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Exploring the Relationship Between Perceived Restorativeness of Natural Environment and Stress at Gunung Pulai

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I. Introduction

Natural environments are increasingly recognised for their role in supporting psychological restoration and stress-related wellbeing. However, empirical evidence on how perceived restorativeness relates to perceived stress in Malaysian natural recreation settings remains limited, particularly at the level of specific restorativeness dimensions. Guided by Attention Restoration Theory (ART), this study aimed to identify the level of perceived restorativeness among visitors at Gunung Pulai, identify the level of perceived stress, and examine the relationship between perceived restorativeness and perceived stress.

II. Methods

This study employed a quantitative cross-sectional correlational design. Data were collected through an on-site survey involving 120 visitors at Gunung Pulai, Johor. The questionnaire consisted of three sections: demographic profile, the Perceived Restorativeness Scale (PRS), and the Perceived Stress Scale (PSS-10). The PRS measured four domains, namely Being Away, Fascination, Extent, and Compatibility. Descriptive statistics (mean and standard deviation) were used to identify the levels of perceived restorativeness and perceived stress, while Pearson correlation was used to examine the relationship between the variables.

III. Results and Discussion

The findings indicated that Gunung Pulai was generally perceived as a restorative environment. Among the PRS domains, Being Away recorded the highest mean (M = 3.53, SD = 1.22), followed by Compatibility (M = 3.43, SD = 1.21) and Fascination (M = 3.39, SD = 0.865), while Extent recorded the lowest mean (M = 2.63, SD = 1.10). The overall level of perceived stress was moderate (M = 2.09, SD = 0.570).

As shown in Table I, Pearson correlation analysis revealed a significant positive relationship between overall perceived restorativeness and perceived stress (r = 0.338, p < 0.001). At the domain level, perceived stress was significantly correlated with Being Away (r = 0.383, p < 0.001), Fascination (r = 0.236, p = 0.010), and Compatibility (r = 0.225, p = 0.013), whereas Extent was not significantly related to stress (r = 0.053, p = 0.564). These findings suggest that visitors' stress experiences were more closely associated with psychological escape, effortless attention, and person environment fit than with immersion or environmental coherence. This finding also supports the relevance of ART in understanding restorative experience in a natural recreation context.

Table I
Correlation Between Perceived Restorativeness and Perceived Stress

Variable	Pearson's r	p-value
PRS Total and Perceived Stress	0.338	< 0.001
Being Away and Perceived Stress	0.383	< 0.001
Fascination and Perceived Stress	0.236	0.010
Extent and Perceived Stress	0.053	0.564
Compatibility and Perceived Stress	0.225	0.013

IV. Conclusions

In conclusion, this study provides empirical evidence that Gunung Pulai is generally perceived as restorative and that visitors reported a moderate level of stress. The significant positive association between perceived restorativeness and perceived stress indicates that stressed visitors may still perceive strong restorative qualities in the natural setting, particularly in terms of Being Away, Fascination, and Compatibility. The findings contribute to the application of ART in a Malaysian recreation context and suggest that improving site conditions that support psychological escape, effortless attention, and user environment fit may strengthen restorative experiences among visitors.

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