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# The Exploratory Study on Physical Fitness Benefits of Outdoor Recreation Activities Among Students in UiTM Puncak Alam



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**Abstract** | The study explored the physical fitness benefits of outdoor recreational activities among students at Universiti Teknologi MARA (UiTM) Puncak Alam, focusing on how often they participated, the benefits they perceived, and the obstacles they faced. A cross-sectional survey was conducted using a structured questionnaire distributed to 100 randomly chosen students, covering demographics, activity frequency, perceived benefits, and barriers. The data were analyzed using descriptive and inferential statistics, including t-tests and ANOVA. The results showed that 70% of students engaged in outdoor activities 2-4 times per month, mainly on weekends (73%), with an average frequency ( $f = 3.19$ ). Significant physical benefits included maintaining health ( $p = 4.42$ ), improving appearance ( $p = 4.26$ ), staying slim ( $p = 4.23$ ), and building strength ( $p = 4.17$ ). Additional benefits included avoiding ill-health ( $p = 4.15$ ), increasing endurance ( $p = 4.20$ ), and enhancing agility ( $p = 3.95$ ). High p-values indicated strong correlations between regular participation and enhanced physical health. Barriers to participating in outdoor recreational activities included the cleanliness and condition of recreation facilities ( $p = 4.35$ ), lack of knowledge or skills ( $p = 4.14$ ), safety concerns ( $p = 4.19$ ), and logistical issues like travel time and distance ( $p = 4.24$ ). The study concluded that outdoor recreational activities significantly benefit physical fitness and health, but barriers need to be addressed. Recommendations included improving facility conditions, increasing safety measures, and enhancing students' knowledge and skills to encourage participation, stressing the importance of supportive university policies to promote regular physical activity and reduce sedentary lifestyles, ultimately fostering a healthier student community.

**Keywords:** *Physical activities, barriers, outdoor recreation.*

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## I. INTRODUCTION

Outdoor recreational activities were recognized for their significant physical health benefits, especially for university students who often lead a sedentary lifestyle due to academic demands and digital engagement. The World Health Organization (2020) highlighted regular physical activity's importance in reducing risks of cardiovascular diseases, diabetes, and certain cancers, while enhancing musculoskeletal health and overall well-being. Recent research indicated that activities like hiking, cycling, and team sports improved fitness and decreased lifestyle-related health issues [1]. However, university students faced barriers such as time constraints, limited access to facilities, and social influences that hindered participation [2]. The benefits extended beyond physical health, improving mental well-being, social interactions, and academic performance [3]. Engaging in these activities helped establish lifelong health habits, which are crucial for university students. Benefits included enhanced cardiovascular fitness, muscle strength, endurance, flexibility, and balance [4]. Natural settings for these activities provided additional benefits like stress reduction and improved mood [5]. At UiTM Puncak Alam, promoting outdoor recreational activities was vital to counteract sedentary habits linked to health issues [6]. Outdoor recreational activities also fostered social connections and support networks, essential for well-being [7]. Hence, this study aimed to explore the physical benefits of these outdoor recreational activities and find ways to overcome participation barriers, emphasizing the need for targeted interventions and supportive environments in universities to promote healthier lifestyles.

## II. METHODS

### A. *Research Design, Population, and Sampling*

This study employed a predominantly quantitative research design using a cross-sectional survey method to assess the physical benefits of outdoor recreational activities among university students. The quantitative approach facilitated the collection and statistical analysis of numerical data, making it effective for identifying patterns, correlations, and relationships between variables related to students' physical health. Data were collected from a representative respondent of 100 undergraduate students enrolled in the Physical and Health Education (PHE) program at UiTM Puncak Alam through simple random sampling. This method ensured an equal opportunity for all students to participate, enhancing the representativeness and generalizability of the findings [8]. The survey captured current participation levels in outdoor activities, perceived benefits, and barriers to engagement, providing a comprehensive overview of these factors.

### B. *Research Instrumentation and Data Collection*

The primary data collection tool was a structured questionnaire by the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). It was collected using online forms and comprised three sections: frequency of participation, perceived benefits, and barriers to participation. The latter two sections utilized a 5-point Likert scale to gauge the intensity of responses. The questionnaire aimed to quantify students' engagement in activities like hiking, cycling, and team sports, explore their perceived benefits to physical, mental, and

social well-being, and identify common barriers such as time constraints and access to facilities. To ensure reliability and validity, the questionnaire was pilot tested with 20 students, and Cronbach's Alpha was calculated for each section, showing satisfactory internal consistency. Ethical considerations included obtaining informed consent, maintaining participant confidentiality, and adhering to ethical standards throughout the study.

### C. *Data Analysis and Conclusion*

Descriptive and inferential statistics were employed to analyze the collected data. Descriptive analysis provided numerical data on the demographic characteristics, participation frequencies, and perceived benefits and barriers, identifying trends and patterns. Inferential statistical data were used to test hypotheses and explore relationships between variables. These analyses revealed significant insights into the factors influencing students' engagement in outdoor recreational activities and highlighted areas for intervention. The study's methodology was rigorously designed to ensure data reliability and validity, supporting robust conclusions and actionable recommendations. The findings will inform strategies to promote outdoor recreational activities and enhance student health and well-being at UiTM Puncak Alam, contributing to a healthier university community [2].

## III. RESULTS AND DISCUSSION

TABLE I  
FREQUENCY OF STUDENT PARTICIPATION

|                                  |                            | Frequency | Percent |
|----------------------------------|----------------------------|-----------|---------|
| Participation Time<br>In a month | Less than 1 time per month | 6         | 6       |
|                                  | 2-4 times per month        | 70        | 70      |
|                                  | 5 or more times per month  | 23        | 23      |
|                                  | Not sure                   | 1         | 1       |
| Participation time in the week   | Weekdays                   | 24        | 24      |
|                                  | Weeknights                 | 3         | 3       |
|                                  | Weekends                   | 73        | 73      |
| Activities that participated     | Walking                    | 55        | 55      |
|                                  | Hiking                     | 51        | 51      |
|                                  | Jogging                    | 60        | 60      |
|                                  | Running                    | 50        | 50      |
|                                  | Trail Run                  | 25        | 25      |
|                                  | Brisk walking              | 42        | 42      |
|                                  | Biking                     | 43        | 43      |
|                                  | Swimming                   | 46        | 46      |
|                                  | Camping                    | 58        | 58      |
|                                  | Wildlife watching          | 21        | 21      |
| Kayaking                         | 40                         | 40        |         |

The data reveals a high level of engagement in outdoor recreational activities among UiTM Puncak Alam students. The majority of respondents (70%) participate in outdoor recreational activities 2-4 times per month, while an additional 23% engage in these activities 5 or more times per month. This indicates that 93% of students are involved in outdoor activities at least a few times each month. This high level of participation underscores the importance of outdoor recreational activities as an integral part of the student lifestyle at UiTM Puncak Alam. Weekends are the most popular time for participation, with 73% of students engaging in outdoor recreational activities during this period. This preference likely stems from reduced academic commitments and increased free time on weekends. These findings align with previous research emphasizing the critical role of leisure time in promoting student well-being and overall health [2] [6]. Therefore, creating more opportunities for students to participate in outdoor recreational activities, particularly during weekends, is essential for fostering a healthy and active student community.

TABLE II  
DESCRIPTIVE STATISTICS FOR PHYSICAL BENEFITS OF OUTDOOR RECREATION

|                     | <i>N</i> | <i>Mean</i> | <i>SD</i> |
|---------------------|----------|-------------|-----------|
| Stay Slim           | 100      | 4.23        | 1.04      |
| Avoid Ill-Health    | 100      | 4.15        | 0.83      |
| Healthy Body        | 100      | 4.24        | 0.95      |
| Build Strength      | 100      | 4.17        | 0.92      |
| More Agile          | 100      | 3.95        | 1.06      |
| Lose Weight         | 100      | 4.16        | 0.84      |
| Increases Endurance | 100      | 4.20        | 0.97      |
| Improve Appearance  | 100      | 4.26        | 0.86      |
| Muscles Develop     | 100      | 4.08        | 1.05      |
| Maintain Health     | 100      | 4.42        | 0.89      |

The analysis indicates that students perceive several physical benefits from participating in outdoor recreational activities. High mean scores for variables such as staying slim (4.23), avoiding ill-health (4.15), having a healthy body (4.24), building strength (4.17), losing weight (4.16), increasing endurance (4.20), improving appearance (4.26), muscle development (4.08), and maintaining health (4.42) reflect a strong consensus among students about the positive impacts of these activities on their physical health. The consistency in responses, as indicated by the relatively low standard deviations, underscores the widespread recognition of these benefits. These results are consistent with findings from other studies that have documented the significant physical and psychological benefits of regular participation in outdoor activities [4] [9]. The positive perceptions of outdoor recreational activities highlight their role in promoting overall health and well-being, suggesting that universities should emphasize these benefits to encourage more students to engage in such activities.

TABLE III  
DESCRIPTIVE STATISTICS FOR BARRIERS PARTICIPATION IN OUTDOOR RECREATION

|   | <i>N</i> | <i>Mean</i> | <i>SD</i> |
|---|----------|-------------|-----------|
| Cleanliness and Condition of Recreation Facilities          | 100      | 4.35        | 1.04      |
| Lack of Knowledge/Skills                                    | 100      | 4.14        | 1.02      |
| Safety and Security of Recreation Areas                     | 100      | 4.19        | 1.05      |
| Time and Distance Required to Travel                        | 100      | 4.24        | 0.98      |
| Lack of Transportation                                      | 100      | 4.16        | 1.00      |
| Time Constraints Due to Work, Family, or Other Obligations  | 100      | 4.13        | 1.05      |
| Cost of Equipment/Gear Needed to Participate                | 100      | 4.12        | 1.10      |
| Costs Associated with Entrance, Parking, or Other User Fees | 100      | 4.16        | 1.01      |
| Availability of Cell Phone/Wi-Fi Coverage                   | 100      | 4.11        | 1.27      |
| General Lack of Interest or Other Priorities                | 100      | 4.08        | 1.16      |

Several barriers to participation were identified through the data analysis. The cleanliness and condition of recreation facilities (4.35) emerged as significant deterrents. Students expressed concerns about the state of these facilities, indicating that poor maintenance discourages participation. Lack of knowledge or skills (4.14) was another notable barrier, with many students feeling unprepared to engage in outdoor recreational activities. Safety and security concerns (4.19) also significantly impacted participation, as students expressed apprehension about the safety of recreation areas. Logistical issues such as time and distance required to travel (4.24,) were frequently cited, suggesting that accessibility is a major challenge. Financial barriers, including the cost of equipment/gear (4.12) and costs associated with entrance, parking, or other user fees (4.16), were also significant. Additionally, time constraints due to work, family, or other obligations (4.13) and the availability of cell phone/Wi-Fi coverage (4.11) were identified as barriers. Addressing these barriers is crucial for increasing participation in outdoor recreational activities [4].

#### IV. CONCLUSIONS

This study illustrated the important roles that outdoor recreational activities play in improving the physical health of students at UiTM Puncak Alam. The high rates of participation and the perceived benefits reflected a strong and significant appreciation for these activities. Students receive enhancements in cardiovascular fitness, increased physical activity, and overall well-being. Additionally, the students acknowledged improvements in mental health, such as reduced stress and anxiety and better mood and cognitive function. These findings highlighted the necessity of integrating outdoor recreational activities into university wellness programs to promote a comprehensive approach to student's health. Despite the recognized benefits, several barriers hindered full engagement in these activities, such as a lack of peer support, social pressures, and perceived irrelevance or disinterest. Targeted interventions to address these barriers were essential for improving participation and student well-being.

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