

Relationship between Mindfulness, Emotional Regulation and Teaching Efficacy in School Teachers

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Abstract

The presence of mind while teaching as well as the management of their emotions is a crucial part of teachers' sense of efficacy in the classroom. This study aims to find the relationship between mindfulness, self-efficacy and emotional regulation in school teachers. A sample of 110 school teachers who were proficient in English was taken. They were given a self-reported questionnaire containing demographic information, the Five Facet Mindfulness Questionnaire (FFMQ) to measure mindfulness, the Teachers' Sense of Efficacy Scale (short form) to measure the perceived efficacy of teachers in the classroom and the Emotion Regulation Questionnaire (ERQ) to measure their emotional regulation. It was found that mindfulness and emotional regulation were significantly and positively correlated with teachers' sense of efficacy. Hence, results suggest that being more mindful and having a higher ability to regulate and manage emotions can lead to higher teaching effectiveness and efficiency in the classroom. These results contribute to the growing literature about awareness related to school teachers' effectiveness in the classroom and will help in establishing innovative programmes and designing further research in future.

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INTRODUCTION

Emotions are the basis of behavioural management and these emotions are a crucial part of human existence, especially in occupational and professional settings. Emotional Regulation refers to our ability to understand and manage emotions in a rational way. It is the key component of personal and professional growth.

According to Gross (1998), Emotional Regulation has been defined as “the process by which individuals influence which emotions they have, when they have them, and how they experience and express their feelings. Emotional regulation can be automatic or controlled, conscious or unconscious, and may have effects at one or more points in the emotion producing process”. Teaching in schools is one of the most demanding jobs which requires emotional regulation in teachers for effective classroom management and student interaction where they are able to cope with their emotions and behave with children in a rational and controlled manner (Skinner and Beers, 2016).

Gross (1998) significantly contributed to the study of emotional regulation and gave a process model where he concluded that acting early in an emotionally generating situation will lead to different consequences as compared to the actions which are taken later in the emotionally inducing phase. Further, he said that there are two strategies which are used by individuals to regulate their emotions, one which is antecedent-focused and

the other which is response focused. Among them, the antecedent-focused strategy of cognitive reappraisal comes at an early stage of the emotionally generative process, whereas the response-focused strategy of expressive suppression comes later in the stage. Cognitive reappraisal means modifying the construction of an upsetting situation to minimise and downregulate emotional upheaval. Expressive suppression consists of inhibiting the behavioural external signs of internal emotional upset. (Gross, 2002; Bielak and Mystkowska-Wiertelak, 2020).

Mindfulness is simply defined as awareness of the present moment. It is the presence of consistent awareness of an individual of their present experience in a conscious and non-judgemental manner (Schmidt, 2011). Awareness is a core element of mindfulness. A teacher who is aware of the students and the happenings in the class can proactively manage situations, modify teaching patterns and observe the effectiveness of teaching methods, adjusting and moulding techniques accordingly, with students reaping the maximum benefit. A teacher who is more aware, tends to students' needs and takes required action even in disruptive times, dodging setbacks and challenges.

Self-efficacy refers to an individual's belief about their own abilities and competency and is the main factor in various behaviours and decisions. Similarly, a teacher's sense of efficacy is related to “a teacher's belief in his or her capability to execute courses

of action required to successfully accomplish a specific teaching task in a particular context". It is not a trait in teachers but is related to their level of competency, effectiveness in the classroom learning environment and student engagement (Bandura, 1997; Tschannen-Moran et al., 1998).

A review article on the self-efficacy of teachers found that efficiency and effectiveness in teaching are highly related to a teacher's sense of self-efficacy. Teachers who have high self-efficacy are more prone to achieve their agendas, actively handle challenging situations, taking a deeper interest in their students and activities of the class with a higher level of commitment in comparison to teachers with low efficacy. Teachers' own beliefs are the fuel to their efficaciousness in their profession (Hussain and Khan, 2022). Various research has suggested that teachers' sense of efficacy is significantly associated with students' achievements, their level of motivation as well as the teacher's ability to manage the classroom environment and students' behaviour, provide instructions and a passionate learning environment (Tschannen-Moran and Hoy, 2001; Tilfarlioğlu and Ulusoy, 2012; Swarnalatha, 2019).

REVIEW OF LITERATURE

Roeser et al., (2012) talked about the applications of various Mindfulness training (MT) programmes for teachers to enhance their socio-emotional and professional development. MT helps the teachers in developing mindfulness

and then effectively deal with the uncertain and demanding atmosphere of educational institutions which increased their teaching effectiveness, improving overall education and its practice.

Meiklejohn et al., (2012) provided evidence for integrating mindfulness training into schools and how numerous studies in the past have shown promising results that mindfulness-based teacher training interventions have resulted in higher teaching self-efficacy and elevated a teacher's well-being significantly. In a systematic review of 13 finest studies by Emerson et al., (2017), it was found that Mindfulness-based Interventions (MBIs) led to decentering, increase in self-compassion and attention, elevating the level of emotional regulation, increasing self-efficacy and decreasing stress levels in teachers (Flook et al., 2013; Killion, 2019; Tsang et al., 2021).

Bauhuf (2021) studied the effects of mindfulness on teachers' self-efficacy and it was found that mindfulness in itself was not enough to increase the sense of self-efficacy in teachers. They found that mindfulness was associated with emotional and social well-being. They also found no association between mindfulness and emotional regulation but found an association between emotional regulation and self-efficacy. Frank et al., (2015), while validating the mindfulness measure in the teaching scale, found interpersonal mindfulness as a significant predictor of teachers' instructional efficacy related to

behaviour and social-emotional management of students in the classroom. Lindsay and Creswell (2019) found that mindfulness intervention increased positive emotional and social functioning.

Teachers teaching at the elementary school level as well as teachers who have been teaching for ten and more years, both were seen to have a higher level of efficacy in comparison to those teachers teaching in middle or high school levels (Fives and Buehl, 2010). Moyano et al., (2021) found that teachers with a high sense of efficacy have higher interpersonal and intrapersonal mindfulness, leading to engagement and receptivity to students.

Cheery (2020) found that teachers who have a high sense of efficacy have a deeper commitment towards their job, take a keen interest in classroom activities and students' behaviour, manage their thoughts and emotions and are able to cope effectively and work efficiently in challenging situations. In contrast, those teachers with a low sense of efficacy try to escape difficult situations, have low confidence and are more focused on their failures and negative outcomes.

Jennings (2014) examined the psychosocial characteristics of early childhood teachers in relation to the learning environment of the classroom and it was found that personal efficacy, positive affect, self-compassion and mindfulness were positively associated with emotional support and depersonalisation and

emotional exhaustion were related negatively with the same. Hence, it was concluded that a teacher's psychosocial characteristics impacts affect their ability to maintain and manage the classroom environment and in establishing supportive relationships with their students. Goroshit and Hen (2014) studied teachers' self-efficacy, emotional efficacy and empathy. It was found that empathy and teachers' self-efficacy can be predicted by measuring their emotional self-efficacy.

Wenzel et al., (2020) conducted the study to find an association between mindfulness and the use of emotional regulation strategies; it was seen that mindfulness had no significant association with emotion regulation. It was also seen that the non-judgmental component of mindfulness showed an inverse relationship with the use of emotional regulation strategies.

Fathi et al., (2021) found that emotional regulation plays a mediating role between teachers' self-efficacy, their reflection and burnout in their profession. Wimmer et al., (2019) in their study on improving emotional regulation in school teachers through mindfulness training found that mindfulness led to an increase in cognitive reappraisal strategy of emotional regulation and a decrease in rumination of depressive mood and symptoms. Whereas, there was no reduction seen in the expressive suppression strategy of emotional regulation, anxiety and negative mood.

Further in a study of emotional regulation, Gross (2002) found that in comparison to suppression, reappraisal

decreases the behavioural as well as emotional expression related to a situation and has no negative effect on memory. Suppression on the other hand increases physiological responses. It is seen that expressive suppression response strategy leads to less positive affect, with no improvement in interpersonal functioning and might decrease well-being at times. These individuals are not able to regulate and improve their moods and drift towards negative thought patterns and affectivity (Gross and John, 2003). A recent study found that teachers who are able to regulate their emotions using the reappraisal strategy of emotional regulation were able to deal effectively with classroom misbehaviour, fostering higher student engagement and classroom management (Chang and Taxer, 2020).

The review of literature suggests that mindfulness, emotional regulation and self-efficacy are interlinked. Mindfulness training leads to positive teaching experience. There have been researches in which mindfulness training has been used to increase teachers' efficacy, training them to also regulate their emotions. It has also been concluded from many pieces of research that efficacy and emotional regulation are related to each other and needs further exploration. There is a limited number of research which investigated the cognitive, psychosocial and emotional characteristics of educators in association with their teaching effectiveness. Hence, we

need more studies and research to explore these dimensions to facilitate improvement in the teachers' training programme, leading to effective teaching patterns and processes in educational institutions.

RATIONALE OF THE STUDY

With technological advancement, the introduction of smart classes and a widespread curriculum with a plethora of activities, schools have become one of the most competitive zones in the world, not only for students but for teachers too with long and continuous working hours which might hamper their efficacy and effectiveness. This poses a question as to what intrapersonal factors might be related to teachers having high effectiveness, efficacy and efficiency. Teachers have a highly demanding profession and are more invested emotionally in it as it is related to children. This study has taken three variables to measure the cognitive, emotional and behavioural domains for the same in teachers.

RESEARCH QUESTIONS

The study aims to find the relationship between mindfulness, emotional regulation and a sense of efficacy in school teachers. There is a need to assess the dispositional characteristics and qualities in a teacher which make their teaching more effective for students in the classroom. This study brings forward the importance of mindfulness and emotional regulation to explore the same.

The study is an attempt to resolve following questions:

- To what extent mindfulness is associated with teacher's sense of efficacy?
- Which form of emotional regulation is associated with teacher's sense of efficacy?

METHOD

Participants and Procedure

The study was conducted online with the help of Google Forms as all the measures were self-reported questionnaires. Schools and teachers were approached to participate in the study and the data was collected after obtaining consent. All teachers teaching in schools from elementary to high school levels were included in the study. A complete sample of 110 teachers was obtained through this process among which 96.4 per cent were females and 5.46 per cent were males. Teachers from age 21 to 64 years were included in the study with the mean age being 41 years for the whole sample. Among them, 47.3 per cent of teachers were elementary school teachers and taught miscellaneous subjects in school, 22.7 per cent were language teachers and 30 per cent taught other subjects like Social Science and Science to high school students.

There were no major socio-demographic discrepancies seen among the sample. The majority of the sample was female as in India, females

have a higher rate of orientation towards being a school teacher. It was seen that amongst the sample, 44.5 per cent of teachers came from high socio-economic status, 49.1 per cent were from middle socio-economic status and 6.4 per cent were from low socio-economic status. Further, majority of them are from urban lands (90.9 per cent) as compared to rural (9.1 per cent), with 86.4 per cent presently being married and 6.4 per cent being divorced, separated or widowed and 7.2 per cent being single. The sample includes teachers from both joint (40.9 per cent) and nuclear (59.1 per cent) families.

Measures

• Teachers' Sense of Efficacy Scale (TSES) Short Form

This is a self-administered test developed by Hoy and Woolfolk (1993) which is especially for teachers to measure their beliefs about their own efficacy and effectiveness in the classroom. This scale is a 12-item short version of the original scale of 24 items and is measured on a 9-point Likert scale giving a continuum of the level of capability relating to classroom teaching. It has three domains which are Student Engagement efficacy (how well the teachers are able to make students attend and engage in classroom lessons and activities as well as participation), efficacy for Instructional Strategies (how well the teacher is able to impart instructions and make children

obey them in the classroom) and efficacy in Classroom Management (how well the teachers are able to manage students and their behaviour in the classroom as well as the activities around) (Haneman et al., 2006).

- **Five Facet Mindfulness Questionnaire (FFMQ)**

FFMQ is a self-reporting questionnaire and was developed by Baer, et al., (2006). It is a 5-point Likert scale containing 39 items to assess the mindfulness of an individual based directly on their own experiences, thoughts, feelings and behaviour in regular life. It has a strong validity and reliability measure. This scale has five intrapersonal facets to measure mindfulness and self-awareness which are Observing (assesses the alertness of an individual towards their sensations and surroundings), Describing (an individual's ability to express and label the feeling and thoughts they are experiencing), Acting with Awareness (self-awareness about their own movements and actions at the moment), Non-judging of inner experience (where a person is able to accept their own thoughts and feelings without any judgement) and Non-reactivity (able to mentally balance self and not react on negative thoughts and feelings). The scale has strong test-retest reliability and internal consistency. It has a high construct validity

and a strong validity overall (Baer, 2006; Baer et al., 2006).

- **Emotional Regulation Questionnaire (ERQ)**

ERQ is a 10-item self-report questionnaire and is responded to on a 7-point Likert scale to measure various strategies used by an individual to understand, manage and modify their emotions. This scale is developed by Gross and John (2003) and until now has been translated into 33 languages. There are two facets to emotional regulation strategies, one is cognitive appraisal (where an individual understands their emotions and try to modify their emotions through a change in thought) and expressive suppression (where the person inhibits their emotions and suppresses them). This scale has high internal consistency reliability, replicability and validity.

Data Analysis

The data collected from the teachers was tabulated and the self-reported measures were scored using the standard spreadsheet programme for obtaining the dimensional and overall scores of the present level of mindfulness, sense of efficacy and emotional regulation of teachers. The data collected was checked for normality and was found to have a normal distribution. Then the data were analysed with the help of IBM SPSS Statistics 25 software to find the relationship between the variables

and Pearson Coefficient Correlated was computed.

RESULTS

The analysis of the data was computed and the correlation between mindfulness, teaching efficacy and emotional regulation was determined. From the table below (Table 1), it can be seen that a significant positive correlation was found between mindfulness and teachers' sense of efficacy ($r=0.360$, $p<0.01$). This means that teachers with a higher level of mindfulness also are seen to have a higher sense of efficacy. Further, a correlation was also seen between the dimensions of mindfulness and the teaching efficacy scale. It was seen that Observing ($r=0.278$, $p<0.01$), Describing ($r=0.341$, $p<0.01$), Acting with Awareness ($r=0.227$, $p<0.05$) and Non-reactivity ($r=0.206$, $p<0.05$) dimensions of mindfulness were significantly and positively correlated

with Student Engagement domain of teachers' sense of efficacy (Meiklejohn, et al., 2012; Jennings, 2014).

In addition, a significant positive correlation was found between Observing ($p=0.227$, $p<0.05$) and Describing ($p=0.250$, $p<0.01$) dimensions of mindfulness with the Instructions Strategies domain of teachers' sense of efficacy. A significant positive correlation was also found between Describing ($r=0.240$, $p<0.01$), Acting with Awareness ($r=0.226$, $p<0.05$) dimensions of mindfulness with Classroom Management domain of teachers' sense of efficacy (Meiklejohn et al., 2012; Killion, 2019; Moyano et al., 2021).

Additionally, it was also found that the age of teachers was significantly correlated with the classroom management dimension of teachers' sense of efficacy ($r=0.199$, $p<0.05$) as well as teaching efficacy overall ($r=0.129$, $p<0.05$). This means with

Table 1
Correlation between Mindfulness and Teaching Efficacy (N=110)

Teachers' Sense of Efficacy (TSES)→ Five Facets of Mindfulness Scale↓	Student Engagement Correlation Coefficient (r)	Instructional Strategies Correlation Coefficient (r)	Classroom Management Correlation Coefficient (r)	Total TSES Scores Correlation Coefficient (r)
Observing	0.278**	0.227*	0.165	0.274**
Describing	0.341**	0.250**	0.240**	0.308**
Acting with Awareness	0.227*	0.180	0.226*	0.237*
Non-judging	0.087	0.160	0.117	0.136
Non-reactivity	0.206*	0.183	0.129	0.191*
Total FFMQ Score	0.365**	0.318**	0.285**	0.360**

*p values are significant at <0.05 level

**p values are significant at <0.01 level

an increase in age, teachers are better able to manage the workings of the classroom and its environment and believe to have a higher teaching efficacy. This finding supports the study done by Fives and Buehl (2010) and Tschannen-Moran and Hoy (2007) that there were higher levels of self-efficacy beliefs among experienced teachers as compared to the novices who were at the beginning of their teaching careers. It was also seen that age was positively correlated with describing dimension of mindfulness concluding that with more age, teachers are better able to label and express their own emotions, thoughts and feelings. A study related to mindfulness profiling across adulthood found that characteristics of the sample population like age may affect the prevailing level of mindfulness (Ford et al., 2020). According to research (Mahlo and Windsor, 2020), it has been found that with advancing age, focus on

the present moment, non-judgmental orientation and appreciation of the transitory nature of life increases.

Further, we can see from the table above (Table 2) the relationship between Emotional Regulation and Teachers' sense of efficacy and it was found that Emotional Regulation in teachers was significantly and positively correlated with their sense of efficacy ($r=0.283, p<0.01$). Hence, it can be seen that teachers who show a higher ability to regulate their emotions have also a higher sense of efficacy. Additionally, Student Engagement ($r=0.395, p<0.01$), Instructional Strategies ($r=0.409, p<0.01$), and Classroom Management ($r=0.322, p<0.01$), all dimensions of teachers' sense of efficacy were significantly and positively correlated with Reappraisal response strategy of emotional regulation (Chang and Taxer, 2020; Bauhuf, 2021; Fathi et al., 2021).

Table 2
Correlation between Emotional Regulation and Teaching Efficacy (N=110)

Teachers' Sense of Efficacy (TSES)→ Emotional Regulation Strategy (ERQ)↓	Student Engagement Correlation Coefficient (r)	Instructional Strategies Correlation Coefficient (r)	Classroom Management Correlation Coefficient (r)	Total TSES Scores Correlation Coefficient (r)
Cognitive Reappraisal	0.395**	0.409**	0.322**	0.417**
Expressive Suppression	-0.37	0.062	0.085	0.044
Total ERQ Score	0.223*	0.288**	0.248**	0.283**

*p values are significant at <0.05 level

**p values are significant at <0.01 level

Table 3
Correlation between Mindfulness and
Emotional Regulation (N=110)

Emotional Regulation Strategy (ERQ)→ Five Facets of Mindfulness Scale↓	Cognitive Reappraisal Correlation Coefficient (r)	Expressive Suppression Correlation Coefficient (r)	Total ERQ Score Correlation Coefficient (r)
Observing	0.035	-0.164	-0.071
Describing	0.168	-0.223*	-0.023
Acting with Awareness	0.070	-0.266**	-0.108
Non-judging	-0.147	-0.190*	-0.199*
Non-reactivity	0.241*	-0.009	0.144
Total FFMQ Score	-0.108	-0.287**	-0.097

**p* values are significant at <0.05 level

***p* values are significant at <0.01 level

We also analysed the relationship between emotional regulation and mindfulness and found a weak correlation between the two. The results are given in the above table (Table 3) and we found a significant correlation between the facets of mindfulness and emotional regulation. A significant negative correlation was found between Describing ($r=-0.223$, $p<0.05$), Acting with Awareness ($r=-0.266$, $p<0.01$), Non-judging ($r=-0.190$, $p<0.05$), and overall Mindfulness ($r=-0.287$, $p<0.01$) with Suppression response strategy of emotional regulation, concluding that teachers who have high levels of using suppression as an emotional regulation strategy have a low level of Mindfulness (Wenzel et al., 2020; Schussler et al., 2019).

DISCUSSION

Through the analysis of the result above, the main findings of the study were that teachers who have a higher

level of awareness and mindfulness have better teaching efficacy whereas those who have low mindfulness levels and less ability to regulate their emotions have low teaching efficacy. We also found an association between the dimensions of mindfulness, emotional regulation and teachers' sense of efficacy scale. The findings show immense support to the earlier studies where teaching effectiveness, classroom management and student engagement were significantly associated with the awareness of the teacher (Kounin, 1997; Bandura, 1997; Tschannen-Moran et al., 1998). It was seen that teachers who attended and noticed things around them and were aware of the happening of the class were able to effectively engage students as well as efficaciously give instructions in the classroom which were followed by the students.

Additionally, it was found that teachers who were able to describe,

label and express their thoughts with clarity were easily able to engage students, impart instructions in an efficient manner, were able to manage the incidents which happened in the class and maintained discipline and a learning atmosphere of the classroom. Teachers who were aware of their actions in the present moment and were able to logically act in the present while having insights about the reasons behind their actions were able to get more engagement from students and as well as adjusted themselves accordingly to maintain the classroom and activities happening around them. Hence, we can vouch for the various mindfulness-based interventions and training used in various research studies to enhance teachers' well-being, efficacy and internal regulation (Meiklejohn et al., 2012; Killion, 2019; Moyano et al., 2021).

Further, it was also seen that teachers who were not reacting to their inner experiences and were in control of themselves were able to generate student participation and interaction by not acting on their personal thoughts and impulses and rather than having the presence of mind to act in the professional way necessary for learning. Similar findings were concluded in the studies by Bauhuf (2021) and Frank et al., (2015) where teachers' efficacy was significantly associated with emotional regulation and interpersonal mindfulness respectively due to which they were able to manage students socially and emotionally, better engage and communicate with them and cope

effectively within their personal and professional fronts.

As for emotional regulation strategies, it was seen that expressive suppression had no association with teachers' sense of efficacy but the antecedent-focused strategy which is the cognitive appraisal response strategy was positively associated with teaching efficacy. It was seen that teachers who were able to cognitively appraise, notice and understand their emotions as well as actively tried to manage their internal emotions, promoting greater management of the classroom, facilitating an effective learning environment with efficacious instructional strategies as well as attracted higher level of student engagement and participation in the classroom. Various studies provide support in a similar context asserting that emotional regulation is a key aspect in determining a teacher's sense of efficacy (Skinner and Beers, 2016; Chang and Taxer, 2020; Fathi et al., 2021).

The findings of the present study contribute to the already available literature related to the association of positive affect, compassion, mindfulness and emotional support with teachers' personal sense of efficacy, leading to effective teaching, building a supportive relationship with students through appropriate awareness and engagement in the classroom (Jennings, 2014; Goroshit and Hen, 2014; Hussain and Khan, 2022). Further, one peculiar finding was spotted while analysing the correlation

between emotional regulation strategies and mindfulness. There was no correlation found between the two variables (Wenzel et al., 2020). Though previous studies by Flook et al. (2013), Emerson et al., (2017), and Wimmer et al., (2019) found mindfulness-based interventions effective in improving emotional regulation in teachers, no significant positive correlation was found between the two.

In contrast, there is a strong negative correlation between mindfulness dimensions and the use of expressive suppression as an emotional regulation strategy. A study by Schussler et al., (2019) found that teachers who were not practicing mindfulness, engaged more in suppression behaviour, feeling less confident in their ability to cope with a stressful situation whereas those practicing mindfulness, became aware of their negative emotions and coped better with stress.

In this study, it was seen that teachers who actively suppressed their emotions were associated with a low level of mindfulness. They were less observing of their feelings and suppressed their emotions rather than addressing them, were less insightful about their emotions, unable to describe them and acted with less awareness about their actions and their consequences, were judgmental about their inner thoughts and emotions, ultimately leading to a low level of mindfulness overall. Similar results were found by Gross (2002), and Gross and John (2003)

that suppression response strategy enhances physiological responses, reducing the affective and cognitive responses, and reducing positive emotions as well as overall well-being. This means that suppressing our emotions and inhibiting them in the behaviour is not an effective emotional regulation strategy as it takes the teachers away from mindfulness, decreasing their awareness about themselves and those around them, at times inducing them into negative thoughts and emotions, leading to a low sense of efficacy (Cheery, 2020).

CONCLUSION

The present study endeavoured to explore the cognitive and affective aspects of educators in schools and how they are associated with teachers' beliefs about their own efficacy in the classroom. Results conclude that teachers' sense of efficacy is significantly positively related to their aspects of mindfulness and emotional regulation strategies. It was found that teachers who have a higher level of mindfulness where they observe, can describe, respond and behave with conscious awareness were associated with higher student engagement, classroom management and better instructional strategies, with an increased sense of efficacy. It was also found that cognitive reappraisal response strategy led to an elevated level of emotional regulation and positively correlated with a teacher's sense of efficacy, whereas expressive suppression is related to low levels of mindfulness.

Hence, both mindfulness and regulation of emotions were found to have a strong association with teaching efficacy.

FUTURE IMPLICATION

The study reveals how mindfulness and emotional regulation are the two variables which can be explored more to see longitudinal effects on the perceived sense of efficacy in teachers, and how these both can

be harnessed in the education and training curriculum of the teachers for better efficiency and effectiveness in their profession in the long run. Future studies can be done to predict efficacy in teachers who have high mindfulness and ability to manage emotions and simultaneously interventions in the school systems could be devised to enhance these cognitive and affective areas of teachers.

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