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Happiness training effect on primary school teachers' academic burnout and teaching effectiveness: narratives from teachers

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Abstract

Background Teacher burnout has become a critical issue in education, significantly affecting teaching effectiveness and student outcomes. Positive psychological interventions, such as happiness training, have the potential to mitigate burnout and enhance teachers' well-being. However, empirical evidence on the effectiveness of such interventions in educational settings remains limited.

Objectives This study aimed to investigate the impact of happiness training on reducing academic burnout and improving teaching effectiveness among primary school teachers. It also explored teachers' narratives to better understand their experiences following the intervention.

Method An explanatory sequential mixed-method research design was employed. The quantitative phase involved 200 primary school teachers who attended a happiness training workshop. A pretest-posttest-follow-up design was used, and data was analyzed using repeated measures ANOVA. The qualitative phase involved narratives from five teachers, which were interpreted to extract themes related to their experiences post-training.

Results Quantitative results showed significant reductions in burnout and improvements in teaching effectiveness post-intervention ($p < 0.05$). In the qualitative phase, thematic analysis of teacher narratives revealed eight. The main themes identified in the narratives of teachers participating in the happiness training include emotional exhaustion and recovery, reconnection with purpose, improved classroom engagement, stress management techniques, positive relationships with students and colleagues, increased job satisfaction, work-life balance, and sustained professional growth.

Conclusions Happiness training significantly reduced burnout and improved teaching effectiveness among primary school teachers. The qualitative insights further highlighted personal and professional growth following the intervention. These results underscore the importance of integrating well-being programs into teacher development initiatives to foster sustainable educational outcomes.

Keywords Teacher burnout, Happiness training, Teaching effectiveness, Well-being, Mixed-method research, China

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Introduction

Academic burnout among teachers, particularly primary school educators, has become a significant concern in recent years, mainly due to the high demands of the profession. Primary school teachers face unique challenges, such as managing large classrooms, meeting curriculum standards, and addressing young students' diverse emotional and cognitive needs. These stressors contribute to high levels of burnout, characterized by emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment [1]. Burnout affects the teachers' well-being and has broader implications for the quality of education delivered to students [2].

Burnout manifests in various forms. Emotional exhaustion, the most prevalent symptom, leaves teachers feeling drained and unable to cope with the demands of teaching [3]. Depersonalization, marked by a detached and cynical attitude toward students, is another consequence of burnout, often leading to a decline in classroom rapport and student engagement [4]. Additionally, burnout can erode a teacher's sense of personal accomplishment, making them feel ineffective despite their efforts, further deepening emotional distress [5].

The consequences of burnout are not limited to the teachers themselves. It creates a negative classroom environment that hinders learning, as teachers struggling with burnout are less capable of forming positive relationships with students, planning effective lessons, and maintaining discipline [6]. Research indicates that burnout also contributes to high teacher absenteeism, turnover, and even attrition, compounding the strain on educational systems [7].

Given the detrimental effects of burnout on teachers and students alike, researchers have increasingly sought interventions to enhance teachers' well-being and mitigate burnout. One such intervention is happiness training, rooted in positive psychology. Happiness training promotes psychological well-being by encouraging individuals to focus on positive emotions, relationships, resilience, meaning, and accomplishment [8]. This intervention draws on the PERMA model, developed by Seligman, highlighting the importance of positive emotions, engagement, relationships, meaning, and accomplishment in fostering long-term well-being and happiness [9].

Positive psychology, the foundation of happiness training, focuses on enhancing individuals' strengths rather than simply addressing weaknesses or reducing negative emotions [10]. This approach aligns well with the needs of teachers, who often work in emotionally charged environments. Research [5–8] has shown that interventions focusing on positive emotions, mindfulness, and emotional resilience can reduce burnout and improve job satisfaction among educators [11].

Teachers who cultivate positive emotions through happiness training are better equipped to handle stress and engage in reflective practices that improve their teaching effectiveness [12]. They are also more likely to foster positive relationships with their students and colleagues, contributing to a more collaborative and supportive school culture [13]. By enhancing emotional well-being, happiness training can help teachers maintain their passion for teaching and sustain their performance over the long term [14].

Alongside teacher well-being, teaching effectiveness has emerged as a critical area of concern in education research, particularly in the context of burnout. Effective teaching is broadly defined as the ability to facilitate meaningful student learning through clear instruction, student engagement, classroom management, and ongoing assessment [15]. For primary school teachers, this entails not only delivering curriculum content but also nurturing students' emotional, social, and cognitive development [16]. However, burnout can significantly impair these essential teaching functions. Teachers experiencing emotional exhaustion may struggle to maintain classroom enthusiasm, while those facing depersonalization may find it difficult to build trusting relationships with students—both of which are vital components of effective teaching [17]. As such, promoting teacher well-being through interventions like happiness training is not only a matter of supporting individual educators but also a strategic effort to enhance instructional quality and student outcomes [18].

Despite growing interest in the impact of happiness training on teacher well-being, research in this area remains limited, particularly in the context of primary school teachers. Most studies have focused on higher education settings or other professional groups, leaving a gap in understanding how happiness training affects primary school educators [19]. Additionally, much of the existing literature emphasizes quantitative outcomes, such as reductions in burnout scores, without delving into the lived experiences of teachers who have undergone happiness training [20]. This study aims to explore the impact of happiness training on primary school teachers' emotional well-being and burnout prevention. The specific sub-aims of the study are:

a. examine the influence of happiness training on teachers' emotional well-being and job satisfaction.
b. explore how happiness training affects teachers' teaching effectiveness and classroom management.
c. investigate the lived experiences of primary school teachers who have participated in happiness training, focusing on their perceptions of burnout and stress.

Literature review

Teaching effectiveness: concept and indicators

Teaching effectiveness refers to the extent to which a teacher successfully facilitates student learning, engagement, and achievement. It is a multidimensional construct encompassing not only the delivery of content but also the creation of a positive learning environment, the ability to inspire students, and the application of evidence-based instructional strategies. According to Stronge (15), effective teaching involves a combination of classroom management, instructional delivery, assessment proficiency, professional ethics, and the ability to build meaningful relationships with students. Teaching effectiveness is often measured through student outcomes, peer evaluations, classroom observations, and teacher self-assessments (18).

Key indicators of teaching effectiveness include clarity of instruction, subject-matter knowledge, formative assessment use, and responsiveness to student needs (16). These indicators not only affect student achievement but are also associated with teacher well-being. Research suggests that when teachers experience high levels of burnout, their ability to implement these core practices diminishes, ultimately affecting their instructional effectiveness (17). Hence, enhancing teacher well-being through interventions such as happiness training may indirectly boost teaching effectiveness by restoring teachers' emotional and professional capacity.

Teacher burnout and its consequences

Burnout, a state of chronic physical and emotional exhaustion, has become a significant issue for primary school teachers globally [1]. The causes of burnout among teachers are multifaceted, encompassing high workloads, pressure to meet academic standards, and the emotional demands of managing student behavior [2].

Maslach and Leiter [1] define burnout as a psychological syndrome involving emotional exhaustion, depersonalization, and reduced personal accomplishment. Emotional exhaustion, the most common symptom, leads teachers to feel overwhelmed and emotionally drained, making it difficult for them to continue performing effectively [3].

Skaalvik and Skaalvik [2] found that burnout affects teachers' mental health and negatively impacts student outcomes, as burned-out teachers often struggle to maintain engagement in their lessons. Depersonalization, another symptom of burnout, is particularly harmful in educational settings, as it erodes the quality of teacher-student relationships [4].

Hakanen et al. [3] emphasize that burnout leads to teacher absenteeism, lower job satisfaction, and, eventually, higher turnover rates. This creates a vicious cycle within schools, where the departure of experienced teachers exacerbates the challenges for the remaining staff, leading to further burnout [6].

The broader consequences of burnout extend beyond individual teachers. Burnout has been linked to poorer classroom management, lower student academic achievement, and a decline in the overall quality of education [7]. Kokkinos [11] suggests that addressing teacher burnout is crucial for improving teachers' well-being and student outcomes, making it an essential area of focus for educational policymakers.

Happiness training and positive psychology

Happiness training, grounded in the principles of positive psychology, offers a promising intervention for addressing teacher burnout. Positive psychology, pioneered by Seligman and colleagues, emphasizes the cultivation of positive emotions, resilience, and personal strengths to enhance well-being [20]. The PERMA model, central to positive psychology, outlines five key elements of well-being: Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment [9]. These components have been shown to contribute to long-term happiness and psychological resilience, making them relevant for burnout prevention [21–25].

Research on happiness training has demonstrated its effectiveness in various professional settings, including education. Zeng et al. [23] found that teachers who participated in happiness training reported lower levels of emotional exhaustion and increased job satisfaction. This aligns with the findings of Fredrickson [26], who argues that positive emotions broaden individuals' thought-action repertoires, allowing them to build psychological resilience and cope with stress more effectively.

In education, happiness training has been linked to improved teaching practices. Teachers who engage in happiness training are more likely to exhibit enthusiasm, creativity, and adaptability in their teaching, which can enhance student engagement and learning outcomes [27]. Emmons and McCullough [27] demonstrated that positive emotions can improve cognitive flexibility, enabling teachers to find innovative solutions to classroom challenges. Furthermore, happiness training has improved interpersonal relationships, critical for creating a supportive and collaborative school environment [28–31].

The impact of happiness training on teacher well-being

Numerous studies have examined the relationship between happiness training and well-being. Pressman and Cohen [32] found that individuals who regularly engage in happiness-boosting activities, such as gratitude exercises and mindfulness, experience greater emotional resilience and lower stress levels. These practices can help educators maintain emotional balance, even in challenging situations [33].

Narrative accounts from teachers participating in happiness training programs provide further evidence of its positive impact. Many teachers report feeling energized, motivated, and emotionally grounded after participating in happiness training [33]. These emotional shifts are associated with reduced feelings of burnout, particularly emotional exhaustion and depersonalization [34]. Additionally, teachers often describe how happiness training helps them reconnect with their purpose in teaching, fostering a renewed sense of accomplishment and job satisfaction [35–42].

Happiness training also promotes reflective teaching practices essential for professional development. Teachers who engage in reflective practices can better identify areas for improvement in their teaching and implement changes that enhance their effectiveness [42]. This aligns with Bandura's [43] theory of self-efficacy, which suggests that individuals who believe in their ability to achieve desired outcomes are more likely to persist in the face of challenges. Teachers who undergo happiness training are more likely to develop a strong sense of self-efficacy, which can further reduce burnout and improve teaching performance [44].

While the benefits of happiness training for teachers are well-documented, more research is still needed to focus specifically on primary school teachers. Most studies to date have examined secondary or higher education teachers, leaving a gap in understanding how happiness training can be tailored to the needs of primary school educators [19]. Furthermore, much of the research relies on quantitative measures, such as surveys and burnout inventories, which provide limited insight into the personal experiences of teachers undergoing happiness training [20].

This study seeks to address these gaps by exploring the narratives of primary school teachers who have participated in happiness training. Through qualitative analysis, this research aims to investigate the impact of happiness training on teacher well-being, burnout, and teaching effectiveness, providing valuable insights for future interventions.

Method

Research paradigm, design, and sampling

This study was grounded in a pragmatic research paradigm, which emphasizes practical inquiry and the use of diverse methods to understand complex educational phenomena. Pragmatism supports the integration of both quantitative and qualitative approaches to address the research problem comprehensively. It values the strengths of different methodologies and acknowledges that no single method can capture the full range of human experiences, particularly in applied educational settings.

Following this paradigm, the study employed an explanatory sequential mixed-methods research design, combining both quantitative and qualitative approaches to investigate the impact of happiness training on the academic burnout and teaching effectiveness of primary school teachers. In the quantitative phase, 200 teachers from three cities (Fujian, Yunnan, and Jiangsu) were selected using stratified random sampling. This method ensured a representative sample by considering key factors, including school size (small, medium, large), teacher experience (1–5 years, 6–10 years, over 10 years), and geographical location (urban vs. rural). While the sample size of 200 may seem limited, it was deemed adequate for statistical analysis. It provided sufficient diversity to understand how different groups of teachers are affected by happiness training.

In the qualitative phase, five teachers were purposefully selected to share their experiences based on their participation in the happiness training workshops. These teachers were chosen to represent a variety of perspectives, including teaching experience (ranging from 3 to 20 years) and their willingness to reflect on the impact of the training. According to Guest, Bunce, and Johnson [45], a sample of as few as five participants can be sufficient in qualitative research when the goal is to achieve thematic saturation in studies focused on relatively homogeneous groups. The small qualitative sample provided in-depth insights into the personal experiences of teachers, particularly regarding their emotional well-being, burnout, and teaching effectiveness.

The mixed-methods approach facilitated a well-rounded exploration of the research question, with quantitative data offering broad, generalizable results and qualitative data providing rich, contextual insights into the individual experiences of the teachers. This combined methodology ensures that the findings are both statistically robust and deeply informative, contributing to a nuanced understanding of how happiness training can impact teacher burnout and effectiveness in primary education settings.

Instruments and treatment package

The instruments used in the quantitative phase included two validated questionnaires. The first was a measure of academic burnout originally developed by Maslach et al. [46]. This scale has been cross-validated by various researchers worldwide [47, 48]. We, therefore, adopted the items from Asadi and Bozorgian [43] and estimated their reliability. The scale consists of three dimensions of burnout: emotional exhaustion, depersonalization, and personal accomplishment. The reliability coefficient for this scale, as also reported in previous studies, is $\boldsymbol{\alpha = 0.85}$, indicating good internal consistency.

The second instrument measured teaching effectiveness through a modified version of the Teacher Effectiveness Scale, which covers dimensions such as lesson planning, classroom management, and student engagement [3]. The reliability coefficient for this scale was **α = 0.89**, suggesting high reliability in measuring teaching effectiveness. Both instruments were administered before and after the happiness training workshop to assess changes in burnout levels and teaching effectiveness.

For the qualitative phase, a semi-structured interview protocol was developed to capture in-depth narratives from selected teachers. The development process began with drafting the protocol based on the research objectives and a review of existing literature on teacher burnout, emotional well-being, and the impact of happiness training on educators. Key themes addressed included emotional well-being, stress levels, burnout, teaching effectiveness, and the perceived effects of happiness training. To ensure the validity and clarity of the interview questions, the protocol was reviewed by an expert panel consisting of two experienced primary school educators, a psychologist specializing in emotional well-being and burnout prevention in educational settings, and a researcher with expertise in qualitative research methods in education. Based on their feedback, the protocol was revised to enhance the clarity and precision of the questions, ensuring that the questions were unbiased and they were aligned with the research objectives. Additionally, follow-up prompts were used to elicit more in-depth insights from the interviewees. The final version of the semi-structured interview protocol aimed to explore teachers' personal experiences with happiness training, its impact on their emotional well-being, and its influence on their teaching effectiveness and levels of burnout. The complete interview protocol is included in the supplementary file.

The happiness training workshop, based on the principles of positive psychology and Seligman's PERMA model [9], consisted of 10 sessions over 5 weeks. Each session included activities focused on enhancing positive emotions, mindfulness, resilience, building positive relationships, and finding meaning in professional roles. Teachers were encouraged to engage in reflective practices, group discussions, and mindfulness exercises to enhance their emotional well-being and reduce burnout. The syllabus of the training workshop is presented in Table 1.

This table provides a structured view of each session, including the topic, objective, content, and activities designed to improve teachers' well-being and teaching effectiveness.

Procedure

In the quantitative phase, all 200 teachers were invited to attend a pre-training orientation, where they received a briefing on the purpose of the study and the details of the happiness training workshop. Teachers then completed the pretest questionnaires, which measured burnout and teaching effectiveness. The happiness training sessions were conducted over 5 weeks, each lasting 2 h. A trained positive psychology coach facilitated the sessions, and teachers were encouraged to apply the principles learned in the workshop to their everyday teaching practices.

After the workshop was completed, post-test questionnaires were administered to evaluate any changes in burnout and teaching effectiveness. Six months later, the same questionnaires were administered.

In the qualitative phase, five teachers were selected from the quantitative cohort and invited for in-depth interviews. These interviews, conducted over two weeks, took place face-to-face and lasted approximately 60–90 min each. The interviews were audio-recorded, transcribed, and coded for thematic analysis.

Data analysis

Quantitative data from the pretest, post-test, and follow-up questionnaires were analyzed using repeated measures ANOVA (Analysis of Variance) to determine whether significant changes occurred in burnout levels and teaching effectiveness after the happiness training. Parametric assumptions, such as normality, homogeneity of variances, and sphericity, were tested before conducting the repeated measures ANOVA. Normality was assessed using Shapiro-Wilk tests and histogram plots for each time point. Mauchly's test of sphericity was undertaken to evaluate the assumption of sphericity, and if violated, the Greenhouse-Geisser correction was applied to adjust the degrees of freedom. Homogeneity of variances was tested using Levene's test. When parametric assumptions were met, a repeated measures ANOVA was performed; when assumptions were violated, non-parametric alternatives, such as the Friedman test, were considered. Descriptive statistics (e.g., means, standard deviations) were used to summarize the sample characteristics and provide an overview of the data distribution at each measurement point. Additionally, effect sizes (such as partial eta-squared) were calculated to assess the magnitude of the observed changes in burnout and teaching effectiveness.

For qualitative data, thematic analysis was employed to identify and analyze patterns within the interview responses. The transcribed interviews were coded and analyzed using a six-phase process: (1) familiarization with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. This process

Table 1 Content of happiness training package

Session	Topic	Objective	Content	Activities
Session 1	Introduction to Positive Psychology and Happiness	Introduce key concepts of positive psychology and happiness training	Overview of positive psychology and Seligman's PERMA model. The role of happiness in teaching and burnout reduction. Pre-training reflection on current happiness levels and emotional exhaustion.	Group discussion on challenges related to teaching and burnout. Sharing personal experiences.
Session 2	Cultivating Positive Emotions	Help teachers enhance positive emotions to counteract burnout	Techniques for increasing positive emotions (gratitude, optimism). Importance of small daily joys and mindfulness. Benefits of focusing on positive events.	Gratitude journaling: Participants write about three things they are thankful for daily. Guided mindfulness meditation.
Session 3	Engagement and Flow in Teaching	Foster teachers' sense of engagement and flow in their work	Understanding the concept of flow. Identifying activities that create flow in teaching. Strategies to increase engagement in the classroom.	Reflection activity: Teachers identify tasks that bring them the most satisfaction. Group discussion on how to achieve flow in classroom settings.
Session 4	Building Positive Relationships	Improve teachers' interpersonal relationships at school	Importance of positive relationships with students, colleagues, and parents. Techniques for fostering empathy and communication.	Role-playing: Teachers practice effective communication strategies for handling difficult conversations.
Session 5	Finding Meaning in Teaching	Encourage teachers to reconnect with the deeper meaning of their profession.	Exploring the personal meaning behind the teaching profession. Finding purpose in daily teaching tasks. How meaning contributes to resilience.	Reflective writing: Teachers explore why they became educators and how they can rediscover purpose in their work. Group sharing.
Session 6	Accomplishment and Achievement	Enhance teachers' sense of personal and professional accomplishment	Setting achievable goals and celebrating small wins. The connection between accomplishment and self-efficacy. Techniques for tracking progress.	Goal-setting workshop: Teachers set short- and long-term goals for their professional and personal lives.
Session 7	Resilience Building	Develop strategies to enhance teachers' emotional and mental resilience	Definition of resilience and its role in overcoming challenges. Techniques for building resilience: stress management, emotional regulation, and self-care.	Stress management activity: Teachers practice breathing exercises and stress-relief techniques.
Session 8	Mindfulness and Stress Reduction	Introduce mindfulness as a tool for reducing stress and burnout	The role of mindfulness in emotional regulation and stress management. Techniques for integrating mindfulness into daily routines.	Guided mindfulness exercises and reflection. Teachers practice mindful listening and breathing exercises.
Session 9	Sustaining Happiness in the Long-Term	Equip teachers with strategies for maintaining happiness after the workshop.	Review of strategies learned in previous sessions. How to integrate happiness practices into everyday teaching life. Overcoming obstacles to long-term happiness.	Group discussion on personal action plans for sustaining happiness. Creating a "Happiness Action Plan" for the classroom.
Session 10	Reflection and Future Planning	Consolidate learning and plan for future growth	This is a recap of key concepts from the workshop. It also involves reflecting on changes in emotional well-being and teaching effectiveness and planning for continued growth and happiness.	Final group discussion: Teachers share their personal journeys and action plans. Post-workshop reflection on happiness and burnout.

Table 2 Pretest, Post-test, and Follow-up burnout scores

Burnout Dimension	Pretest Mean (SD)	Post-test Mean (SD)	Follow-up Mean (SD)	F	*p*	Effect Size (η^2)
Emotional Exhaustion	4.2 (0.6)	2.8 (0.5)	3.0 (0.6)	35.72	0.001	0.28
Depersonalization	3.9 (0.7)	2.7 (0.6)	2.9 (0.7)	29.84	0.001	0.23
Personal Accomplishment	3.1 (0.8)	4.5 (0.7)	4.3 (0.6)	32.45	0.001	0.25

Table 3 Pretest, Post-test, and Follow-up teaching effectiveness scores

Teaching Effectiveness Dimension	Pretest Mean (SD)	Post-test Mean (SD)	Follow-up Mean (SD)	F-value	*p*-value	Effect Size (η^2)
Lesson Planning	3.5 (0.5)	4.2 (0.4)	4.0 (0.4)	41.63	< 0.001	0.30
Classroom Management	3.3 (0.6)	4.3 (0.5)	4.1 (0.5)	45.22	< 0.001	0.32
Student Engagement	3.4 (0.6)	4.4 (0.5)	4.2 (0.5)	39.78	< 0.001	0.28
Overall Teaching Effectiveness	3.4 (0.5)	4.3 (0.4)	4.1 (0.4)	43.95	< 0.001	0.31

enabled an in-depth exploration of teachers' experiences with the happiness training, focusing on its impact on their emotional well-being, burnout levels, and teaching effectiveness. The qualitative findings were used to complement and provide richer context for the quantitative results, offering insights into the personal and professional impact of the training that could not be captured through numerical measures alone.

Ethical considerations

The study adhered to strict ethical standards throughout the research process. All participants were provided with detailed information about the study and were required to give informed consent before participating. Participation was voluntary, and teachers were assured that they could withdraw from the study at any point without any negative consequences. Confidentiality was maintained by anonymizing the data, ensuring that individual teachers could not be identified in the findings. Additionally, ethical approval was obtained from the Internal Review Board (IRB) of Nanjing University of Posts and Telecommunications, Nanjing, before the commencement of the study.

Quantitative results

Impact of happiness training on burnout

Repeated measures ANOVA was conducted to compare each burnout dimension's pretest, post-test, and follow-up scores (Table 2). The results showed a significant reduction in emotional exhaustion and depersonalization after the happiness training workshop, with the effects being sustained at follow-up, though slightly diminished. Personal accomplishment showed a considerable increase post-training, which remained high at follow-up. This suggests that the happiness training had both an immediate and long-lasting impact on reducing burnout symptoms and enhancing teachers' sense of accomplishment.

Impact of happiness training on teaching effectiveness

The Teacher Effectiveness Scale (TES) was used to assess various dimensions of teaching effectiveness, including lesson planning, classroom management, and student engagement. Repeated measures ANOVA was applied to compare the pretest, post-test, and follow-up scores (Table 3).

The findings revealed significant improvements in teaching effectiveness across all dimensions after the happiness training workshop, with effects sustained mainly at follow-up. Although scores were slightly decreased from the post-test to the follow-up, the overall teaching effectiveness remained significantly higher than the pretest levels. This suggests that the training had a lasting positive effect on teachers' professional performance.

Results show significant reductions in emotional exhaustion and depersonalization, with improved personal accomplishment, were observed post-training. These benefits were sustained at follow-up, though with slight decreases. Results also show that the happiness training workshop significantly improved teachers' lesson planning, classroom management, and student engagement. These improvements were maintained at follow-up, indicating the long-term value of the intervention.

Qualitative findings

The narratives from teachers before and after the happiness training are summarized in Table 4.

Narratives were thematically analyzed, and 8 themes were extracted; each is explained as follows.

Emotional exhaustion and recovery

Emotional exhaustion, a core component of teacher burnout, was a recurring theme in the narratives. Teachers 1 and 2 expressed feeling entirely drained by the daily demands of teaching, leaving them physically and mentally exhausted. Emotional exhaustion often leads to a loss of motivation and detachment from one's work. However, after participating in the happiness training, teachers reported a marked recovery in their emotional health. The training equipped them with emotional regulation techniques, such as mindfulness and breathing exercises, which helped them regain balance and control. These strategies enabled teachers to process stress more

Table 4 Primary school teachers' narratives of happiness training

Teacher	Narrative Before the Training	Narrative After the Training
1	"I felt constantly overwhelmed by my workload. I was emotionally exhausted and dreaded going to school."	"The happiness training helped me find balance. I've become more present in my interactions with students, and the classroom atmosphere has improved."
2	"I was on the verge of quitting. The stress was unbearable, and I felt disconnected from my students."	"After the workshop, I began using mindfulness practices. I've regained my enthusiasm, and my students have responded positively to my new teaching methods."
3	"Burnout was affecting my home life. I felt like I was failing as both a teacher and a parent."	"The emotional regulation techniques have made a huge difference. I'm calmer in stressful situations and more focused."
4	"Teaching had lost its meaning. I was going through the motions, and my confidence was shattered."	"The workshop reignited my passion for teaching. I started seeing the positive impact I have on students, which boosted my confidence."
5	"I felt trapped in a cycle of negativity and lost my sense of purpose as a teacher."	"The happiness training was a game-changer. I've built stronger relationships with my students, and my classroom is now more supportive."
Summary	Teachers felt emotionally exhausted, disconnected from their students, and overwhelmed by stress before the training.	Teachers developed better emotional regulation, restored their passion for teaching, and saw improvements in classroom engagement and personal well-being.

effectively and recharge emotionally, significantly reducing their exhaustion levels.

Reconnection with purpose

Before the happiness training, many teachers, such as teacher 3, felt disconnected from the original passion and purpose that had driven them to become educators. Teaching had become monotonous, with the pressures of daily work overshadowing their sense of purpose. This theme captures the transformative impact of the happiness training in reigniting teachers' intrinsic motivation. Through exercises like gratitude journaling and positive reframing, teachers were reminded of the positive impact they have on their students. This reconnection with the meaningful aspects of their work led to an increased sense of job satisfaction and a renewed commitment to their role as educators.

Improved classroom engagement

Improving student engagement was a significant outcome of the happiness training, as reflected in the narratives of teachers 2 and 5. Before the training, teachers described classrooms where students were disengaged and unmotivated, partly due to the teachers' emotional struggles. Post-training, teachers reported a noticeable shift in the energy and dynamics of their classrooms. By adopting positive emotional practices, teachers created a more conducive learning environment where students felt more connected to the teacher and the lessons. Teachers' newfound enthusiasm and positive interactions contributed to a more interactive and engaging classroom atmosphere, benefiting student participation and learning outcomes.

Stress management techniques

A key theme that emerged from the narratives was the introduction of practical stress management techniques that helped teachers cope with the pressures of their profession. Teachers 3 and 4 described how the happiness training taught them tools like mindfulness, deep breathing, and gratitude exercises. These techniques became part of their daily routine, helping them manage both expected and unexpected stressors in the workplace. Rather than feeling overwhelmed by difficult situations, teachers felt more equipped to handle stress in real time. The long-term use of these techniques improved their well-being, allowing them to remain calm and composed, even in high-pressure situations.

Positive relationships with students and colleagues

Strong interpersonal relationships are vital for a healthy work environment, and many teachers noticed that their relationships with students and colleagues improved significantly after the training. Teacher 1, for example, described how the training helped him develop better communication and rapport with his students. Teachers created a more supportive and collaborative classroom environment by focusing on the positives and practising empathy. This theme highlights the ripple effect of emotional well-being on interpersonal dynamics. Teachers felt more connected, not only to their students but also to their colleagues, fostering a more harmonious and collaborative work culture.

Increased job satisfaction

Many teachers, like teachers 2 and 4, reported feeling reinvigorated in their roles, which translated into increased job satisfaction. Before the training, feelings of burnout and disillusionment dominated their professional lives. However, after adopting the emotional regulation strategies introduced in the workshop, teachers enjoyed their work again. They described finding joy in teaching, building meaningful relationships with students, and feeling fulfilled by their professional contributions. This increase in job satisfaction was closely tied to the positive changes they observed in themselves and

their classrooms, further motivating them to continue improving their teaching practices.

Work-life balance

An often-overlooked aspect of teacher well-being is maintaining a healthy work-life balance. Teachers like 3 noted that their burnout affected their personal lives, as stress and frustration spilt over into their family and social relationships. The happiness training, by focusing on emotional regulation and mindfulness, helped teachers manage their work-related stress more effectively, allowing them to leave work-related pressures at school and be more present in their personal lives. As a result, teachers could balance their professional responsibilities with their personal needs, improving both areas of life.

Sustained professional growth

The long-term impact of the happiness training extended beyond immediate emotional recovery. Teachers 1 and 3 highlighted how the tools they learned became integral parts of their ongoing professional development. The positive changes they experienced after the training encouraged them to continue seeking ways to grow as educators. The teachers demonstrated a commitment to continuous self-improvement through adopting new teaching techniques, exploring creative lesson plans, or maintaining emotional well-being. This theme reflects the lasting effects of the happiness training, suggesting that the workshop addressed burnout and fostered an environment of sustained growth and resilience. Based on the expanded themes, the following theoretical model can be proposed to explain the mechanism through which happiness training affects teachers' burnout and effectiveness (Fig. 1).

Discussion

This study investigated the effects of happiness training on reducing academic burnout and improving teaching effectiveness among primary school teachers. The mixed-method design, including quantitative assessments and qualitative narratives, revealed meaningful changes in emotional well-being and professional performance. *Both quantitative and qualitative findings together offer a more comprehensive interpretation of how happiness training can impact teachers' personal and professional lives.* Quantitative results were complemented by the personal accounts of five teachers (Teacher 1, Teacher 2, Teacher 3, Teacher 4, and Teacher 5), offering a nuanced understanding of how happiness training influenced their teaching experiences and overall mental health.

Reductions in burnout and emotional exhaustion

The quantitative phase of the study utilized pretest, post-test, and follow-up measurements to assess burnout levels and teaching effectiveness among 200 primary school teachers. Burnout was measured in terms of emotional exhaustion, depersonalization, and reduced personal accomplishment—core dimensions identified by Maslach and Leiter [1]. The results indicated a significant reduction in emotional exhaustion and depersonalization following the happiness training workshop. Repeated measures ANOVA showed that post-test scores for emotional exhaustion decreased significantly from the pretest ($p < 0.001$), with the follow-up scores reflecting sustained improvements. These findings are consistent with studies that suggest burnout interventions focused on emotional regulation and positive affect can reduce emotional exhaustion, particularly among educators [3, 5, 6].

These results align with existing literature on burnout interventions. For example, Hakanen et al. noted that work engagement is inversely related to burnout, particularly emotional exhaustion [3]. The happiness training employed in this study, which emphasized emotional regulation, mindfulness, and positive affect, effectively addressed these stressors. Similar findings are observed in studies by Fredrickson and Seligman, where positive psychological interventions have been shown to broaden emotional resources and reduce the likelihood of burnout [5, 6]. Thus, the current study strengthens the argument that positive psychology-based interventions can be highly effective in reducing educator burnout across different contexts.

Teaching effectiveness: positive shifts

Teaching effectiveness was another critical outcome of the study. Teachers' self-reported effectiveness increased significantly after the happiness training ($p < 0.001$), with follow-up assessments showing that improvements were maintained over time. The workshop's focus on positive emotions, such as gratitude and compassion, likely contributed to this change, as previous research suggests that teachers with higher emotional well-being engage more effectively with their students [14, 21]. Teachers who feel less burned out are better able to foster a positive classroom environment, which is crucial for student engagement and learning outcomes. This is supported by other studies that show how teacher well-being directly impacts the classroom environment, student-teacher relationships, and academic outcomes [14, 21].

Qualitative narratives: personal transformations

The qualitative phase provided more profound insights into the personal experiences of the teachers who participated in the happiness training. The narratives of Teacher 1, Teacher 2, Teacher 3, Teacher 4, and Teacher 5 highlighted the emotional challenges they faced before the training and the transformations they experienced afterward. These personal stories complement the

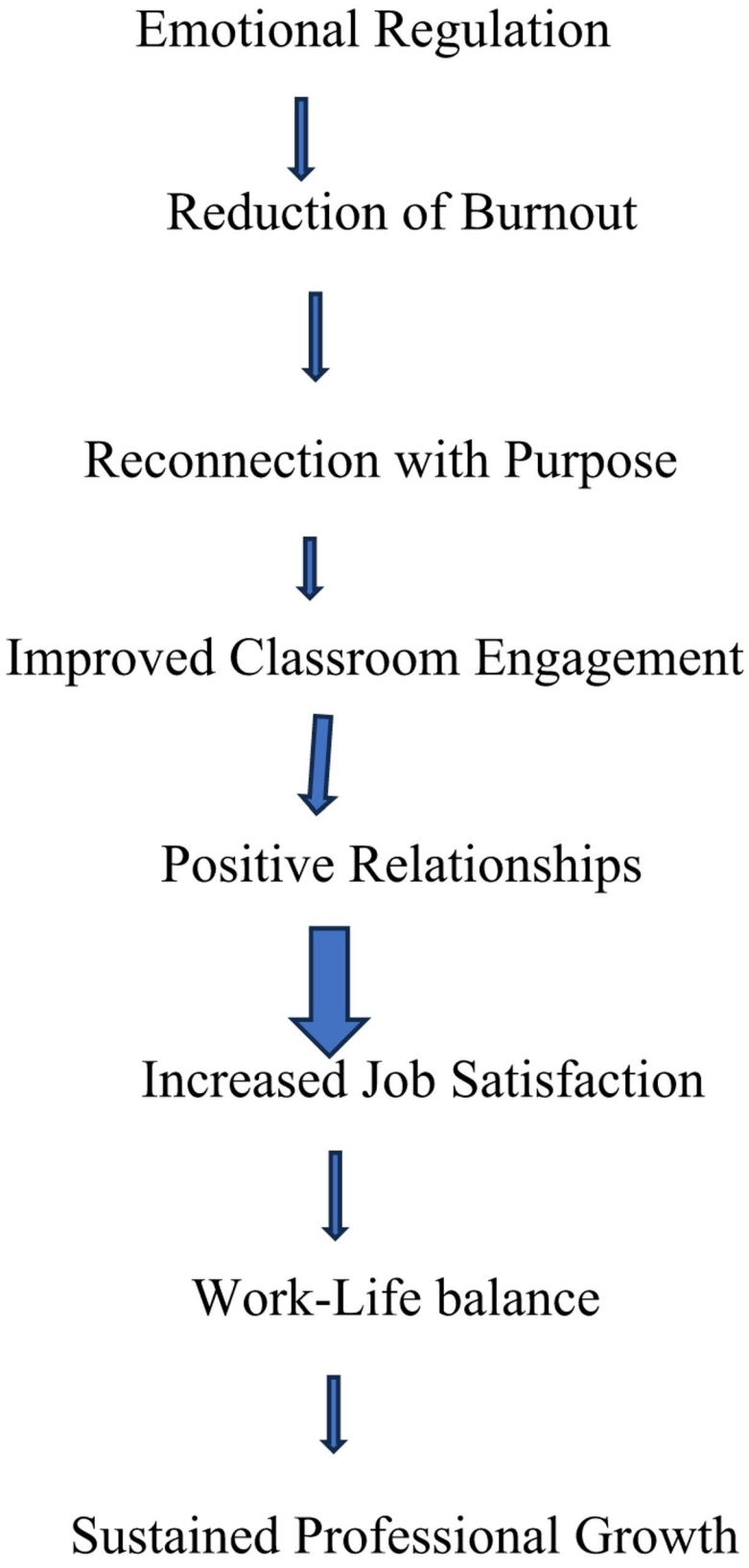


Fig. 1 Theoretical Model developed based on the extracted interviews

quantitative findings by illustrating the subjective experiences behind the data, providing a richer understanding of how happiness training influences teacher well-being on an individual level.

Teacher 1 shared feeling "constantly overwhelmed" and emotionally drained, describing how burnout had eroded their enthusiasm for teaching. However, after the training, they reported feeling more balanced and found renewed joy in their student interactions. Teacher 2 had been on the verge of quitting due to intense stress and student disconnection. After the training, they expressed that mindfulness practices helped rekindle their passion for teaching and felt re-engaged with their classroom. Teacher 3 spoke of how burnout had affected not only their work life but also their personal life, stating that the emotional regulation techniques from the workshop helped them manage stress more effectively, both at home and in school. Teacher 4 initially described teaching as having "lost its meaning," with burnout shattering their confidence. The happiness training, however, helped them rebuild a sense of purpose, and they started to see their positive impact on their students. Teacher 5 described feeling trapped in a cycle of negativity before the training. The workshop allowed them to build stronger relationships with their students, creating a more supportive and collaborative classroom environment.

These personal transformations align with the theoretical frameworks of positive psychology, particularly Seligman and Fredrickson's work, which posits that interventions promoting positive emotions and emotional regulation broaden individuals' cognitive and emotional resources, enabling them to better cope with stress and foster meaningful connections [6, 22].

Thematic analysis of the qualitative data revealed eight recurring themes across the teachers' narratives: emotional regulation, work-life balance, classroom engagement, mindfulness, renewed teaching purpose, student relationships, confidence, and professional growth. All teachers noted an improvement in their ability to manage stress and regulate their emotions. This supports Fredrickson's broaden-and-build theory, which suggests that positive emotions enhance emotional coping mechanisms, helping individuals manage stress more effectively and grow personally and professionally [5].

Several teachers, like Teacher 3, reported that happiness training helped them achieve better work-life balance, reducing the spillover of stress from work to home. This aligns with studies highlighting the importance of emotional management for avoiding burnout [19]. Teachers like Teacher 1 and Teacher 2 found themselves more engaged in their classrooms post-training, reporting that they were more present and involved with their students. Previous research by Jennings and Greenberg has similarly emphasized that emotional competence in teachers fosters better student-teacher relationships and classroom dynamics [14]. These qualitative insights deepen the understanding of how happiness training can not only improve teachers' emotional well-being but also positively affect their classroom practices and student interactions.

As Teacher 2 mentioned, mindfulness practices play a central role in reducing stress and preventing burnout. Studies by Brown and Ryan show that mindfulness is strongly linked to improved well-being and job performance in educators [20]. Also, Teacher 4's narrative of rediscovering the meaning of teaching post-training resonates with research on teacher motivation and engagement, highlighting the importance of having a sense of purpose in mitigating burnout [7]. In addition, strengthening relationships with students was a key outcome for teachers like Teacher 5. The happiness training appeared to help them develop more supportive, empathetic connections with their students, which research suggests can lead to more effective teaching and student outcomes [34]. Increased confidence in teaching ability was another recurring theme, especially for teachers like Teacher 4, who felt their self-efficacy was restored through the training. Bandura's self-efficacy theory suggests that confidence in one's teaching abilities directly affects performance and reduces stress [39]. Finally, the happiness training led to professional growth for many teachers, as they felt more capable of handling stress and invested in their careers. This aligns with Fredrickson's work, which posits that positive emotions contribute to long-term personal and professional development [22].

A theoretical model of how happiness training impacts teacher well-being and effectiveness can be proposed based on the themes identified in the qualitative phase and the quantitative findings. This model emphasizes emotional regulation as the foundational element, which leads to improved work-life balance, classroom engagement, and a renewed sense of purpose. Strengthened student relationships and increased self-confidence ultimately contribute to professional growth. This cyclical process suggests that sustained happiness training interventions could create a positive feedback loop, wherein improvements in emotional well-being continuously enhance teaching effectiveness and job satisfaction.

Implications

The findings from this study have several important implications for educators and policymakers. Integrating happiness training into professional development programs for teachers could significantly reduce burnout and improve teaching effectiveness, as this intervention equips teachers with tools to manage stress and maintain motivation—common challenges in the teaching profession. Educational institutions could adopt similar positive

psychology-based training models to support teachers' well-being, which may lead to improved classroom outcomes. Furthermore, when designing educational policies, policymakers should prioritize teacher well-being, as the strong connection between teacher well-being and teaching effectiveness is well established. By promoting positive interventions like happiness training, educational systems can foster healthier work environments that help prevent burnout and encourage sustained teacher engagement. Additionally, teachers' improved well-being may have a positive impact on student outcomes, as healthier teachers are more likely to create supportive, effective learning environments. Several teachers in this study reported that their relationships with students improved after the training, suggesting that well-being interventions for teachers could have a ripple effect, enhancing student engagement and learning outcomes.

Limitations and suggestions for further studies

Despite the promising results, several limitations should be acknowledged. First, while the quantitative phase included 200 teachers, the qualitative phase was limited to only five participants. This small sample size restricts the generalizability of the findings, and future studies should include more extensive and diverse samples to capture a broader range of experiences. Additionally, both the quantitative measures of burnout and teaching effectiveness and the qualitative narratives relied on self-reported data, which, while useful for capturing subjective experiences, can be prone to biases such as social desirability or inaccurate recall. To strengthen the findings, future studies could incorporate objective measures of teaching performance or external evaluations of teacher well-being. Another limitation is the short follow-up period, as the follow-up phase occurred shortly after the happiness training, leaving the long-term effects of the intervention unclear. Given that burnout is a chronic issue, further research should examine whether the positive effects of happiness training are sustained over time. The lack of a control group in this study also limits the ability to rule out other factors influencing the observed improvements. Future research should employ experimental designs with control groups, such as randomized controlled trials (RCTs), to strengthen causal conclusions. Additionally, future studies could compare happiness training with other well-being interventions, like mindfulness-based stress reduction (MBSR) or cognitive-behavioral therapy (CBT), to determine the most effective approaches for reducing teacher burnout. Comparative studies could identify cost-effective, impactful interventions for large-scale implementation. Although this study focused on primary school teachers, exploring the impact of happiness training across different educational levels and cultural contexts could determine whether the findings are applicable to diverse academic settings. Finally, future research should incorporate objective assessments of teaching effectiveness, such as classroom observations or student evaluations, to provide a more comprehensive understanding of how happiness training affects teachers' professional performance. By addressing these limitations, future research can contribute to a more complete understanding of how positive psychological interventions can enhance teacher well-being and effectiveness, benefiting educators and students in various educational contexts.

Conclusion

Integrating quantitative and qualitative data in this study provided robust evidence that happiness training can significantly reduce burnout and improve teaching effectiveness among primary school teachers. These findings align with a large body of research that underscores the importance of emotional regulation, mindfulness, and positive psychological interventions in mitigating stress and enhancing well-being. Theoretical models like Fredrickson's broaden-and-build theory and Bandura's self-efficacy theory offer a strong framework for understanding these results. Future research could explore long-term follow-ups to examine whether these improvements are sustained over time and investigate the potential for happiness training to be integrated into professional development programs for teachers on a larger scale.

Supplementary Information

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Supplementary Material 1

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YL and JX designed the study. YL and JX collected the data. YL and JX analyzed and interpreted the data. YL and JX drafted the manuscript. All authors proofread the paper. All authors agreed to be accountable and verified the submitted version.

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Data availability
Data is provided within the manuscript or supplementary information files.

Declarations

Ethics approval and consent to participate
The ethical approval was obtained from the Internal Review Board (IRB) of Nanjing University of Posts and Telecommunications, indicating the study has no side effects on the participants of the study. All experiments were performed in accordance with relevant guidelines and regulations.

All methods were carried out in accordance with relevant guidelines and regulations. Informed consent was obtained from all subjects.

Consent for publication
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Competing interests
The authors declare no competing interests.

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