

The Role of Mindfulness in Building Sustainable and Compassionate Education

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Abstract

This study explores the role of mindfulness in moderating the relationship between job satisfaction, stress levels, and teaching practices among teacher-trainers in Sri Lanka. Drawing from both Buddhist and Western psychological frameworks, the research addresses a key gap in the application of mindfulness within the Sri Lankan teacher education context. Teacher-trainers at the National Institute of Education (NIE) often experience high stress and burnout, which can negatively impact their professional effectiveness and well-being. The study adopts a mixed-methods approach using validated instruments such as the Five Facet Mindfulness Questionnaire (FFMQ), the Teacher Stress Inventory (TSI), and the PIRLS Job Satisfaction Scale. Quantitative data from 148 teacher-trainers were analyzed using Structural Equation Modelling (SEM), Confirmatory Factor Analysis (CFA), and multiple regression to assess the relationships among key variables. Findings indicate that mindfulness significantly moderates the effects of stress and teaching practices on job satisfaction. Higher levels of mindfulness were associated with greater job satisfaction and improved teaching practices, even under stressful conditions. The results underscore the potential of mindfulness as a practical tool to enhance emotional regulation, resilience, and overall professional performance. This research contributes to the growing body of evidence supporting mindfulness-based interventions in education. It also highlights the importance of culturally relevant mindfulness training for teacher development in Sri Lanka. The study offers recommendations for integrating mindfulness into teacher education programs and suggests directions for future research, including longitudinal studies and expanded intervention models.

Keywords: *Mindfulness, Job Satisfaction, Stress Management, Teaching Practices, Educator Well-being*

Introduction

In today's fast-paced and demanding educational environment, teacher-trainers often face significant challenges such as heavy workloads, tight deadlines, and professional burnout. These issues can negatively affect their job satisfaction and overall well-being. Mindfulness, a concept rooted in ancient Buddhist traditions and increasingly adopted in modern psychological practices, has gained attention as a valuable tool for managing stress and promoting resilience. In Sri Lanka, teacher-trainers play a vital role in shaping the quality of education, yet there is limited research exploring how mindfulness can support their professional and emotional well-being. While global studies have demonstrated the benefits of mindfulness for educators, there is a clear gap in research that applies these findings to Sri Lanka's unique cultural and educational context.

This study addresses that gap by investigating how mindfulness influences stress levels, teaching practices, and job satisfaction among teacher-trainers in Sri Lanka. By integrating Buddhist principles with contemporary psychological frameworks, the research seeks to understand the practical role of mindfulness in fostering teacher well-being and improving educational outcomes. The main objective of this research is to examine how mindfulness moderates the relationship between job satisfaction, stress,

and teaching practices. This work aims to offer evidence-based insights for developing culturally relevant mindfulness programs within teacher training institutions in Sri Lanka.

Research Problem

While mindfulness has gained global recognition as a critical intervention for stress reduction and enhancing well-being, its application among teacher-trainers in Sri Lanka remains underexplored. Teacher-trainers, particularly those at the National Institute of Education (NIE), play a pivotal role in shaping the future of education. However, they face significant professional challenges, including high workloads, tight deadlines, and diverse stakeholder expectations. These demands contribute to elevated stress levels, professional burnout, and decreased job satisfaction, ultimately impacting their effectiveness and the quality of education delivered to future teachers. Although extensive research in Western contexts has demonstrated the efficacy of mindfulness-based practices in mitigating stress, improving teaching practices, and enhancing job satisfaction, there is a notable lack of studies contextualized to Sri Lanka's unique socio-cultural and professional environment. Specifically, the integration of Buddhist mindfulness principles with modern educational frameworks has not been thoroughly examined. Kanojan examines job satisfaction and intent to leave among graduate teachers in government schools in Sri Lanka. The high levels of burnout among these teachers indicate that Sri Lanka faces similar challenges with teacher stress as seen in other regions.

This research seeks to address these gaps by exploring how mindfulness influences teacher-trainers' stress levels, teaching practices, and job satisfaction within the Sri Lankan educational context. By doing so, it aims to contribute to the development of sustainable, culturally relevant strategies to enhance teacher well-being and professional performance.

Rationale

Teacher-trainers in Sri Lanka face immense stress due to demanding workloads and the critical nature of their roles. Despite the global emphasis on mindfulness as a tool for reducing stress and enhancing well-being, there is limited research contextualized to Sri Lankan teacher-trainers. By integrating Buddhist teachings and Western mindfulness practices, this study aims to fill this gap, offering culturally relevant insights into stress management and job satisfaction. Mindfulness provides a pathway to harmonize professional challenges with personal well-being, fostering a more sustainable and compassionate educational environment.

Research Objective

The objective of this study is to investigate how mindfulness affects the relationship between job satisfaction, stress levels, and teaching practices among teacher-trainers.

Relevance of The Study

This research is crucial for Sri Lanka's education sector, focusing on the impact of mindfulness training on teacher-trainers to enhance their well-being, improve training quality, and support tailored interventions. By integrating Buddhist teachings with modern mindfulness practices, the study bridges tradition and contemporary education, fostering sustainable practices and cultural continuity. It highlights the potential of mindfulness to reduce stress, boost job satisfaction, and enhance professional performance, ultimately benefiting teacher-trainers, students, and the broader educational community.

The findings offer evidence to guide policies and develop mindfulness-based programs, ensuring holistic educational approaches and improved learning outcomes while contributing to the broader adoption of mindfulness in society.

This study highlights the importance of mindfulness as a tool to enhance teacher well-being and create an educational environment that is not only productive but also compassionate and inclusive. Research has shown that mindfulness can improve various aspects of professional life, including job satisfaction and stress management. For example, Kabat-Zinn (2003) found that mindfulness interventions can significantly reduce stress and improve well-being.

Teacher-trainers at the National Institute of Education (NIE) in Sri Lanka provide training and support to enhance teachers' skills and ensure quality education. However, the demanding nature of their work, characterized by high workloads, pressure to meet performance standards, and constant interaction with diverse stakeholders, can lead to stress, burnout, and decreased well-being.

Literature Review

Mindfulness, originating from the Buddhist concept of *sati*, refers to non-judgmental present-moment awareness. In Buddhism, it is a foundational mental quality developed through meditation (Thich Minh Chau, 2009). In the psychological domain, Kabat-Zinn (2003) introduced mindfulness to clinical settings through Mindfulness-Based Stress Reduction (MBSR), framing it as a method to enhance well-being and reduce stress. This dual perspective — traditional and psychological — provides a holistic base for studying mindfulness in teacher education.

Research confirms that mindfulness supports stress management and job satisfaction across professions. Brown and Ryan (2003) found that mindfulness enhances emotional regulation, while Baer (2003) and Grossman et al. (2004) showed it reduces anxiety and improves mental health. Shapiro et al. (2007) specifically examined professionals in training, highlighting how mindfulness improves well-being. In education, Roeser et al. (2012) and Frank et al. (2016) showed that mindfulness interventions support classroom engagement and teacher resilience. Hülshager et al. (2013) and Siegel (2007), further linked mindfulness to increased job satisfaction and lower burnout.

Despite this robust international evidence, there is a noticeable lack of studies focusing on mindfulness among teacher-trainers in Sri Lanka. Existing research largely targets Western contexts and classroom teachers, not teacher educators. Moreover, the integration of Buddhist mindfulness traditions into teacher training programs remains underexplored. This study addresses that gap by evaluating the moderating role of mindfulness in job satisfaction, stress, and teaching practices among Sri Lankan teacher-trainers.

Methodology

Data Collection and Measures

A survey method was employed to collect data from teacher-trainers at the National Institute of Education (NIE) in Sri Lanka. A Likert-scale questionnaire was developed based on existing mindfulness research

instruments and adapted to the Sri Lankan context to assess the relationship between job satisfaction, stress levels, and teaching practices. The sampling strategy for this research involves a census approach, targeting the entire population of teacher-trainers (148) at the National Institute of Education (NIE) Sri Lanka. Unlike typical sampling methods that select a subset of the population, a census approach aims to collect data from all eligible individuals within the defined group.

The target population comprises all 148 teacher-trainers employed at NIE Sri Lanka. This population is selected due to its relevance and direct involvement in teacher training and professional development, representing a balanced demographic. The group consisted of 55% females and 45% males, with diverse age ranges, educational qualifications, and professional experiences. Most participants held advanced degrees (55% master's, 15% doctorates) and identified as Buddhist (70%). Their professional experience ranged from less than 5 years (10%) to over 20 years (15%). This diverse sample allowed for a comprehensive analysis.

Data collection methods

The rationale for selecting the questions is rooted in a comprehensive review of existing scales and questionnaires. The aim was to ensure that the questions were relevant to the context of mindfulness and its impact on teacher-trainers in Sri Lanka. Data were collected using validated scales, including the FFMQ, PIRLS and TSI, adapted to the Sri Lankan context. Cultural considerations informed the wording and format of questions to ensure relevance. Self-reported data were collected anonymously to mitigate biases. Data was collected using structured questionnaires distributed to all teacher-trainers at NIE. The questionnaire included sections on: Demographic information, Internalization of The Mindfulness, Mindfulness on Teacher-Trainers' Concerning Stress Levels, Mindfulness on Trainers' Teaching Practices and Job Satisfaction. Perceived changes in teaching practices the questionnaire was developed after a thorough examination of relevant scales and previously published research works. It is categorized to address the research questions and objectives for this particular research endeavor.

Data analysis method

The quantitative data were analysed using IBM SPSS v.27 and AMOS 24. Descriptive statistics to explore the distribution of the data, creating charts, diagrams, histograms, pie charts, and clustered bar charts were used to analyse and interpret the demographic characteristics and the responses related to mindfulness, stress levels, teaching practices, and job satisfaction. The analyses included outlier detection, normality and reliability tests, dimension reduction, including mean, standard deviation, skewness, and kurtosis and assessments of linearity and multicollinearity. For correlation analysis, I used the Karl Pearson Test, Chi-square tests, regression analyses, autocorrelation assessments, and moderating effect analyses to examine the impacts of mindfulness. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were utilized to validate the measurement models, while Structural Equation Modelling (SEM) tested the relationships among variables. Initial items that did not explain enough variance were removed. Initially, for mindfulness it was 8 and reduced to 6, for stress level it was reduced to 4 from 5, for teaching practice it was reduced to 4 from 5 and for job satisfaction no questions were removed. Hypotheses were tested using Pearson correlation analysis, two-tailed tests, and linear regression analysis to identify whether there is a significant relationship that validates the hypotheses. Multiple linear regression analysis investigated the moderating effects of mindfulness, based on the

method established by Professor Andrew Hayes, particularly concerning stress levels, teaching practices, and job satisfaction. A conceptual framework was developed and analyzed. Since significant moderating effects were found, slope analysis was performed to convert continuous variables into categorical variables, followed by slope analysis for moderating effects.

A mixed-methods approach was adopted to provide both depth and breadth to the analysis of how mindfulness influences teacher-trainer well-being. This design allowed the researcher to gather quantitative data on measurable constructs such as stress, job satisfaction, and mindfulness, while also gaining contextual insights specific to the Sri Lankan education system. The study employed validated tools namely the Five Facet Mindfulness Questionnaire (FFMQ), the Teacher Stress Inventory (TSI), and the PIRLS Job Satisfaction Scale due to their reliability, international recognition, and adaptability to the local context.

A census sampling method was used to include all teacher-trainers at the National Institute of Education (NIE), ensuring representativeness and minimizing sampling bias. Analytical techniques such as Structural Equation Modelling (SEM), regression analysis, and moderation testing were selected for their ability to examine complex relationships between variables and test the moderating role of mindfulness. These statistical tools are well-suited to assess both direct and indirect effects, increasing the study's analytical rigor and validity.

Limitations of the study

1. Cross-Sectional Design was employed capturing data at a single moment in time. Although this method offers a glimpse into the relationships among mindfulness and the variables studied, it does not allow for the tracking of changes or trends over time. As a result, the long-term effects of mindfulness practices on teacher-trainers remain unexamined, indicating a need for future longitudinal studies to fill this gap.
2. Self-Reported Data introduces the possibility of response bias. Participants may inadvertently have inflated or deflated their mindfulness levels, stress levels, or job satisfaction due to factors like social desirability, memory constraints, or personal interpretations. This dependence on self-reporting highlights the importance of using additional data collection methods, such as observational techniques or physiological assessments, to improve the reliability of the findings.
3. Cultural Specificity of this study are closely tied to the Sri Lankan context, influenced by its distinct cultural, social, and institutional traits. While this specificity provides valuable insights for Sri Lankan teacher-trainers, it may limit the generalizability of the findings to other cultural or institutional environments. Additional research is necessary to determine whether similar trends arise in varied contexts, thus enabling the broader applicability of the conclusions.

By recognizing these limitations, the study creates opportunities for future research to expand on its findings, refine its methods, and broaden its scope, contributing to a more thorough understanding of mindfulness and its effects.

Analysis and Interpretation

Job satisfaction is essential for professional fulfilment, especially in demanding fields like education. In Sri Lanka, teacher-trainers face various challenges that can lead to burnout and reduced job satisfaction.



Mindfulness, which emphasizes self-awareness and acceptance, presents a valuable solution to these issues. Incorporating mindfulness into professional development can enhance teachers' sense of purpose, resilience, and overall well-being. Research indicates that mindfulness can reduce stress, improve emotional health, and strengthen relationships, all contributing to job satisfaction. This chapter explores the connection between mindfulness and job satisfaction among Sri Lankan teacher-trainers, aiming to highlight how mindfulness can help manage workplace challenges and foster enduring career fulfilment.

Satisfaction is a broad term that refers to the fulfilment of one's needs, desires, and expectations. It is a state of contentment that can be experienced in various aspects of life, including personal, social, and professional domains. Job Satisfaction is a specific type of satisfaction that pertains to one's feelings about their job. It encompasses various factors such as the nature of the work, compensation, work environment, relationships with colleagues, and opportunities for growth and development. Job satisfaction is crucial as it can influence an individual's performance, motivation, and overall well-being. Job satisfaction is the enjoyment an employee feels from their work. Teacher-trainers' Job Satisfaction refers to the specific job satisfaction experienced by those who train and mentor teachers. This can be influenced by factors such as the effectiveness of their training programs, the support they receive from their institutions, their relationships with trainees, and their own professional development opportunities.

Buddhist Teachings on Job Satisfaction

In the Buddhist context, satisfaction is often linked to the concept of contentment (*santutti*) and the understanding of the nature of desire and suffering. The Buddha's teachings emphasize the importance of finding inner peace and contentment through mindfulness and ethical living. In the *Madhupiṇḍikasutta*. The Buddha describes the sequence of events that lead to suffering as Contact; Dependent on the eye and forms, eye-consciousness arises. The meeting of the three (eye, forms, and consciousness) is contact. Feeling; With contact as a requisite condition, feeling arises. Perception; What one feels, one perceives. Thinking; What one perceives, one thinks about. *Papañca*; What one thinks about, one "papañca" (engages in mental proliferation). Through this process, the individual becomes entangled in their own thoughts and perceptions, leading to conflict and suffering. The root of this mental proliferation is the perception "I am the thinker," which gives rise to various categories such as being/not-being, me/not-me, and mine/not-mine. In the *Dhammapada*, it is stated: Even if it rained gold coins, still desires would not be satisfied; for the pleasures of the senses give little satisfaction and much pain. As per the Buddhist point of view, the satisfaction of an ordinary human being won't be needed. *Ananāsutta* explains the four types of happiness (*sukha*) that the Buddha taught to *Anāthapiṇḍika*; *Atthi Sukha* (The Bliss of Having Wealth): Happiness from possessing wealth earned righteously. *Bhoga Sukha* (The Bliss of Making Use of Wealth): Happiness from using wealth for enjoyment and making merit. *Anana Sukha* or Bliss of Debt lessness; Happiness from being free of debt. *Anavajja Sukha*, The Bliss of Blamelessness; Happiness from living a blameless life with pure actions.

These teachings emphasize that true happiness comes not just from wealth, but from ethical living and how wealth is used. Teaching trainers can indeed be satisfied under Right Livelihood (*Sammā Ājīva*),

which is part of the Noble Eightfold Path. Right Livelihood involves engaging in occupations that do not cause harm and are ethically sound. Teaching trainers, who develop the skills and knowledge of current and prospective teachers, align well with these principles. They contribute to the educational system by enhancing teaching practices, classroom management, and student engagement, which benefits society as a whole. The Buddha taught that ordinary satisfaction, derived from sensory pleasures and material wealth, is fleeting and often leads to more cravings and suffering. True and lasting satisfaction comes from understanding the nature of suffering and following the path to liberation. Research has shown that mindfulness can lead to numerous positive outcomes in the workplace, including enhanced job satisfaction, reduced emotional exhaustion, and improved emotion regulation. For instance, a study by Hülshager et al. (2013) found that mindfulness was positively related to job satisfaction and negatively related to emotional exhaustion, suggesting that mindfulness can serve as a valuable resource for employees. Mindfulness can enhance teachers' ability to manage work-life balance, which is crucial for maintaining job satisfaction and overall well-being. These findings suggest that although small doses of mindfulness training may be sufficient to foster increased perceptions of job productivity, longer-term mindfulness training programs are needed to improve focus, job satisfaction, and a positive relationship with work.

In the context of Sri Lanka, where the educational system is undergoing continuous reforms, the well-being of teacher-trainers is paramount. Mindfulness practices, rooted in the rich Buddhist heritage of the country, offer a culturally relevant approach to improving job satisfaction and reducing stress among teacher-trainers. The Satipatthanasutta, a key discourse in the Pali Canon, emphasizes the importance of mindfulness in achieving mental clarity and emotional stability. By integrating these ancient teachings with modern mindfulness practices, teacher-trainers can cultivate a more balanced and fulfilling professional life.

Data-driven insights into the impact on job satisfaction

The quantitative data gathered relevant to the job satisfaction through distributing questionnaires among the 148 population of teachers-trainers currently employed at NIE was analysed as follows.

A reliability analysis was conducted (refer appendix) on the five-item Job Satisfaction (JS) scale, designed to measure the job satisfaction levels of teacher-trainers. The scale demonstrated excellent reliability, with a Cronbach's alpha of 0.940, indicating a very high degree of internal consistency. The corrected item-total correlations ranged from 0.782 (Job Satisfaction 1) to 0.900 (Job Satisfaction 3), showing strong correlations between individual items and the total scale score. The "Cronbach's Alpha if Item Deleted" values ranged from 0.915 to 0.936, confirming that the removal of any individual item would not significantly improve the overall reliability of the scale. The overall scale had a mean of 19.38, a variance of 18.441, and a standard deviation of 4.294. These results indicate that the five-item Job Satisfaction (JS) scale is a robust and reliable tool for assessing job satisfaction among teacher-trainers. The exceptionally high Cronbach's alpha value of 0.940 exceeds the commonly accepted threshold of 0.70, confirming the strong internal consistency of the scale. The high corrected item-total correlations and minimal improvement potential in alpha values upon item deletion further support the scale's validity. These findings suggest that the five-item Job Satisfaction (JS) scale effectively captures the construct of job satisfaction in teacher-trainers and is suitable for use in exploring its relationships with other variables, such as mindfulness, stress levels, and teaching practices.

Normality

To evaluate the normality of job satisfaction variables for teacher-trainers at the National Institute of Education (NIE) in Sri Lanka, we assessed the skewness and kurtosis values. According to Hair et al. (2010) and Byrne (2010), all skewness values are within the acceptable range of -2 to +2, and kurtosis values range from -7 to +7. This suggests that the job satisfaction data is approximately normal, meeting the assumption required for parametric statistical tests. Hence, no data transformations are needed, and parametric analyses can proceed.

The job satisfaction variable showed a skewness of -1.136 (SE = 0.199) and a kurtosis of 2.119 (SE = 0.396). Both values are within the acceptable ranges for normality, indicating that the data meets the assumptions for parametric testing.

Factorability test (Sample adequacy)

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy: 0.891. This excellent KMO value indicates that the sample is highly suitable for factor analysis. Bartlett's Test of Sphericity: Chi-Square = 668.457, $df = 10$, $p < 0.001$. The significant result confirms that the variables are intercorrelated, justifying the use of factor analysis to examine their relationships.

The initial communalities are all set to 1.000, which is a standard assumption in factor analysis, indicating that each variable is fully explained by the model before extraction. The extraction communalities represent the proportion of each variable's variance explained by the extracted factors: The extraction communalities show the proportion of variance explained by the factors: 73.5%, 76.6%, 88.5%, 85.9%, and 79.5%, respectively.

These communalities show that the extracted factor(s) account for a significant proportion of the variance in each job satisfaction item, with the highest proportion of explained variance observed in Job Satisfaction 3 (88.5%).

The Initial Eigenvalues and Extraction Sums of Squared Loadings show that Component 1, with an eigenvalue of 4.040, explains 80.8% of the variance, making it the most significant factor. The remaining components contribute minimally, with variances of 7.4%, 5.1%, 4.2%, and 2.4%, respectively.

The factor analysis shows that a single factor explains 80.8% of the total variance in the job satisfaction items. This indicates that all the items are measuring a shared underlying concept of job satisfaction. The high communalities and the dominance of the first component confirm that the data is unidimensional, meaning the items are strongly linked to this single factor. These findings suggest that the job satisfaction items effectively capture the concept of job satisfaction in this context.

Amos Analysis

Interpretation of Results

In this study, the key variables are clearly defined to ensure clarity and consistency throughout the research.

Mindfulness refers to the practice of maintaining present-moment awareness with non-judgmental acceptance of thoughts, feelings, and bodily sensations (Kabat-Zinn, 1990, p. 4). In this study, mindfulness is measured using the Five Facet Mindfulness Questionnaire (Baer et al., 2006).

Stress is defined as a psychological and physical response to external pressures or demands that challenge an individual's ability to cope (Lazarus & Folkman, 1984, p. 12). This study uses the Teacher Stress Inventory (Fimian, 1984) to measure stress levels.

Job satisfaction is conceptualized as the degree to which individuals feel fulfilled and content with their professional roles and working conditions (Spector, 1997, p. 26). The PIRLS Teacher Job Satisfaction Scale (Martin et al., 2016) is used for measurement.

Teaching practices refer to the strategies and methods employed by educators to facilitate learning and foster student engagement (Marzano et al., 2003, p. 10). These practices are assessed using the Mindfulness in Teaching Scale (Frank et al., 2016).

The results were interpreted in the context of existing literature as well, exploring how mindfulness training has impacted the trainers' well-being and professional practice. The study by Haspolat and Çırakoğlu (2021) highlights the crucial role of mindfulness as a moderator in complex psychological processes. The study by Levesque and Brown (2007) provides compelling evidence for the selection of mindfulness as a moderator. Their research demonstrates that mindfulness significantly moderates the relationship between implicit motivational self-concept and day-to-day behavioural motivation. Here researcher supports the selection of mindfulness as a moderator in research, underscoring its potential to influence various mental health outcomes and improve well-being. By moderating the effects of stress and teaching practices on job satisfaction, mindfulness can provide valuable insights into how teacher-trainers in Sri Lanka can better manage their professional challenges and enhance their overall well-being.

EFA and CFA analysis

The quantitative data gathered relevant to the mindfulness, teaching practices, stress level and job satisfaction through distributing questionnaires among the 148 population of teachers-trainers currently employed at NIE was analysed as follows.

Descriptive of the conformed observed variables are tabulated below.

Table 1. Descriptive data of all the variables used in EFA and CFA.

Variable	Mean	SD	Skewness	Kurtosis
C1	3.57	1.057	-.740	.335

C2	3.51	1.487	-.681	-1.006
C3	3.99	1.184	-1.021	.145
C4	3.04	1.049	-.082	-.425
C5	3.76	.987	-.956	.840
C6	3.53	1.046	-.470	-.276
C7	3.76	.945	-.867	.686
C8	3.84	.948	-.932	.872
S1	3.35	1.112	-.251	-.663
S2	2.66	.994	-.037	-.752
S3	3.58	.962	-.838	.521
S4	3.16	1.082	-.394	-.438
S5	3.00	1.155	-.107	-.750
T1	2.54	1.084	.154	-.810
T2	3.64	1.051	-.649	-.072
T3	3.72	1.113	-.858	.292
T4	2.74	1.268	.130	-1.154
T5	2.53	1.006	.412	-.451
J1	3.85	.957	-.923	.803
J2	3.81	.943	-.698	.555
J3	3.85	.943	-.882	.852
J4	3.84	.948	-.835	.730
J5	4.03	.989	-1.251	1.688
N	148	SE	.199	.396

Each construct assesses a unique aspect of the overall model with minimal overlap. For instance, the HTMT value between Mindful and Stress is 0.079, while between Mindful and JobSat, it is 0.571, highlighting their distinctiveness. This distinction supports the validity of the measurement model. The structural equation model (SEM) illustrates the relationships among four latent variables: Mindfulness,

Job Satisfaction, Stress Level, and Teaching Practices, along with their observed indicators. The fit indices and correlation matrix indicate significant relationships within the model.

Table 2. Exploratory Factor Analysis.

Variable	Chi-Square	Df	KMO	CA	No of Items	Sig.
Mindful	432.279	15	0.832	0.858	6	< 0.000
Stress	52.881	3	0.627	0.619	3	< 0.001
TPrac	46.028	3	0.570	0.543	3	< 0.001
JobSat	668.457	10	0.891	0.940	5	< 0.001

The KMO values above 0.6 and significant Bartlett's test ($p < 0.05$) indicate sampling adequacy for all constructs (Hair et al., 2010). Cronbach's Alpha (CA) values above 0.7 for Mindfulness and Job Satisfaction indicates good reliability; Stress and Teaching Practices require improvement.

Confirmatory Factor analysis (CFA)

The Confirmatory Factor Analysis (CFA) results demonstrate a strong model fit and validity. The Chi-square statistic is 145.180 ($df = 81$, $p < 0.05$), indicating some discrepancies between the observed and expected covariance matrices. While the significant p-value suggests misfit, other fit indices provide a clearer picture. The Comparative Fit Index (CFI) is 0.937, and the Root Mean Square Error of Approximation (RMSEA) is 0.079, with a 90% confidence interval of 0.054 to 0.092, indicating reasonable fit. The Tucker-Lewis Index (TLI) at 0.918 shows significant improvement over the baseline model. Overall, these indices confirm a strong model fit, although minor improvements are possible. After correlation analysis, we removed the Mindful8 and JobSat4 questions to optimize fit and validate the relationships between constructs.

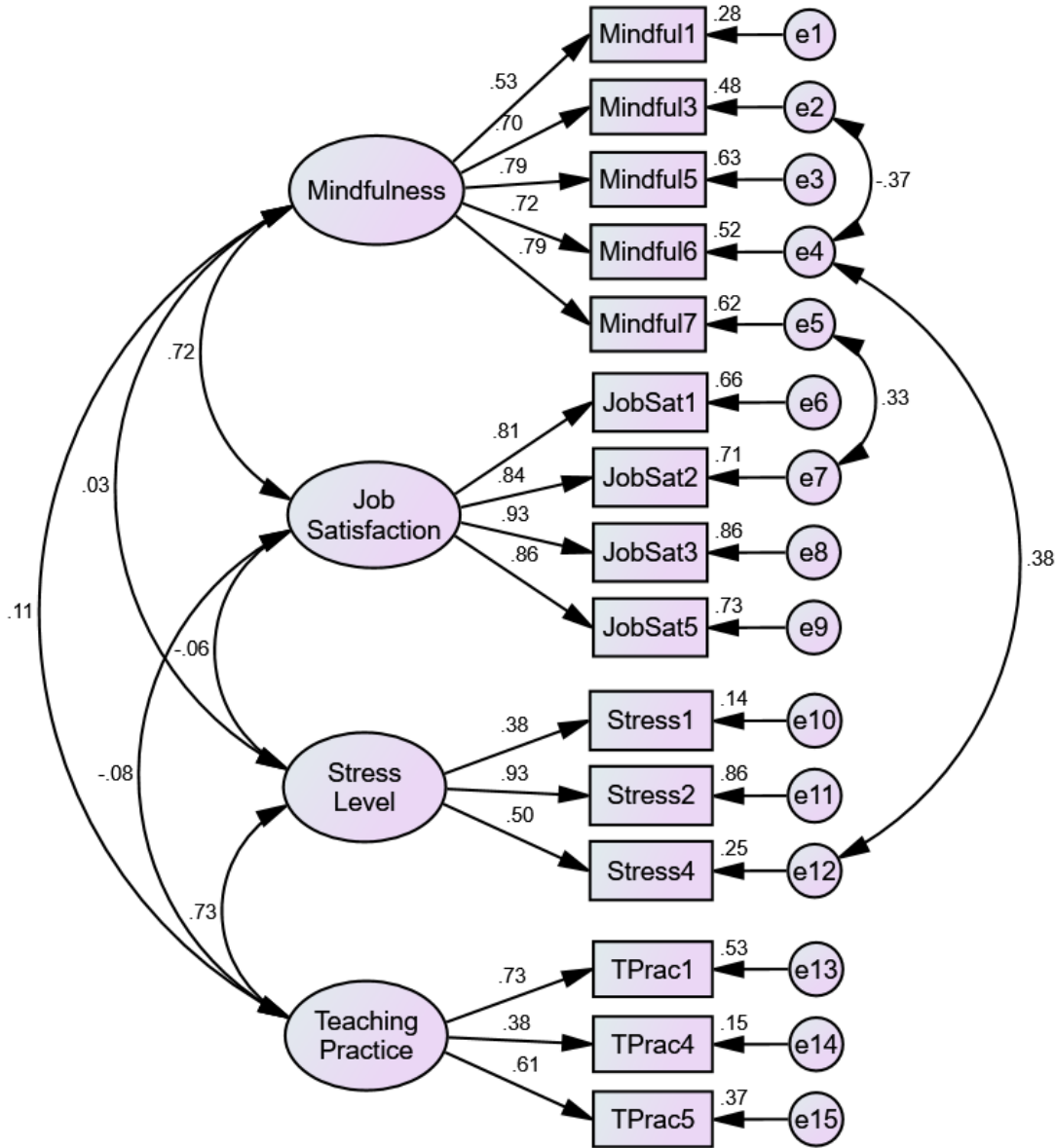


Figure 1. Structural equation modelling model fit of the latent variables and their respective observed variables. Chi-square = 145.180 (df = 81, $p < 0.05$), CFI=0.937, TLI=0.918, RAMSEA=0.073; 90% confidence interval = [0.054-0.092], RMR=0.081, N= 148.

Latent Variables

Table 3. The Average Variance Extracted (AVE) values, Construct reliability (CR), and Heterotrait-Monotrait Ratios (HTMT) of the constructs.

Latent Variable	Latent Variable 2	Latent Variable 3
Mindful	0.507	0.835
JobSat	0.742	0.920
Stress	0.418	0.651
Tprac	0.346	0.599

Construct 1	Construct 2	HTMT Value
Mindful	Stress	0.079
Mindful	TPrac	0.063
Mindful	JobSat	0.571
Stress	TPrac	0.265
Stress	JobSat	0.057
TPrac	JobSat	0.048

Discriminant validity measures how distinct a construct is from others by analyzing their correlations. In the provided data, the constructs of Mindfulness, Stress, Teaching Practices (TPrac), and Job Satisfaction (JobSat) show discriminant validity, evidenced by HTMT values below 0.85. For instance, the HTMT value between Mindfulness and Stress is 0.079, and between Mindfulness and Job Satisfaction is 0.571, indicating each construct measures a unique aspect with minimal overlap.

The structural equation model (SEM) illustrates the relationships among these four latent variables, supported by fit indices and a correlation matrix that reveal significant connections and measurement validity while highlighting areas for improvement..

Model Fit Assessment

The SEM fit indices are as follows:

Chi-square: 145.180 (df = 81, $p < 0.05$). While a significant chi-square indicates some discrepancies between the data and model, chi-square tests are sensitive to sample size (Kline, 2016). RMR (Root Mean Square Residual): 0.081, which is acceptable but suggests moderate discrepancies (Hu & Bentler, 1999). TLI (Tucker-Lewis Index): 0.918, indicating good incremental fit. CFI (Comparative Fit Index): 0.937, suggesting strong model fit. RMSEA (Root Mean Square Error of Approximation): 0.073 (90% CI: 0.054–0.092), indicating a reasonable fit (MacCallum et al., 1996). These indices collectively suggest that while the model is an adequate fit to the data, improvements could be made to strengthen the alignment between theoretical and empirical constructs.

Latent Variable Correlations

The correlations between the latent variables (standardized estimates) are: Mindfulness ↔ Job Satisfaction: Positive correlation (0.72), highlighting that higher mindfulness levels are associated with greater job satisfaction. Mindfulness ↔ Stress Level: Weak negative correlation (-0.06), indicating a minimal inverse relationship between mindfulness and stress levels. Mindfulness ↔ Teaching Practices: Moderate positive correlation (0.73), suggesting a strong relationship between mindfulness and effective teaching practices. Job Satisfaction ↔ Stress Level: Minimal negative correlation (-0.08), showing little

to no significant relationship. Job Satisfaction ↔ Teaching Practices: Weak positive correlation (0.11). Stress Level ↔ Teaching Practices: Negligible correlation (0.03).

These relationships align with existing literature, which underscores mindfulness as a critical factor influencing workplace satisfaction and teaching effectiveness (Lomas et al., 2017; Roeser et al., 2012).

AVE and CR Analysis

The Average Variance Extracted (AVE) and Composite Reliability (CR) values for each construct are: Mindfulness: AVE = 0.507, CR = 0.835. Valid construct with moderate reliability. Job Satisfaction: AVE = 0.742, CR = 0.920. Strong construct validity and reliability. Stress Level: AVE = 0.418, CR = 0.651. Needs improvement due to low AVE. Teaching Practices: AVE = 0.346, CR = 0.599. Indicates insufficient validity and reliability.

The AVE values for Stress Level and Teaching Practices fall below the threshold of 0.50, which suggests that these constructs explain less than half of the variance in their indicators, potentially pointing to the need for item refinement or construct revision.

Implications of Observed Variables

Observed variables with higher standardised loadings (e.g., Mindful5 = 0.79, JobSat3 = 0.93) contribute more significantly to their respective latent variables. Indicators with lower loadings, such as Stress1 (0.38) and TPPrac4 (0.38), may need re-evaluation or replacement to enhance measurement quality.

Summary

The model provides insights into the relationships between mindfulness, job satisfaction, stress levels, and teaching practices. However, the AVE and CR results suggest that the Stress Level and Teaching Practices constructs require further refinement to improve their measurement validity. While the overall fit indices indicate a reasonable fit, eliminating weak indicators and reassessing model relationships could enhance the model's robustness.

Moderating effect

The proposed conceptual framework highlights the relationships between mindfulness and its effects, providing insights into how mindfulness enhances well-being and professional performance in the educational context. This model-driven approach offers practical implications for improving teacher training and educational policies.

Conceptual framework for Moderating effect of mindfulness.

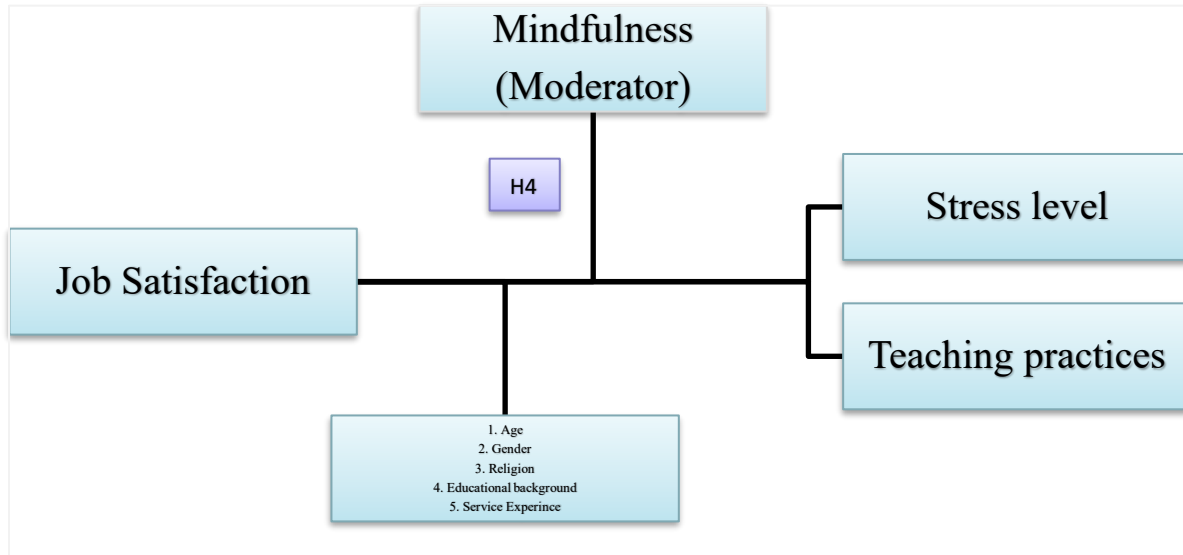


Figure 2. Conceptual Framework based on Hypothesis 4 (Source: Designed by the author).

Mindfulness moderates the relationship between job satisfaction and teaching practices.

Moderation of TP (Teaching Practices) → JS by MIN (Mindfulness)

Model Summary:

$R^2 = 0.5365$: The model explains 53.65% of the variance in Job Satisfaction (JS). $F(3, 144) = 55.55, p < 0.001$: The model is statistically significant, confirming that TP, MIN, and their interaction influence JS. TP (Teaching Practices): Positively associated with JS ($b=0.6828, p=0.0323$). Better teaching practices enhance job satisfaction. MIN (Mindfulness): Strong positive association ($b=1.4111, p<0.001$). High mindfulness improves job satisfaction. Interaction (TP × MIN): Significant ($b=-0.2426, p=0.0056$). Indicates that mindfulness reduces the positive effect of teaching practices on job satisfaction.

Slope analysis

Since significant moderating effects were found, slope analysis was performed to convert continuous variables into categorical variables, followed by slope analysis for moderating effects. At Low Mindfulness: No significant effect of TP on JS. At Moderate to High Mindfulness: The relationship between TP and JS becomes negative. This suggests that at higher mindfulness levels, intrinsic satisfaction may replace reliance on teaching practices for job satisfaction.

Mindfulness moderates the relationship between job satisfaction and stress level.

Moderation of SL (Stress Level) → JS by MIN (Mindfulness):

Slope analysis

When significant moderating effects were found, slope analysis was performed to convert continuous variables into categorical variables, followed by slope analysis for moderating effects. At Low Mindfulness: Stress has no significant effect on job satisfaction. At Moderate to High Mindfulness: The relationship between stress and job satisfaction becomes significantly negative. Mindfulness buffers the impact of stress, possibly enhancing resilience.

Implications for Teacher-trainers:

Mindfulness Training: Incorporating mindfulness into professional development programs can foster intrinsic satisfaction, reducing reliance on external stressors or professional practices.

Stress Management: Mindfulness significantly mitigates stress's negative impact, promoting well-being among teacher-trainers.

Tailored Interventions: Teacher-trainers with high mindfulness may benefit more from personal development programs, as job satisfaction becomes less dependent on teaching practices or external support.

Table 4. Linearity of variables.

ANOVA Table			Sum of Squares	df	Mean Square	F	Sig.
JS * MIN	Between Groups	(Combined)	72.296	20	3.615	12.704	<.001
		Linearity	53.842	1	53.842	189.226	<.001
		Deviation from Linearity	18.454	19	.971	3.414	<.001
	Within Groups		36.136	127	.285		
	Total		108.432	147			

Linearity ($F = 189.226$, $p < 0.001$): A significant linear relationship exists between Mindfulness (MIN) and Job Satisfaction (JS), indicating that mindfulness significantly impacts job satisfaction in a predictable pattern. Deviation from Linearity ($F = 3.414$, $p < 0.001$): The deviations from linearity are also significant, suggesting some non-linear components to the relationship. This implies that while mindfulness has a strong direct impact on job satisfaction, other factors may interact or moderate this relationship at different levels of mindfulness.

Table 5. Anova Job Satisfaction * Teaching Practices.

ANOVA Table			Sum of Squares	df	Mean Square	F	Sig.
JS * TP	Between Groups	(Combined)	36.902	12	3.075	5.804	<.001
		Linearity	2.665	1	2.665	5.029	.027
		Deviation from Linearity	34.237	11	3.112	5.874	<.001
	Within Groups		71.531	135	.530		
	Total		108.432	147			

Linearity ($F = 0.317$, $p = 0.575$): The linear relationship between Stress Level (SL) and Job Satisfaction (JS) is not significant. This suggests that stress alone does not predict job satisfaction straightforwardly. Deviation from Linearity ($F = 3.193$, $p = 0.001$): Significant deviations indicate a complex, non-linear relationship where stress may impact job satisfaction differently depending on other factors, such as coping mechanisms or mindfulness levels.

Table 6. Anova Job Satisfaction * Stress Level.

ANOVA Table			Sum of Squares	df	Mean Square	F	Sig.
JS * SL	Between Groups	(Combined)	20.783	11	1.889	2.932	.002
		Linearity	.204	1	.204	.317	.575
		Deviation from Linearity	20.579	10	2.058	3.193	.001
	Within Groups		87.650	136	.644		
	Total		108.432	147			

Linearity ($F = 5.029$, $p = 0.027$): A significant linear relationship between Teaching Practices (TP) and Job Satisfaction (JS) indicates that better teaching practices are generally associated with higher job satisfaction. Deviation from Linearity ($F = 5.874$, $p < 0.001$): Significant deviations suggest additional non-linear dynamics. For example, certain teaching practices may only impact job satisfaction under specific conditions (e.g., high mindfulness levels or supportive environments).

Model Summary.

$R^2 = 0.5641$: The model explains 56.41% of the variance in Job Satisfaction. **$F(3, 144) = 62.12$, $p < 0.001$** : The model is statistically significant. SL (Stress Level) Positively associated with JS ($b=0.9501, p=0.0007$ $b = 0.9501$, $p = 0.0007$ $b=0.9501, p=0.0007$). Higher stress levels surprisingly show a positive relationship with job satisfaction, possibly due to adaptive coping mechanisms. MIN (Mindfulness): Strong positive effect ($b=1.5486, p<0.001$ $b = 1.5486$, $p < 0.001$ $b=1.5486, p<0.001$). Interaction (SL $\times$ MIN): Significant ($b=-0.2894$, $p<0.001$ $b = -0.2894$, $p < 0.001$ $b=-0.2894, p<0.001$). Suggests that mindfulness reduces the effect of stress on job satisfaction validating hypothesis 4.

Multiple Linear Regression

The regression analysis investigates how the independent variables Stress Level (SL), Mindfulness (MIN), and Teaching Practices (TP) influence the dependent variable, Job Satisfaction (JS), among teacher-trainers.

Table 7. Model Summary.

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.721 ^a	.519	.509	.60154	1.528

a. Predictors: (Constant), TP, MIN, SL

b. Dependent Variable: JS

R (0.721): A moderately strong correlation between the independent variables (MIN, SL, TP) and the dependent variable (JS). R² (0.519): The model explains 51.9% of the variance in Job Satisfaction (JS), indicating a good fit. Adjusted R² (0.509): Adjusted for the number of predictors, the model still accounts for 50.9% of the variance. Durbin-Watson (1.528): Close to 2, suggesting no significant autocorrelation in the residuals.

Table 8. Anova explaining Model.

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56.326	3	18.775	51.887	<.001 ^b
	Residual	52.107	144	.362		
	Total	108.432	147			

a. Dependent Variable: JS

b. Predictors: (Constant), TP, MIN, SL

F(3, 144) = 51.887, p < 0.001: The regression model is statistically significant, meaning that the predictors (MIN, SL, TP) collectively explain a significant portion of the variation in Job Satisfaction (JS).

Table 9. Coefficient

Coefficients ^a									
Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics Tolerance VIF
							Lower Bound	Upper Bound	
1	(Constant)	1.375	0.308		4.470	0.000	0.767	1.984	
	SL	-0.109	0.068	-0.101	-1.593	0.113	-0.244	0.026	0.823 1.216
	TP	-0.116	0.092	-0.086	-1.257	0.211	-0.297	0.066	0.715 1.399
	MIN	0.870	0.073	0.750	11.998	0.000	0.727	1.013	0.854 1.171

a. Dependent Variable: JS

Constant (1.375): When all predictors (MIN, SL, TP) are zero, the baseline level of Job Satisfaction (JS) is 1.375. Mindfulness (MIN, $B = 0.870$, $p < 0.001$): Positive significant effect on JS. For every one-unit increase in mindfulness, JS increases by 0.870 units, holding other variables constant. Standardized Beta (0.750), Mindfulness has the strongest influence on job satisfaction among all predictors. The significant overall F-test in the ANOVA confirms a linear relationship between the predictors (MIN, SL, TP) and the outcome (JS). Mindfulness (MIN) is showing a significant predictor with a strong linear impact on Job Satisfaction (JS).

Multicollinearity

A multiple linear regression analysis was conducted to examine the effects of stress levels (SL), teaching practices (TP), and mindfulness (MIN) on job satisfaction (JS). The table presents unstandardised coefficients (B), standardized coefficients (Beta), t-values, significance levels (p), confidence intervals, and collinearity statistics for each variable. Variance Inflation Factor (VIF) values were analysed to assess multicollinearity: $VIF < 3$ indicates no problem with multicollinearity. $VIF > 3$ suggests a potential problem. $VIF > 5$ indicates a very likely problem, and $VIF > 10$ indicates a definite problem. In this analysis, all VIF values were below 3 (SL = 1.216, TP = 1.399, MIN = 1.171), confirming that there were no multicollinearity issues among the predictors. Mindfulness (MIN) was a significant positive predictor of job satisfaction ($B = 0.870$, $p < 0.001$), suggesting that increased mindfulness is strongly associated with higher job satisfaction. Mindfulness emerged as the most significant factor influencing job satisfaction, with no multicollinearity concerns detected in the model. This highlights the importance of mindfulness practices for improving job satisfaction among teacher-trainers.

The correlation matrix was analysed to evaluate the relationships between the variables mindfulness (MIN), stress levels (SL), and teaching practices (TP). It helps assess potential multicollinearity issues, which could affect the reliability of regression analysis.

Multicollinearity occurs when two or more independent variables are highly correlated, which can distort regression estimates. As a general guideline: Correlation $r > 0.70$ may indicate multicollinearity concerns. Correlation $r < 0.50$ generally suggests no serious multicollinearity issues. The highest correlation, between SL and TP ($r = 0.420$), is moderate and below the threshold of concern. The other correlations are relatively low (ranging from 0.125 to 0.380). The correlation results suggest no severe multicollinearity among the variables (MIN, SL, TP), as all correlation coefficients are below 0.70. This finding is consistent with the previously reported VIF values (< 3), confirming no significant multicollinearity problems. Thus, the data is suitable for regression analysis. No evidence of multicollinearity was found as all correlations were below the critical threshold of 0.70.

The primary objective of this study was to explore the role of mindfulness as a moderator in the relationships between job satisfaction, stress, and teaching practices. Data collected from 148 teacher-trainers were analyzed using SPSS and AMOS. Descriptive results showed moderate to high levels of mindfulness and job satisfaction, alongside moderate stress levels. Skewness and kurtosis values confirmed data normality, justifying the use of parametric tests.

Cronbach's alpha values exceeded 0.85 for all key scales, confirming strong internal consistency. The Job Satisfaction scale, for example, showed a Cronbach's alpha of 0.94, indicating excellent reliability. SEM revealed significant relationships among the variables. Mindfulness had a strong positive association with job satisfaction ($\beta = 0.72$), and a moderate association with teaching practices ($\beta = 0.73$). The fit indices (CFI = 0.937; RMSEA = 0.073) indicated a good model fit.

The moderation analysis confirmed that mindfulness significantly weakened the negative effect of stress on job satisfaction. Similarly, it moderated the relationship between teaching practices and job satisfaction — suggesting that mindfulness enhances satisfaction even when teaching conditions vary. These results support prior research by Hülshager et al. (2013) and Roeser et al. (2012), who found that mindfulness improves resilience and emotional balance. The moderation effect of mindfulness shows its role as a psychological buffer in high-stress work environments, aligning with Buddhist mindfulness principles and supporting its use in teacher education.

Practical Implications

Prioritize Mindfulness Interventions. Mindfulness is the strongest predictor of job satisfaction. Programs to enhance mindfulness among teacher-trainers can significantly improve their professional well-being.

Address Stress Management Strategically

While the negative effect of stress on job satisfaction is not statistically significant here, interventions like mindfulness-based stress reduction (MBSR) can help buffer its impact.

Rethink Teaching Practices

The negative association with job satisfaction might indicate misalignment or over-reliance on specific practices. Efforts to modernise or align teaching strategies with trainers' preferences and strengths could yield better results.

Findings

The study reveals significant relationships between mindfulness, stress levels, teaching practices, and job satisfaction. Key findings include:

Mindfulness as a Moderator: Mindfulness significantly moderates the negative effects of stress on job satisfaction. High levels of mindfulness buffer the impact of stress and improve well-being.

Teaching Practices: Effective teaching practices positively influence job satisfaction, with mindfulness enhancing the relationship by fostering resilience and intrinsic motivation.

Data Analysis: Statistical tools like SPSS and AMOS validated these findings. Reliability analyses yielded a Cronbach's alpha of 0.940 for job satisfaction scales, confirming robust internal consistency.

Structural Model: The SEM revealed mindfulness has the strongest influence on job satisfaction, followed by teaching practices and stress levels.

Conclusion

This Study Examined The Moderating Role Of Mindfulness On The Relationship Between Stress, Teaching Practices, And Job Satisfaction Among Teacher-Trainers In Sri Lanka. Using Validated Tools And Robust Statistical Analysis, The Findings Revealed That Mindfulness Significantly Enhances Job Satisfaction And Buffers The Negative Effects Of Stress. Additionally, Mindfulness Was Found To Strengthen The Positive Impact Of Effective Teaching Practices On Job Satisfaction. These Results Confirm The Potential Of Mindfulness As A Valuable Resource For Improving Professional Well-Being In Teacher Education. By Integrating Both Buddhist And Psychological Perspectives, The Study Contributes To A Culturally Relevant Understanding Of How Mindfulness Can Support Educators In High-Pressure Environments.

Recommendations

The findings highlight several practical implications for teacher education and institutional policy:

Mindfulness Training Programs: Teacher-trainers would benefit from structured mindfulness interventions, which can help improve emotional regulation, reduce burnout, and enhance professional satisfaction.

Professional Development: Mindfulness should be integrated into ongoing professional development programs, especially for those working in stressful environments like national teacher training institutions.

Policy-Level Integration: The Ministry of Education and NIE could consider including mindfulness-based practices within teacher-training curricula, aligning with both global best practices and Sri Lanka's cultural values.

Further Research: Longitudinal studies are recommended to explore the long-term impact of mindfulness on professional well-being and teaching outcomes. Future research may also compare the effects of secular versus Buddhist-based mindfulness programs in the Sri Lankan education context.

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