

University Students' Experiences of Nature, Spirituality and Psychological Well-being: A Qualitative Inquiry

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ABSTRACT

There has been growing interest in understanding the factors that contribute to the psychological well-being of university students. University life can be stressful and overwhelming, making it increasingly critical to explore non-clinical, humanistic pathways that can support emotional resilience, mental clarity, and personal growth. Among such pathways, nature connectedness and spirituality have emerged as meaningful constructs in promoting mental health and overall well-being. This qualitative study aims to explore the interconnections between nature connectedness, spirituality, and the psychological well-being of undergraduate students. Ten undergraduate students, selected through purposive sampling, participated in in-depth, semi-structured interviews designed to elicit rich, personal insights into their lived experiences. Thematic analysis was employed to analyse the data, identifying recurring themes and the meaning-making processes underlying participant narratives. Four key themes were identified: (1) routine engagement with nature, (2) nature as a coping strategy, (3) spiritual experiences in nature, and (4) spirituality shaping nature connectedness and relationships. The findings illustrate how students' intentional interactions with natural environments serve as a vital resource for stress relief, emotional restoration, and cognitive reprieve. Concurrently, spirituality was found to offer a valuable source of inner strength, hope, meaning, and coping strategies, especially during periods of adversity, with natural settings often facilitating these spiritual experiences. This study contributes to the broader discourse on holistic and humanistic approaches in higher education by highlighting the psychological and emotional benefits of integrating ecological and spiritual dimensions. It suggests practical implications for educators, counselors, and policymakers in designing supportive learning environments and well-being initiatives that nurture the whole student.

Keywords: Education, nature connectedness, psychological well-being, spirituality, undergraduate students,

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INTRODUCTION

"Look deep into nature, and then you will understand everything better" ... Albert Einstein

According to the World Health Organization (WHO, 2025), nature has an important function in human health and well-being. Natural surroundings have been associated with a variety of physical and mental health benefits, including reduced stress, improved mood, enhanced cognitive function, and a lower risk of chronic disease. Green spaces, woods, and bodies of water promote physical activity, social connection, and relaxation, all of which benefit overall health. Biodiversity and functional ecosystems also benefit human health and well-being by providing various ecosystem services such as air purification, water filtration, and climate management. Thus, exposure to natural environments has been shown to foster relaxation and reduce stress, thereby alleviating fatigue associated with academic demands such as studying and completing assignments.

Numerous recent studies support nature's restorative qualities, emphasizing its role as a valuable therapeutic resource in academic settings (Bratman et al., 2019; Kuo, 2013; Morris et al., 2021). For example, engagement with green spaces has been linked to improved mental health outcomes and enhanced cognitive functioning, both of which are essential for student well-being (Pretty et al., 2007). Additionally, rehabilitation gardens and nature-based interventions have proven beneficial for individuals facing mental health challenges (Adevi et al., 2018). However, modern challenges, including generational differences and the pervasive use of technology, have contributed to increased screen time and a growing 'indoor generation,' which may reduce time spent outdoors and limit exposure to natural restorative environments (Louv, 2008). Addressing this disconnection is vital to promoting psychological well-being, especially among tertiary-level students.

Mental health is a major concern in universities around the world. A rising percentage of university students are experiencing psychological issues that affect their academic and personal success. The transition to university life is often associated with increased stress, academic pressure, and social adjustment. This era can intensify pre-existing mental health issues or precipitate new difficulties. The future of mental health in universities depends on sustained innovation, collaboration, and a commitment to ensuring that every student has access to the resources they require to prosper academically and emotionally (Li et al., 2025; Verger et al., 2010). In this context, the present study seeks to explore Malaysian undergraduates' lived experiences of nature connectedness and spirituality in relation to their psychological well-being. Specifically, the research objectives are to:

1. Explore how nature connectedness contributes to students' psychological well-being, and
2. Explore how spirituality interacts with nature connectedness to enhance their overall well-being.

By situating the inquiry within an educational and cultural context, this study contributes to a more holistic, context-sensitive understanding of university student well-being.

BACKGROUND OF STUDY

Recent studies have shown that we spend approximately 90% of our time indoors (Pruszyński et al., 2023). This may suggest that those who stay indoors are more likely to experience a range of challenges, including physical health issues such as obesity, vitamin D deficiency, as well as mental health concerns like anxiety and depression (Louv, 2008; Sharma et al., 2020). Reduced exposure to nature has significant implications for well-being, as numerous studies demonstrate that interaction with natural environments can improve mood, enhance cognitive function, and promote emotional regulation (Kaplan & Kaplan, 1989; Taylor & Kuo, 2009). Moreover, Richardson et al. (2019) highlighted a growing deficit in nature-connectedness among children, which is strongly linked to increased use of gadgets and social media. This 'nature deficit' is further reinforced by studies showing that screen time negatively correlates with time spent outdoors and overall connection with nature (Wheeler et al., 2019). Additionally, research also indicates that isolating human psychological processes from spiritual and environmental contexts is associated with diminished psychological well-being (Roszak et al., 1995; Roszak, 2001).

Therefore, integrating spirituality and environmental awareness into mental health frameworks offers a more holistic approach to psychological well-being (Armstrong, 2016; Howell et al., 2011). Exposure to nature or green spaces serves as a psychological resource, enhancing self-esteem and reducing stress (Annerstedt & Währborg, 2011; Hartig & Staats, 2006; Kaplan & Kaplan, 1989). Fisher's (2011) model of spiritual well-being identifies four key dimensions, namely personal, communal, environmental, and transcendental. Each reflecting a need for inner balance and connection beyond the self (Khair & Medina, 2024). There is evidence of associations between nature exposure and improved cognitive function, brain activity, blood pressure, mental health, physical activity, and sleep (Jimenez et al., 2021).

One of the most important sections of a nation's community is students, especially those studying in tertiary institutions. This is because these institutions are where students are trained to develop the capacity and analytical skills that drive local economies, support civil society, teach the younger generation, lead effective governments, and make important decisions that affect entire societies. When these students enter university, for example, they, in turn, are navigating a complex set of academic, social, and personal demands, making them a relevant population for studying factors that support psychological well-being. Their lives are typically rich in opportunities for personal and communal development; however, contemporary generations are increasingly affected by "nature deficit," defined as reduced time spent in natural environments (White, 2020), which may, in turn, affect spiritual development.

Examining the interplay of nature connectedness and spirituality in this context can provide culturally grounded insights for educational and mental health interventions aimed at fostering holistic student well-being. These aspects suggest that spiritual health is not only personal but also deeply relational and ecological, making it a valuable lens for understanding mental well-being in a broader context (Gomez & Fisher, 2003). In line with this perspective, the restorative effects of natural environments on mental fatigue are well-documented, and much of this research is grounded in Attention Restoration Theory (Kaplan & Kaplan, 1989), which posits that exposure to nature replenishes cognitive resources and reduces stress. By situating spirituality within this framework, it becomes possible to explore how connectedness to nature may enhance psychological well-being through both restorative and transcendental experiences.

Thus, to balance the demands of the academic journey, social relationships, and other stressors, previous research has extensively examined the relationship between human health and nature (Bratman et al., 2012; Twohig-Bennett & Jones, 2018). Nature connectedness refers to an individual's emotional, cognitive, and experiential sense of belonging to the natural world (Mayer & Frantz, 2004). Spirituality, in this study, is understood as the search for meaning, purpose, and transcendence that connects individuals to something greater than themselves (Fisher, 2011; Mohidem & Hashim, 2023). Human-nature relations describe the ways people perceive, interact with, and find meaning in their relationships with the natural environment (Ives et al., 2017).

Despite extensive research linking nature and health, the interrelationships among spirituality, nature connectedness, and psychological well-being remain underexplored, particularly in the Malaysian context (Sahak et al., 2024). Therefore, by investigating these interrelationships through the lived experiences and meaning-making of Malaysian university students, this study offers a distinct contribution, providing culturally grounded insights into the role of spirituality in shaping human-nature relations.

The increasing prevalence of "nature deficit" among students reflects a concerning disconnection from the natural environment, with potential consequences for their psychological and spiritual development (Zylstra et al., 2014). Nature connectedness, defined as an individual's cognitive, affective, and experiential sense of inclusion within the natural world, has consistently been associated with higher levels of vitality, positive affect, and life satisfaction (Capaldi et al., 2014; Mayer & Frantz, 2004). In parallel, spirituality, which is often conceptualized as a sense of transcendence, meaning, and interconnectedness with the self, others, and nature, has been identified as a pathway to eudaimonic well-being as well as resilience in the face of stress (Perrin & Benassi, 2009; Kamitsis & Francis, 2013).

Emerging evidence suggests that spirituality may function as a mediating or moderating factor in the relationship between nature connectedness and psychological well-being. For example, Kamitsis and Francis (2013) demonstrated that spiritual experiences partly explain the link between contact with nature and subjective well-being. In addition, Ahmad et al. (2024) found that among Malaysian undergraduates, spiritual values mediated the relationship between nature connectedness and reduced depressive symptoms. Similarly, Sahak et al. (2024) highlighted that spirituality, together with nature connectedness, predicts psychological well-being, although spirituality exerted a stronger influence in the Malaysian context. These findings highlight the importance of examining the interconnectedness of nature, spirituality, and well-being within specific cultural and educational settings. However, most existing studies rely on quantitative and correlational approaches, providing a limited understanding of how individuals personally interpret and experience these relationships in everyday life.

Although these studies provide important empirical support for the relationship among nature connectedness, spirituality, and well-being, most rely on quantitative, correlational approaches. As a result, limited attention has been given to understanding how students themselves interpret and make meaning of these experiences in their daily lives. This limitation is particularly important within the Malaysian sociocultural context, where spiritual values and relationships with nature may be shaped by unique cultural, educational, and environmental influences.

Without exploring students' subjective experiences, existing findings remain insufficient in explaining how nature and spirituality are personally experienced as sources of psychological well-being.

Therefore, this study adopts a qualitative approach to explore the lived experiences of Malaysian undergraduate students regarding nature connectedness, spirituality, and psychological well-being in higher education. The study focuses on students' personal reflections, meanings, and experiences related to interactions with nature and how these influence emotional, psychological, and spiritual well-being. Spirituality is viewed holistically through meaning, purpose, and interconnectedness with the self, others, and nature, while nature connectedness refers to emotional and experiential relationships with natural environments. Through this approach, the study aims to provide deeper and contextually grounded insights into how nature and spirituality contribute to students' perceived well-being.

METHOD

Research Design

This study adopted a qualitative descriptive approach, employing thematic analysis to explore how connectedness to nature and spirituality contribute to psychological well-being among undergraduate students. This methodology was deemed appropriate because it supports an in-depth, interactive learning process between the researcher and participants, enabling the study to capture and refine meanings, personal narratives, and subjective interpretations (Braun & Clarke, 2013). Drawing on this synthesis, the present study positions nature connectedness not only as a psychological resource but also as a potential pathway for cultivating self-awareness and spiritual growth (Buzzell & Chalquist, 2009; Frieden, 2010). By integrating this evidence into the methodological design, the study sought to advance a contextually grounded understanding of how students interpret and experience the intersection between nature, spirituality, and well-being.

Participants and Procedure

The participants in the study were ten (10) students from the Faculty of Education at a public university in Malaysia. All were identified as Muslim, reflecting the cultural and faith-based context within which the study was conducted. The participants' demographic details are presented in Table 1.

Table 1: Demographic Profile of the Study Participants

Participants	Gender	Major	Year of Study	Age (Years)
Sarah	Female	B. Education in Guidance and Counseling (Guide)	4 th Year	23
Aiman	Male	B. Education in Teaching English as a Second Language (TESL)	3 rd Year	22
Nurul	Female	B. Education in Guidance and Counseling (Guide)	4 th Year	25
Fatin	Female	B. Education in Guidance and Counseling (Guide)	4 th Year	25
Arif	Male	B. Education in Teaching Arabic as a Second Language (ISED)	1 st Year	23
Ayu	Female	B. Education in Guidance and Counseling (Guide)	4 th Year	24
Malik	Male	B. Education in Teaching Arabic as a Second Language (ISED)	2 nd Year	20
Farah	Female	B. Education in Guidance and Counseling (Guide)	1 st Year	21
Daniel	Male	B. Education in Teaching English as a Second Language (TESL)	3 rd Year	22
Hawa	Female	B. Education in Teaching Arabic as a Second Language (ISED)	1 st Year	21

This study employed a combination of purposive and snowball sampling methods to recruit participants suitable for exploring the research topic. This non-probability sampling technique is used to identify and recruit

participants through referrals from initial contacts (Creswell & Poth, 2018). Purposive sampling was initially used to select undergraduate students who met the following criteria: (1) engagement in nature-based activities, (2) current residence in university-managed accommodations, and (3) aged between 20 and 25 years. This method allows researchers to select individuals with specific characteristics, thereby providing rich, relevant insights into the study's focus (Patton, 2015). This approach is a recognized non-probability sampling method in qualitative research for recruiting participants through peer referral in contexts where sampling frames are limited or difficult to access (Naderifar et al., 2017).

Next, the snowball sampling was utilized to expand the participant pool. The initial participants were asked to recommend others within their social networks who also met the inclusion criteria. Once potential participants agreed to take part in the study, interviews were scheduled at a mutually convenient time. Prior to the interview, each participant signed a formal informed consent form outlining their rights, including the option to withdraw at any time without penalty. To maintain confidentiality, pseudonyms were assigned to each participant, and thematic analysis was applied to interpret the interview data (Braun & Clarke, 2021). This approach ensured that participants' identities were protected while enabling an in-depth examination of recurring themes and insights in the dataset (Miles et al., 2014).

Data were collected through semi-structured interviews, as this method provides both consistency in addressing the research questions and flexibility to explore participants' lived experiences in greater depth (Kallio et al., 2016). The interview guide was developed based on the study's objectives and a review of prior literature on nature connectedness, spirituality, and well-being (Braun & Clarke, 2006; Kallio et al., 2016). Sample guiding questions included: "How do your interactions with nature affect your daily psychological well-being?" and "Can you describe a personal experience where spending time in nature influenced your sense of spirituality?" To ensure clarity and contextual appropriateness, a pilot interview was conducted with two (2) undergraduates of a local university prior to the main data collection. This preliminary interview helped identify ambiguities and enabled refinements in wording and flow, thereby enhancing the quality of the research instrument (Malmqvist, 2019).

Interviews were conducted in a neutral, off-site location to ensure a comfortable and private setting for participants and typically lasted around forty-five (45) minutes. Data collection continued until data saturation was achieved, at which point no new information or insights emerged, indicating that further interviews would not add value (Miles et al., 2014). In this study, the researchers decided to cease data collection when redundancy in the information and thematic saturation were evident. All interviews were audio-recorded with participants' consent to ensure accuracy and to enable detailed, reliable transcription and analysis.

DATA ANALYSIS

Initially, all interviews were transcribed verbatim from the digital audio recordings. This allows researchers to further interpret the coded data and identify overarching patterns, consistent trends, points of convergence, and areas of divergence within the dataset. Next, the analysis involved coding all interview information (Creswell, 2013). NA and MAM analyzed the data using six structured steps: familiarization, coding, theme generation, theme review, theme definition, and writing (Braun & Clark, 2021). Firstly, after the data had been transcribed verbatim from each interview, both researchers reviewed and reflected on the participants' narratives to identify meanings embedded in their lived experiences. They then collaboratively examined each transcript to identify recurring patterns and potential overarching themes. Fourthly, thematic analysis was conducted to categorize data into relevant themes and to organize the information for more straightforward interpretation. Applying this process enables researchers to identify themes and refine them into sub-themes that highlight meaningful patterns in the data (Braun & Clarke, 2021). Fifthly, the narrative was developed to present the study's results and capture the essence of the qualitative data. Finally, researchers reflected on the implications of the findings and suggested directions for future research.

To ensure trustworthiness and academic rigor, strategies such as careful engagement with the data, discussion among researchers during theme development, and the maintenance of clear records of the analysis process were employed (Lincoln & Guba, 1985). Additionally, to maintain credibility, transferability, dependability, and confirmability, the following steps are taken: peer review, which involves feedback from participants and helps to confirm the accuracy and credibility of the interpretations. Credibility was also achieved through data triangulation by collecting information via (e.g., semi-structured interviews and document analysis) alongside peer debriefing within the research team to validate interpretations. To facilitate transferability, the study provides a rich, thick description of the research context and participant demographics, enabling future researchers to assess the applicability of the findings to similar settings. Dependability was secured by maintaining a transparent audit trail that meticulously documented every stage of the research, including the development of the interview

protocol and the step-by-step thematic coding process. Finally, confirmability was maintained through continuous researcher reflexivity to minimize personal bias, and is further demonstrated in the findings section by anchoring each theme with direct, verbatim participant quotes.

RESULTS

Findings are presented in accordance with the two research questions. The first question (RQ1) concerns how nature connectedness contributes to students' psychological well-being, while the second question (RQ2) explores how spirituality interacts with nature connectedness to enhance it. Four key themes were identified: (1) routine engagement with nature, (2) nature as a coping strategy, (3) spiritual experiences in nature, and (4) spirituality shaping human–nature and social relationships. Each main theme has two (2) sub-themes as shown in Table 2.

Table 2: Themes and Sub-Themes Generated in the Study

Themes	Sub-theme
Theme 1: Routine engagement with nature	Sub-Theme 1.1: Daily engagement with natural environments
	Sub-Theme 1.2: Emotional balance and mental clarity
Theme 2: Nature as a coping strategy	Sub-Theme 2.1: Nature for stress management
	Sub-Theme 2.2: Nature as therapeutic restoration
Theme 3: Spiritual experiences in nature	Sub-Theme 3.1: Inner peace and spiritual reflection
	Sub-Theme 3.2: Strengthening faith and transcendence
Theme 4: Spirituality shaping nature, connectedness and relationships	Sub-Theme 4.1: Spirituality fostering appreciation of nature
	Sub-Theme 4.2: Social and relational connectedness

Theme 1: Routine engagement with nature

Sub-Theme 1.1: Daily engagement with natural environments

In this theme, participants highlighted the importance of their connection to nature by incorporating related activities into their daily routines. Very often, participants engaged in various activities in different natural environments: walking, jogging, and sports. For example, Hawa shared;

"I would say most of the time, since I enjoy walking around campus a lot. I don't know if this is the same. But I will spend at least 1 to 2 hours every day, depending on the weather, jogging, walking, or playing sports after classes."

This indicates a strong connection to nature through regular physical activity, contributing to their overall well-being. Similarly, Nurul noted;

"I try to spend time in nature at least once a week, usually by hiking or going to the park. It helps me clear my mind and stay active."

The frequency of physical activity in natural settings was associated with better emotional and mental health, as reported by participants during the interview sessions, who noted improvements in mood, stress relief, and mental clarity. Malik highlighted;

"It's very efficient in balancing our mood and well-being. For instance, I've lost around 10-13 kg just doing brisk walks every day in nature, and whenever I have a bad day."

Sub-Theme 1.2: Emotional balance and mental clarity

Findings indicate that most participants emphasized the importance of connection to nature for maintaining good mental health, particularly among students, owing to frequent exposure to green spaces and forests. In the interview, they described how nature helps reset their mental state, promote mindfulness of their surroundings, and stimulate their senses. Aiman explained that;

"Yes, I do. Maybe because, as we know, we humans were made by nature, thus, going back to nature helps us reset ourselves."

This idea was further reinforced by P5, who shared,

"Nature offers a unique way to disconnect from daily stresses and reconnect with oneself. It's a natural form of therapy."

Sarah echoed this sentiment, stating;

"Being in nature, even for a short while, helps me feel more at peace and reduces my anxiety."

The participants' reflections highlight a shared perception of nature as a restorative space that facilitates psychological and emotional realignment. Such routines were not perceived as extraordinary activities but as regular practices that sustained participants' sense of normalcy. These engagements also supported physical activity and created opportunities for reflection within a predictable daily structure. Overall, participants associated routine engagement with nature as a stabilizing element in their daily lives, reinforcing psychological well-being through continuity, balance, and a sense of order.

Theme 2: Nature as a Coping Strategy

Sub-Theme 2.1: Nature for stress management

Coping with stress through nature emerged as a significant theme. Participants provided examples of stressful events they were able to relieve through their interaction with the natural environment. Fatin said;

"I once experienced a stressful situation during my early semester, where I was facing an overload of both academic assignments and society club tasks. I went to the campus lake beside the hostel early in the morning to get some fresh air and do some muhasabah (introspection) of my issues and problems."

A few participants intentionally sought to deepen their connection with nature as a strategy for coping with obstacles. For example, Daniel shared a routine that began with *ibadah* (acts of worship such as prayer and spiritual reflection), explaining;

"I come up with a strategy where I wake up early in the morning around 5:30 am, doing my ibadah, and at 6:30 am, I will walk around campus for 3 to 4 rounds and go back to the hostel around 9 am. By doing this, it really helps me to regulate my mood and stamina."

Sub-Theme 2.2: Nature as therapeutic restoration

Spending time on activities such as walking or gardening as a hobby also helps the participant relax, serving as therapy, as mentioned by Ayu.

"I started gardening as a hobby to spend more time in nature. It's very relaxing and gives me a sense of accomplishment."

Participants emphasized that spending time outdoors alleviated feelings of isolation and anxiety by fostering emotional regulation and psychological restoration. Nature was consistently described not merely as a setting but as an active therapeutic resource that students deliberately engaged with to manage stress and stabilize their emotions. Through these coping practices, students developed greater resilience, illustrating how nature served as both an immediate source of relief from distress and a longer-term strategy for sustaining psychological well-being.

Theme 3: Spiritual Experiences in Nature**Sub-Theme 3.1: Inner peace and spiritual reflection**

In this theme, the concept of spirituality was explored and defined as the inner aspect, beliefs, worldview, and religion, often associated with tranquillity and inner space. In this domain of questions, the study explored how spirituality became an integral part of their nature-connectedness and the associated activities. As explained by Sarah;

"For me, spirituality plays on our inner aspects like our beliefs, worldview, as well as our religion."

Hawa concurred:

"Spirituality, for me, is deeply connected with how I perceive the world and my place in it. Being in nature helps me to reflect on my beliefs and reminds me of my Creator"

Sub-Theme 3.2: Strengthening faith and transcendence

By connecting with the natural elements that offer broader perspectives, participants reported feeling calmer and experiencing reduced stress, fatigue, and pressure-related unease, resulting in greater relaxation. Moreover, Ayu continued;

"Nature helps me connect with that sense of peace and strengthens my faith".

In this theme, participants also reported that their spiritual experiences increased simply by spending time in green forests and other natural environments. Furthermore, being in nature profoundly stimulated positive emotions and served as a spiritual recharge. Daniel shared;

"I enjoy walking around nature, the feeling of peace that not everyone can experience."

Furthermore, Aiman noted,

"Nature walks are a form of meditation for me".

Specific participants' experiences in the natural world were highlighted during the interview session. They explained that events such as sunsets or sunrises, as well as encounters with certain animals, increased their faith and sense of comfort. Fatin recalled;

"What I can remember was every time I look at phenomena like sunsets, sunrises, sound of pigeons. Somehow it gave me a special effect in my heart that consoled me to be strong and certain that the Creator is a Powerful".

Similarly, Malik noted that the experience had a profound and comforting effect, strengthening resilience. He further explained;

"Watching the sunrise over the hills always fills me with a sense of wonder and connection to something greater".

Such reflections illustrate how natural environments facilitated contemplation, gratitude, and a heightened sense of the sacred. Therefore, spiritual experiences embedded in natural encounters nurtured feelings of transcendence and gratitude, highlighting the intersection of spirituality and nature in sustaining psychological well-being.

Theme 4: Spirituality shaping nature, connectedness, and relationship**Sub-Theme 4.1: Spirituality fostering appreciation of nature**

In this theme, participants reported that their spirituality influenced their connection to nature. They recounted how Muslims' spiritual practices increased their respect for nature and provided a sense of kinship. Aiman articulated;

"If we want to be more grateful, just go and admire nature and see how beautiful it is".

Additionally, a high level of spirituality deepened their appreciation for all creations, as Farah mentioned.

"My faith teaches me to appreciate all of creation as nature strengthens, teaches appreciation."

Nurul shared;

"When I perform my prayers outside, surrounded by nature, I feel a stronger connection to the Creator and His creation."

Sub-Theme 4.2: Social and relational connectedness

Participants shared their thoughts during the session on how spirituality and connection to nature influence their relationships with others. Some participants reported that their experiences in nature activities enabled them to make friends, contributing to the formation of a community. Hawa said

"I can also enjoy others being part of my routine, strolling around the campus and becoming friends (with others)".

Meanwhile, Arif reflected in his interview that;

"Connecting with others who appreciate both nature and spirituality has enriched my social interactions, making them more meaningful and supportive."

These accounts demonstrate how spirituality provided a lens for valuing both the natural environment and human interactions, broadening the impact of nature connectedness beyond the individual level. Spirituality shaped participants' interpretation of nature as part of divine creation, thereby enriching their relational and communal experiences. This illustrates the interactive role of spirituality in deepening connectedness to nature and extending its influence to social well-being, as outlined in the second research question. These themes capture how participants naturally integrated their faith perspectives into reflections on their experiences in a natural environment. The findings suggest that spirituality amplifies the emotional and psychological benefits of nature connectedness by providing a deeper sense of purpose and direction.

DISCUSSION

This study addressed its dual objectives by highlighting the meaningful interplay between nature connectedness, spirituality, and psychological well-being. The first research question explores how nature connectedness contributes to students' psychological well-being, while the second explores how spirituality interacts with nature connectedness to enhance their overall well-being.

Findings demonstrate that spirituality complements the psychological benefits derived from engaging with nature. Participants consistently reported that time spent in nature through activities such as walking, gardening, or jogging could contribute to improved mental health. This aligns with prior research showing that exposure to nature positively influences emotional well-being (Mayer & Frantz, 2004; Capaldi et al., 2014; Pretty et al., 2007; Bratman et al., 2015). Establishing routines around nature-based activities has also been reported to sustain motivation and emotional stability (Korpela et al., 2010; Richardson & McEwan, 2018). These self-initiated routines not only provided a sense of structure but also supported emotional regulation during periods of academic pressure.

This experiential insight closely aligns with Ryff's (1989) psychological well-being model, particularly the dimensions of environmental mastery, purpose in life, and personal growth. For example, participants reported that spending time in nature, whether through walking, gardening, or reflective solitude, enabled them to better manage stress, maintain focus, and regain emotional balance. Such routines reflect Ryff's view that well-being entails the capacity to navigate one's environment effectively, pursue meaningful life goals, and continually evolve as a person. In this context, nature engagement functions not merely as a passive form of relief but as an active, intentional process for cultivating psychological resilience and a sense of life direction.

In the current study, contact with nature emerged as a vital coping mechanism, offering both physiological and psychological benefits to participants. Students reported that outdoor environments enhanced their mood, reduced stress, and provided emotional clarity—consistent with prior studies showing that exposure to nature improves cognitive function and self-esteem (Hartig et al., 2003; Berman et al., 2012), and is often more beneficial for mental health than indoor settings (Brymer et al., 2014). Natural settings were consistently described as calming, providing mental and emotional relief during academically stressful periods (Richardson & Hamlin, 2021; Thoma et al., 2021).

These findings strongly align with Roszak's (1995) Ecopsychology Theory, which asserts that psychological well-being is intimately linked to the human-nature relationship. Participants' experiences support Roszak's claim that disconnection from nature contributes to psychological distress, while reconnection fosters inner peace, emotional resilience and spiritual clarity. Students' reflections on feeling emotionally grounded, spiritually uplifted and mentally restored while in natural environments illustrate that nature functions not merely as a physical setting, but as a psychological and spiritual resource. In this sense, the study reinforces the eco-psychological perspective that nature is essential to emotional healing, identity formation, and holistic well-being.

In addition, the study found that nature connectedness and spirituality interact to enhance psychological well-being. The narratives showed that spirituality can be reflected in nature by enhancing emotional connectedness, thereby improving psychological well-being. The current study found that nature connectedness and spirituality interact synergistically to enhance psychological well-being. Participants described natural environments not only as calming spaces but also as mediums for spiritual reflection and a deeper connection with the Creator—highlighting how emotional and spiritual grounding in nature fosters psychological resilience. This supports the view that nature and spirituality together form a more holistic framework for mental health (Kamitsis & Francis, 2013; Unsworth et al., 2016; Sahak et al., 2024).

This finding aligns with Fisher's (2011) Spiritual Well-Being Model, which emphasizes four interrelated domains: personal, communal, environmental, and transcendental well-being. Participants' reflections revealed growth across all these dimensions, including personal meaning, relational connectedness, harmony with nature, and a sense of transcendence through reflection on the divine. This demonstrated how natural settings can nurture a comprehensive sense of spiritual well-being.

This connection is further echoed in religious traditions, particularly in Islam, where the Qur'an frequently invites believers to contemplate nature as a sign of God's greatness (The Quran 2:164). Such eco-spiritual reflection fosters inner peace and ethical awareness, resonating with the eco-spirituality perspective that views nature as sacred (Gottlieb, 2003).

In contrast, modern science, grounded primarily in human reason and empirical observation, often overlooks the interconnectedness between the natural and spiritual realms. It tends to reduce nature to its material dimensions, thereby neglecting its sacred aspects (Sayem, 2019). In this context, spirituality transcends personal self-actualization; it represents a holistic worldview that fosters a deeper, more ethical engagement with the environment. Therefore, by integrating spiritual values into educational contexts, particularly within higher education, universities can play a vital role in nurturing students' spiritual well-being while simultaneously fostering environmentally responsible attitudes (Bozek et al., 2020; Roslan et al., 2022). The findings of the current study resonate with these perspectives, highlighting how students' experiences with nature and spirituality contribute meaningfully to their psychological well-being.

CONCLUSION

In conclusion, this study highlights the significant role of nature connectedness and spirituality in enhancing students' psychological well-being. Findings suggest that a strong connection to nature not only serves as an effective coping mechanism against stress but also fosters deeper spiritual development, both of which contribute meaningfully to students' overall mental health. These insights underscore the importance of integrating nature-based and spiritually reflective experiences into educational environments, not merely as extracurricular enhancements but as core components of student well-being. As students navigate the demands of academic life, their intrinsic relationship with nature and spirituality emerges as a vital resource for personal resilience, emotional balance, and holistic growth.

IMPLICATION OF THE STUDY

The implications of this study are important for the field of education, especially in counseling. First, from a theoretical perspective, findings on nature connectedness, spirituality, and student well-being have valuable theoretical implications. Frieden's (2010) public health framework, which fosters engagement with nature and spirituality on campus, can serve as a protective intervention that promotes mental health at the population level. Roszak's Ecopsychology Theory (1992) highlights that connecting with nature is essential for psychological resilience, supporting the idea that nature-rich campus environments can reduce stress and enhance students' sense of belonging. Additionally, Fisher's Spiritual Well-Being framework (1998) emphasizes the role of personal, communal, and environmental spiritual practices in promoting purpose and peace. Together, these research findings suggest that universities should create environments and programs that integrate nature and spiritual practices to holistically support student mental health.

Next, in practical terms, the results indicate that nature-based interventions can be used to improve students' psychological well-being, particularly in relation to their educational processes. This is in concordance with previous studies where people with a positive connection with nature would have better mental health, reduced anxiety and depression levels, and improved life satisfaction (Liu et al., 2022). In this study, all participants were Muslim, and spirituality was understood within an Islamic framework as the pursuit of meaning, purpose, and transcendence through faith and practice (Mohidem & Hashim, 2023). The findings highlight that recognizing and supporting students' spiritual development can serve as a protective factor and valuable psychological resource. Educators and counselors are therefore encouraged to be sensitive to students' spiritual needs and provide opportunities for spiritual practice, which may promote personal growth and positive social development. Future research could examine how nature-based interventions influence spiritual and psychological well-being among students of other faiths or those with more secular interpretations of spirituality, thereby exploring the cross-cultural applicability of these findings.

Last of all, the study indicates the need for a concept of wellness that integrates the physical, mental, emotional, and spiritual aspects of a student's life. This could be achieved by designing student services that address all facets of a student's being. In doing so, institutions can enhance students' academic performance and their quality of life and well-being.

LIMITATIONS OF THE STUDY

The current research findings and associated limitations highlight several pathways for future research. Despite these promising results, this study has limitations that should be considered. First, it addressed subjectivity and bias, noting that qualitative studies rely on subjective interpretations from both participants and researchers. Participants may express themselves based on personal biases, beliefs, and cultural backgrounds. Thus, in the future, this aspect should be taken into account, particularly in the design and analysis processes.

Second, psychological well-being, spirituality, and nature connectedness are dynamic aspects that can vary over time. A single data collection point may not capture these fluctuations, limiting the study's ability to provide a complete view of participants' well-being. Thus, a longitudinal qualitative research design is recommended to capture the evolving nature of these experiences (Johnson & Christensen, 2019).

Third, all participants in this study were Muslims. The responses and perspectives were mainly unidirectionally Islamic in character.

RECOMMENDATIONS OF THE STUDY

Future studies should include more students from diverse backgrounds, belief systems, and universities and locations to make the findings more meaningful and applicable. Using a combination of qualitative and quantitative methods can provide stronger results, while longitudinal studies can help show how the benefits of nature and spirituality develop over time. In addition, future research should consider cultural and social factors, especially in diverse contexts such as Malaysia, and explore how digital or virtual nature experiences may support students' well-being.

In terms of practical recommendations, universities should intentionally integrate nature-based experiences into student life and learning environments. Institutions can create accessible green spaces, organize outdoor learning activities, and encourage programs that allow students to engage regularly with natural environments. These initiatives can help students manage stress, restore emotional balance, and improve concentration during demanding academic periods. Counselors and student support services may also incorporate nature-based strategies, such as reflective walks, outdoor counseling sessions, or nature journaling, as complementary approaches to support psychological well-being. By recognizing nature as a valuable resource for emotional restoration, universities can move beyond purely academic support and promote a more holistic approach to student development.

In addition, institutions should recognize the role of spirituality in supporting students' sense of meaning, resilience, and inner strength. Universities can provide safe and inclusive spaces where students are encouraged to reflect on personal values, purpose, and spiritual experiences without imposing specific beliefs. Programs that combine reflective practices, mindfulness, and engagement with nature may help students develop deeper self-understanding and coping skills. Educators and policymakers should therefore consider integrating ecological awareness and spiritual reflection into well-being initiatives and student development programs, contributing to a more balanced educational environment that supports both intellectual and emotional growth.

Author Contribution

NA: supervision, analysis, and writing. MAM: data collection and analysis; MTM: visualization and review; EMB: review. All authors contributed to the article and approved the submitted version.

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Conflict of Interest

There is no conflict of interest.

Declaration Statement

During the preparation of this work, the author(s) used ChatGPT to check and refine the language structure. After using this tool/service, the author reviewed and edited the content as needed and took full responsibility for the publication's content.

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