

Research Paper

A Study of Relationship Between Stress and Mindfulness Among Teacher Trainees

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ABSTRACT

Human life gets perfection through education. Within the past few decades, it is seen that stress has become part & parcel of human life. It is observed that there has been an urge of interest in the investigation of mindfulness as a factor in reducing the stress level of teacher trainees. Teacher Trainees who have high levels of stress have reported difficulties with functioning on a daily basis, whether it be high anxiety due to classes or an increase in unhealthy habits like smoking or overeating. The present paper highlights the relationship between mindfulness and stress among teacher trainees. Studies have shown that those who practice mindfulness every day learn how to live by accepting the stresses in their lives (Vonderheyde, 2017). Mindfulness is keeping one's consciousness into reality. Stress is defined as a state of psychological and physiological disparity between situational demand and the individual's ability and motivation to meet those needs. The sample for the study consisted of 197 teacher trainees. It has been observed that teachers in pre-service training have been prone to stressful situations in life due to immense workload. Mindfulness plays a vital role in reducing the stress level in the students as earlier research studies have quoted. The scales used for data collection are Mindfulness Attention Awareness Scale by Brown and Ryan, 2003 and Perceived Stress Scale by Sheldon Cohen, 1994. Convenient Sampling method under non-probability sampling techniques method was carried out for the present study. Descriptive and correlation methods were used for analyzing the collected data. It was found that there is a significant difference in stress and mindfulness.

Keywords: *Teacher Trainees, Stress, Mindfulness*

Human beings live in society and die in it. While maintaining lifestyle, everyone is confronted with many problems. Some problems have negative effects on the physical body and mind whereas some have positive impacts. Individuals face different sorts of problems and generally function as the primary judge of improvement or deal with the event by showing different aspects or facets of personality. It is said that each individual lives stress, and it could also lead to pressure and tension when confronted with a replacement or threatening situation.

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A Study of Relationship Between Stress and Mindfulness Among Teacher Trainees

In today's competitive world every student will feel the effect of stress at some point of time in their life. Stress has become part of students' academic life due to the various internal and external expectations placed upon their shoulders. Some students feel more stressed out in comparison to the others; some students handle the stress more efficiently than others, but no one can completely rule out stress from their lives. Some degree of stress in learning situations is expected and normal. However, excessive anxiety and stress negatively affects cognitive performance; especially working memory, concentration, and sustained attention.

Teacher trainees are no exception to stress. Teacher Trainees experience stress related to changes in lifestyle, increased workload, new responsibilities, and interpersonal relationships, worse health outcomes and reduced quality of life. (Grace, 1997).

Stress management employs a wide variety of techniques and strategies. Mindfulness as a technique is gaining prominence today and numerous studies have demonstrated its positive effects on human health and well-being, and ability to reduce a range of stress-related physical and psychological problems (Shapiro, Astin, Bishop, & Cordova, 2005) like depression, anxiety, and perceived stress (Bai, Elavsky, Kishida, 2020). Mindfulness practice improves adaptability in stressful situations, attention regulation, and focus in students (Blackburn, 2020). The relationship of mindfulness and stress, appears to be circular; using mindfulness techniques reduces stress (Broderik, 2005), similarly low levels of mindfulness is linked to higher perceived stress (Anastasiades, 2017).

The Study

Stress is an inevitable part of life; it can take a toll on students' physical health, emotional wellbeing, and academic success unless they learn to manage it appropriately. Perceived stress has an equal effect on a person's wellbeing. Mindfulness may be a potential coping strategy that moderates the negative effects of appraised stress. Mindfulness can be conceptualized as both a trait-like quality (a psychological trait that refers to the tendency to be mindful in everyday life) and a state-like quality (a receptive attention to internal and external experiences). In this study, the researchers have attempted to study the relationship between perceived stress and mindfulness among teacher trainees., the understanding of which can have implications for including training in mindfulness for teacher trainees.

Research Questions

1. What is the level of mindfulness in teacher trainees?
2. What is the level of stress experienced by teacher trainees?
3. Are there gender-based differences in the level of mindfulness and stress in teacher trainees?
4. What is the nature and extent of the relationship between mindfulness and stress in teacher trainees?

METHODOLOGY

Sample

In the present study, teacher trainees from India were the population under study. Convenient sampling method under non-probability sampling techniques was used. A total of 206 responses were gathered for the study. Out of 206 responses, 9 responses were deleted as the questionnaire was not completed by teacher trainees. Finally, a total of 197 teacher trainees (185 females and 12 males) constituted the sample. The teacher trainees were students pursuing diploma, bachelor's, and master's programmes in either general education or special education.

A Study of Relationship Between Stress and Mindfulness Among Teacher Trainees

Instruments

Two standardized questionnaires were used for the purpose. Mindfulness Attention Awareness Scale (MAAS) developed by Brown and Ryan (2003), and Perceived Stress Scale (PSS) by Cohen (1994), were used to collect data.

- **General Socio Demographic questionnaire** for sample characterization was applied to determine sex, age, course level, stream and educational level.
- **Mindfulness Attention Awareness Scale (Brown and Ryan, 2003)** This scale addresses “attention to and awareness of what is occurring in the present”. It has 15 items that are rated on a six-point Likert scale ranging from strongly agree to strongly disagree. Brown and Ryan consider this scale to yield an index of everyday mindfulness and they report alpha coefficients for college students and adults to be 0.80 and 0.87, respectively. Individual scores on the Mindfulness Attention Awareness Scale range from 15 to 90. Those scoring higher in mindfulness tend to report higher levels of pleasant affect, higher self-esteem, optimism, and self-actualization.
- **Perceived Stress Scale** the Perceived Stress Scale (PSS) developed by Sheldon Cohen (1994) is the most widely used psychological instrument for measuring the perception of stress. It is a measure of the degree to which situations in one’s life are appraised as stressful. This scale is a 10-item instrument rated on a five point Likert scale (almost never to very often), which evaluates the perception of stressful events. Individual scores on PSS range from 0 to 40 with higher scores indicating higher perceived stress. If an individual achieves a score ranging between 0-13, it means that the individual is considered to have low stress, scores between 14-26 indicates moderate stress and scores ranging between 27-40 considered to have high perceived stress.

Procedure

The sample of the study included teacher trainees from colleges all over India. Since the survey data was collected from teacher trainees during the covid-19 pandemic lockdown period, google forms were created. The google forms included the items to collect demographic details, the MAAS, and the PSS. The online survey created using google forms was circulated with the teacher trainees directly, additionally the researchers’ requested teachers at colleges/institutes to share the survey form with their teacher trainees. The survey was shared via online platforms (Gmail) and social media platforms viz. WhatsApp and Facebook. The survey was shared after every 2 days with different colleges/institutes for 15 days and the survey form was active for 25 days from the time it was first published. A description of the nature of the survey was provided to the respondents before they could start reading the questions. An informed consent was obtained from the respondents and confidentiality of data was assured. In general, it consumed a maximum of 10 minutes to complete the questionnaire. The teacher trainees and teachers were thanked for their kind cooperation. The completed questionnaires were coded, data was organized, and later analyzed by applying required statistics.

RESULTS

The data collected for the study was tabulated and analyzed by employing mathematical and statistical tools like percentage, mean, standard deviation and Pearson ‘r’ and inferential statistical tools like t-test. Since, aims of the research is to “study the relationship between stress and mindfulness among teacher trainees”, correlation between mindfulness and stress

A Study of Relationship Between Stress and Mindfulness Among Teacher Trainees

was found out using Pearson 'r' and t-test was used to find the significance difference in the means of the two independent groups i.e., males and females.

Table No. 1 Level of Mindfulness in Teacher Trainees

		N	Mean	SD
Teacher Trainees	Total	197	59.13	13.93
	Male	12	47.33	8.11
	Female	185	59.90	13.39

On the MAAS, respondents can achieve scores ranging from 15 to 90, with higher the score, higher the level of mindfulness. Table 1 shows that on an average the teacher trainees (n=197) exhibit a high ($M= 59.13$, $SD= 13.93$) tendency toward mindfulness. This holds true for male ($M=47.33$, $SD = 8.11$) as well as female ($M=59.9$, $SD = 13.39$) teacher trainees. As seen from table 2, there is a difference (12.57) in the average level of mindfulness between the male and female teacher trainees. The female teacher trainees are significantly more mindful than their male counterparts with $t(195) = 3.08$, $p=.05$.

Table 2: Level of Mindfulness in Male and Female Teacher Trainees

	Mean	SD	n	df	t-value
Males	47.33	8.11	12	195	3.08*
Females	59.90	13.39	185		

**Significant at .05 level of significance*

Table 2 shows the difference between the level of mindfulness in male and female teacher trainees. It shows that the mean and standard deviation score for mindfulness is 59.90 and 13.39 for 185 female teacher trainees and 47.33 and 8.11 for 12 male teacher trainees. It is evident that females (59.90) are more mindful than males (47.33). However, a t-test was conducted to compare both the means to determine whether they were significantly different than each other. The t-value that was achieved is 3.08 (df=195) which was found to be significant at 0.05 level of significance indicating that the male and female teacher trainees have true differences in how mindful they are. As can be seen from table 6, females (59.90) are significantly more mindful than their male (47.33) counterparts. Thus, the null hypothesis is rejected, and an alternate hypothesis is accepted i.e., there is a significant difference in the level of mindfulness in male and female teacher trainees.

Table 3: Level of Stress in Teacher Trainees

		N	Mean	SD
Teacher Trainees	Total	197	18.55	4.57
	Male	12	17.33	4.04
	Female	185	18.63	7.87

The data collected on PSS revealed the level of perceived stress in the teacher trainees. Individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress. Table 3 shows that teacher trainees (n=197) obtained a mean score of 18.55 and SD of 4.57 on PSS which is on the moderate side of the attainable score indicating moderate perceived stress. A comparison of the scores obtained by males ($M = 17.33$, $SD = 4.04$) and females ($M= 18.63$, $SD = 7.87$) indicates that females perceive stress marginally more than the males. The difference between the mean scores (1.3) is however not

A Study of Relationship Between Stress and Mindfulness Among Teacher Trainees

statistically significant, $t(195) = .95$, $p > 0.05$ (refer to table 4) indicating that both, males and females have similar perceptions about their experienced stress.

Table 4: Level of Stress in Male and Female Teacher Trainees

	Mean	SD	N	df	t-value	Level of significant
Males	17.33	4.04	12	195	0.95	P>0.05
Females	18.63	7.87	185			

To investigate the relationship mindfulness and perceived stress in the sample of 197 teacher trainees, a correlational analysis was performed which indicated that there is a low negative relation ($r = -.249$, $p < .05$) between the two variables which is statistically significant (please refer to table 4). This indicates that as mindfulness increases, stress decreases. In order to explore whether the results would be similar for male and female teacher trainees, additional analysis was done. The results for female teacher trainees indicate a low negative correlation ($r = -.356$, $p < .05$) between the two variables which is significant; this is in consonance with the results obtained for the sample indicating that female teacher trainees as mindfulness increases, we find that they tend to perceive less stress. However, in the male teacher trainees' sample, a different result was obtained. A moderate positive correlation is seen ($r = .599$, $p < .05$) between mindfulness and perceived stress. This is dissimilar to the results obtained for both - the female teacher trainees and the total sample. It thus appears that in the males, as mindfulness increases, so does the level of perceived stress.

Table 5: Correlation of 197 Teacher Trainees on the Dimensions of Mindfulness and Stress

	N	Pearson's correlation between mindfulness and perceived stress
Males	12	.599*
Females	185	-.356*
Total	197	-.249*

*Significant at .05 level of significance

The data in table 5 indicates that the nature of relationship between mindfulness and perceived stress for the male and female are in different directions. To determine whether the obtained correlation coefficient values in the sample of male and female teacher trainees are statistically different, a z-statistic was computed. As can be seen in table 6, $z = -3.12$ is significant at .001 level indicating that the two groups actually differ with respect to the nature and extent of correlation between the studied variables.

Table 6: Comparison of Difference in the Correlation Coefficients Between Mindfulness and Stress in Males and Females

	n	r
Females	185	-.356
Males	12	.599
Test Statistic z	-3.12	
Probability p	0.001	

Table 6 shows the difference in the two correlation coefficients. It is observed that two correlation coefficients are significantly different from each other, given the two correlation coefficients and their associated sample sizes. It is found that the z-score for the significance

A Study of Relationship Between Stress and Mindfulness Among Teacher Trainees

test is -3.12 and probability value is 0.001. We can say that the two correlation coefficients are significantly different from each other. Thus, the results indicate the significant difference between the mindfulness and level of stress experienced by male and female teacher trainees. The null hypothesis is rejected, and an alternative hypothesis is accepted.

DISCUSSION

The aim of the current study was to explore relation between stress and mindfulness in teacher trainees. A study by Srinivasarao (2017) states that Teacher Trainees face psychological problems at the time of training. The findings suggest that teacher trainees experience increased stress and report lower levels of trait mindfulness. Thus, trait mindfulness is related to coping on a physiological level as well as a cognitive-emotional level.

Females are more likely than males to report that their stress levels are on rise. It is found by the researchers that both, female and male teacher trainees, tend to experience stress but it is seen that female teacher trainees experience perceived stress more than the male teacher trainees. Leland (2015) and Jain (2018) found that the amount of anxiety and stress were higher in female trainees than male trainees. Similarly, it is found that females are more mindful than males teacher trainees. As studied in several research, it is observed that there was a higher level of mindfulness and metacognitive beliefs in people with hypertension and stress. The findings of the study are in line with the prior observations.

The result of the present study reveals that there is a significant difference in the level of mindfulness among teacher trainees but there is no significant difference in the level of stress among teacher trainees. The researcher found that there is a positive correlation between stress and mindfulness among male teacher trainees whereas there is a negative correlation between stress and mindfulness among female teacher trainees. We have seen male teacher trainees reacting to stress differently. Most of the trainees have their own tested methods for dealing with it. Whether they involve taking it out on the treadmill, or going to the party, etc. or might utilize to deal with stress including making social contacts, avoidance, discovering fulfillment, exercise or prioritizing the amount of work to be done, etc. Everyone seeks a release in their own way. It is said that at times, it is normal to feel stressed, and in some circumstances, it can be good for students. Feeling pressure can help a trainee to prepare for challenges in their academics.

However, being stressed for a long time can lead to physical and emotional problems with health. With the help of this study, researcher found that mindfulness yielded the strongest associations with perceived stress and Mindfulness training might be an effective approach for improving stress resilience, self-compassion, and self-reflection among teacher trainees.

CONCLUSION

In the 21st century, the world is changing very rapidly. Everyone is striving for superiority today. Experiences of stress among students is considered a major problem in higher education. Teacher Trainees face a wide range of ongoing stressors related to academic demands. Previous research indicates that academic-related stress can reduce academic achievement, decrease motivation and increase the risk of dropout. However, Shah (1988) states that the effects of a mindfulness meditation program are similar to the “use of an antidepressant in a primary care population but without the associated toxicities.” Studying mindfulness has been shown to be beneficial to those who are struggling with mental health issues and everyday stress. An important implication of the outcome of the study is that the

A Study of Relationship Between Stress and Mindfulness Among Teacher Trainees

teacher trainees can be purposefully taught mindfulness as part of their course curriculum. This training in mindfulness can help them develop resilience during their own training. When they start working as teachers, they can teach their students these techniques. A suggestion is thus to include a module on mindfulness in teacher education curriculum to build emotional competence.

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A Study of Relationship Between Stress and Mindfulness Among Teacher Trainees

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Conflict of Interest

The author declared no conflict of interest.

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