answer to the second research question—do male students prefer spending their free time alone more frequently than female students?—was positive only for the PE students. For the remaining courses (TaR and SD), the situation was the opposite.

Our attention was then drawn to the existing relationship between the frequency of long trips and the type of study. Tourism and Recreation students declared that they went on several trips per year. These are not trips resulting directly from the implementation of the study program. They are primarily trips undertaken as a hobby, as the survey managed to show. The spatial diversity of foreign trips is higher than that of the Physical Education student group. In contrast, there is less variation in the destinations of domestic trips. Short-range trips correlate with the declared favorite vacation destinations, i.e., in order: the seaside, lake areas, and the mountains. Physical Education students take their domestic trips in accordance with their indicated preferences, i.e., by the sea and in the mountains. Tourism students are also more likely than Physical Education students to undertake short explorations of the immediate area. This may be related to their innate or acquired need during their studies to move around and explore new places, so-called sightseeing. Finally, the answer to one out of the three research questions (Q3) was positive and the answer to question Q2 was partially positive (only in the case of the Physical Education studies). The answer to research question Q1 was negative.

The proposed research contributes to the available literature on the subject and expands knowledge in the area of our analysis of the student groups. Due to the limited

literature, the main group of respondents being students, and their free-time activities, the discussion will also be limited. Undeniably, the absence of physical activity has negative effects on academic performance [59], cardiovascular health [60], and mental health [61], which was also proven by scientists examining a group of students in Jordan, showing that more than half of them did not engage in any physical activity in their free time. The faculty was not found to be related to physical activity [16]. The basis for comparative material from other countries is IPAQ physical activity research. On their basis, it is not possible to confirm or deny the general predisposition of students to lead an active lifestyle. Such research was conducted in Saudi Arabia and Brazil. Studies were also conducted by Chinese scientists among nursing and medical students in Great Britain. About 51% of all students who participated in the present study did not reach the IPAQ recommendations for physical activity.

The limitation of this study is the homogeneity of the group of respondents, i.e., young, healthy adults (which is consistent with the assumed research plan). Additionally, the surveyed group consists of students of all years of studies (from the first to the third year), which, in the case of first-year students and their short academic experience, may influence the research results and answers to questions about independently undertaken long holiday tourist trips.

A challenge that could be taken up in the future is to expand the group of respondents to include other areas of study, e.g., strictly the humanities (without any sports activities in the study program) or part-time courses (hypothetically, groups with different age ranges).

## 6. Conclusions

The interdepartmental university research undertaken related to the ways in which students spend their leisure time has made it possible to generalize the findings. It was proved that, to a large extent, students in the analyzed university courses follow their hobbies and fill their free time with activities of different intensities, often coinciding with the profile of the undertaken area of study. Further research on the intensity of leisure time activities undertaken is needed to fill the information gap, for which the Global Physical Activity Questionnaire (GPAQ) will be used in the future.

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**Institutional Review Board Statement:** The study was conducted in accordance with the Declaration of Helsinki and approved by the Bioethics Committee at the University of Szczecin Uchwała no. 8/2024 (protocol code US 003.10.2024, date of approval 22 May 2024).

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** Data are available in the authors’ materials after publishing the article and upon contacting the authors.

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

## Appendix A

**Table A1.** Leisure time of the students at the University of Szczecin—selected fragment of the questionnaire. Source: own elaboration.

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*Leisure time activities*

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**3. Who do you spend your free time with most often?**  
<sub>1</sub> alone <sub>2</sub> with family <sub>3</sub> with friends

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**5. What do you like to do in your free time outside of classes at Szczecin University? (more answers possible)**

|  |   |   |
|--|---|---|
| <input type="checkbox"/> being active                    |   |   |
| <input type="checkbox"/> <sub>1</sub> shopping           | <input type="checkbox"/> <sub>4</sub> walking, jogging  | <input type="checkbox"/> <sub>8</sub> going to the cinema, opera, theatre |
| <input type="checkbox"/> <sub>2</sub> cycling            | <input type="checkbox"/> <sub>5</sub> swimming          | <input type="checkbox"/> <sub>9</sub> seeing exhibitions, concerts        |
| <input type="checkbox"/> <sub>3</sub> playing ball games | <input type="checkbox"/> <sub>6</sub> barbecue, picnics | <input type="checkbox"/> <sub>10</sub> others, what kind? .....           |
|  | <input type="checkbox"/> <sub>7</sub> being outdoors    |   |

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|  |   |
|--|---|
| <input type="checkbox"/> passive                       |   |
| <input type="checkbox"/> <sub>1</sub> watching TV      | <input type="checkbox"/> <sub>4</sub> going to a bar, pub |
| <input type="checkbox"/> <sub>2</sub> reading books    | <input type="checkbox"/> <sub>5</sub> others, what kind?  |
| <input type="checkbox"/> <sub>3</sub> playing PC games | .....   |

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*Vacation activities*

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**8. How often do you take long trips?**  
<sub>1</sub> never <sub>2</sub> one trip per year <sub>3</sub> less than one trip per year <sub>4</sub> several trips each year <sub>4</sub> other .....

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*Demographic questions*

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**12. Age and sex:** ..... <sub>1</sub> Female <sub>2</sub> Male <sub>3</sub> other

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**13. Professional status:** <sub>1</sub> unemployed <sub>2</sub> in full-time work <sub>3</sub> in part-time work <sub>4</sub> less than part-time work

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**14. Residence:** <sub>1</sub> Szczecin, district .....  
<sub>2</sub> outside Szczecin, where? (city/village).....

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## References

- Blüher, M. Obesity: Global epidemiology and pathogenesis. *Nat. Rev. Endocrinol.* **2019**, *15*, 288–298. [CrossRef]
- Li, H.; Boakye, D.; Chen, X.; Hoffmeister, M.; Brenner, H. Association of Body Mass Index with Risk of Early-Onset Colorectal Cancer: Systematic Review and Meta-Analysis. *Am. J. Gastroenterol.* **2021**, *116*, 2173–2183. [CrossRef] [PubMed]
- Wen, H.; Deng, G.; Shi, X.; Liu, Z.; Lin, A.; Cheng, Q.; Zhang, J.; Luo, P. Body mass index, weight change, and cancer prognosis: A meta-analysis and systematic review of 73 cohort studies. *ESMO Open* **2024**, *9*, 102241. [CrossRef]
- Li, Z.; Shen, G.; Shi, M.; Zheng, Y.; Guan, Y.; Xin, Y.; Wang, M.; Zhao, F.; Ren, D.; Zhao, J. Association between high body mass index and prognosis of patients with early-stage breast cancer: A systematic review and meta-analysis. *Cancer Pathog. Ther.* **2023**, *1*, 205–215. [CrossRef]
- Guo, Y.X.; Wang, A.Q.; Gao, X.; Na, J.; Zhe, W.; Zeng, Y.; Zhang, J.R.; Jiang, Y.J.; Yan, F.; Yunus, M.; et al. Obesity is positively Associated with Depression in Older Adults: Role of Systemic Inflammation. *Biomed. Environ. Sci.* **2023**, *36*, 481–489. [CrossRef] [PubMed]
- Lee, A.; Cardel, M.; Donahoo, W.T. Social and Environmental Factors Influencing Obesity. In *Endotext [Internet]*; Feingold, K.R., Anawalt, B., Blackman, M.R., Boyce, A., Chrousos, G., Corpas, E., de Herder, W.W., Dhatariya, K., Dungan, K., Hofland, J., et al., Eds.; MDText.com, Inc.: South Dartmouth, MA, USA, 2019. Available online: <https://www.ncbi.nlm.nih.gov/books/NBK278977/> (accessed on 27 August 2024).
- Chen, L.; Liu, Q.; Xu, F.; Wang, F.; Luo, S.; An, X.; Chen, J.; Tang, N.; Jiang, X.; Liang, X. Effect of physical activity on anxiety, depression and obesity index in children and adolescents with obesity: A meta-analysis. *J. Affect. Disord.* **2024**, *354*, 275–285. [CrossRef] [PubMed]
- Mammen, G.; Faulkner, G. Physical Activity and the Prevention of Depression. *Am. J. Prev. Med.* **2013**, *45*, 649–657. [CrossRef]
- Slomski, A. Even Low Amounts of Physical Activity Reduce Depression Risk. *JAMA* **2022**, *327*, 2066. [CrossRef]
- Hallgren, M.; Nguyen, T.-T.-D.; Lundin, A.; Vancampfort, D.; Stubbs, B.; Schuch, F.; Bellocco, R.; Lagerros, Y.T. Prospective associations between physical activity and clinician diagnosed major depressive disorder in adults: A 13-year cohort study. *Prev. Med.* **2019**, *118*, 38–43. [CrossRef]

11. Mikkelsen, S.S.; Tolstrup, J.S.; Flachs, E.M.; Mortensen, E.L.; Schnohr, P.; Flensburg-Madsen, T. A cohort study of leisure time physical activity and depression. *Prev. Med.* **2010**, *51*, 471–475. [[CrossRef](#)]
12. Goh, Y.X.; Tan, J.S.Q.; Syn, N.L.; Tan, B.S.W.; Low, J.Y.; Foo, Y.H.; Fung, W.; Hoong, B.Y.D.; Pang, J. Association between pet ownership and physical activity levels, atopic conditions, and mental health in Singapore: A propensity score-matched analysis. *Sci. Rep.* **2020**, *10*, 19898. [[CrossRef](#)] [[PubMed](#)]
13. Ke, Y.; Shi, L.; Peng, L.; Chen, S.; Hong, J.; Liu, Y. Associations between socioeconomic status and physical activity: A cross-sectional analysis of Chinese children and adolescents. *Front. Psychol.* **2022**, *13*, 904506. [[CrossRef](#)] [[PubMed](#)]
14. Morina, B.; Vehapi, S.; Gjinovci, B.; Halilaj, B.; Gllareva, I.; Gjonbalaj, M.; Dukaj, L. Leisure time activity among students from University of Prishtina, Faculty of Physical Education and Sport. *Sport Mont* **2015**, *13*, 211–217.
15. Anić, P.; Roguljić, D.; Švegar, D. What do students do in their free time and why? *Pol. Psychol. Bull.* **2017**, *48*, 504–515. [[CrossRef](#)]
16. Alkhalwaleh, A.; Abdalrahim, A.; ALBashtawy, M.; Ayed, A.; Al Omari, O.; ALBashtawy, S.; Suliman, M.; Oweidat, I.A.; Khatatbeh, H.; Alkhalwaleh, H.; et al. University Students' Physical Activity: Perceived Barriers and Benefits to Physical Activity and Its Contributing Factors. *SAGE Open Nurs.* **2024**, *10*, 23779608241240490. [[CrossRef](#)] [[PubMed](#)]
17. Eyre, H.; Baune, B.T. Neuroimmunological effects of physical exercise in depression. *Brain Behav. Immun.* **2012**, *26*, 251–266. [[CrossRef](#)] [[PubMed](#)]
18. Zablocki, B.D.; Kanter, R.M. The Differentiation of Life-Styles. *Annu. Rev. Sociol.* **1976**, *2*, 269–298. [[CrossRef](#)]
19. Zahra, D.R.; Anoraga, P. The Influence of Lifestyle, Financial Literacy, and Social Demographics on Consumptive Behavior. *J. Asian Financ. Econ. Bus.* **2021**, *8*, 1033–1041. [[CrossRef](#)]
20. Engel, J.; Kollat, D.; Blackwell, R. *Consumer Behaviour*; Holt, Rinehart and Winston, Inc.: New York, NY, USA, 1982.
21. Reynolds, F.D.; Darden, W.R. Constructing life style and psychographics. In *Life Style and Psychographics*; Wells, W.D., Ed.; Marketing Classics Press: Decatur, GA, USA, 2011. Available online: <https://books.google.pl/books?id=DPNbPNTZS54C&printsec=frontcover&hl=pl#v=onepage&q&f=false> (accessed on 27 August 2024).
22. Bohdan, T. Sport i prasa sportowa jako element życia młodzieży [Sport and sports press as an element of youth's life]. In *Kultura Fizyczna Jako Element Nowego Stylu Życia*; Zagórny, S., Ed.; Oficyna Wydawnicza Politechniki Opolskiej: Opole, Poland, 2006; pp. 69–82.
23. Dumazadier, J. Current problems of the sociology of leisure. *Int. Soc. Sci. J.* **1960**, *XII*, 522–531.
24. Siciński, A. *Styl Życia. Przemiany we Współczesnej Polsce [Lifestyle. Transformations in Contemporary Poland]*; PWN: Warsaw, Poland, 1978.
25. Winiarski, R.W. *Wstęp do Teorii Rekreacji [Introduction to the Theory of Recreation]*; Wydawnictwo Akademii Wychowania Fizycznego im. Bronisława Czecha: Kraków, Poland, 1989; Volume 100.
26. Siwiński, W. *Wprowadzenie do Teorii Czasu Wolnego i Rekreacji Ruchowej [Introduction to the Theory of Leisure and Physical Recreation]*; Polski Dom Wydawniczy "Ławica": Poznań, Poland, 1996.
27. Okoń, W. *Nowy Słownik Pedagogiczny [New Pedagogical Dictionary]*; Wydawnictwo Akademickie ŻAK: Warszawa, Poland, 1995.
28. Kelly, J.R. *Leisure*; Allyn and Bacon: Boston, MA, USA, 1996.
29. Kamiński, A. *Funkcje Pedagogiki Społecznej [Functions of Social Pedagogy]*; PWN: Warsaw, Poland, 1980.
30. Pearsall, J.; Hanks, P. *The New Oxford Dictionary of English*; Clarendon Press: New York, NY, USA, 2010.
31. Goodale, T.L.; Witt, P.A. *Recreation and Leisure: Issues in an Era of Change*, 2nd ed.; Venture Publishing: State College, PA, USA, 1985.
32. Kunicki, B. Rekreacja fizyczna [Physical recreation]. In *W Encyklopedia Kultury Polskiej XX Wieku. Kultura Fizyczna, Sport*; Krawczyk, Z., Ed.; Instytut Kultury: Warsaw, Poland, 1997.
33. Dudek, D. Pojęcie rekreacji w polskiej tradycji terminologicznej [Concept of recreation in the tradition of Polish terminology]. *Folia Tur.* **2006**, *17*, 27–49.
34. Inglehart, R. *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*; Princeton University Press: Princeton, NJ, USA, 1997. [[CrossRef](#)]
35. Maffesoli, M. *Czas plemion: Schyłek Indywidualizmu w Społeczeństwach Ponowoczesnych [Time of the Tribes: The Decline of Individualism in Postmodern Societies]*; PWN: Warsaw, Poland, 2008; Volume 3.
36. Putnam, R.D. *Samotna Gra w Kręgle. Upadek i Odrodzenie Wspólnot Lokalnych w Stanach Zjednoczonych [Bowling Alone: The Collapse and Revival of American Community]*; Wydawnictwa Akademickie i Profesjonalne: Warsaw, Poland, 2008.
37. Bokszański, Z. *Encyklopedia Socjologii [Encyclopedia of Sociology]*; Oficyna Naukowa: Warsaw, Poland, 2002; Volume 3.
38. Trumble, W.; Brown, L. *Shorter Oxford English Dictionary*, 5th ed.; Oxford University Press: Oxford, UK, 2004.
39. Czarnecki, D.; Skalski, D.W.; Rybak, O.; Graczyk, M.; Dovgan, O.; Starikov, V. Aktywność fizyczna u młodzieży jako podstawa zdrowego stylu życia [Реабілітаційні та фізкультурно-рекреаційні аспекти розвитку людини]. *Rehabil. Recreat.* **2022**, *13*, 98–106. [[CrossRef](#)]
40. Pearce, D.; Butler, R. *Tourism Research: Critiques and Challenges*; Routledge: London, UK, 1993.
41. Liszewski, S. Przestrzeń turystyczna. *Turyzm/Tourism* **1995**, *5*, 87–103. [[CrossRef](#)]

42. Chan, W.Y.; Rodriguez, A.; Shih, R.A.; Tucker, J.S.; Pedersen, E.R.; Seelam, R.; D'Amico, E.J. How Do College Students Use Their Free Time? A Latent Profile Analysis of Leisure Activities and Substance Use. *Leis. Sci.* **2020**, *45*, 331–350. [[CrossRef](#)] [[PubMed](#)]
43. Giddens, A. *Nowoczesność i Tożsamość [Modernity and Identity]*; PWN: Warsaw, Poland, 2010.
44. Roberts, K. *Leisure in Contemporary Society*, 2nd ed.; CABI Publishing: Wallingford, UK, 2006.
45. Kelly, J.; Godbey, G. *The Sociology of Leisure*; Venture Publishing: Andover, MA, USA, 1992.
46. Hamer, M.; Stamatakis, E.; Steptoe, A. Dose-response relationship between physical activity and mental health: The Scottish Health Survey. *Br. J. Sports Med.* **2009**, *43*, 1111–1114. [[CrossRef](#)]
47. Jetzke, M.; Mutz, M. Sport for Pleasure, Fitness, Medals or Slenderness? Differential Effects of Sports Activities on Well-Being. *Appl. Res. Qual. Life* **2020**, *15*, 1519–1534. [[CrossRef](#)]
48. White, R.L.; Babic, M.J.; Parker, P.D.; Lubans, D.R.; Astell-Burt, T.; Lonsdale, C. Domain-Specific Physical Activity and Mental Health: A Meta-analysis. *Am. J. Prev. Med.* **2017**, *52*, 653–666. [[CrossRef](#)]
49. Ayhan, B.; Özel, B. Examining the Relationship between Leisure Attitude and Life Satisfaction Levels of University Students. *Int. J. Sport Cult. Sci.* **2020**, *8*, 154–166.
50. Kaya, S.; Gurbuz, B. An examination of University students' attitudes towards leisure activities. *Pamukkale J. Sport Sci.* **2015**, *6*, 46–59.
51. Petrović, J.; Cenić, S.; Dimitrijević, D. Sports and physical engagement of elementary school students in their leisure time. *Facta Univ. Phys. Educ. Sport* **2018**, *16*, 421–434. [[CrossRef](#)]
52. Wei, X.; Huang, S.; Stodolska, M.; Yu, Y. Leisure Time, Leisure Activities, and Happiness in China: Evidence from a National Survey. *J. Leis. Res.* **2015**, *47*, 556–576. [[CrossRef](#)]
53. Wu, Y.; Sun, J.; Fan, F.; Wang, X.; Peng, Y. The Influence of Motivation, Attitudes and Obstacles for Middle School Students' Participation in Leisure Activities on Their Leisure Satisfaction in Southwest China. *Front. Psychol.* **2021**, *12*, 758858. [[CrossRef](#)] [[PubMed](#)]
54. Abu-Moghli, F.A.; Khalaf, I.A.; Barghoti, F.F. The influence of a health education programme on healthy lifestyles and practices among university students. *Int. J. Nurs. Pract.* **2010**, *16*, 35–42. [[CrossRef](#)] [[PubMed](#)]
55. Almutairi, K.M.; Alonazi, W.B.; Vinluan, J.M.; Almigbal, T.H.; Batais, M.A.; Alodhayani, A.A.; Alsadhan, N.; Tumala, R.B.; Moussa, M.; Aboshaiqah, A.E.; et al. Health promoting lifestyle of university students in Saudi Arabia: A cross-sectional assessment. *BMC Public Health* **2018**, *18*, 1093. [[CrossRef](#)] [[PubMed](#)]
56. Sukys, S.; Cesnaitiene, V.J.; Emeljanovas, A.; Mieziene, B.; Valantine, I.; Ossowski, Z.M. Reasons and Barriers for University Students' Leisure-Time Physical Activity: Moderating Effect of Health Education. *Percept. Mot. Skills* **2019**, *126*, 1084–1100. [[CrossRef](#)]
57. Carballo-Fazanes, A.; Rico-Díaz, J.; Barcala-Furelos, R.; Rey, E.; Rodríguez-Fernández, J.E.; Varela-Casal, C.; Abelairas-Gómez, C. Physical Activity Habits and Determinants, Sedentary Behaviour and Lifestyle in University Students. *Int. J. Environ. Res. Public Health* **2020**, *17*, 3272. [[CrossRef](#)] [[PubMed](#)]
58. Beh, E.J.; Lombardo, R. (Eds.) *Correspondence Analysis*; Wiley: Hoboken, NJ, USA, 2014. [[CrossRef](#)]
59. Redondo-Flórez, L.; Ramos-Campo, D.J.; Clemente-Suárez, V.J. Relationship between physical fitness and academic performance in university students. *Int. J. Environ. Res. Public Health* **2022**, *19*, 14750. [[CrossRef](#)]
60. Lavie, C.J.; Ozemek, C.; Carbone, S.; Katzmarzyk, P.T.; Blair, S.N. Sedentary behavior, exercise, and cardiovascular health. *Circ. Res.* **2019**, *124*, 799–815. [[CrossRef](#)] [[PubMed](#)]
61. Rodríguez-Romo, G.; Acebes-Sánchez, J.; García-Merino, S.; Garrido-Muñoz, M.; Blanco-García, C.; Diez-Vega, I. Physical activity and mental health in undergraduate students. *Int. J. Environ. Res. Public Health* **2023**, *20*, 195. [[CrossRef](#)]

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