

*International Journal of Learning, Teaching and Educational Research*  
Vol. 21, No. 3, pp. 301-318, March 2022  
<https://doi.org/10.26803/ijlter.21.3.16>  
Received Jan 29, 2022; Revised Mar 23, 2022; Accepted Mar 30, 2022

## Relationship between Spirituality, Nature Connectedness, and Burnout of Schoolteachers during Online Classes amid Covid-19 Pandemic: The Moderating Role of Gender

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**Abstract.** The substantial changes in the workplace caused by the Covid-19 pandemic restrictions have contributed to teacher burnout. The purpose of this study was to gain an understanding of the relationships between spirituality, connectedness to nature, and burnout in schoolteachers, as well as to investigate the mediating part of spirituality in the relationship between connectedness to nature and burnout, and the moderating role of gender. This study was conducted using a quantitative method, with a sample size of 123 schoolteachers in Malaysia. Data analysis using partial least squares-structural equation modeling (PLS-SEM) revealed that schoolteachers who had a strong connection to nature were less likely to experience burnout. Spirituality acted as a buffer in the relationship between connection to nature and burnout. The results also differed according to gender for the nature connectedness-burnout relationship. Going forward, the findings of this study offer practitioners better insights about the importance of selected factors, including nature concreteness and spirituality as a promising avenue for reducing burnout among schoolteachers during online classes amid the Covid-19 pandemic.

**Keywords:** spirituality; nature connectedness; teacher burnout; Covid-19 pandemic

## 1. Introduction

As demonstrated by a growing body of data, those in the human service professions are at the greatest risk of professional burnout during the Covid -19 epidemic (Raudenská et al., 2020). When applied to education, a poll of US public sector employees released in October 2021 discovered that K-12 public schoolteachers were the most likely to experience increased levels of worry, stress, and burnout during the Covid -19 pandemic (Walker & Writer, 2021). When almost all occupations were affected, many switched over to an online mode of working, including the teaching in schools in which students and teachers had internet access. Many teachers were forced to change their teaching routines in a short period of time, which required them to acquire technology and didactic abilities, as well as to take on a greater role as a learning manager. This put an added external demand on the teachers (Mheidly et al., 2020). High expectations of teachers (for example, the difficult circumstance of school closures because of the COVID-19 pandemic) can harm their mental health and lead to job burnout (Weißenfels et al., 2022). Since teacher burnout is connected to a high incidence of turnover in the profession, increasing public knowledge of the negative implications of online teaching in the Covid-19 epidemic and providing practical methods to cope with its accompanying mental health issues is critical.

In all modes of education, teaching has historically been viewed as a difficult vocation (Richards et al., 2018). Teacher burnout is a significant, work-related threat associated with extended and exhaustive job stress (Foley & Murphy, 2015; Pyhältö et al., 2021). It takes three individual forms: the first is exhaustion, which is formally defined by a lack of effective vigor and a sense of being exhausted at work. The second is sarcasm, which is defined by apathy to engage in work, as well as sarcasm expressed toward co-workers at work. Finally, the third is professional inadequacy, which is formally defined by a reduced sense of individual accomplishment in the workplace (Pyhältö et al., 2021). Many studies have established an association between teacher burnout and various negative outcomes, including less impactful teaching, disruptive behavior in class, reduced relationships with students, and teacher turnover (e.g., Perrone et al., 2019). If teachers have increased levels of burnout, their students also experience increased levels of stress and reduced academic accomplishment (Oberle & Schonert-Reichl, 2016).

A substantial amount of evidence demonstrates that being connected to nature is a useful resource for lowering work-related stress (particularly burnout) (e.g., Yu et al., 2020). Tendais and Ribeiro (2020) discovered that when people are cut off from nature during a pandemic, their anxiety and stress levels increase. Disconnection is especially critical when seen in conjunction with the Stress Recovery Theory (Bratman et al., 2019), which implies that exposure to natural environments enhances recovery from stressful stimuli. Reduced access to, involvement with, and connection to nature also means that individuals are missing out on the benefits of nature for their overall well-being. This is especially true in a pandemic since research indicates that lockdowns and associated modifications in teaching practices, isolation from school, and fears of contagion have aggravated teacher burnout (Bignardi et al., 2021). Those with more frequent use of green spaces and views of green spaces from their windows fared better in

a poll of Japanese adults performed during the pandemic. They mentioned reduced anxiety and increased overall subjective satisfaction, proving that nature can reduce the degree of the mental health issues seen by the pandemic (Soga et al., 2021).

Numerous studies indicate that when confronted with stressful conditions, schoolteachers heavily rely on their spirituality (Matiz et al., 2020; Mirshahi & Barani, 2016). Previous empirical studies of public-schoolteachers in a variety of nations have demonstrated how teachers' spiritual beliefs and practices were used to cope with the numerous challenges they confront (e.g., Chirico et al., 2020). Spirituality is also relevant in understanding the beneficial impacts of nature on lowering burnout among schoolteachers via the ecopsychology theory (Roszak et al., 1995). According to this theory, one's 'ecological self' improves, based on a wide sense of spiritual and biophysical interactivity with the surrounding environment (Bragg, 1996; Wilson, 1996). This growth entails a shift in one's perception, a shift beyond the individualistic self-concepts, and towards a "field-like sense of one's self" that encompasses all of life's forms and the earth itself (Bragg, 1996, p. 95). Additionally, a prior study discovered that spirituality could mediate the relation between nature-connection and psychological well-being among Australians (Kamitsis & Francis, 2013). However, the relationship between spirituality and connectivity to nature and teacher burnout has received little attention. Understanding the roles of spirituality and nature-connection is thus critical for deciphering job stress among schoolteachers during the Covid-19 Pandemic.

Much previous research has identified a variety of socio-demographic characteristics as risk factors for teacher burnout, with gender appearing to be the most significant (e.g., Shadid et al., 2020). The body of literature has documented gender disparities in teacher burnout, connection to nature, and spirituality. According to the social role theory, men and women display distinct behaviors since they are socialized differently and have distinct responsibilities in society (Saad & Gill, 2000). Men are more proactive and self-directed than women, and they are more willing to take risks (Powell & Ansic, 1997). In contrast, women have more avoidant tendencies than men (Charness & Gneezy, 2012). Tamosiunas et al. (2014) claim that women engage more actively in nature-friendly situations than males do and gain more from them (e.g., mental health and stress recovery). A prior study discovered that mindfulness meditation had a beneficial effect on the mental health of Italian female teachers during the Covid-19 (Matiz et al., 2020).

Against this backdrop, many studies describing the impacts of nature on well-being were first formulated a few years ago but have not been the topic of the new Covid-19 outbreak (e.g., Trigwell et al., 2014). As a result, a better understanding of the link between nature connectedness and teacher burnout during the Covid-19 pandemic, as well as the function of spirituality, is needed. Furthermore, although many prior studies have identified a range of socio-demographic characteristics as risk factors for teacher burnout, no studies have looked at gender differences in nature connectivity, spirituality, and occupational burnout. Thus, the goal of this research is to investigate the relationships between connectedness to nature and spirituality, as well as the role of spirituality as a mediator between

connectedness to nature and teacher burnout, and to show whether gender acts as a moderator in the relationships between spirituality, connectedness to nature, and teacher burnout.

## 2. Literature Review

In this study, Roszak's (1992) ecopsychology theory and Ulrich et al.'s (1991) Stress Reduction Theory (SRT) are used to determine the relationship between spirituality, nature connectedness, and burnout of schoolteachers. Ecopsychology theory has been widely used in the human-nature connection. Spirituality, which is often thought by ecopsychology theorists to be experienced in and via a sense of connectivity with nature, might be significant to further an understanding of the positive benefits of nature on stress reduction. The formation of an individual's 'ecological self,' according to ecopsychology theory, happens in reaction to a wide sense of biophysical and spiritual connectivity to the natural world (Bragg, 1996). Stress Reduction Theory focuses on promoting psychophysiological stress reduction, based on the idea that natural stimuli may quickly trigger pleasant emotions and diminish physiological arousal and negative thoughts, facilitating stress recovery. Acknowledging these two theories, nature connectedness and spirituality identified as positive factors of schoolteacher burnout in this study, while spirituality and gender were identified as mediator and moderator factors.

### 2.1 Nature Connectedness and Teacher Burnout

Job burnout is a mental condition characterized by a protracted reaction to working pressures (Madigan & Kim, 2021). Its most important characteristic is emotional fatigue, which is defined by a physical stress reaction that is closely linked to work overload (Pogere et al., 2019). One solution is that schoolteachers may psychologically distance themselves from their work in general or work roles as a means of coping with this pressure. According to Reynolds et al. (2018), exposure to nature decreases anger, fear, and stress while increasing pleasant sensations. Results from a previous experimental study of 40 participants with burnout and stress-related complaints indicated that participants in the walk-and-talk group improved more on burnout, stress symptoms, general mental health, and wellbeing than those in the control group (van den Berg & Beute, 2021). In China, Yong (2021) found that increasing students' sense of connection to the environment was a significant method of preventing academic burnout in high school students. To date, however, there has been no clear relationship between nature connectedness and teacher burnout. The current study, therefore, proposed the following hypothesis:

*H<sub>1</sub>*: Connectedness to nature is negatively associated with teacher burnout.

### 2.2 Spirituality and Teacher Burnout

Spirituality is described as a person's inner experience and/or belief system that gives meaning to life and helps individuals to transcend their current circumstances (Burkhardt, 1989). Spiritual beliefs are linked to reduced levels of burnout, exhaustion, and depersonalization in various situations, according to most research (e.g., Trigwell et al., 2014). According to Lindholm and Astin (2006), teachers with a higher level of spirituality have an increased sense of integration and balance in their professional and personal lives, and improved alignment of

their values. Specifically, spirituality can be a useful resource. Bickerton et al. (2014a) found that spirituality was seen as an individual resource that was negatively related to burnout in a study of religious employees. Spirituality is also a common approach adopted by employees to cope with stress and burnout, according to the findings of a prior scoping review (De Diego-Cordero et al., 2021).

In Kamitsis and Francis's (2013) study on 190 Australians (132 females and 58 males), the mediating role of spirituality was examined in the relationship between engagement with nature and mental wellbeing. Spiritual well-being was validated as a mediator between nature exposure and connectivity to nature and was positively related to psychological health and increased reported spirituality, according to the researchers. Meanwhile, Trigwell et al.'s (2014) study on Australians indicated that spirituality serves as a link between being linked to nature and one of the six aspects of eudaimonic well-being. As a result, we suggest:

*H<sub>2</sub>*: Spirituality is negatively related to teacher burnout.

*H<sub>3</sub>*: Spirituality mediates the association between connectedness to nature and teacher burnout.

### **2.3 Moderating Role of Gender**

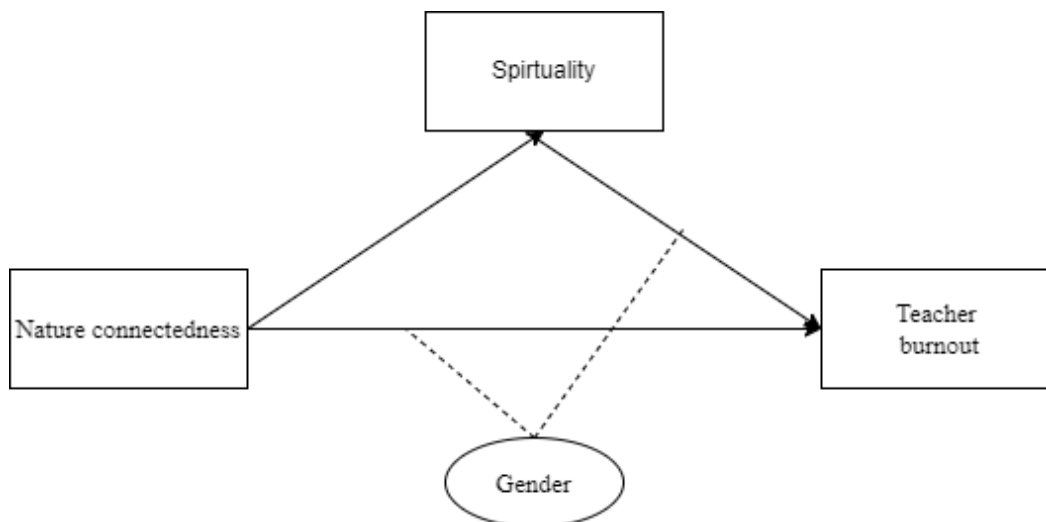
Scant research has proposed that gender is related to teacher stress and burnout (Ho, 2017). Gender differences in the reaction to greenness have been discovered in a some research concentrating on somatic health (e.g., Richardson & Mitchell, 2010) and workplace greenery (e.g., Lottrup et al., 2013). Green had a greater influence on males than females in some of these studies (e.g., Jiang et al., 2014), while other studies found a moderating role of gender on the relationship between workplace spirituality and organizational citizenship behavior. However, no research has studied the moderating role of gender in spirituality, nature connection, and teacher burnout. Accordingly, the study hypothesis was proposed:

*H<sub>4</sub>*. Gender moderates the relationship between the predictors and teacher burnout.

## **3. Methods**

### ***Study design, participants and procedure***

This study adopted a cross-sectional approach. A cross-sectional study is an investigation in which information is gathered from many persons. Variables are monitored without being altered in this kind of study (Check & Schutt, 2017). Figure 1 shows a conceptual model depicting the relationships between nature connectedness, spirituality, teacher burnout, and gender. According to G\*Power (Faul et al., 2009), a sample size of 115 would be needed to detect a small effect size with 80% of the power and a 5% significance.



**Figure 1: Study framework**

The UPM ethics committee reviewed and approved the research process. After signing a consent form, the questionnaires were delivered to participating schoolteachers, and permission to distribute questionnaires was obtained from government school instructors from the Ministry of Education via ERAS 2.0. ERAS 2.0 is an online operating platform created for researchers in Malaysia for applying educational research in schools (Ministry of Education, 2018). Participants were identified by a special code; their full names and other personal information were withheld.

Of 150 questionnaires distributed to schoolteachers using the snowball method through cluster random sampling from three schools in Malaysia, a total of 123 were received that could be used for analysis (82% return rate). Full-time teachers with a minimum of six months of teaching experience were required for inclusion. However, researchers were allowed to include teachers with some familiarity and adaption to the working conditions and environment and with a sense of belonging to the job. In terms of demographic information, 69 % of teachers were female. In terms of education, 20% had a diploma, 22% had an associate's degree, 40% had a bachelor's degree, and 18% had a master's degree in education. The bulk of participants (95.9 percent) in the current study were Malay. Age demographics were as follows: 33.3% of teachers were between the ages of 31 and 40, 31.7% between the ages of 41 and 50, and 21% between the ages of 21 and 30. The remaining responders (13%) were over the age of 51.

### 3.1 Measures

*The Spirituality Scale.* The Spiritual Values Scale (SVS; Hatch et al., 1998) was used to assess spirituality. The University College of Medical Science, the Institute of National High Education Research, and UPM adopted and adapted this instrument (Kamidin, 2011). The instrument contains 20 items that comprise four negative items. An example item is “*I pray for the well-being of others, including plants and animals*”. The acceptable Cronbach alpha value for the scale was 0.750.

*Connectedness to Nature Scale.* This scale was developed by Mayer and Frantz (2004). It includes 14-items and a seven-point Likert scale that ranges from 1 (Every day) to 7 (Never). It was used to estimate the sense of oneness with nature

surrounding them. A sample item is *"I often feel a sense of oneness with the natural world around me"*. The Cronbach's alpha for this measure was .72.

*Teacher Burnout Inventory*. This is based upon Maslach and Jackson's (1981) original burnout scale. The exhaustion item comprises Elo et al.'s (2003) single-item stress scale. The socio-contextual burnout scale was developed by identifying the social context of inadequacy and cynicism (Pyhältö et al., 2011), and comprises nine different items that measure three main factors of socio-contextual burnout, namely, (1) exhaustion (3 items), (2) cynicism to teaching community (3 items), and finally, (3) inadequacy in student and teacher interactivity (3 items) (Pietarinen et al., 2013). An example item is *"I feel that I have failed in my school work with students"*. This measure had a Cronbach's alpha of 0.756.

### 3.2 Questionnaire Translation and Pilot Study

The questionnaires were translated into Malay from English, and back-translation was undertaken to confirm the translation's quality. Three specialists were consulted for this purpose, and the questionnaires were appropriately changed based on their suggestions. Additionally, tests of face and content validity were undertaken to confirm the product's applicability to the local area. A pilot study with 30 schoolteachers was done to verify the instruments' reliability. The Spirituality Scale had a Cronbach's alpha coefficient of  $\alpha = .785$ ; the Connectedness to Nature Scale had a Cronbach's alpha coefficient of  $\alpha = .832$ ; and the Maslach's Burnout Inventory had a Cronbach's alpha coefficient of  $\alpha = 0.884$ . Following their reading of the consent letter and completion of the surveys, respondents were asked to note any difficulties or misunderstandings with the questionnaires. In general, respondents in the pilot study expressed satisfaction with the questionnaire's overall form and presentation. To enhance the measure's face validity, the survey questionnaire was revised further, based on participant feedback. As a result, these questionnaires demonstrated sufficient dependability in a sample of schoolteachers. The pilot study participants were eliminated from the main study population.

## 4. Data Analysis

The study hypotheses were evaluated using Partial Least Squares Structural Equation Modelling (PLS-SEM). This study was carried out by SmartPLS 3.3.7 (Ringle et al., 2015) software. Our measurements were verified first, and then our hypothesized model was evaluated using the SmartPLS 3.3.7 software, following Chin's (1998) and Gerbing and Anderson's (1988) two-step method. The authors used the PLS scripts with a bootstrapping defined at 5,000 samples with the Smart-PLS 3.0 program (Ringle et al., 2015; Sarstedt et al., 2016). The PLS approach was chosen over different regression models because it is capable of handling both the complicated model and the limited sample size ( $n = 123$ ), indicating its usefulness as an analytic methodology for this work (Carrión et al., 2016). Owing to the categorical nature of gender, the moderating effects of gender were studied using a multi-group comparison (Henseler & Fassott, 2010). To do this, two distinct groups were formed: men and women. The missing data for parcels and items were handled in SPSS software using the mean method. The data were declared normal since the skewness values for all variables ranged from -.915 to 0.218 and the kurtosis values ranged from -.923 to .433. According to Byrne (2016),

data are considered normal if the skewness value was in the range of -2 to 2, and the kurtosis was in the range of -7 to 7.

**Table 1: Construct reliability and validity measure**

Variable	Items	Loading	$\alpha$	rho_A	CR	AVE
Burnout			0.829	0.847	0.879	0.594
	I require more time to rest and feel better after teaching than in the past.	0.732				
	Working with my students puts me under an excessive amount of stress.	0.749				
	I feel that I have failed in my schoolwork with students.	0.813				
	I find myself getting so frustrated at work.	0.779				
	My physical illnesses maybe related to my job stress.	0.818				
	After teaching, I need more time than in the past to relax and feel better.	0.687				
Connectedness to nature			0.921	0.946	0.932	0.578
	I often feel a sense of oneness with the natural world around me.	0.702				
	I consider the natural world to be a community of which I am a member.	0.726				
	Other living species' intellect is something I acknowledge and value.	0.725				
	I frequently feel cut off from nature.	0.715				
	I picture myself as part of a bigger cyclical process of existence when I think of my life.	0.768				
	I have a strong bond with plants and animals.	0.796				
	I believe that all humans and nonhumans on Earth have common life energy.	0.803				
	I feel like I'm a part of the natural environment, as a tree is a part of a forest.	0.827				
	I frequently feel that I am a little component of the natural environment around me, no more essential than the grass on the ground or the birds in the trees.	0.797				



	When I examine my place on the planet, I believe myself to be at the top of a natural hierarchy.	0.737				
Spirituality			0.895	0.938	0.555	0.556
	Every negative thing that happens, I believe, has a lesson to teach us.	0.841				
	I feel that things that happen in my life are influenced by a bigger power.	0.612				
	My religion assists me in forgiving people.	0.871				
	I always take part in spiritual activities	0.765				
	My spiritual beliefs affect [absolutely/no] aspect of my life	0.643				
	When I'm having a difficult moment, I can turn to God for assistance.	0.680				
	Life has intrinsic significance.	0.718				
	I pray for the well-being of others, including plants and animals.	0.718				

## 5. Results

### 5.1 Preliminary analysis

Table 2 summarises the mean values, standard deviation values, and bivariate correlation values for spirituality, closeness to nature, and burnout among male and female students.

**Table 2: Mean, standard deviation, and bivariate correlations for all variables**

Variable	M	SD	Male			Female		
			1	2	3	1	2	3
1. Burnout	3.34 (3.28)	.651(.905)	1			1		
2. Connectedness to nature	5.22 (5.39)	.808 (.770)	-.298	1		-.279**	1	
3. Spirituality	3.34 (3.28)	.206 (.269)	-.447*	.441	1	-.402	.580**	1

Note. N= 123; \*\*p < .01; Results are presented as male (female).

To evaluate the measuring scales' qualities, we determined their convergent validity, reliability, and discriminant validity. The reliability criteria were satisfied, as shown by factor loadings over 0.7. The item-trimming technique was utilised to eliminate items with low loading values. As a result, items with factor loadings less than 0.07 were excluded from further analysis. The Fornell-Larcker and Heterotrait-Monotrait criteria were employed to identify discriminant validity, as highlighted by Fornell and Larcker (1981) as well as Henseler et al. (2015). Fornell-Larcker mentioned that the square root of every construct's AVE was over the correlation coefficients of the remaining constructs. The HTMT model revealed that the results were in the defined range of 0.85 (0.458–0.746) (see Franke & Sarstedt, 2019).

## 5.2 Structural model

Researchers can use a structural model to examine the model's explanatory power in predicting an endogenous variable (Sarstedt et al., 2016). In addition, the hypotheses, determination coefficients ( $R^2$ ), effect size values ( $f^2$ ), as well as Stone-Geisser ( $Q^2$ ) values were investigated at the structural model phase. The investigation shows that the data fit the model well since all models produced SRMR values less than 0.08, and NFI values greater than 0.8 (Henseler et al., 2016). While the structural model revealed a substantial positive relationship between nature connectedness and burnout ( $\beta = -.291$ ,  $t = 4.714$ ,  $p = 0.000$ ), spirituality and burnout had a non-significant relationship ( $\beta = -.143$ ,  $t = 1.148$ ,  $p = 0.251$ ). As illustrated in Figure 2, the data support only  $H_1$ . The  $R^2$  was used to determine the variance in job burnout which can be explained by nature connectivity and spirituality. A coefficient of determination greater than 0.104 is considered to have a poor coefficient of determination (see Henseler et al., 2015). The function,  $f^2$ , was shown to estimate the degree to which the exogenous variables (i.e., spirituality and nature connectivity) had an impact on the endogenous variable (i.e., job burnout). Cohen (1988) classed  $f^2$  as a small, medium, or big function when its value was 0.02, 0.15, or 0.35. The  $f^2$  values for nature connectivity and spirituality were 0.023 and 0.094, respectively, showing that nature connectedness and spirituality both had a small effect on job burnout.  $Q^2$  was used to determine the endogenous variable's predictive usefulness (job burnout). Henseler et al. (2015) defined  $Q^2$  as small, medium, or big depending on its value of 0.02, 0.15, or 0.35. The study indicated that  $Q^2$  had a value of 0.048, indicating a low predictive value for teachers' job burnout.

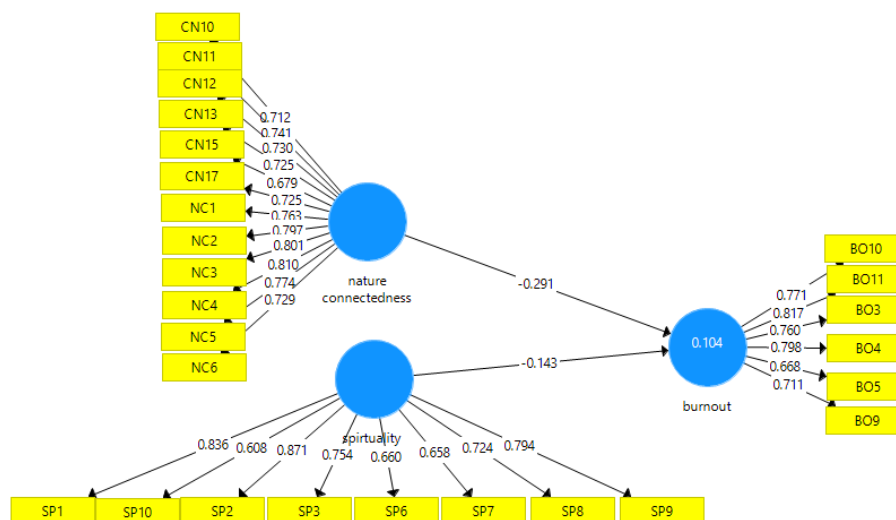


Figure 2. Structural model of the variables

Note:  $p < 0.01$  for all pathways

## 5.3 Mediating Effect of Spirituality

To assess the mediating function of spirituality in the link between natural connectedness and burnout, the statistical significance of indirect effects was determined using the bootstrap technique (Preacher & Hayes, 2008). At the alpha level of .05, an indirect impact was judged significant if the bias-corrected 95% Confidence Interval (CI) based on 5000 bootstrap samples did not include zero

(Preacher & Hayes, 2008). As indicated in Table 3, these results do not support the rejection of H<sub>3</sub>. In Table 3, the direct relationship between closeness to nature and burnout is significant in the presence of a mediator (spirituality) ( $\beta = -.292$ ,  $t = 4.035$ ,  $p < 0.001$ ). Spirituality partially mediates the association between connectivity to nature and burnout via indirect effect ( $\beta = -0.203$ ,  $t = 2.761$ ,  $p < 0.001$ ).

**Table 3. Mediation result**

Model "I" Total Effect				Model "II" Direct Effect			
Path	Coefficient	t-value	(95% CI)	Path	Coefficient	t	(95% CI)
NC→BO	-.289	4.349	-.465, -.193	NC→BO	-.292	4.035	-.412, -.153
Model "III" Indirect Effect				SP→BO	-.059	1.690	-0.123, 0.284
NC→SP→BO	-.203	2.761	-376, -.059	SP→NC	0.301	5.93	0.42, 0.71

**Note.** Connectedness to nature =NC; Burnout=BO; Spirituality=SP.

#### 5.4 Moderating Effect of Gender

To address the set of propositions that comprise H<sub>4</sub> in this study, a multi-group analysis utilising the PLS-MGA approach was conducted (Henseler, 2012). The results in Table 4 suggest that there are substantial positive and negative differences for H<sub>4</sub>. That is, we can affirm that gender has a moderating effect on the association between closeness to nature and teacher burnout. Surprisingly, gender had no moderating influence on the effect of spirituality on teacher burnout.

**Table 4. Multi-group analysis**

Hypotheses	Relationship	Female		Male		p-Value
		Standardized Parameter	t	Standardized Parameter	t	
H <sub>4a</sub>	SP→BO	-.0261	0.196	-.034	.189	0.499
H <sub>4b</sub>	NC→BO	-0.152 ***	3.554	-0.166 ***	2.165	0.018

**Note.** Connectedness to nature =NC; Burnout=BO; Spirituality=SP.

## 6. Discussion

The current study focused on schoolteachers and aimed to examine the association between spirituality, nature connectedness, and teacher burnout, with a particular focus on the role of spirituality as a mediator of the nature connectedness–teacher burnout relationship, as well as the moderating role of gender in those relationships. The outcomes of this study suggest that nature connectivity and spirituality are significant predictors of burnout in schoolteachers, both directly and indirectly. Connectedness to nature and spirituality accounted for 10.4 percent of the variance in teacher burnout.

The findings corroborate prior findings that relate to green spaces and scenes of greenery (e.g., planting, courtyard gardens) that had a beneficial effect on mental health throughout the lockdown (Ribeiro et al., 2021). One study discovered that active interaction with indoor plants can help to alleviate physiological and psychological stress (subjects mentioned feeling more at ease and soothed) compared to mental or computer activity (Lee et al., 2015). After these links, the mechanisms underlying them may be explained by the SRT. Consistent with the

SRT, exposure to nature can help minimize physiological responses to stress (Ulrich, 1983). Studies have shown that being in natural areas has higher restorative effects than being in more synthetically created outdoor or indoor situations, proving the stress-recovery idea (Yusli et al., 2021). Visitors to natural habitats, as opposed to those who visited a more developed outdoor setting or an indoor sports facility, experienced a substantial reduction in both psychological and physical stress levels following their visit, according to experimental research by Ewert and Chang (2018). This finding confirmed that nature connectivity is a critical factor to consider when developing healthier education professionals. Promoting teachers' well-being is critical for their sustainability and productivity, as well as for preventing burnout associated with remote teaching during a time of global crisis caused by the Covid-19 pandemic.

Our data established that there is no correlation between spirituality and teacher burnout, and they indicate that spirituality is unrelated to the mental difficulties and stress experienced by instructors during Covid-19. This outcome was contradictory to prior empirical research examining spirituality as a resource in the JD-R model for burnout development (Bickerton et al., 2014a). This may be related to differences among the samples as Bickerton et al. (2014a, 2014b) examined a sample of religious employees. This might also be due to teachers' and religious staff's differing attitudes and worldviews. Akhondi et al. (2017) also discovered that teachers' feelings of purpose at work and unity between work and life varied from that of other employees.

Spirituality acted as a mediator between connectivity to nature and teacher burnout, according to empirical studies. This suggests that even at the highest levels of spirituality, schoolteachers who were more connected to nature were less likely to experience job burnout. The findings of this study corroborate prior studies demonstrating beneficial associations between contact with nature and psychological well-being, as well as between spirituality and psychological well-being (Kamitsis & Francis, 2013). These findings suggest that a teacher's spiritual orientation can include a strong connection to nature. According to recent research (Yıldırım et al., 2020), a more developed spiritual orientation mitigates the detrimental effects of coronavirus stress. Furthermore, these results offer some empirical support for an underlying theoretical premise of ecopsychology theory, namely, that the human-nature interaction is rooted in a sort of engaged spirituality (e.g., Kamitsis & Francis, 2013). While this may be explained by exposure to nature, Kaplan (1995) believes that both exposures to nature and meditation must be tailored to the individual's inclinations, motivations, and talents. He argues that the untrained meditator, who frequently engages in effortful meditation, will have an easier time accessing soft fascination in a restorative atmosphere (Kaplan, 1995).

Finally, gender appears to play a mitigating influence in the relationship between connectivity to nature and teacher burnout. This shows that, for female schoolteachers, nature may be a relatively inexpensive and widely accessible technique for reducing job burnout and preventing the development of poor mental health. Our findings contradict a recent study that revealed that while designed green spaces reduced men's burnout by a statistically significant amount, women's burnout did not decrease in a statistically significant way.

However, it was confirmed that both men and women had decreases in burnout (Yu et al., 2020). Thus, the current study emphasises the critical importance of gender disparities in teacher burnout research.

## **7. Conclusion**

The current findings conclude that engaging with nature can help prevent schoolteacher burnout. Spirituality was one mechanism which contributed to teacher burnout improvement. In addition, spirituality entirely buffered the effect of nature connectedness and teacher burnout. Gender contributed to the moderating relationship of nature connectedness on teacher burnout. These findings support the underlying theoretical assumptions of ecopsychology theory and SRT. In practice, the findings suggest the promotion of nature and spirituality as a strategy of preventing burnout in teachers during the COVID-19 epidemic.

## **8. Limitations and Recommendations**

This study comes with several limitations, among them, a relatively small sample size, a self-reported data gathering process, as well as a cross-sectional framework. It is advised that other studies consider larger sample sizes, adopt the longitudinal approach, and integrate more data collection approaches such as observations and face-to-face interviews. Owing to the different sample sizes between the males and females in this study, gender variance analysis for the suggested model was unachievable. It is advised that future studies conduct a gender variance analysis on the proposed model, taking into consideration approximately equal sample sizes for males and females. This study relied on self-reporting, and individuals may overstate their responses to self-report questionnaires for socially desirable reasons. It is reasonable to believe that an interview with each participant would have enabled us to eliminate the aforementioned restriction. Despite these limitations, it should be highlighted that the study used a non-clinical sample and that our findings will be beneficial for schoolteachers who are at risk of burnout. Future research may aim to replicate the current findings in a clinical sample (e.g., schoolteachers with a clinical burnout diagnosis).

## **9. Implications**

Despite these limitations, we have made a substantial contribution to practice and research with this study by looking at nature connectedness, teachers' burnout, and the impact of spirituality, all of which have received little previous attention. Based on the findings, it is critical to consider both the individual's relationship to nature and spiritual practice when treating teacher burnout. To date, numerous organizations have employed nature-based initiatives to promote employees' mental health (e.g., Gritzka et al., 2020). However, due to the outbreak, such direct physical access to nature is currently impractical. As a result, additional solutions are required, particularly those that may be applied to schoolteachers, who are more likely to work remotely and live in confined homes with limited access to natural areas as a result of the pandemic. This study demonstrates that exposure to the outdoors, even through windows, may improve the working life of schoolteachers during the Covid-19 pandemic. According to prior research, increasing the amount of greenery on building grounds and upgrading the

structure of windows benefits staff wellness (Dzhambov et al., 2021). Providing better views of greenery to confined schoolteachers may help prevent burnout and its associated repercussions. Furthermore, certain additional techniques may be considered. For example, one initiative is utilising virtual reality technology to convey the spiritual advantages of outdoor exposure, which could be beneficial for healthcare and educational systems. Levi and Kocher (1999) stressed the need of using virtual nature to enliven spiritual experiences and foster human growth.

## 10. References

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