

Effectiveness of Mindfulness Training on Teaching Emotions and Job Stress of Teachers

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This research aimed to determine the effectiveness of mindfulness training on job stress and teaching emotions to primary school teachers. The current research was quasi-experimental research and a pre-test-post-test design with a control group. The statistical population of the research included all the primary school teachers in Yazd city in the academic year 2019-2020, of which 30 were selected by random sampling. Thirty of them were selected by random sampling. The research tools were the Teaching Emotion Questionnaire, known as the Teaching Emotion Inventory (TEI) (2016), and the ten-item job stress questionnaire by Kyriako (1978). Fifteen teachers intervened based on the MBCT training package, and the control group received no intervention. SPSS26 software and the Analysis of Covariance method were used to evaluate the data. The results showed that mindfulness training has reduced teachers' job stress. Also, mindfulness has not affected the positive emotions of teaching, including love and pleasure. Still, mindfulness has affected the negative emotions of teaching, including sadness, anger, and fear, and has reduced them. When the environment has emotional support, teachers achieve higher levels of positive emotions and eliminate negative emotions. As a result, despite

mindfulness, teachers can reduce their stress and control the emotions of teaching about students and their work environment. Therefore, a mindfulness therapy strategy can be used to reduce stress and regulate teachers' emotions.

Keywords: job stress, mindfulness, teachers, teaching emotions.

Mindfulness may play a valuable role in supporting teachers' ability to cope with teaching stress and providing emotional and excitedly support (Molloy-Elreda et al., 2019). This increased emotional awareness and acceptance can be especially useful for teachers because it allows them to regulate and cope with their feelings, manage teaching stress, avoid job burnout, and show more sensitivity to their students.

Job stress is one of the subjects that has been widely researched to evaluate performance, satisfaction, or any other employee process (Parveen & Bano, 2019). In today's world, stress has become an inevitable part of our lives, and every person, whether child or adult, man or woman, experiences one type of it. Stress affects people physically, emotionally, and psychologically (Beegum & Binu, 2022). Teachers' job stress means the job pressure and tension experienced by them. Job stress causes poor job performance characterized by poor communication with students, disinclination to implement new teaching strategies, higher absenteeism rates, and resignation from teaching positions (Beegum & Binu, 2022).

Excitement and teaching are two inseparable parts. Teachers are human beings, not well-oiled machines; They experience many emotions in teaching. The nature of the teaching job involves many stakeholders, including students, colleagues, and schools (Pham and Phan, 2021). These effects include distance and conflictual interactions with students, the utilization of inappropriate stress management strategies, and weakness in classroom supervision and organization due to disruption in

cognitive and emotional regulation processes (Molloy-Elreda et al., 2019). Emotions are fundamentally important for teaching and teachers for three reasons: 1) education involves interaction between people; 2) teachers' personal and professional identity, respect, satisfaction, and vulnerability; 3) teachers experience deep emotions and feelings in their occupational field because they invest a lot of their special self along with individual values into it. (Uitto et al., 2015). When teachers face conflict at work, they are likely to be involved in its negative effects. In most cases, these negative impacts destroy the taste of innovation and creativity among them. In such conditions, teachers hardly participate in the educational process and cannot create, innovate, and produce (Parveen & Bano, 2019).

Pleasure is one of the most prominent positive emotions among teachers. This feeling comes from anticipating a desirable event in the future, engaging in an applicable activity, or satisfaction due to a past pleasurable event or outcome. Also, anxiety is a negative emotion that includes aversive physiological and emotional components (sweating, trembling) as well as cognitive components (worry, desire to leave the situation). It is usually triggered when people feel threatened or do not understand their potential to face an upcoming challenge. In addition, teaching anxiety may result from poor preparation or disciplinary problems in the classroom. Finally, anger is a negative emotion related to oneself or others. Teachers likely get angry when they are unsatisfied with their lesson or fly into a rage because of their students' misbehavior. Research has also shown that anger is often experienced among teachers (Lohbeck et al., 2018). These emotions usually appear when preparing to teach, communicating with students' parents, taking an exam, and as the teacher does not have sufficient mastery of the teaching resources

(Ghadampour et al., 2022). But in the meantime, many factors in the classroom and outside of it causes complex, exciting experiences for teachers (Pham & Phan, 2021). Stress reduction interventions can decrease mental health-threatening symptoms and improve a range of stress-coping skills.

According to the research of MacIntyre et al. (2020) and his colleagues, positive psychological outcomes (well-being, health, happiness, resilience, and growth during trauma) are correlated with a positive approach and an avoidant approach. Avoidant approaches are related to negative results (stress, anxiety, anger, sadness, and loneliness), and avoidant coping increases with increasing stress. Increasing variables of cognitive abilities, mindfulness, and positive emotions affect increasing teacher wisdom (Ghadampour et al., 2022). mindfulness-based cognitive therapy was effective in the distress tolerance of students with self-injury behaviors (Komarati et al., 2021). Chegini and Lavasani (2017) showed that teacher's training excitement explains 14% of educational optimism, and 39% of personal responsibility can be predicted by teachers' educational optimism and teaching excitement. The findings indicated that pleasure is directly and indirectly related to the mediating role of educational optimism as a positive and meaningful predictor of personal responsibility. Also, anger is identified with the mediating role of educational optimism as a negative and indirect predictor of personal responsibility. Educational optimism and anger management are important in promoting personal responsibility. On the other hand, job stress affects job satisfaction through work-family conflict and parental stress (Ghaed-Amini et al., 2022). Using mindfulness training skills affects the following:

Increasing the life orientation and life happiness of teachers (Abbasi, 2022), increasing the experience of positive emotions in

teaching and reducing the experience of negative emotions of elementary teachers (Wilson et al., 2022; Hashemi, 2022), reducing stress (Evans-Amula et al., 2021; Taylor et al., 2021; Mohammadi, et al, 2019; Beuchel et al., 2022; Birchinall et al., 2019), cultivating a calm mind and body (Evans- Amula et al., 2021), strengthening psychological and health-oriented characteristics of teachers and increasing their teaching self-efficacy (Ardani, 2021), regulation of teaching emotions and perceived stress and negative feeling (Wilson et al., 2022; Ardani, 2021), more job satisfaction, better classroom management in the long term (Beuchello et al., 2022), More successful stress management (Jalali & Pourhosein, 2020), increasing teachers' life satisfaction (Karimzade and Abdollahpour, 2022), reducing teacher job burnout (Taylor et al., 2021), increasing education progress and learning of students (Mohammadi, Naseri Jahromi, Mokhtari, Hessampour, & Naseri Jahromi, 2019), reducing automatic racial response among probationary teachers (Hirshberg et al., 2020), improving and dynamism of the body's biological system (Rodrigues e Oliveira et al., 2021), increasing teacher satisfaction, increasing efficiency or classroom management (Colleen et al., 2022), reducing depression (Taylor et al., 2021), improving teenagers' emotions and reducing mental disorder and anxiety in them (Hambour et al., 2018), way to coping teachers with challenging situations, adapting to classroom conditions and responding to students' needs (Molloy-Elreda et al., 2019). It significantly affects burnout scores and educational optimism (Kazemi et al., 2020). According to the results of Azizi's research (2020), the Persian version of the emotionality scale in teaching by Villavicenso (2010) has sufficient credibility and validity for Iranian society, and it can be used to evaluate the emotions of secondary school teachers in

teaching. Mindfulness skills training effectively reduces job stress and increases teachers' psychological well-being. By holding mindfulness training courses through in-service education, we can increase psychological well-being and reduce the job stress of teachers (Jenaabadi et al., 2017).

Based on this, the current research seeks to answer whether mindfulness training effectively teaches emotions and job stress to primary school teachers.

Method

Regarding purpose, the current research is in the category of applied research. In terms of methodology, it is a quasi-experimental method with a pre-test-post-test research design with a control group. At first, pre-tests related to the two variables of teaching emotions and job stress were taken from both groups. Then, 8 sessions of mindfulness training were held for the experimental group based on the training manual, and after that, two groups responded to the post-test again. Fifteen teachers were intervened based on the MBCT training package, and the control group did not receive any intervention. Mindfulness training is for participants to be aware of internal changes and how to pay attention to the present moment. The general structure of MBCT therapy is 2 hours sessions. Mindfulness sessions in the first week started as an introduction to this matter, and then each session began by practicing the assignments of the previous sessions. The participants in this course talked about their experiences gained in the aftermath of mindfulness exercises. Short-term mindfulness practices such as three-minute breathing became a part of people's daily lives during the course. In this process, the participants learned step by step how to pay attention at the

moment and how to face different experiences. In the last session, the course was summarized.

The statistical population was all primary school teachers working in Yazd city in 2019-2020; thirty were selected by convenience sampling and then randomly divided into two experimental and control groups. Given the circumstances of the COVID-19 pandemic and the constraints on implementing random sampling in the educational system, convenience sampling was utilized. Nevertheless, randomization and the application of suitable statistical methods to control for confounding variables have been undertaken to a considerable extent. The entry criteria were: having satisfaction, employment, and teaching in the primary school in Yazd city, having at least 2-5 years of teaching experience in the primary school, and the exit criteria included the absence of more than two sessions and the unwillingness of the teacher to cooperate with the researcher. In the experimental group, 1 person was studying in the first grade, 5 people in the second grade, 2 people in the third grade, 2 people in the fourth grade, 3 people in the fifth grade, and 2 people in the sixth grade. In the control group, 3 people teach first grade, 2 teach second grade, 2 teach third grade, 3 teach fourth grade, 4 teach fifth grade, and 1 teach sixth grade. In both experimental and control groups, 10 people had a bachelor's degree, and 5 people had a master's degree. According to the entry criteria, all the participants had more than 2 years of work experience. The mean and standard deviation of the teaching experience of the participating teachers in the experimental group were 9.6 and 5.25, respectively, and in the control group, respectively, equal to 9.06, and it was 4.25.

Instruments

Teaching Emotion Inventory (TEI)

The scale of the teacher's emotion inventory was used to measure the emotions of teaching. This questionnaire, TEI, was created by Chen in 2016 to examine positive and negative teachers' emotions in classroom experiences. By selecting 1830 teachers and using this questionnaire on them, he made sure of its validity. In this inventory, teachers respond to the items of the teacher's emotion list on a 6-point scale from 1 (never) to 6 (always). This inventory through 26 articles measures 5 categories of positive emotions, including pleasure and love, and negative emotions, including sadness, anger, and fear. In this inventory, items 1 to 7 are related to the emotion of pleasure, 8 to 11 are related to love, 12 to 15 are related to sadness, 16 to 19 are related to anger, and 20 to 26 are related to fear (Khodaei, 2018). In Iran, Khodaei (2018) studied 329 female teachers to determine the validity and reliability of the statistical method of confirmatory factor analysis and internal consistency. The results of the confirmatory factor analysis of the teacher's emotion inventory based on AMOS software showed that in the samples of Iranian teachers, the five-factor structure of the teacher's emotion inventory, including five subscales of pleasure, love, sadness, anger, and fear has an acceptable fit with the data.

Kyriako Job Stress Questionnaire

Kyriako's (1978) single-item stress questionnaire was formulated to measure British teachers' stress levels. This scale has 10 articles of a 4-point Likert spectrum: very much=3, much=2, little=1, never=0). This scale generally evaluates the level of teachers' stress at work. No reliability test was found in this case. In their research using this questionnaire, Barzegar Bafrooe and

Khezri (2010) stated that according to the claim of its authors, this questionnaire has high credibility because it has a positive and significant correlation with the classification of teachers through 51 stress sources, such as non-acceptance of the teacher's authority on behalf of students ($r=.51$). Also, the Kyriako questionnaire has a high correlation with 17% of stress symptoms, such as burnout, extreme fatigue ($r=.61$), and frustration and discouragement ($r=.52$). Therefore, the level of teachers' stress can be measured using this questionnaire.

SPSS 26 software was used to analyze the data. Descriptive statistics indicators, such as mean and standard deviation, were also applied for the data descriptive analysis. Also, multiple covariance analysis methods were utilized to check the hypotheses.

Ethical Approval

Ethical approval was obtained by the Ethics Committee of Yazd University (IR.YAZD.REC.1401.084) and with the 1964 Declaration of Helsinki and its subsequent amendments.

Informed Consent

This study utilized secondary data, and the authors of the primary studies indicated that informed consent had been given before data collection. This manuscript does not contain any studies with animals.

Results

According to Table (1), the post-test scores of job stress and the negative emotions of teaching, including discomfort, fear, and anger, have decreased significantly compared to the pre-test scores. However, in the case of positive emotions of teaching,

such a noticeable change in the post-test scores compared to the pre-test is not observed. In the control group, there is no significant change in all the post-test scores compared to the pre-test.

Table 1
Average and Standard Deviation of Research Variables by Two Groups in Pre-Test and Post-Test

group	variable	pre-test				Post-test			
		Mean	S. D.	lowest score	Highest score	average	S. D.	Lowest score	highest score
Experimental	Job stress	15.53	5.39	5	27	11.73	4.07	4	20
	Pleasure	26.40	2.55	23	34	27.81	3.23	25	36
	Love	14	4.12	9	23	14.60	4.46	9	24
	Sadness	14.13	4.15	8	20	11.80	3.62	5	18
	Anger	17.60	3.96	7	23	14.73	3.53	7	19
	Fear	25.66	5.34	17	36	25.53	5.05	15	31
control	Job stress	14.60	4.01	6	23	14.65	3.66	10	24
	Pleasure	27.40	4.11	20	35	27.86	4.30	21	35
	Love	15.46	4.47	11	23	15.33	4.30	10	23
	Sadness	11.46	4.32	6	22	11.40	4.27	7	23
	Anger	15.86	5.06	8	24	15.86	5.26	7	24
	Fear	28.33	5.32	21	39	28.60	5.19	20	38

The assumptions of this test, including the normality of the distribution of grades, the homogeneity of variances, and the homogeneity of the regression slope, were tested before running the analysis of the covariance test.

According to Table 2, the results of the Shapiro-Wilk test to investigate the normality of the distribution of pre-test and post-test scores of job stress and positive and negative teaching emotions showed that the significance level is more than .05 in job stress scores, so this assumption is confirmed. Concerning the positive emotions of teaching, this assumption has been violated because the significance level is less than .05. Also, regarding the negative emotions of teaching, only the post-test score of sadness in the control group is less than .5, and this assumption has been

violated. However, considering that the number of sample members is at least 30 people and considering that covariance analysis is resistant to violation of this assumption, there is no obstacle to running the covariance analysis test (Pallant, 2015). In other variables, the significance level is greater than .05, and this assumption has been met.

Table 2
Shapiro-Wilk test to Check the Normality of the Distribution of Scores

Variable	Test	Value	df	Significance level	
Job Stress	Pre-test	.962	30	.348	
	Post-test	.968	30	.483	
Positive emotions	Pleasure	Pre-test	.883	30	.003
		Post-test	.915	30	.020
	Love	Pre-test	.895	30	.007
		Post-test	.828	30	.043
Negative emotions	Sadness	Pre-test	.951	30	.176
		Post-test	.926	30	.038
	Anger	Pre-test	.934	30	.063
		Post-test	.972	30	.586
	Fear	Pre-test	.984	30	.917
		Post-test	.984	30	.926

Based on the findings of Levene's test to check the homogeneity of the variances of job stress and teaching emotions in the pre-test and post-test, the assumption of homogeneity of variances is confirmed considering that the significance level is more than .05 in the two levels of the pre-test and post-test.

The assumption of homogeneity of the regression slope was investigated for the covariate and dependent variables of job stress and teaching emotions. The F value obtained in this test for job stress is equal to 1.50, and considering that the significance level is greater than .05, it can be said that this assumption is

confirmed. The regression slope of the two variables is not significantly different. The value of F about the positive emotions of teaching for pleasure and love variables at a significance level of $P < .05$ shows that the assumption is confirmed and the regression slope of the two variables is not significantly different. The F value obtained about the negative emotions of teaching for all three variables of sadness, anger, and fear at a significance level of $P < .05$ shows that the hypothesis is confirmed and the regression slope of the two variables is not significantly different.

Box M test was used to check the homogeneity of covariance matrices of dependent variables. Results showed that the significance level for the components of positive emotions of teaching equals 0.554. For the negative emotions, the components of teaching equal 0.850, both of which are greater than the value of 0.05. This indicates the homogeneity of covariance matrices of positive and negative emotions of teaching and shows that this assumption is confirmed.

Table 3
Results Multivariate Analysis of Covariance (MANCOVA): The Difference between Experimental and Control Groups of Job Stress and Positive and Negative Emotions of Teaching

Title of exam	Value	F	df Hypot hesis	df error	Sig. level	square of discriminant eta
Pillai's trace	.697	8.42	6	22	.001	.697
Wilks Lambda	.303	8.42	6	22	.001	.697
Hotelling's procedure	2.296	8.42	6	22	.001	.697
Roy's Largest Root	2.296	8.42	6	22	.001	.697

According to Table (3), the significance levels of all the tests indicate a significant difference between the two experimental and control groups in at least one of the job stress variables and the positive and negative emotions of teaching.

Table 4
One-way Covariance Analysis in MANCOVA Text for Job Stress in Two Experimental and Control Groups

Source of changes group)	sum of squares	Df	mean of squares	F	Sig. level	square of Eta discriminant
	95.430	1	95.430	57.351	.001	.680

The results of the covariance analysis of job stress in Table (4) show that after controlling for the pre-test effect, there is a significant difference between the job stress scores in the experimental and control groups ($F=57.351$; $P=.001$). The value of the discriminant coefficient shows that 68% of the changes in job stress scores were caused by the independent variable, mindfulness training.

Table 5
One-way Covariance Analysis in MANCOVA Text for a Positive Component of Teaching Emotions

Source of changes	Variable	Sum of squares	df	Mean of squares	F	Sig. level	square of discriminant eta
Positive emotions	Pleasure	4.697	1	4.697	1.005	.325	.037
	Love	3.658	1	3.658	2.701	.112	.094

In Table (5), the results of the one-way covariance analysis test in the MANCOVA text show that in the subscales of pleasure ($F=1.005$; $P=.325$) and love ($F=2.701$; $P=.112$) between There is no significant difference between the two experimental and control groups.

Table 6
One-way Covariance Analysis in the MANCOVA Text for the Negative Components of Teaching Emotions

Source of changes	Variable	Sum of squares	df	Mean of squares	F	Sig. level	square of discriminant eta
Negative emotions	Sadness	18.346	1	18.346	15.656	.001	.385
	Anger	46.637	1	46.637	9.787	.004	.281
	Fear	28.515	1	28.515	14.589	.001	.369

In Table 6, the results of the one-way covariance analysis test in the MANCOVA text show that in the subscale of Sadness ($F=15.656$; $P=.001$), in the anger subscale ($F=9.787$; $P=.004$ P), regarding the fear scale ($F=28.589$; $P=.001$), there is a significant difference between the two experimental and control groups. Also, the effect size shows that 38.5%, 28.1%, and 36.9% of the changes in the scores of sadness, anger, and fear were caused by mindfulness training, respectively.

Discussion

The findings showed that mindfulness training has a significant and positive effect on reducing teachers' job stress. Based on this, if teachers use mindfulness interventions and meditation methods, they can somewhat reduce their stress. When a teacher gets psychological support such as mindfulness, s/he will have more ability to control stress. This research is aligned with the

findings of Karimzadeh and Abdollahpour (2022), Ardani (1400), Kazemi et al. (2021), Mohammadi et al. (2019), Beuchel et al. (2020), MacIntyre et al. (2020). These researchers have paid attention to the role of mindfulness in reducing stress. According to the research of Karimzadeh and Abdollahpour (2022), mindfulness is considered a positive and valuable feature in facing the stress caused by COVID-19, leading to increased life satisfaction. Segal (2004) showed that mindful people lead happier lives. Also, Muhonen (2022) reported that teachers' job satisfaction is caused by reduced stress.

The nature of mindfulness reduces teachers' job stress by affecting the meaning of life. Considering the importance of the teaching profession as a role model for students, the teacher must first acquire the necessary mental health (Pirasteh et al., 2019). Therefore, there is a need for serious interventions on a large scale for teachers. In the critical conditions of COVID-19, basic measures to control the disease affected all aspects of education. One of the disadvantages of virtual education was endangering the mental health of students and teachers. Human needs to be able to control his/her mind and thoughts to calm down and remove worries and anxieties. The world and everything in it are reflected in our minds through our imaginations, so if we can control our thoughts, we can create a world according to our ideals and desires (Sadidi, 2018). Some evidence in research shows that stress is reduced with mindfulness interventions. It seems that the main nature of mindfulness with the self-control of attention in a moment makes the wandering mind coherent. Also, focusing attention on a stimulus helps the confused mind to get rid of tension and confusion. Mindfulness program helps us to master ourselves. Therefore, mindfulness to reduce stress can increase health, vitality, and cheerfulness (Jalali & Pourhosein,

2019). Mindfulness training for teachers requires extensive research so that its educational structure becomes suitable for the teaching community; however, mindfulness training on stress in various research shows its effectiveness.

The findings show that mindfulness training does not significantly improve the positive emotions of teaching, which include love and pleasure. This means that mindfulness training has not been able to affect the two subscales of love and pleasure. Based on research findings, mindfulness training has no significant effect on love. Emotions in the classroom are an integral part that connects the teacher and the student; love for jobs and students manifests in different styles linked to different factors. Love appears in social factors, communication with parents, preparation for teaching, and when the teacher is not ready for teaching materials (Frenzel, 2014). Presumably, it is necessary to identify and study deeper affective antecedents to cultivate the positive emotion of love.

Another positive emotion investigated in this research is pleasure. The research findings showed that mindfulness training has no significant effect on pleasure, in that there is no significant relationship between mindfulness and pleasure. According to the findings, it is concluded that the positive emotions of teaching are formed in a continuous chain consisting of how to interact with learners, academic personality, how to present the content, and the teacher's enthusiasm in his/her teaching method as perceived by the students. Considering the very wide scope of a teacher's job, many different factors play a role in the formation of his/her positive emotions, but to manage his/her emotions, s/he must at least master the course material. In support of these explanations, Iraj Rad et al. (2017), Ghadampour et al. (2014), and Rastegar et al. (2017) have done several studies. In elaboration on positive

emotions, Rastegar et al. (2017) state that if the educational leadership style in schools is adjusted so that the teachers feel secure, independent, and belong to the organization, they will feel calm. Also, the ground for creating positive emotions, such as pleasure, pride, hope, etc., is provided in performing job duties. Moreover, Iraj Rad mentions the discussion of the self-awareness effects on the positive emotions of teaching and that self-awareness has a significant relationship with the positive emotions of teaching. Ghadampour et al. (2014) have pointed out that the teachers' effective role in creating pleasure is the effective role of collective self-efficacy. Due to the centrality of mindfulness based on cognitive therapy, the current research can play an essential role in regulating negative emotions. However, considering their depth and other effective conditions in their formation, it has not been effective for positive emotions in a short period. Mousavi et al. (2019) express that this therapy method teaches people to decentralize and recognize when their creation is destructive. Additionally, it provides techniques that help reduce rumination cycles of negative thinking, feelings, and reactions. As Kabat-Zinn claimed, our negative emotions can be controlled when we have non-judgmental observation.

The findings show that mindfulness training has a positive and significant effect on the negative emotions of teaching. Based on this, if teachers utilize mindfulness interventions, they can control negative emotions. Using mindfulness, teachers distinguish its tremendous effect on improving the negative emotions of their teaching. The obtained results of this part of the research are in line with the findings of Beuchel et al. (2022), Hut et al. (2021), and Hambour et al. (2018). As the results showed, using mindfulness in the teaching process helps teachers regulate and reduce negative emotions. The negative emotions the teacher

experiences in his/her teaching process include anger, sadness, and fear. When teachers can control their negative emotions, they will have more job satisfaction and perform better for their students.

Mindfulness training reduces unpleasant feelings by emphasizing the present and being non-judgmental. In mindfulness, a person accepts his/her emotions and feelings with open arms, and by the calmness of this acceptance, s/he performs better in managing his/her emotions. Mindfulness, using the principles of acceptance, helps the person to accept emotions as they are and to have the right expectations of themselves with a realistic view. Having awareness about emotions improves self-efficacy and consequently causes psychological well-being. Along with this research and other theories, the main point is the characteristic of attention and alertness in mindfulness. As Kamran et al. (2022) state, communicating with unpleasant emotions, identifying and paying attention to feelings and sensations, and interacting correctly with them effectively regulate emotions.

Along with this research, Pourhosein et al. (2018) controlled disharmonious thoughts, rumination, and negative emotions using mindfulness training in vulnerable people. In another study by Mousavi et al. (2019), the effect of a mindfulness intervention on reducing negative emotions has been proven. They express that mindfulness-based cognitive therapy can regulate emotions and perceive clients' emotions as a stable model. In this study, the effect of mindfulness on reducing anger was confirmed, which means that teachers had better control over their anger by using mindfulness training. Anger is a very maladaptive emotion that shows the desire to act, so it should be managed with various methods. The technique of conscious mind, along with non-

judgment, makes a person face his/her true feelings. Thus, he has a great ability to confront the range of emotions that subside anger. As it was said, mindfulness therapy based on attention and caution teaches patience (Kamran et al., 2022). MacIntyre (2020) investigated reducing stress and negative emotions such as anger in line with this research.

Sadness is another emotion that was measured in this study. MacIntyre (2020) states that sadness and sorrow are passive loss-associated emotions. Based on the findings of this research, mindfulness has a significant effect on sadness in the sense that in this research, mindfulness training has been able to influence sadness and help the teacher reduce this negative feeling. Based on the inference from the results, sadness among teachers was reduced by using mindfulness psychological support. According to Hall et al.'s (2013) theories, mindfulness exercises such as focusing on breathing and paying attention in the present moment help teachers eliminate disturbing and uncomfortable thoughts. Consistent with this research, Vettori et al. (2022) get on to the reduction of negative emotions in teachers and the effect of the benefits of emotional support.

The results show that mindfulness training has improved teachers' fear. Psychological well-being research in the field of teachers tries to help manage and improve their negative emotions. Fear makes the teacher dissatisfied with his/her efficiency. According to the results of this research, psychological interventions are very important to improve teachers' fear. This research also confirmed the effect of mindfulness on reducing negative emotions. When the environment is emotionally supportive, teachers achieve higher positive emotions and are freed from negative emotions. As a result, by mindfulness, teachers can reduce their stress and control

the emotions of teaching their students and their work environment.

The current research was geographically limited to the city of Yazd in terms of time and society, and the statistical sample was limited to primary school teachers; it is better to be cautious in generalizing the results. The use of convenience sampling in the current research is limited, therefore caution should be observed when extrapolating the findings. It is suggested to teach teachers mindfulness meditation methods to control teachers' stress and prevent its consequences. In career development courses, teachers are taught to use mindfulness on negative emotions. Regarding the teaching of the intertwining of emotions with the degree of mastery in classroom management and communication with students, it is suggested that teachers become familiar with the types of emotions and their control methods.

Conflict of Interest

The authors declare no competing interests.

References

- Abbasi, Z. (2022). *The effectiveness of mindfulness training on teachers' life orientation and happiness*. (Master dissertation.). Faculty of Psychology and Educational Sciences, Allameh Tabatabai University, Tehran, Iran. (In Persian).
- Ardani, A. (2021). *The effectiveness of mindfulness training on perceived stress and teachers' teaching self-efficacy*. (Master dissertation). Yazd University, Iran. (In Persian).
- Azizi, M. (2020). Investigating the psychometric characteristics of the emotionality in teaching scale: Validation, reliability and factor analysis. *Research in School and Virtual Learning*

- Journal*, 8(3), 59-70. (In Persian).
Doi:10.30473/etl.2021.54020.3273
- Barzegar Bafrooe, K., & Khezri, H. (2011). Investigating the Relationship Between Type A, Neurotic Personality Type, External Locus of Control and School Climate with School Teachers' Stress in Yazd. *JOEC*, 11(1), 69-82. (In Persian).
Doi: 20.1001.1.16826612.1390.11.1.6.4
- Beegum, S., & Bindu, T. V. (2022). Job satisfaction and job stress of primary school teachers in Kerala. *Strad.* 8(7), 29-34. Doi: 10.37896/sr8.7/004
- Beuchel, P., Groß Ophoff, J., Cramer, C., & Hautzinger, M. (2022). Promoting occupational health and teaching quality: The impact of a mindfulness intervention in teacher training. *Teaching and Teacher Education*, 114(1). Doi: 10.1016/j.tate.2022.103703
- Birchinall, L., Spendlove, D., & Buck, R. (2019). In the moment: Does mindfulness hold the key to improving the resilience and well-being of pre-service teachers? *Teaching and Teacher Education*, 86(10). Doi: 10.1016/j.tate.2019.102919
- Chegini, T., & Lavasani, G.H. (2017). Personal responsibility and teaching emotions in teachers: The mediating role of educational optimism, *Educational Innovations Quarterly*, 17(2), 7-20. (In Persian).
http://noavaryedu.oerp.ir/article_79144.html
- Colleen L., EddyKeith C. M., & Reinke. (2022). Evaluation of a bibliotherapy-based stress intervention for teachers. *Teaching and Teacher Education*, 109, 103543. Doi: 10.1016/j.tate.2021.103543
- Evans-Amalu, K. L., Lucey, T. A., & Lin, M. (2021). Spirituality and Mindfulness practices of early childhood and elementary

- preservice teachers: A snapshot. *Journal of Curriculum Studies Research*, 3(2), 207-221. Doi: 10.46303/jcsr.2021.12
- Frenzel, A. C. (2014). Teacher emotions. In E. A. Linnenbrink-Garcia, R. Pekrun (Eds.), & L. Linnen Brink-Garcia (Eds.), *International Handbook of Emotions in Education* (pp. 494–519). New York: Routledge. Doi: 10.4324/9780203148211
- Ghadampour, E., Barzegar Bafrooei, M., & Ghare Veysi, S. (2022). The mediating role of psychological empowerment in relationship between collective teacher efficacy and teaching emotions. *Educational and Scholastic Studies*, 10(2), 107-129. (In Persian). Doi: 20.1001.1.2423494.1400.10.2.5.2
- Ghaed-Amini Harouni, A., Sadeghi De Cheshmeh, M., Babae Farsani, M., & Maleki Farsani, G. H. (2022). The role of job stress on job satisfaction of female primary school teachers during the corona pandemic with the mediating test of work-family conflict and parental stress. *Journal of Applied Educational Leadership*, 2(1), 75-95. (In Persian). https://ael.uma.ac.ir/article_1337.html
- Hall, N. C., & Goetz, T. (2013). Emotion, motivation, and self-regulation: A handbook for teachers, *Emerald Group Publishing Limited Howard House, Wagon Lane, Bingley BD16. 1WA, UK*.
- Hambour, V. K., Zimmer-Gembeck, M. J., Clear, S., Rowe, S., & Avdagic, E. (2018). Emotion regulation and mindfulness in adolescents: Conceptual and empirical connection and associations with social anxiety symptoms. *Personality and Individual Differences*, 134, 7–12. Doi: 10.1016/j.paid.2018.05.037
- Hashemi, S. A. (2022). *Examining the role of individual capabilities in elementary teachers' teaching emotions*. (Master dissertation). Yazd University, Iran. (In Persian).

- Hirshberg, M. J., Flook, L., Enright, R. D., & Davidson, R. J. (2020). Integrating mindfulness and connection practices into preservice teacher education improves classroom practices. *Learning and Instruction, 66*, Doi: 10.1016/j.learninstruc.2019.101298
- Hut, M., Glass, C. R., Degnan, K. A., & Minkler, T. O. (2021). The effects of mindfulness training on mindfulness, anxiety, emotion dysregulation, and performance satisfaction among female student-athletes: The moderating role of age. *Asian Journal of Sport and Exercise Psychology, 1(2)*, 75-82. Doi: 10.1016/j.ajsep.2021.06.002
- Iraji Rad, A., & Haji, M. (2017). Investigating the relationship between self-awareness and emotion-induced teaching in teachers in Ghaemshahr's vocational schools. *Quarterly Educational Psychology, 14(50)*, 55-70. (In Persian). doi: <https://org/10.22054/jep.2019.39767.2584>
- Jalali, A., & Pourhosein, R. (2020). Mindfulness and stress. *Rooyesh, 9(4)*, 145-158. (In Persian). Doi: 20.1001.1.2383353.1399.9.4.17.6
- Jenaabadi, H., Pilechi, L., Salmabadi, M., & Tayarani Rad, A. (2017). The Effectiveness of Training Mindfulness Skills in Professional Stress and Psychological Well-being of Female Teachers. *Iran Occupational Health, 13(6)*, 58-69. (In Persian). <http://ioh.iums.ac.ir/article-1-1574-en.html>
- Kamran, A., Mirmehdy, S. R., & Ghafari, M. (2022). The effective of mindfulness training (MBCT) on improving interpersonal relationships and reducing the impulsivity of bipolar II disorder, *Knowledge & Research in Applied Psychology, 23(1)*, 189-198. (In Persian). Doi: 10.30486/jsrp.2021.1904148.2512

- Karimzade, M., & Abdollahpour, M. A. (2022). The relationship between mindfulness and life satisfaction in teachers: A mediating role of coping styles in coping with the Corona epidemic. *Journal of Research in Educational Science*, 15(55), 98-109. (In Persian). Doi: 20.1001.1.23831324.1400.15.55.8.6
- Kazemi, N., Hossein Khanzadeh, A., Rasoulzadeh, V., & Mohammadi, S. T., (2020). The effectiveness of mindfulness education on job burnout and educational optimism in primary school teachers. *Quarterly Journal of Career & Organization Counseling*, 12(43), 51-72. (In Persian). Doi: 10.52547/JCOC.12.2.51
- Khodaei, A. (2018). Farsi Version of the Teacher Emotion Inventory: A Psychometric Study. *Research in School and Virtual Learning*, 5(4), 25-38. (In Persian). Doi: 20.1001.1.23456523.1397.5.4.2.1
- Komarati, M., Zangeneh Motlagh, F., & Pirani, Z. (2021). Comparison of the Effectiveness Acceptance and Commitment Therapy (ACT) and Mindfulness-Based Cognitive Therapy on Distress Tolerance of Female Adolescents with Self-Injury Behaviors. *Ijpb*, 15(1), 75-102. Doi: 20.1001.1.20081251.2021.15.1.1.0
- Lohbeck, A., Hagenauer, G., & Frenzel, A. C. (2018). Teachers' self-concepts and emotions: Conceptualization and relations. *Teaching and Teacher Education*, 70, 111-120. Doi: 10.1016/j.tate.2017.11.001
- MacIntyre, P. D., Gregersen, T., & Mercer, S. (2020). Language teachers' coping strategies during the Covid-19 conversion to online teaching: Correlations with stress, wellbeing and negative emotions. *System*, 94. Doi: 10.1016/j.system.2020.102352

- Mohammadi, M., Naseri Jahromi, R., Mokhtari, Z. Hesampoor, Z., & Naseri, R. (2020). Analyzing the experiences of elementary teachers of mindfulness during teaching. *Journal of Research in Teaching*, 8(1), 37-19. (In Persian). Doi: 10.34785/J012.2020.728
- Molloy Elreda, L., Jennings, P. A., DeMauro, A. A., Mischenko, P. P., & Brown, J. L. (2019). Protective effects of interpersonal mindfulness for teachers' emotional supportiveness in the classroom. *Mindfulness*, 10(3), 537–546. Doi: 10.1007/s12671-018-0996-y
- Mousavi, S. A., Pourhosein, R., Zare-Moghaddam, A., Rezaei, R., Hasani Estalkhi, F., Mirbluk Bozorgi, A., Mirbluk Bozorgi, A. (2019). Mindfulness-based cognitive therapy (MBCT). *Rooyesh*, 9(4), 133-144. (In Persian). <http://frooyesh.ir/article-1-413-fa.html>
- Muhonen, H., Pakarinen, E., & Lerkkanen, M. K. (2022). Professional vision of Grade 1 teachers experiencing different levels of work-related stress. *Teaching and Teacher Education*, 110. Doi: 10.1016/j.tate.2021.103585
- Parveen, H., & Bano, M. (2019). Relationship between teachers' stress and job satisfaction: Moderating role of teachers' emotions. *Pakistan Journal of Psychological Research*, 34(2), 353-366. Doi: 10.33824/PJPR.2019.34.2.19
- Pham, L. T. T., & Phan, A. N. Q. (2023). Let's accept it: Vietnamese university language teachers' emotion in online synchronous teaching in response to COVID-19. *Educational and Developmental Psychologist*, 40(1), 115-124. Doi: 10.1080/20590776.2021.2000321
- Pirasteh, S., & Pirasteh, K. (2019). The relationship between time management and self-efficacy with job stress of elementary school teachers in Bojnord city. *Applied research in*

- counseling*, 3(10), 66-33. (In Persian).
<http://www.jarci.ir/article-696659.html>
- Pourhosein, R., Mousavi, S. A., Zare-Moghaddam, A., Gomnam, A., Mirbluk Bozorgi, A., & Hasani, F. (2019). Mindfulness from theory to therapy. *Rooyesh*, 8(1), 155-170. (In Persian).
Doi: 20.1001.1.2383353.1398.8.1.4.0
- Rastegar, A., Seif, M. H., & Ali Mohammadi Madnawi, Z. (2017). The relationship between school principals' authentic leadership style components and teachers' positive teaching emotions: the mediating role of psychological capital. *Journals of School Administration*, 6(2), 163- 185. Doi: 20.1001.1.25384724.2018.6.2.9.6
- Rodrigues de Oliveira, D., Wilson, D., Palace-Berl, F., de Mello Ponteciano, B., Fungaro Rissatti, L., Sardela de Miranda, F., Piassa Pollizi, V., Fuscella, J. C., Mourão Terzi, A., Lepique, A. P., D'Almeida, V., & Demarzo, M. (2021). Mindfulness meditation training effects on quality of life, immune function and glutathione metabolism in service healthy female teachers: A randomized pilot clinical trial. *Brain, behavior, & immunity-health*, 18. Doi: 10.1016/j.bbih.2021.100372
- Sadidi, M. (2019). Prediction of job stress in teachers based on forgiveness and thought control strategies and their relationships with stress. *Rooyesh*, 8(3), 55-64. (In Persian).
<http://frooyesh.ir/article-1-829-fa.html>
- Segal, Z. V., Teasdale, J. D., & Williams, J. M. G. (2004). Mindfulness-Based Cognitive Therapy: Theoretical Rationale and Empirical Status. In S. C. Hayes, V. M. Follette, & M. M. Linehan (Eds.), *Mindfulness and acceptance: Expanding the cognitive-behavioral tradition* (pp. 45-65). The Guilford Press.

- Taylor, S. G., Roberts, A. M., & Zarrett, N. (2021). A brief mindfulness-based intervention (bMBI) to reduce teacher stress and burnout. *Teaching and Teacher Education, 100*. Doi: 10.1016/j.tate.2021.103284
- Uitto, M., Jokikokko, K., & Estola, E. (2015). Virtual special issue on teachers and emotions in Teaching and teacher education (TATE) in 1985-2014. *Teaching and Teacher Education, 50*, 124-135. Doi: 10.1016/j.tate.2015.05.008
- Wilson, D., De Oliveira, D.R., Palace-Berl, F., De Mello Ponteciano, B., Rissatti, L.F., Pollizi, V.P., de Miranda, F.S., D'Almeida, V., & Demarzo, M., (2022). Fostering emotional self-regulation in female teachers at the public teaching network: A mindfulness-based intervention improving psychological measures and inflammatory biomarkers. *Brain, Behavior, & Immunity-Health, 21*. Doi: 10.1016/j.bbih.2022.100427.