

## ORIGINAL ARTICLE

## ASSESSING THE RELATIONSHIP BETWEEN PERCEIVED RESTORATIVENESS AND PSYCHOLOGICAL WELLBEING AMONG STUDENTS

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## ABSTRACT

The purpose of this paper was to identify theories that underpin the relationship between perceived restorativeness and psychological wellbeing. This study also aimed to identify the types of activities that the respondent preferred to use as psychological resources when dealing with threatening situation. The instruments used in this study were Perceived Restorativeness for Activities Scale (PRAS) and Psychological Wellbeing Scale. The questionnaires were administered to a sample of 192 Master of Education students. The findings demonstrated that Master of Education students possess a high level of psychological well-being (Mean = 4.39, SD = 0.611) and high level of perceived restorativeness for their preferred activities (Mean = 4.57, SD = 0.76). The most preferred activities for restorativeness approach included participation in social context, followed by engaging in outdoor activities and lastly observing nature. The fascination property of perceived restorativeness obtained the highest score. Thus, the findings of the study illustrate the students' preferred activities of restorativeness for maintaining their level of psychological wellbeing.

**Keyword:** Perceived restorativeness; Psychological well-being; Psychical activities; Nature; Social contexts

## INTRODUCTION

Psychological wellbeing is a multifaceted structure that has been conceptualized in various ways<sup>1,2</sup>. It can be defined as the absence of suffering, pain, and stress and the presence of a positive state<sup>3</sup>. Some researchers have associated psychological wellbeing with the fulfillment of life's potentials and happiness<sup>4</sup>, personal experiences of individuals' definition of happiness<sup>5</sup>, accomplishing goals<sup>6</sup>, and the feeling of pleasure from participating in fascinating activities<sup>7</sup>. Other findings have also demonstrated the relationships of psychological wellbeing with self-esteem and satisfaction<sup>8</sup>, mindfulness<sup>9</sup>, physical activity<sup>10,11</sup>, and social support<sup>12</sup>. Another stream of studies has focused on the role of nature in increasing the level of psychological wellbeing<sup>13,14</sup>. The results have demonstrated that human involvement with nature contributes to physical, mental, and psychological wellbeing in general<sup>15</sup>.

Therefore, to conceptualize the multidimensional nature of psychological wellbeing, Ryff<sup>16</sup>, p.1071 claimed that favorable psychological performance involves various intersecting features that resulted from the incorporation of "mental health, clinical, and life span developmental theories", such as self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. This is based on the core dimensions of psychological wellbeing and their theoretical dimensions. These dimensions are 1) self-acceptance (state of having positive thoughts and feelings about oneself); 2) positive relations to others (ability to engage in warm and trusting relationship with others); 3) autonomy (ability to be independent and cope

with social pressure); 4) environmental mastery (ability to adapt, change, or create one's environment according to one's needs through physical and mental activities); 5) purpose in life (state of having objectives and goals in life and working towards achieving a goal); and 6) personal growth (continuously growing and developing as oneself). Overall, this multidimensional concept of psychological wellbeing demonstrated positive relationships with self-esteem as well as life satisfaction<sup>8</sup>, mindfulness<sup>9</sup>, physical activity<sup>17</sup>, and social support<sup>12</sup>.

Taylor, Whiteman<sup>18</sup>, p.99 considered all six aspects as psychological resources that act as "reserves" to enable individuals to handle threatening situations more effectively. Considering the importance of psychological resources for confronting difficult conditions, restoration approach can be used to preserve psychological wellbeing and avoid poor psychological and mental state. The function of the restoration is to replenish "psychological resources" in order to be able to deal with psychological challenges imposed by one's surroundings<sup>19</sup>.

Numerous studies have been conducted on psychological restoration in relation to activities introduced by previous researchers, such as doing vigorous physical activity<sup>20,21</sup>, and participating in social contexts<sup>22</sup>, because regular exercise and sport activities are able to restore attention effectively<sup>23</sup>, improve mental health, and decrease stress<sup>24</sup>. Alternatively, exposure to nature also brings about positive effects on both physiological and psychological functioning of a human's body<sup>25,26</sup>; helps cultivate human's mental performance<sup>27</sup>, and enhances positive feelings about and positive feedback on their overall

learning experiences<sup>28</sup>. Another approach considers social activities, like going to cafes, libraries, and lounges, as environments that in also help restore wellbeing<sup>29</sup>.

Therefore, high level of perceived restorativeness for activities may improve psychological wellbeing while low level of perceived restorativeness might not help restore human wellbeing effectively. Therefore, with the guided theories in place, this paper aimed to develop the theoretical framework for this study based on the research objective, which was to determine differences in the level of perceived restorativeness across three different activity patterns (doing outdoor activities, observing the nature, and participating in social contexts). This study also aimed to identify the relationship between students' perceived restorativeness for their preferred activities and students' level of psychological wellbeing. Lastly, we aimed to test the hypothesis proposing the significant relationship between the level of perceived restorativeness and students' level of psychological wellbeing.

#### **Theories Underpinning the Research Study**

Two central theories dominate the research in the field of attention restoration, Kaplan's Attention Restoration Theory (ART) and Ulrich's Stress Reduction Theory (SRT). Both theories focus on the mediation effect of using nature on individuals' psychological wellbeing. Nevertheless, these theories are applicable to and widely used when utilizing the restoration approach.

#### **Attention Restoration Theory (ART)**

The central idea of ART revolves around attention recovery through natural environment. According to Kaplan<sup>30</sup>, two types of attention are "involuntary attention" and "directed attention"; the former referring to the undemanding attention functioning, such as paying attention to fascinating or stimulating surroundings, and the latter referring to strenuous attention functioning, such as "problem-solving and planning". Since directed attention is laborious, research has been done in relation to directed attention fatigue (also known as mental fatigue) as well as the restorative approaches to reduce its negative effects on individual's task performance<sup>31</sup>. This theory emphasizes the benefits of individuals' "active role" in interacting with natural settings to improve cognitive performance<sup>32</sup>. As mentioned above, the ART comprises four features that constitute a restorative environment; being away, extent, fascination, and compatibility which all features of a restorative environment should be considered when finding or choosing a place to relax and recharge mental capabilities.

Being away is the term coined to describe escapism from the regular and fatiguing study,

work or domestic related atmosphere in everyday lives. It liberates individual's cognitive load to ensure maintained task performance. Being away can be physical as well as psychological<sup>32-34</sup>. An important aspect of this dimension is a detachment from stimuli that cause mental fatigue. Extent is the second feature of a restorative environment that complements the previous feature. This feature considers the space where individuals wish to spend their restoration period<sup>34</sup>. It represents the consistency that helps people be involved in an environment in a comforting and relaxing way and that does not constrain the mind<sup>32</sup>. This dimension implies the sense of connectedness that offers individual the capacity to "experience a whole other world"<sup>23</sup>. Fascination is the most prominent feature of all four features. An environment that is appealing to individuals facilitates graceful concentration through individuals' fascination with it. Settings that are captivating and interesting elicit wandering of thoughts and undirected attention within the environment<sup>32,34,35,36</sup>. This dimension enables a shift in attention demands from something unpleasant to something more enjoyable. Compatibility is the interaction between the individuals' needs and the provision or demands from the environment that need to be fitted to ensure the desired effects<sup>32,34,37</sup>. If the environment harmonizes with what the individual is trying to achieve, the person experiences restoration. These four features denote the need for people to distract themselves from demanding situations or divert their attention for a while to sustain their cognitive functioning, which is consequently reflected in their work and academic performance.

#### **Ulrich's Stress Recovery Theory (SRT)**

Ulrich's Stress Recovery Theory (SRT) places the same emphasis on nature's restoration qualities as Kaplan's Attention Restoration Theory (ART). However, these two theories differ in some aspects. SRT focuses on all aspects of stress, that is, "mental, emotional, and physiological"<sup>34</sup>. This theory also explores the benefits of the nature on individual's wellbeing, as it perceives the "visual properties of nature" as an essential element of stress coping strategies<sup>38</sup>.

This proposes that restoration can occur in both natural and urban settings, provided that individuals perceive these settings as pleasant. Research in environmental psychology proposes that spending time in restorative environments, such as the nature, and viewing restorative environments are beneficial in stress reduction<sup>39</sup> and restore attention capacity<sup>19,32,33</sup>. Some environments that people encounter every day are highly demanding, draining their mental, emotional, and physical wellbeing. Therefore, people usually switch their environment unconsciously to help them cope with the stress. Going out for lunch or switching websites from

work-related sites to sites that require effortless demands, such as social networking sites, can help in stress recovery, as this theory proposed that the mediation effects occur immediately

following the pleasurable scenes<sup>31</sup>. The differences in the nature of ART and SRT are outlined in Table 1 below.

**Table 1: The differences between Attention Restoration Theory (ART) and Stress Reduction Theory (SRT)**

Theories	Kaplan's Attention Restoration Theory (ART)	Ulrich's Stress Reduction Theory (SRT)
Causes of mental fatigue	Over-exertion of cognitive capacities	Involvement in thought-provoking and demanding situations
Consequences of mental fatigue	<ol style="list-style-type: none"> <li>1) Increasing irritability</li> <li>2) Reduced mental capacity</li> <li>3) Reduced task performance</li> </ol>	<ol style="list-style-type: none"> <li>1) A rise in negative feelings</li> <li>2) Distancing self from others</li> </ol>
Restoration approach	People-environment interaction with four outlined features; being away, extent, fascination and compatibility	Visual encounter with pleasant views that is less complicated and less demanding
Duration of restoration effects to take place	<p>Longer duration with four consecutive levels of effects;</p> <ol style="list-style-type: none"> <li>1) To clear the mind</li> <li>2) To regain mental capacity</li> <li>3) To sort out the mental workload in one's mind</li> <li>4) To reflect</li> </ol>	Shorter duration. The first few moments of visual encounter with pleasurable scenes can bring desired effects.

The table above summarizes some plausible differences between two prominent theories in the research of restoration. Although both theories differ in their views on most of their aspects of restoration, both of them still emphasize the importance of nature as a powerful mechanism in human's attention restoration, which then leads to better wellbeing.

**Self-Determination Theory (SDT)**

As Ryan and Deci<sup>4</sup> stated, all individuals have the innate motives to feel liberated in their actions, which also makes them feel intimate with their significant others. They also need to feel adept and useful. SDT suggests that individuals exhibit two types of behaviors. The first type of behavior is driven by intrinsic motivation, when individuals perform something "out of their deepest, most whole-hearted and growth-oriented motives and needs"<sup>40</sup>, and the second type of behavior is extrinsically motivated by social conventions. The theory proposes that the degree of motivation, whether extrinsic or intrinsic (controlled or autonomous), is crucial in determining individuals' involvement in certain activities that would enhance their chances of attaining various stress-reducing outcomes, such as self-satisfaction and enjoyment, which improve psychological wellbeing. SDT additionally proposes four different types of extrinsic motivation with varying degree of controlled and autonomous behaviors, as shown in Figure 1.

completely lacks self-determination, the different types of extrinsic motivation that vary in their degree of self-determination (autonomous or controlled regulations), and intrinsic motivation that is invariantly self-determined. It further illustrates the nature of the each regulation and its placement along the continuum, indexing the degree to which each regulation represents autonomous motivation<sup>41</sup>.

SDT proposes four different types of extrinsic motivation, external, introjected, identified, and integrated. An individual is believed to have external motivation when his behavior is governed by the needs to obtain rewards and avoid punishments. Meanwhile, introjected motivation is believed to take place when an individual's behavior is governed by the needs to avoid "self-imposed guilt and anxiety"<sup>40</sup>. On the other hand, identified motivation refers to an individual's behavior driven by "felt personal values"<sup>40</sup>, and integrated motivation is taking place when an individual acts-out due to the rationality of his own goals, values, and regulations. All these types of extrinsic motivation have different levels of autonomy that governs individuals' behaviors with less controlled behaviors and more autonomous behaviors along the continuum. According to SDT, all these types of extrinsic motivation impose Perceived Locus of Causality (PLOC) whereby the wholly extrinsically motivated behavior is then transformed into being wholly intrinsically motivated.

In Figure 1, the SDT model shows motivation that

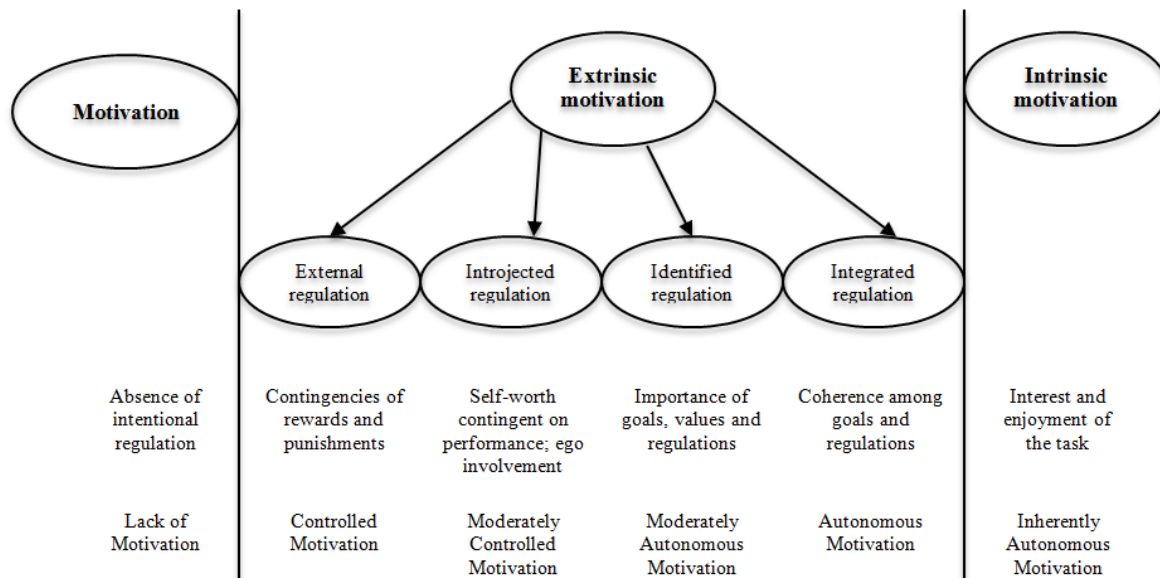


Figure 1: Self-Determination Theory (SDT)

Within SDT, energy, as a feature of motivation, is specifically notable<sup>42</sup>. Energy is believed to have been derived from the basic psychological needs, and the researchers who utilize the SDT have addressed the "concept of vitality" as a type of energy that is stimulating and empowering. This type of energy enables individuals to possess more autonomy and persistence in doing their preferred activities<sup>42</sup>.

**Perceived Social Support**

Social support is a prominent concept that has been associated with numerous positive health outcomes, both mental<sup>43,44,45</sup>, and physical health<sup>46,47</sup>. Social support can be defined as a two-way interaction between individuals that aims to enhance the wellbeing of the beneficiary. Therefore, interactions with family, friends, teachers, classmates, and even acquaintances have been positively correlated with lower level of stress<sup>48</sup> and lower levels of psychological distress<sup>49</sup>. A 20-year longitudinal study by Fowler and Christakis<sup>50</sup> also demonstrated that people's happiness is affected by the happiness of the people around them. The study showed that individuals who are surrounded by many happy people are more likely to be happy in the future.

Social support has been found to correlate with psychological wellbeing and an extensive amount of research has provided support for this relationship. Older men who had received substantial amount of social support reported lower level of stress and higher levels of psychological wellbeing. In local context, Yasin and Dzulkifli<sup>49</sup> conducted a study of undergraduate students and found that social support and psychological distress are negatively correlated; signifying that higher level of social support is associated with lower psychological distress. As Liu, Li<sup>51</sup> stated, social support could

protect individuals' psychological wellbeing.

Nevertheless, since the emergence of research on social support as a stress buffering variable, no specific theory or model has explicitly discussed the fundamental mechanisms underlying social support. However, two prominent hypotheses accompany the research in this field of study, which are the stress buffering hypothesis and main effects hypothesis. The difference between these two hypotheses lies in their assumptions of perceived benefit of social support. Stress buffering hypothesis assumes that social support is necessary mostly after an individual (the recipient) has encountered stressful life events, while the main effect hypothesis assumes that social support always benefits the recipient. Despite the difference in assumptions, research has shown evidences for both hypotheses. Therefore, it is confirmed that social support has both the stress buffering and main effects on individuals' wellbeing.

**Stress and Coping Theory**

Stress and coping theory explains the stress buffering hypothesis, which assumes that social support is beneficial mainly when an individual is experiencing stressful life events. According to the stress and coping theory, social support protects individuals from the negative effects of stressful situations by affecting the way they perceive and manage the stressful events. According to Lazarus Appraisal theory, the nature of events, whether stressful or not, depends on how individuals appraise the situations.

Two types of appraisals are primary and secondary. Primary appraisal involves assessing the situation according to its "motivational relevance and motivational congruence"<sup>52</sup>. This is because situations that are relevant to and

consistent with one's needs would result in more positive emotional, behavioral, and cognitive responses compared to situations that are irrelevant and inconsistent with one's personal needs and objectives.

Meanwhile, the secondary appraisal involves assessing one's resources, one's coping abilities, and future expectancy. First, individuals are believed to evaluate their resources, individuals and/or factors that they perceive are responsible for the situations that occur, which would later guide individuals' efforts to cope with their emotions. For example, they would be more likely to assign blame or feel guilty in response to a negative event while praising and reporting pleasant feelings in response to a positive event. Next, individuals would also assess their coping abilities. Two types of coping are problem-focused coping and emotion-focused coping<sup>52</sup>. Problem-focused coping involves getting rid of the source of stress by adopting actions that are more objective, such as problem-solving, while emotion-focused coping is more subjective, involving getting rid of negative feelings caused by stressful events using a number of strategies, such as meditating, distracting oneself from the source of stress, and cognitive reappraisal. In fact, classical poetry has a positive effect on

decreasing their stress hormone<sup>53</sup>. Then, future expectancy also plays a role in individuals' appraisal of a situation. How individuals expect the situations to change in the future would also determine how they would feel about these situations.

Therefore, in short, stressful events happen when individuals negatively appraise the events, thus making them unable to cope effectively. For this reason, stress and coping theory suggested that individuals could lower their stress level through social support, as it promotes more adaptive appraisal of situations, which then enables them to cope with these situations better. As a result, their wellbeing would also improve.

Figure 2 consolidates all proposed theories including the Self-Determination Theory, Ulrich's Stress Reduction Theory, and Social and Coping Theory, to demonstrate the different categories of activities under psychological resources in this study. The level of perceived restorativeness of these activities, which corresponds with the Attention Restoration Theory, can be measured. Different levels of perceived restorativeness for these activities demonstrate different levels of psychological wellbeing, which is the dependent variable in this study.

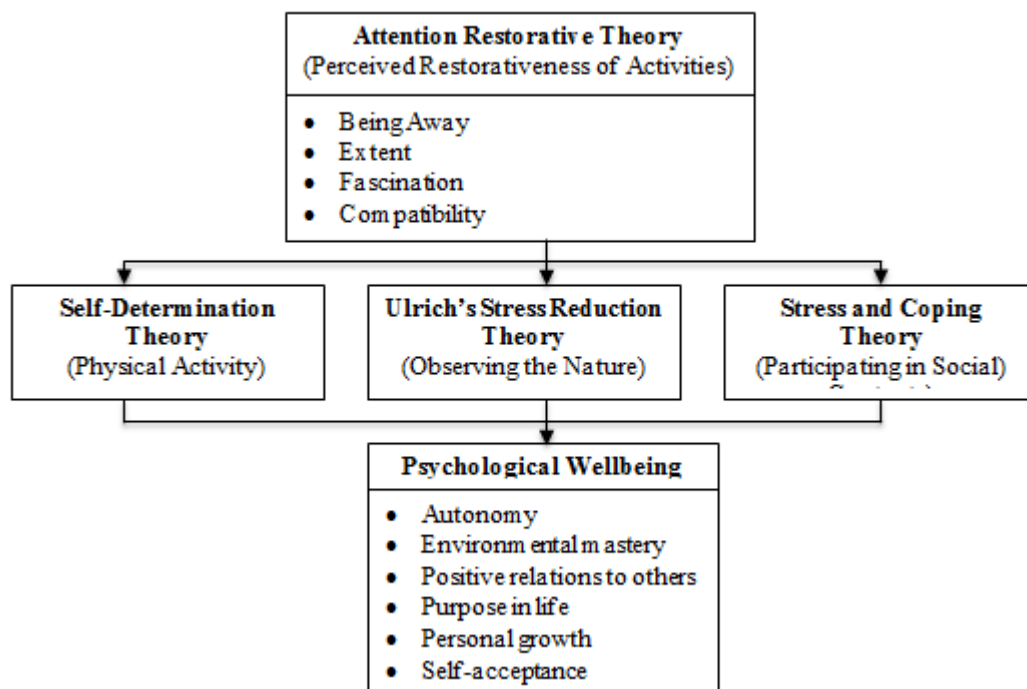


Figure 2: Theoretical framework of the study

**MATERIAL AND METHODS**

**Sample and procedures**

In this study, target sample comprised 192 Master's degree students in the Faculty of Educational Studies from various programs at the Universiti Putra Malaysia (N=281). Cluster sampling was applied to divide the accessible population into groups (clusters) that would

subsequently be selected in a simple random manner. The study obtained ethical approval from Universiti Putra Malaysia ethical committee.

**Research Design**

Descriptive and correlational research design was adopted to determine students' level of perceived



restorativeness for activities and its relationship with their psychological well-being. (Removed)

**Instruments**

A set of questionnaires was divided into three parts. Part A contained questions assessing the respondents' demographic variables using 4 items. Part B contained the 12-item Perceived Restorativeness Scale for Activity (PRAS), and Part C contained the 42-item Ryff's Psychological Well-Being Scales (PWB).

Perceived Restorativeness for Activities Scales (PRAS), which was developed by Norling [54], list certain activities that encompass all four restorative qualities of an environment. PRAS is made up of 12 items that measure perceived restorativeness, specifically being away, extent, fascination, and compatibility, offered by these activities. All items were measured on a 7-point Likert scale ranging from 0 (not at all) to 6 (completely). The obtained Cronbach's alpha coefficient in this study was 0.95.

In addition, Psychological Wellbeing Scale developed by Ryff<sup>16</sup> was used in this study. The questionnaire is divided into six subscales, self-acceptance, positive relationship with others, autonomy, environmental mastery, purpose in life, and a sense of personal growth. Seven items were designed to measure each subscale on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). This scale also included both positive and negative statements to look at the consistency of students' responses for each subscale. The obtained Cronbach's alpha coefficient in this study was 0.96.

In this study, the level of psychological well-being was calculated by subtracting the minimum score from the maximum score and divided into three ranges: low (1.40 - 2.82), moderate (2.83 - 4.25), and high (4.26 - 5.67). The scores on the individual dimension subscale of perceived restorativeness were also calculated by subtracting the minimum score from the maximum score, and accordingly, the restorativeness was divided into three ranges:

low (1.33 - 2.88), moderate (2.89 - 4.44), and high (4.45 - 6.00).

**Data analysis**

The data collected using the research instruments were numerically scored and quantified. The descriptive analysis, such as frequencies, percentages, means, and standard deviations were employed to determine students' level of perceived restorativeness for favorite activities and their level of psychological wellbeing. In addition, Pearson correlation analysis was also done to determine the relationship among variables

**RESULTS**

**Demographic Respondents**

Overall, 192 respondents were randomly selected to participate in this study. Most respondents were 26 to 30 years old (43.6%), followed by respondents who were 25 years old and below (41.9%), 31 to 35 years old (8.1%), 36 to 40 years old (4.1%), and 41 years old and above (2.3%).

**Descriptive Analysis**

Participants in this study had high level of psychological well-being (M = 4.39, SD = 0.61), and perceived restorativeness (M = 4.57, SD = 0.76) as shown in Table 1. The descriptive analysis was employed to determine the level and pattern of students' psychological wellbeing on six of its dimensions (self-acceptance, positive relations with other, autonomy, environmental mastery, purpose of life, and personal growth). The highest mean was obtained for the dimension of personal growth (M = 4.84, SD = 0.87), followed by Purpose in Life (M = 4.57, SD = 0.85), Positive Relations with others (M = 4.52, SD = 0.85), Self-acceptance (M = 4.26, SD = 0.78), Environmental Mastery (M = 4.23, SD = 0.88), and Autonomy (M = 3.97, SD = 0.75).

The highest score in perceived restorativeness was Fascination (M=4.65, SD = 0.85) followed by Being Away (M= 4.62, SD = 0.83), Extent (M = 4.52, SD = 0.89), and Compatibility (M=4.49, SD = 0.94) respectively.

**Table 2: Overall Level of Psychological Wellbeing and Perceived Restorativeness**

	Mean	SD
Overall of Psychological Well being	4.39	0.61
Overall of Perceived Restorativeness	4.57	0.76

**Analysis of Perceived Restorativeness based on Activities**

In this study, the level of perceived restorativeness has also been divided into respondents' favorite activities to ensure their

psychological wellbeing is stable. Figure 3 shows that the respondents were likely to select the dimension of participating in social context compared to doing outdoor activities while the least favorite activity was observing the nature.

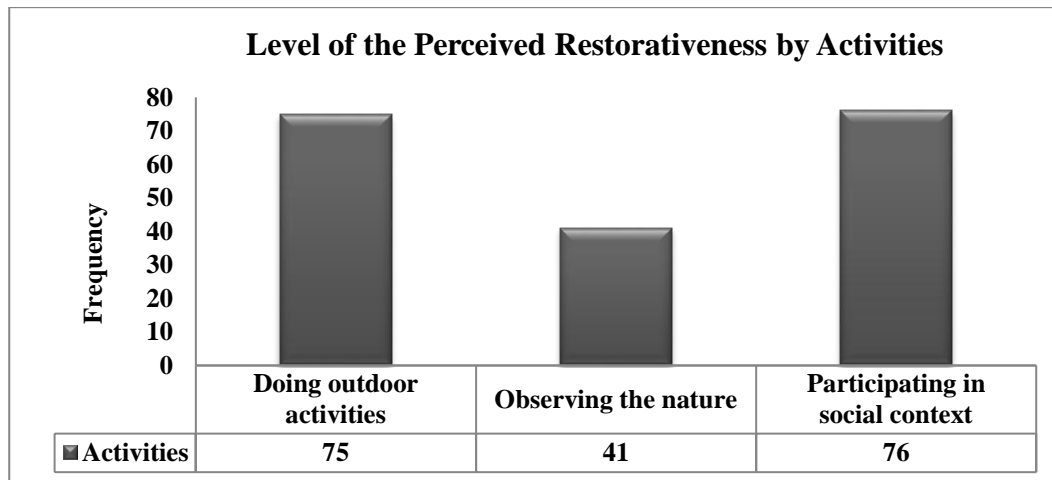


Figure 3: Distribution of the Perceived Restorativeness by Activities

Table 3 summarizes the frequency score for psychological well-being and perceived restorativeness across activities. The findings demonstrated that students involved in this study

possess high level of psychological wellbeing by participating in social contexts, followed by doing outdoor activities compared to observing the nature.

Table 3: Level of Psychological well-being and Perceived restorativeness based on activities

Activities	Psychological Well being			Perceived Restrotiveness		
	Low	Moderate	High	Low	Moderate	High
Doing Outdoor Activities	2	32	1	0	25	50
Observing the Nature	2	17	2	2	12	27
Participating in Social Contexts	4	27	5	5	39	32

**Correlation analysis**

The results show a weak positive relationship between students' perceived restorativeness level and their psychological wellbeing [ $r = 0.229^{**}$ ,  $p=.002$ ], as determined by Cohen's (1988) effect size guidelines. This means that higher level of perceived restorativeness for activities increased the level of psychological wellbeing among the students.

**DISCUSSION AND CONCLUSION**

The descriptive analyses showed that students in this study possess slightly high level of overall psychological wellbeing. Students' psychological wellbeing related to higher levels of personal growth, purpose in life, and positive relations with others and lower levels of self- acceptance, environmental mastery, and autonomy. This finding is in accordance with the findings by Ryff<sup>16</sup>, which revealed that Educational studies students had high levels of personal growth and positive relations with others.

Meanwhile, our findings demonstrated that students' overall level of perceived restorativeness for their preferred activities was high. For each dimension, items that received the highest scores corresponded with relief from unsolicited demands (being away). Further, their preferred activities were able to offer them interesting experiences (fascination). Their

preferred activities were also able to make them feel absorbed while doing them (extent). They also expected to feel a certain way after they have done their preferred activities, which signify that they have a goal in mind and choose their preferred activities based on their congruence with their goals (compatibility). The results have shown that students select their activities that provide them with desirable restoration experiences in their daily activities across all features of restorativeness, being away, extent, fascination, and compatibility.

This study indicated that students' prefer to participate in social context and engage in outdoor activities rather than observe the nature. Past research has also shown that social roles have effect on psychological wellbeing, as they feel more autonomous and connected with their social settings. The feeling of autonomy and relatedness is crucial, and it is perceived as "the need for competence," which in turn contributes to psychological wellbeing even when the individuals are distressed<sup>55</sup>. The findings indicated that individuals are more contented when they interact more with other people<sup>22</sup>. Social interactions enhance positive wellbeing among students, as they have a superior "sense of belonging" that affects their "class enjoyment" <sup>56</sup>. Due to accessibility of social media, participating in social contexts was the preferred psychological resource for restorativeness for students.

Furthermore, postgraduate students are mostly on their own in their academic endeavors; thus, it is important for students to scout for social support to ease down the tense that they facing.

According to previous studies, physically active students reported better mental health linked to enhanced self-efficacy and reduced depression<sup>57</sup>, enhanced social wellbeing and self-esteem, and optimistic body image<sup>17,58</sup>, compared to those who were less physically active. Additionally, aligned with the findings by Sibthorp and Ruddell<sup>23</sup>, we found that intense physical activity improves attention.

Furthermore, Self-Determination Theory (SDT) emphasized that individuals choose their activities based on their life goals and aspirations<sup>4</sup>. SDT is a motivational theory which emphasizes the environmental influences on human behaviors. It is also a concept of intrinsic motivation whereby every human being is believed to attempt to achieve self-satisfaction by mastering his/her environmental challenges. Furthermore, SDT concept is also prominent in the studies involving physical activities<sup>59</sup>. However, the theories and previous research revealed that exposure to nature acts as restorativeness in order to maintain level of psychological wellbeing<sup>28</sup>, and nature restores individuals' mental capacity and decreases their feeling of being overwhelmed<sup>32</sup>.

Students' level of perceived restorativeness has a significant effect on students' psychological wellbeing. Higher level of perceived restorativeness for activities imparts higher level of psychological wellbeing and vice versa. This is reasonable, as higher level of restoration perceived by students would guarantee better psychological restoration and ensure enough psychological resources needed to deal with psychological challenges. Doing preferred activities is merely a mild restoration approach, allowing students who are mentally exhausted by ongoing academic and environmental stress to liberate their mental fatigue in order to be able to consistently maintain good academic performance. For this reason, students who have lower level of psychological wellbeing should spend more time to restore their psychological wellbeing to be able to maintain their ability to cope with the stressors caused by postgraduate studies.

Students' psychological wellbeing is a serious issue in postgraduate studies, as low level of psychological wellbeing may cause students' to have negative learning experiences as well as negative thoughts about their postgraduate undertakings. In addition, more severe psychological problems are likely to increase the dropout rates. Hence, activities that have restorative effect on students' psychological

wellbeing should be promoted in everyday academic setting.

#### IMPLICATION

The present study provides some insights into the type of academic environment that should be noted by education planners. As it is important for educators to help students with their psychological wellbeing, academic pursuits should be incorporated with various types of activities that would provide students with some restorative experiences. Educators should also be made aware of the activities that are potentially restorative for their students to provide them with a less intimidating postgraduate education environment.

To fulfill the aim of helping students' with their psychological wellbeing, educators should be more open with different approaches to teaching that are contradictory to the conventional way of teaching methods. Appropriate training for future teachers on diverse teaching methods that are less detrimental to students' psychological wellbeing is crucial in providing less stressful academic environment. Psychological wellbeing has been associated with positive feelings; therefore, optimal level of psychological wellbeing among postgraduate students would result in happier students who enjoy their learning processes which in turn, improves completion rates among postgraduate students in Malaysia.

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