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Incorporating Outdoor Recreational Activities into Fitness Routine Among University's Students

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Abstract | This research investigated incorporating outdoor recreational activities into fitness routines among Physical and Health Education (PHE) students in Universiti Teknologi MARA (UiTM) Kampus Puncak Alam, which focuses on both physical fitness and mental well-being. The research examines how different outdoor recreational activities might improve students' general health and tackles the rising demand for motivating and efficient exercise solutions nowadays. The research integrated a quantitative questionnaire to collect extensive data on students' engagement in physical activities such as walking, hiking, running, jogging, and swimming as well as their perceived benefits. The research found that walking, hiking, running, jogging, and swimming were the most beneficial outdoor recreational activities for both male and female students in terms of both physical and emotional well-being. The chi-square test results based on p-values show that there were significant associations between gender and participation in outdoor recreational activities in swimming ($p < 0.05$), day hiking ($p < 0.05$), running ($p < 0.05$), kayaking ($p < 0.05$), and jogging ($p < 0.05$). The ANOVA result shows the F and p values for feeling useful ($F = 3.62$, $p = 0.01$), feeling relaxed ($F = 4.45$, $p = 0.00$), feeling energetic ($F = 2.83$, $p = 0.04$), problem-solving ($F = 3.66$, $p = 0.01$), clear-thinking ($F = 4.98$, $p = 0.00$), self-esteem ($F = 2.86$, $p = 0.04$), feeling loved ($F = 2.96$, $p = 0.03$), interested in new things ($F = 2.78$, $p = 0.04$), cheerful ($F = 3.76$, $p = 0.01$), and feeling confident ($F = 3.48$, $p = 0.01$) indicate the significant different based on gender. These outdoor recreational activities show the strongest evidence of gender influence on participation rates. The students of both genders loved these activities, which have significant beneficial effects on their health and high engagement rates. The data also revealed preferences that are particular to gender, with men preferring to hike (86.4%) and jog (86.4%) and women also more likely to hike (92.9%) and jog (95.2%). The research has a wide range of implications, but one of its main points is that to create a supportive atmosphere that supports both physical and mental well-being, outdoor recreational activities should be incorporated into university wellness programs. Establishing and maintaining outdoor learning spaces and integrating them into the curriculum were recommended actions for educational institutions to improve the overall health of their students. These results show a solid basis for further study and program creation, and they were consistent with current literature emphasizing the mental well-being advantages of outdoor recreational activities. Hence, this research concludes that outdoor recreational activities at UiTM Kampus Puncak Alam were essential for improving the physical and mental health of students. University may foster a more comprehensive and health-conscious learning environment by adding these activities into physical fitness, which will eventually benefit students' general well-being and academic performance.

Keywords: *Outdoor recreational activities, physical fitness, mental well-being.*

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I. INTRODUCTION

Maintaining a healthy way of life is critical in today's fast-paced and sedentary lifestyle. Regular exercise benefits not just physical fitness but also mental health, stress reduction, and general quality of life [1]. As a result, universities were promoting students' physical fitness and mental well-being in addition to academic achievement. One interesting approach was to incorporate outdoor recreational activities into students' physical fitness and to examine the impact of outdoor recreational activities on both students' genders. Outdoor recreation includes participating in activities in nature that improve the mind, body, and soul. Hiking, biking, fishing, kayaking, and camping are some examples of outdoor activities. There were three types of outdoor recreation. Firstly, competitive activities like orienteering or team building. Besides that, there are educational activities like researching old-growth forests. Lastly, there are non-physical activities like appreciating nature alone or in groups [2]. Fitness routines should have five components to promote excellent health, such as aerobic fitness, weight training, core exercises, balance training, and flexibility [3]. The entire approach guarantees a well-rounded growth in physical fitness. Outdoor recreational activities have several advantages for both physical and mental well-being. Regular participation in outdoor activities has been related to greater mood, lower stress, and higher psychological well-being. These activities help students live a better, more balanced lifestyle. In addition to physical and mental well-being, outdoor recreational activities provide an enjoyable environment of community and social interaction among students. Participating in group activities such as team sports, hiking, or outdoor fitness lessons benefits not just physical health but also connections with others and friendships. This social component could improve motivation and commitment to physical fitness, making it more fun and sustainable over time.

II. METHODS

This research will be using a quantitative research design for this research. In the quantitative research design, the questionnaire method is being used to collect data from the respondents. The researcher is focusing on the students who are from UiTM Kampus Puncak Alam, Selangor. The reason why choosing students from UiTM Kampus Puncak Alam is because it is easy to find the students who live at the residential college that can help with this research and to know how much they know about using outdoor recreation activities in physical fitness. The total population size (N) is estimated based on overall students in UiTM Kampus Puncak Alam and the overalled population are 140 students. This research will use the Krejcie and Morgan (1970) sampling method to estimate the sample size of the respondents. The population size (N) for this research are 140 students and the sample size (S) are 100 students. This research will use a stratified random sample procedure to guarantee that both male and female students from various faculties at Universiti Teknologi MARA are fairly represented.

A set of questionnaires intended to collect information on students' engagement in outdoor recreational activities and their mental well-being was the main research tool utilized in this research. The Outdoor Recreation Participation Scale 1, The Physical Activity Questionnaire for Older Children (PAQ-C) and Adolescents (PAQ-A) Manual, The Exercise Motivations Inventory – 2 (EMI-2), Warwick-Edinburgh Mental Well-being Scale (WEMWBS) were being adopted to build the questions for this research. A pilot test with 30 students was used for pre-testing to improve the questions' reliability and clarity The data collection will be done by obtaining Research Ethics Approval from Faculty of Education

and gathering all the information from the respondents. The SPSS statistical software will be used to summarize all the data from the questionnaire.

The acquired data was analysed using both descriptive and inferential statistics. Descriptive analysis presented numerical data on demographic features, participation, frequencies, duration, perceived benefits, cross-tabulations, correlation, and regression that enabled the discovery of trends and patterns. Inferential statistics were employed to test hypotheses and examine correlations between variables. These studies identified significant variables for improvement and provided important new insights into the characteristics in incorporating outdoor recreational activities into fitness routine and mental well-being. The methodology of the study was meticulously planned to guarantee the authenticity and trustworthiness of the data, therefore providing strong findings and practical suggestions. The results will guide initiatives to support outdoor recreational activities and improve their fitness routine and mental well-being of students at UiTM Puncak Alam, fostering a more positive and healthy campus community.

III. RESULTS AND DISCUSSION

TABLE I
DESCRIPTIVE ANALYSIS ON PARTICIPATION, FREQUENCY, DURATION, PERCEIVED BENEFITS IN OUTDOOR RECREATIONAL ACTIVITIES AND CROSS TABULATION OF GENDER AND PARTICIPATION IN OUTDOOR RECREATIONAL ACTIVITIES

Category	Activity	Answer	Frequency (n)	Percent (%)
Participation in Outdoor Recreational Activities	Jogging	No	10	9.9%
		Yes	91	90.1%
	Hiking	No	11	10.0%
		Yes	90	89.1%
Frequency in Outdoor Recreational Activities	Walking	No	4	4.0
		1-2 times	8	7.9
		3-4 times	25	24.8
		5-6 times	25	24.8
		7 times or more	39	38.6
	Jogging	No	4	4.0
		1-2 times	8	7.9
		3-4 times	25	24.8
		5-6 times	25	24.8
		7 times or more	39	38.6
Duration in Outdoor Recreational Activities	Walking	None	4	4.0
		1-2 days	8	7.9
		3-4 days	25	24.8
		5-6 days	25	24.8
		7 days and above	39	38.6
	Jogging	None	12	11.9
		1-2 days	40	39.6
		3-4 days	25	24.8
		5-6 days	16	15.8
		7 days and above	8	7.9
Perceived Benefits in Outdoor Recreational Activities	To stay/become more agile when doing physical exercise	Not very true for me	2	2.0
		Not true for me	6	5.9
		I don't know	0	0.0
		True for me	63	62.4
		Very true for me	30	29.7

	To build up my muscle strength and endurance	Not very true for me	2	2.0
		Not true for me	12	11.9
		I don't know	0	0.0
		True for me	61	60.4
		Very true for me	26	25.7
Cross Tabulation of Gender and Participation in Outdoor Recreational Activities	Biking	No	27.1%	33.3%
		Yes	72.9%	66.7%
	Day Hiking	No	32.2%	33.3%
		Yes	67.8%	66.7%

Most students at UiTM Puncak Alam were highly engaged in outdoor activities, with 90.1% enjoying jogging and 89.1% preferring hiking. Remarkably, 38.6% make walking and jogging a daily habit, and many appreciate these activities for keeping them agile (62.4%) and building muscle strength (60.4%). Meanwhile, for cross tabulation the data shows that biking was more popular among male students (72.9%), while day hiking attracts both males and females almost equally, showing shared enthusiasm for outdoor recreational activities.

TABLE II
CORRELATION ANALYSIS BETWEEN OUTDOOR RECREATIONAL ACTIVITIES AND MENTAL WELL-BEING ASPECT

Mental Well-Being Aspect	**Activity**	**Correlation I**	***p*-value**
Feeling Loved Around People	Running	0.31	0.002
Thinking Clearly	Jogging	0.289	0.003

Running was closely linked to feeling loved and connected (r = 0.31), while jogging significantly boosts clear thinking (r = 0.289), highlighting the emotional and cognitive benefits of these outdoor recreational activities.

TABLE III
REGRESSION ANALYSIS FOR MODEL SUMMARY

Model Summary	***R***	***R* Square**	**Adjusted R Square**
Feeling Relaxed	0.317	0.101	0.073
Interest in Other People	0.348	0.121	0.094

Engaging in outdoor activities like jogging and biking not only helps students relax (R = 0.317) but also fosters a greater interest in social interactions (R = 0.348).

TABLE IV
REGRESSION TABLE FOR ANOVA

ANOVA	**Sum of Squares**	***df***	**Mean Square**	**F**	**Sig.**
Feeling Relaxed	9.496	3	3.165	3.621	0.016
Interest in Other People	9.995	3	3.332	4.447	0.006

Physical activities significantly contribute to students feeling relaxed (p = 0.016) and more interested in others (p = 0.006), underscoring the profound social and emotional impacts of outdoor recreational activities.

TABLE V
REGRESSION ANALYSIS FOR COEFICIENTS

Coefficients	**Activity**	**Beta**	***t***	**Sig.**
Feeling Relaxed	Jogging	0.368	2.259	0.026
Interest in Other People	Bicycling	0.211	2.072	0.041

Jogging stands out as a key activity for relaxation (*Beta* = 0.368), while biking enhances social engagement (*Beta* = 0.211), making these activities crucial for mental well-being.

IV. CONCLUSIONS

This research has shown the substantial advantages of outdoor recreational activity pursuits on students' mental well-being at Universiti Teknologi MARA Kampus Puncak Alam, including walking, hiking, running, and swimming. The results validate the benefits of exposure to natural surroundings for mental well-being, supporting established hypotheses such as the Attention Restoration Theory and the Biophilia Hypothesis. The necessity for educational institutions to give priority to the construction of outdoor recreational facilities and include these outdoor recreational activities in wellness programs is highlighted by the study's significant statistical correlations and practical consequences. Universities may greatly enhance their students' physical fitness routine and mental well-being by creating a supportive atmosphere that promotes regular engagement in outdoor recreational activities.

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