Mental health and burnout among teachers in Thailand

Paul Ratanasiripong
College of Education, California State University, Long Beach, California, USA

Nop T Ratanasiripong
School of Nursing, California State University, Dominguez Hills, Carson, California, USA

Worawon Nungdanjark
Mental Health Center 9, Nakhornratchasima, Thailand

Yada Thongthammarat
Nakhornratchasima Rajanakarindra Psychiatric Hospital, Nakhornratchasima, Thailand, and

Shiho Toyama
College of Education, California State University, Long Beach, California, USA

Abstract

Purpose – This study investigated factors that impacted the mental health and burnout among kindergarten, primary and secondary school teachers in Thailand and presented a comprehensive intervention program to improve their wellbeing.

Design/methodology/approach – This cross-sectional survey study included 267 teachers from five public schools in Thailand. The survey instruments included the Depression, Anxiety and Stress Scale and the Maslach Burnout Inventory for Educators Survey, along with data on demographics, health behaviors, finances, professional work, relationships and resilience.

Findings – For teacher mental health, results indicated that family economics status, relationship quality and resilience were significant predictors of depression ($R^2 = 0.19$); family economics status, classroom size and resilience significantly predicted anxiety ($R^2 = 0.13$); family economics status, gender, sleep and resilience significantly predicted stress ($R^2 = 0.20$). For teacher burnout, relationship quality and age were significant predictors of emotional exhaustion ($R^2 = 0.15$); relationship quality and drinking significantly predicted depersonalization ($R^2 = 0.06$); resilience and number of teaching hours significantly predicted personal accomplishment ($R^2 = 0.28$).

Originality/value – Besides providing an in-depth examination of mental health and burnout among teachers, this is the first study in Thailand to propose a comprehensive Teacher Wellness Program. This program recommends personal and professional development plans that public health personnel and school administrators could utilize to improve mental health and reduce burnout among teachers.

Keywords Depression, Anxiety, Stress, Burnout, Resilience, Teacher Wellness Program, Thailand

Paper type Research paper

Introduction

Between 2005 and 2017, global depression rates increased by 18%, while anxiety rates increased by 15%. Notably, half of the afflicted population resides within Southeast Asia. In Thailand, 2,885,221 people were found to suffer from depression, while 2,275,400 experienced

anxiety [1]. Few studies have explored the impact of occupational and personal factors on teachers' mental health and burnout [2–5]. Some studies have found resilience to be a protective factor for mental health and burnout among teachers [4, 6]. However, limited studies have been conducted with the Thai teacher population. This study aims to understand factors that impact the mental health and burnout among Thai kindergarten, primary and secondary school teachers.

Mental health of teachers

Globally, teachers experience a wide range of occupational stressors that affect their mental health: excessive workload, long hours, large classroom size, inadequate teacher preparation, poor working conditions, role conflict and lack of resources. These stressors impact the psychological wellbeing of teachers internationally [2, 4, 5, 7–10].

Teachers' work hours frequently extend beyond the classroom as they prepare lectures and grade papers. In the United States, teachers work roughly 50 hours a week [11]. Occupational stressors such as work overload and low salary are correlated with high stress and low job satisfaction; low job satisfaction was identified as a predictor of major depressive disorder among the teacher population [2, 4]. A study of elementary teachers in Brazil found that teachers who worked more had poorer mental health including depression, anxiety and sleep disorders [3]. Work environment and conditions not only impact the psychological wellbeing of teachers but also influence their ability to adequately perform job duties. Poor sleep and sleep disorders were associated with depression and impaired cognition which impacted attention, concentration and memory and led to low personal and work performances [3, 5, 12].

Teachers with depressive disorders were unable to create a productive classroom learning environment, contributing to a school climate in which students are unmotivated and ineffective in learning new skills [13, 14]. Stressed teachers were more likely to be absent from school, retire early and have a higher turnover in the profession [15]. A study of eighth-grade students and corresponding eighth-grade teachers reported that teachers' wellbeing positively correlated to student wellbeing and negatively correlated to student psychological distress [16]. Furthermore, positive student-teacher relationships were associated with higher student wellbeing and lower student psychological distress [16]. Additionally, high self-efficacy among teachers often correlated to lower job stress and higher mental wellbeing, allowing teachers to praise more students, devote more time to classes and help students succeed [17]; low self-efficacy was associated with a substandard performance [18].

Burnout among teachers

Given its social context, the teaching profession has the potential for a multitude of interpersonal issues. Poor relationships with colleagues, parents and students could contribute to burnout and mental health issues among teachers [5, 19–21]. Emotional exhaustion and burnout also stem from role conflict and role ambiguity. Teachers are obliged to fill multiple roles as parents, nurses and social workers for their students; teachers often feel as though they are not doing enough to execute all roles, leading to higher emotional exhaustion, burnout and psychological symptoms [5, 22, 23]. Burnout among teachers is most associated with the prevalence of depression [24, 25]. Emotional exhaustion and depersonalization have strong positive correlations with depression, anxiety, stress, physical fatigue and cognitive weariness. In addition, emotional exhaustion, depersonalization and depression demonstrated negative associations with self-efficacy, self-esteem and personal accomplishment [10, 18, 25–27]. The high levels of inefficacy may be explained by the high levels of burnout that impact not only the mental health of an individual but also the ability of teachers to perform occupational duties effectively [25].

Resilience among teachers
Teacher resilience is influenced by several components from inside and outside the school setting. These components include support from colleagues and principals as well as positive relationships with students, family and friends [28–32]. Without support from colleagues, teachers experiencing difficulties in the classroom often felt burdened [15]. Among junior high school teachers in Japan, teachers experienced higher burnout when they were unwilling to accept help from colleagues or felt criticized by them [33].

A positive student-teacher relationship reduces stressors experienced within the classroom and creates a positive learning environment for both teachers and students. School principals promote such positive school climates by investing in teachers' professional growth [30]. Teachers who recognize the positive support implemented by principals experience lower levels of stress and higher levels of self-efficacy [32, 34]. On the other hand, teachers with a negative perceived school climate have increased levels of depression and anxiety [35].

The high workload within the teaching profession often intrudes on teachers' personal time. Family members may provide support to teachers by carrying out domestic responsibilities and mitigating the stressors experienced by teachers [28]. Friends may alleviate stress by creating space for teachers to take their minds off their occupational stressors [28]. Studies have indicated that relationships and support from family and friends were significant in promoting teacher resilience and alleviating stress and anxiety [5, 28, 36].

Thai culture and mental health
Thai culture has revolved around the sense of community. Extended families often live under one roof or within close proximity. Neighbors, especially in rural areas, often provide social support and resources for one another [37]. This communal integration positively impacts psychological wellbeing among community members. A sense of coherence–measuring sociability among family members and neighbors–was demonstrated to be a protective factor for stress. In turn, a high sense of coherence or relationship quality correlated with better mental health, including lower levels of depression and anxiety [37].

As Thailand experienced industrialization, predominantly younger Thais moved from rural areas to urban cities to chase educational and occupational opportunities, thus dismantling the close-knit support system within their communities. Individuals originating from rural areas suffered in the new competitive atmosphere in the industrial world [38]. Further, the lives of urban dwellers changed as they were able to afford a more luxurious lifestyle. These new urbanites no longer desired to return home to their families in rural areas, in turn attenuating the availability and accessibility of social support between family members [38]. A study of Thai parents reported that 16% of their adult children migrated to a new district, of which 73% were at least 100 kilometers away [39]. Because of the resulting reduction in social support, those living in urban areas reported poor mental health [38]. Consequently, elders who remained in rural areas also suffered from reduced social support. A study of older parents in rural Thailand indicated that social support deficits were correlated with higher levels of depression [40].

Additionally, unlike in Western cultures, Thais are still unfamiliar with the field of psychology and mental health resources, thus impacting the ability to provide counseling and therapy to Thai individuals who suffer from depression, anxiety and stress [41]. The minimal psychological treatment offered in Thailand encompasses both modern and traditional practices, often delivered by monks or nurses instead of mental health professionals [41]. The stigma commonly held against mental health among Thais fosters reluctance to report psychological distress; Thai individuals more frequently report somatic symptoms to express psychological distress, in contrast to Western individuals who are more willing to report psychological symptoms [42].

Teachers in Thailand
Insufficient studies have been conducted on mental health and burnout among teachers in Thailand. One study from Canada, England, Hong Kong and Thailand determined that self-efficacy among teachers partially mediated stress influenced by student behavior and workload [43]. Although the 1999 Educational Act shifted Thai teaching toward a learner-centered approach, Thai teachers lacked the resources and training to better ingrain high self-efficacy among their ranks [44]. Teachers are often viewed as second parents and trusted counselors; but they often feel like they are not doing enough, which creates a barrier to self-efficacy.

Teachers across the globe have indicated an array of variables influencing the severity of mental health issues that they faced. However, there is limited knowledge of counseling and treatment in addition to the under-development of mental health services in Thailand in comparison to other countries. Consequently, studies on depression, anxiety, stress and burnout among the Thai teacher population are scarce. By virtue of their occupation, teachers come into frequent contact with students during students' developmental stages; thus, teacher wellbeing influences student wellbeing in ways that influence the mental health trajectory of future generations. In addition to better understanding the psychological wellbeing of Thai teachers, contemporary and future Thai students may benefit from studies conducted on the mental health issues which affect and shape their classroom experiences.

Demographics, health behaviors, finances, work variables, relationships and resilience are hypothesized to be significant predictors for mental health and burnout among teachers in Thailand (Figure 1).

Methods
Data collection
This cross-sectional study included five public schools in Thailand. At each school, paper-based questionnaires were distributed to all the teachers. School administrators were not included in this study. Teachers who agreed to volunteer to be part of this study completed the anonymous survey that took approximately 20 min to complete. Each survey included three instruments on mental health, burnout and resilience along with questions on participant demographics, health behavior (exercise, sleep, drinking and smoking), finances (family economic status), professional work (grade level taught, classroom size, number of teaching hours) and relationships (marital status, relationship quality). Relationship quality was assessed with three Likert scale questions on the quality of work relationships and support from family and friends.
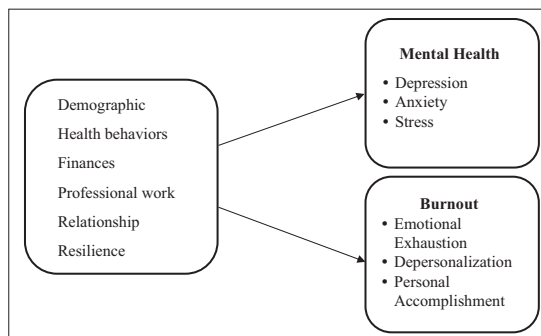

Figure 1.
Conceptual framework for mental health and burnout among Thai teachers

Instruments
The Depression, Anxiety, Stress Scale – Thai Version (DASS) was used to assess the mental health among teachers, specifically the levels of depression, anxiety and stress [45]. This scale included 21 items (7 items per subscale) that participants rated from 0 (did not apply to me at all) to 3 (applied to me most of the time). Higher scores indicated more symptoms. The Cronbach's alpha for this study was 0.80 for depression, 0.78 for anxiety and 0.81 for stress.

Maslach Burnout Inventory for Educators Survey – Thai version (MBI-ES) was used to assess the level of burnout among teachers, specifically the levels of emotional exhaustion, depersonalization and personal accomplishment [46]. This scale included 22 items that participants rated from 0 (never) to 6 (every day). Emotional exhaustion (9 items) measured feelings of being emotionally exhausted and overextended. Depersonalization (5 items) measured lack of feelings and impersonal responses. Personal accomplishment (8 items) measured feelings of achievement and competence. The Cronbach's alpha for this study was 0.88 for emotional exhaustion, 0.70 for depersonalization and 0.80 for personal accomplishment.

The Connor-Davidson Resilience Scale – Thai Version (CD-RISC) was used to measure the level of resilience among teachers [47, 48]. This scale included 25 items that participants rated from 0 (not true at all) to 4 (true nearly all the time). A higher score indicated a higher level of resilience. The Cronbach's alpha for this study was 0.91.

Data analyses
Descriptive analyses were used to describe the variables of interest. Depending on the level of measurement, Pearson's Correlations or Spearman Coefficient Correlations were used in order to examine the associations of demographic, health behaviors, relationship quality, resilience and the outcome variables: (1) mental health (depression, anxiety and stress) and (2) burnout (depersonalization, emotional exhaustion and personal accomplishment). In order to determine the predictors of each outcome variable, hierarchical multiple regressions were used. Based on the parameters of effect size = 0.15, power = 0.9, alpha = 0.05, significantly related predictors = 9, the minimum number of subjects needed was 88 [49]. Statistical test assumptions were met. For multiple regressions, multicollinearity for each model was also checked.

Ethical considerations
This study was approved by the University Institutional Review Board for the Protection of Human Subjects (Ref.# 19-209).

Results
A total of 267 teachers completed the survey. The participants' average age was 44.8 years old (Table 1). Most (86.9%) were female. About half (51.9%) were married. Three quarters (74.9%) considered their family economic status as average. On average, the participants slept 7 hours per day. Only 22.5% of participants exercised regularly. Most (96.6%) participants did not smoke and most (91.4%) did not drink alcohol.

Participants taught approximately 21.2 h per week. The average classroom size was 31.6 students per class. Most reported having positive relationships with co-workers (M = 5.4, SD = 1.2) and having a supportive family (M = 6.1, SD = 1.1) and friends (M = 5.3, SD = 1.2). Overall relationship quality (3 items combined) was positive (M = 16.8, SD = 2.8).

Using the DASS recommended cut-off scores to categorize severity levels; most participants had normal levels of depression, anxiety and stress. It is important to note that 11.2% of participants experienced severe or extremely severe anxiety, 6.0% experienced

Variables	Frequency	%
Gender		
Females	232	86.9
Males	35	13.1
Marital status		
Not married (single, divorced and widowed)	128	48.1
Married	138	51.9
Family economic status		
Good	57	21.3
Average	200	74.9
Poor	10	3.7
Exercise frequency		
Regular (3x/wk)	60	22.5
Occasional (1–2x/wk)	83	31.1
Seldom (<1x/wk)	97	36.3
No exercise	27	10.1
Smoking		
Yes	9	3.4
No	258	96.6
Drinking		
Yes	23	8.6
No	244	91.4
Class level taught		
Kindergarten	48	18.0
Elementary levels	143	53.8
Secondary levels	75	28.2
	Mean (SD)	*Range*
Age	44.8 (10.6)	22–61
Sleep hours/day	7.0 (1.1)	4–10
Number of teaching hours/week	21.2 (4.9)	8–40
Classroom size	31.6 (6.9)	1–60
Relationship quality	16.8 (2.8)	8–21

Table 1.
Demographic, health,
finances, work,
relationship and
resilience ($N = 267$)

severe or extremely severe stress and 3.2% experienced severe or extremely severe depression (Table 2). For the MBI-ES, the average score for emotional exhaustion was 15.7 (SD = 11.3, *Range*: 0–51), depersonalization was 2.6 (SD = 4.2, *Range*: 0–23), and personal accomplishment was 40.6 (SD = 7.2, *Range*: 0–48).

Significant correlations among variables

Mental health. Significant associations were found among mental health and several variables (Table 2). Significant negative correlations were found between depression and exercise ($r = -0.13$), as well as stress and sleep hours ($r = -0.17$). Marital status was significantly negatively related to depression ($r = -0.15$) and stress ($r = -0.14$); those who were not married had higher depression and stress levels. On the other hand, classroom size was significantly positively related to depression ($r = 0.13$) and anxiety ($r = 0.15$). Family economics status, relationship quality and resilience were significantly negatively associated with all three mental health variables ($r = -0.15$ to -0.35).

Burnout. Emotional exhaustion was significantly negatively related to age, marital status, family economics status, exercise, relationship quality and resilience ($r = -0.15$ to -0.27).

Depersonalization was significantly negatively related to relationship quality ($r = -0.23$). Personal accomplishment was significantly positively related to the number of teaching hours per week ($r = 0.13$), relationship quality ($r = 0.18$) and resilience ($r = 0.51$), Table 3.

Resilience. Significantly positive correlations were found between resilience and the following variables: family economic status, exercise frequency, relationship quality ($r = 0.14$ to 0.21).

Predictors of outcome variable: mental health and burnout
Hierarchical multiple regression analyses were used to determine the predictors of each outcome variable. For teacher mental health, results indicated that family economics status, relationship quality and resilience were significant predictors of *depression* ($F (6, 251) = 10.8$, $p < 0.001$, adjusted $R^2 = 0.19$); family economics status, classroom size and resilience significantly predicted *anxiety* ($F (5, 253) = 8.8$, $p < 0.001$, adjusted $R^2 = 0.13$); family economics status, gender, sleep and resilience significantly predicted *stress* ($F (6, 258) = 11.9$, $p < 0.001$, adjusted $R^2 = 0.20$).

Variables	Normal (%)	Mild (%)	Moderate (%)	Severe (%)	Extremely severe (%)
Depression; *Mean = 7.2,* SD = *6.3, Range: 0–36*	69.7	16.9	10.1	1.2	2.0
Anxiety: *Mean = 7.9,* SD = *6.5, Range: 0–40*	52.4	13.9	22.5	6.3	4.9
Stress; *Mean = 12.6,* SD = *7.5, Range: 0–40*	65.2	17.3	11.6	4.5	1.5

Table 2.
Mental Health severity among teachers ($N = 267$)

	Mental health			Burnout		
Variables	Depression	Anxiety	Stress	Emotional exhaustion	Depersonalization	Personal Accomplish
Age	−0.03	−0.15*	−0.10	−0.24***	−0.03	0.05
Gender	0.08	0.06	0.16**	0.08	0.08	−0.01
Marital status	−0.15*	−0.10	−0.14*	−0.20**	−0.02	0.05
Family economics	−0.27***	−0.25***	−0.31***	−0.16**	−0.05	0.09
Sleep hours/day	−0.11	−0.11	−0.17**	−0.11	0.01	0.02
Exercise frequency	−0.13*	−0.05	−0.05	−0.15*	0.04	0.04
Drinking	0.03	0.02	0.07	0.16**	0.13*	−0.08
Classroom size	0.13*	0.15*	0.05	0.05	−0.03	−0.07
Teaching hours	0.02	−0.04	0.05	0.07	−0.05	0.13*
Relationship quality	−0.24**	−0.15*	−0.15*	−0.27***	−0.23***	0.18**
Resilience	−0.35***	−0.26***	−0.33***	−0.21***	−0.09	0.51***

Note(s): *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$
•Pearson's Correlation Coefficients were used for age, family economic status, sleep hours/day, exercise frequency, classroom size, drinking, teaching hours/week, relationship quality, resilience and outcome variables. Spearman Correlation Coefficients were used for gender, marital status and outcome variables

Table 3.
Significant correlations between demographic, health history, resiliency and outcome variables (mental health and burnout ($N = 267$)

For teacher burnout, relationship quality and age were significant predictors of *emotional exhaustion* ($F_{(7, 257)} = 7.5$, $p < 0.001$, $R^2 = 0.15$); relationship quality and drinking significantly predicted *depersonalization* ($F_{(2, 263)} = 9.4$, $p < 0.001$, $R^2 = 0.06$); resilience and number of teaching hours significantly predicted *personal accomplishment* ($F_{(3, 262)} = 34.6$, $p < 0.001$, $R^2 = 0.28$).

Discussion

This study investigated factors that impacted the mental health and burnout among kindergarten, primary and secondary school teachers in Thailand. Many teachers in Thailand encountered mental health problems similar to teachers in other countries. Specifically, 3.2% of teachers had severe to extremely severe depression, 11.2% had severe to extremely severe anxiety, and 6.0% had severe to extremely severe stress.

To improve the mental health of teachers, results pointed to a few key factors including strengthening resilience, improving relationship quality, increasing exercise, enhancing sleep and developing financial security. In order to reduce burnout, results specified two main factors: strengthening resilience and improving relationship quality.

Implication for practice: Teacher Wellness Program

Based on the results of this study, a comprehensive *Teacher Wellness Program* was created by the first author to help improve mental health and reduce burnout among teachers (Figure 2). All interventions in the Teacher Wellness Program were culturally relevant and implementable at each school.

The Teacher Wellness Program has two main components: (1) *Personal Development* consists of three intervention programs (#1-#3) to help teachers with their personal lives so that their mental health could be improved. (2) *Professional Development* consists of three intervention programs (#3-#5) to help teachers with their professional lives so that burnout could be reduced or prevented.

(1) Wellness education program

This wellness program focuses on the physical health of teachers. Schools could partner with local mental health centers to offer in-person or online workshops for teachers to better understand the positive impact of exercise and sleep on their mental health. Partnership with
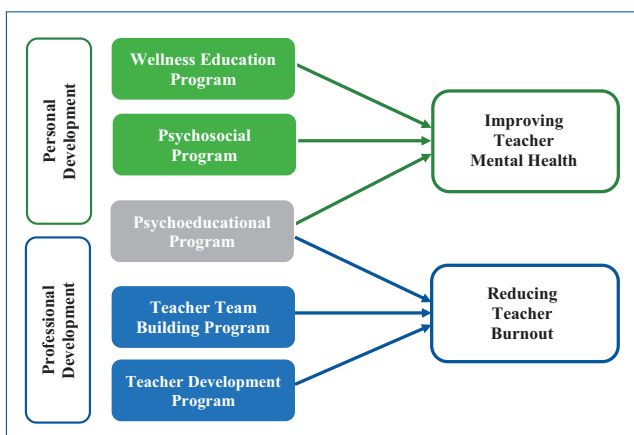

Figure 2.
Teacher Wellness Program

local health promotion hospitals could also bring their staff to the school to assess the baseline data for several health variables (i.e. Body Mass Index, blood pressure, blood sugar) and provide follow-up assessment to measure the progress that teachers have made. School administrators could set up incentives and prizes to encourage teachers to participate in this wellness program, to exercise regularly and to improve sleep hygiene.

(2) Psychosocial program

This psychosocial program focuses on helping teachers improve relationship quality in their personal lives. Again, schools could partner with local mental health centers to offer in-person or online workshops for teachers to learn skills on how to improve their family relationships and friendships to improve their mental health. Given their workplace identity, teachers are usually the helpers and providers of support to others. Many teachers often carry their workplace identity and roles into their personal lives, resulting in not feeling supported by family and friends. Many teachers do not often ask for help and they would benefit from learning how to seek and receive support from family and friends to improve their mental health and overall wellbeing. School administrators could request additional support from local mental health agencies to set up a confidential individual consultation program if teachers need additional guidance and support.

(3) Psychoeducational program

This psychoeducational program focuses on both the personal and professional lives of teachers to (1) improve financial literacy, (2) reduce stress, anxiety, depression, (3) increase resilience, (4) improve personal accomplishment and (5) reduce emotional exhaustion and depersonalization. With the goals of improving teacher mental health and reducing burnout, another partnership with a local mental health center as well as other non-governmental organizations could provide in-person or online workshops on saving money, debt management, stress and anxiety reduction, depression management, strengthening resilience, preventing burnout and developing mental toughness. Many teachers in Thailand take out loans for their children's education and unexpected expenses in addition to their home and transportation purchases. Workshops on debt consolidation and the importance of savings would empower teachers and reduce the negative contribution of financial debts on their mental health. Training teachers on deep breathing skills, progressive muscle relaxation and mindfulness meditation would further help to reduce their stress, anxiety and depression while strengthening their resilience and reducing burnout. Mental toughness training can also help reduce burnout and increase resilience through goal setting, visualization and positive thinking by helping teachers increase self-confidence, see challenges as an opportunity, commit to the tasks and believe that they have control of their work [50]. School administrators could implement some of these programs at the school; for example, the weekly teacher meeting can start with 5 min deep breathing and mindfulness practices. School administrators could also group teachers in various committees to help make decisions to improve programs and services for students.

(4) Teacher team building program

This program focuses on helping improve relationship quality at the school. Schools could develop team building activities for teachers to help reduce burnout. Specific activities include community building, collaborative projects, recognition programs, open communication and peer mentoring. These activities have a clear goal of helping teachers develop and grow connections with other teachers at the school. When teachers feel more connected with their co-workers, their feelings of isolation and depersonalization would decrease. Direct and indirect support from colleagues influence teacher resilience and reduces

burnout. Colleagues may be able to share relatable experiences that develop a sense of community; present sound advice that supports teachers in navigating challenges commonly experienced at the school; possess additional knowledge of resources that help to promote teachers' wellbeing [28, 31, 32]. School administrators could provide time, space and resources for teachers to have formal and informal gatherings for the explicit purpose of fostering connections. School administrators should encourage all teachers to participate as well as creatively and gently persuade isolated teachers to be part of the team building program.

(5) Teacher development program

This program focuses on helping to increase skills and competency among teachers. It is increasingly necessary for teachers to become more familiar and proficient with online education. Teachers who receive training, resources and support from the school to meet these new challenges are less likely to experience burnout symptoms such as emotional exhaustion and depersonalization. In addition, annual anonymous surveys of all the teachers could provide a ranking of skills and competencies that teachers would like to acquire each year. School administrators could arrange training at the school throughout the year to help increase the desired skills and competencies of teachers thereby reducing possible burnout.

Limitations of this study include the use of a cross-sectional design with only public schools. Future research should expand to include private schools and schools in other countries. Additional research is also needed to go beyond tackling individual problems and to address the systemic factors in schools that impact teachers' mental health. The Teacher Wellness Program was designed to be culturally relevant and implementable at schools in Thailand and may need to be modified for use in other countries. Further studies need to be done to measure the effectiveness of the Teacher Wellness Program.

Conclusions

Teaching is a demanding and challenging profession. Findings indicate that many teachers face mental health problems and burnout symptoms. A few key factors have been found to improve mental health and reduce burnout among teachers: strengthening resilience, improving relationship quality, enhancing sleep and physical health and developing financial security. The school has become an institution that provides more than education; it is also a safe place where students can receive emotional and social support from teachers. The proposed *Teacher Wellness Program* incorporates the above key factors to improve the personal and professional lives of teachers so that they can face the demands and challenges of their daily tasks and provide a supportive and healthy learning environment for their students.

Conflict of Interest: None

References

1. World Health Organization [WHO]. Depression and other common mental disorders: global health estimates. Geneva: WHO; 2017.

2. Besse R, Howard K, Gonzalez S, Howard J. Major depressive disorder and public school teachers: evaluating occupational and health predictors and outcomes. J Appl Biobehav Res. 2015; 20(2): 71-83. doi: 10.1111/jabr.12043.

3. da Silva Correia FM, de Albuquerque RN, de Lima Martins HA, da Fonseca Lins L, Costa Lima MD, da Silva Dias JM, da Silva CM, dos Santos AJ, dos Santos LT, Ribas VR. Participation in nighttime activities in the genesis of depression in public school teachers from the State of Pernambuco, Brazil. Dement Neuropsychol. 2012; 6(4): 276-85. doi: 10.1590/S1980-57642012DN06040013.

4. Gray C, Wilcox G, Nordstokke D. Teacher mental health, school climate, inclusive education and student learning: a review. Can Psychol. 2017; 58(3): 203-10. doi: 10.1037/cap0000117.

5. Shernoff ES, Mehta TG, Atkins MS, Torf R, Spencer J. A qualitative study of the sources and impact of stress among urban teachers. School Ment Health. 2011; 3(2): 59-69. doi: 10.1007/s12310-011-9051-z.

6. Richards KAR, Levesque-Bristol C, Templin TJ, Graber KC. The impact of resilience on role stressors and burnout in elementary and secondary teachers. Soc Psychol Educ. 2016; 19(3): 511-36. doi: 10.1007/s11218-016-9346-x.

7. Borrelli I, Benevene P, Fiorilli C, D'Amelio F, Pozzi G. Working conditions and mental health in teachers: a preliminary study. Occup Med (Lond). 2014; 64(7): 530-2. doi: 10.1093/occmed/kqu108.

8. Soria-Saucedo R, Lopez-Ridaura R, Lajous M, Wirtz VJ. The prevalence and correlates of severe depression in a cohort of Mexican teachers. J Affect Disord. 2018; 234: 109-16. doi: 10.1016/j.jad.2018.02.036.

9. Xiao S, Lei L. A correlation study on suicide ideation, depression and levels of mental health among middle and primary school teachers in rural area. Chin J Clin Psychol. 2005; 13(4): 456-7.

10. Bianchi R, Schonfeld IS, Mayor E, Laurent E. Burnout-depression overlap: a study of New Zealand schoolteachers. NZ J Psychol. 2016; 45(3): 4-11.

11. American Federation of Teachers [AFT]. Educator quality of work life survey. 2016. [cited 2020 Apr 27]. Available from: https://www.aft.org/2017-educator-quality-life-survey.

12. Bhattacharjee A. Anxiety and quality of life among teaching professionals: a comparative analysis. J Psychosoc Res. 2015; 10(2): 365-72.

13. McLean L, McDonald Connor C. Depressive symptoms in third-grade teachers: relations to classroom quality and student achievement. Child Dev. 2015; 86(3): 945-54. doi: 10.1111/cdev.12344.

14. Ouellette RR, Frazier SL, Shernoff ES, Cappella E, Mehta TG, Marinez-Lora A, et al. Teacher job stress and satisfaction in urban schools: disentangling individual-, classroom-, and organizational-level influences. Behav Ther. 2018; 49(4): 494-508. doi: 10.1016/j.beth.2017.11.011.

15. Soyama I. Elementary school teachers' experiences: successive interviews during their first year. Jpn J Educ Psychol. 2014; 62(4): 305-21. doi: 10.5926/jjep.62.305.

16. Harding S, Morris R, Gunnell D, Ford T, Hollingworth W, Tilling K, Evans R, Bell S, Grey J, Brockman R, Campbell R, Araya R, Murphy S, Kidger J. Is teachers' mental health and wellbeing associated with students' mental health and wellbeing? J Affect Disord. 2019; 242: 180-7. doi: 10.1016/j.jad.2018.08.080.

17. Khan A, Fleva E, Qazi T. Role of self-esteem and general self-efficacy in teachers' efficacy in primary schools. Psychology. 2015; 6: 117-25. doi: 10.4236/psych.2015.61010.

18. Schwarzer R, Hallum S. Perceived teacher self-efficacy as a predictor of job stress and burnout: mediation analyses. Appl Psychol-Int Rev. 2008; 57: 152-71. doi: 10.1111/j.1464-0597.2008.00359.x.

19. Leroux M, Theoret M. Intriguing empirical relations between teachers' resilience and reflection on practice. Reflective Pract. 2014; 15(3): 289-303. doi: 10.1080/14623943.2014.900009.

20. Xu FM, Zhu CS, Huang WF, Shao LC. Teachers' job burnout and related factors in primary and secondary schools. Chin Ment Health J. 2005; 19(5): 324-6.

21. Bernotaite L, Malinauskiene V. Workplace bullying and mental health among teachers in relation to psychosocial job characteristics and burnout. Int J Occup Med Env. 2017; 30(4): 629-40. doi: 10.13075/ijomeh.1896.00943.

22. Ekornes S. Teacher stress related to student mental health promotion: the match between perceived demands and competence to help students with mental health problems. Scand J Educ Res. 2017; 61(3): 333-53. doi: 10.1080/00313831.2016.1147068.

23. Merida-Lopez S, Extremera N, Rey L. Emotion-regulation ability, role stress and teachers' mental health. Occup Med-Oxf. 2017; 67(7): 540-5. doi: 10.1093/occmed/kqx125.

24. Bianchi R, Schonfeld IS, Laurent E. Is burnout a depressive disorder? A reexamination with special focus on atypical depression. Int J Stress Manag. 2014; 21(4): 307-24. doi: 10.1037/a0037906.

25. Vladut CI, Kallay E. Psycho-emotional and organizational aspects of burnout in a sample of Romanian teachers. Cogn Brain Behav. 2011; 15(3): 331-58.

26. Bayani AA, Baghery H. Exploring the influence of self-efficacy, school context and self-esteem on job burnout of Iranian Muslim teachers: a path model approach. J Relig Health. 2020; 59(1): 154-62. doi: 10.1007/s10943-018-0703-2.

27. Capone V, Petrillo G. Mental health in teachers: relationships with job satisfaction, efficacy beliefs, burnout and depression. Curr Psychol. 2020; 39(5): 1757-66. doi: 10.1007/s12144-018-9878-7.

28. Greenfield B. How can teacher resilience be protected and promoted? Educ Child Psychol. 2015; 32(4): 51-68.

29. Patterson JH, Collins L, Abbott G. A study of teacher resilience in urban schools. J Instr Psychol. 2004; 31(1): 3-11.

30. Peters J, Pearce J. Relationships and early career teacher resilience: a role for school principals. Teach Teach. 2012; 18(2): 249-62. doi: 10.1080/13540602.2012.632266.

31. Beltman S, Mansfield CF, Harris A. Quietly sharing the load? The role of school psychologists in enabling teacher resilience. Sch Psychol Int. 2016; 37(2): 172-88. doi: 10.1177/0143034315615939.

32. Hong JY. Why do some beginning teachers leave the school, and others stay? Understanding teacher resilience through psychological lenses. Teach Teach. 2012; 18(4): 417-40. doi: 10.1080/13540602.2012.696044.

33. Tamura S, Ishikuma T. Help-seeking preferences and burnout: junior high school teachers in Japan. Jpn J Educ Psychol. 2001; 49(4): 438-48. doi: 10.5926/jjep1953.49.4_438.

34. Sakoda Y, Tanaka K, Fuchigami K. Teachers' perception of social support from principals. Jpn J Educ Psychol. 2004; 52(4): 448-57. doi: 10.5926/jjep1953.52.4_448.

35. McLean L, Abry T, Taylor M, Jimenez M, Granger K. Teachers' mental health and perceptions of school climate across the transition from training to teaching. Teach Teach Educ. 2017; 65: 230-40. doi: 10.1016/j.tate.2017.03.018.

36. Day C, Hong J. Influences on the capacities for emotional resilience of teachers in schools serving disadvantaged urban communities: challenges of living on the edge. Teach Teach Educ. 2016; 59: 115-25. doi: 10.1016/j.tate.2016.05.015.

37. Cederblad M, Pruksachatkunakorn P, Boripunkul T, Intraprasert S, Hook B. Sense of coherence in a Thai sample. Transcult Psychiatry. 2003; 40(4): 585-600. doi: 10.1177/1363461503404007.

38. Jongudomkarn D, West BJ. Work life and psychological health: the experiences of Thai women in deprived communities. Health Care Women Int. 2004; 25(6): 527-42. doi: 10.1080/07399330490444812.

39. Abas M, Tangchonlatip K, Punpuing S, Jirapramukpitak T, Darawuttimaprakorn N, Prince M, Flach C. Migration of children and impact on depression in older parents in rural Thailand, southeast Asia. JAMA Psychiatry. 2013; 70(2): 226-34. doi: 10.1001/jamapsychiatry.2013.271.

40. Suttajit S, Punpuing S, Jirapramukpitak T, Tangchonlatip K, Darawuttimaprakorn N, Stewart R, Dewey ME, Prince M, Abas M. Impairment, disability, social support and depression among older parents in rural Thailand. Psychol Med. 2010; 40(10): 1711-21. doi: 10.1017/S003329170999208x.

41. Carlson J, Englar-Carlson M, Emavardhana T. Individual psychology in Thailand. J Individ Psychol. 2012; 68(4): 397-410.

42. Weiss B, Tram JM, Weisz JR, Rescorla L, Achenbach TM. Differential symptom expression and somatization in Thai versus U.S. children. J Consult Clin Psychol. 2009; 77(5): 987-92. doi: 10.1037/a0016779.

43. Klassen R, Wilson E, Siu AFY, Hannok W, Wong MW, Wongsri N, et al. Preservice teachers' work stress, self-efficacy, and occupational commitment in four countries. Eur J Psychol Educ. 2013; 28(4): 1289-309. doi: 10.1007/s10212-012-0166-x.

44. Graham S. From the bottom up: a case study of teacher training for primary school teachers of English in a Thai school in north eastern Thailand. Engl Lang Teach Educ Dev. 2009; 12: 31-43.

45. Lovibond SH, Lovibond PF. Manual for the depression anxiety stress scales. Sydney: Psychology Foundation; 1995.

46. Maslach C, Jackson SE, Leiter MP. Maslach burnout inventory manual. Palo Alto, Calif: Consulting Psychologists Press; 1996.

47. Connor KM, Davidson JR. Development of a new resilience scale: the connor-davidson resilience scale (CD-RISC). Depress Anxiety. 2003; 18(2): 76-82. doi: 10.1002/da.10113.

48. McGillivray K, Ho R. Validation of the connor davidson resilience scale (CD-RISC) as applied within the Thai context. Scholar: Human Sciences. 2016; 8(2): 178-87.

49. Faul F, Erdfelder E, Buchner A, Lang AG. Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. Behav Res Methods. 2009; 41(4): 1149-60. doi: 10.3758/BRM.41.4.1149.

50. Strycharczyk D, Clough P. Developing mental toughness: coaching strategies to improve performance, resilience and wellbeing. London: Kogan Page; 2015.

Corresponding author
Paul Ratanasiripong can be contacted at: paul.ratanasiripong@csulb.edu