



Factors Related to Mental Health and Quality of Life among College and University Teaching Professionals in Thailand

Paul Ratanasiripong^{1,2}, Sukhontha Siri², Suda Hanklang³, Pornlert Chumchai⁴, Florencia Galvan¹

¹College of Education, California State University, Long Beach, USA.

²Faculty of Public Health, Mahidol University, Thailand.

³Vongchavalitkul University, Thailand.

⁴Boromarajonani College of Nursing, Phraputthabat, Thailand.

Correspondence: Sukhontha Siri, Department of Epidemiology, Faculty of Public health, Mahidol University, Bangkok, Thailand, 10400. E-mail: sukhontha.sir@mahidol.ac.th

Received: November 11 2023; Revised: April 24 2024; Accepted: April 30 2024

Abstract

The field of higher education has grown rapidly throughout the last half-century, with student enrollment outpacing the general population growth rate in recent years. This has placed increased stress and demands upon university teaching professionals who have already been identified by researchers as one of the most stressed occupational groups. This quantitative study examined the predictors of mental health and quality of life among college and university teaching professionals. Data was collected from 360 teaching professionals employed at four higher education institutions in Thailand. Variables in this study included participants' personal, professional, financial, health characteristics, and self-esteem as well as mental health conditions and quality of life. Multiple regression analyses revealed the following results: Gender, years work as teaching professional, BMI, and self-esteem are significant predictors of depression (adjusted $R^2=.33$). Salary, savings, sleep, and self-esteem are significant predictors of anxiety (adjusted $R^2=.22$). Years work as teaching professional, loans, and self-esteem are significant predictors of stress (adjusted $R^2=.17$). Years work as teaching professional, loan, sleep, and self-esteem are significant predictors of overall quality of life (adjusted $R^2=.48$). Preservation of university resources including teaching professionals is critical to ensuring the successful growth and development of the higher education institutions. Recommendations for improving quality of life and mental health outcomes for university teaching professionals include

reducing pressure relating to research output, promoting self-esteem through mentorship and supportive workplace relationships, and encouraging healthy daily habits.

Keywords: Depression, Anxiety, Stress, Quality of life, Self-esteem

What was Known

- There has been increasing job demands among higher education professionals.
- There has been increasing mental health issues among higher education professionals.

What's New and Next

- Women and newer teaching professionals have higher levels of depression.
- Mentorship can help improve the mental health of college and university teaching professionals.

Introduction

The field of higher education faces many challenges including rapidly increasing student enrollment which outpaces general population growth¹, as well as an increasing culture of managerialism driven by institutional pressures to remain internationally competitive². Within the field of academia, individuals often feel that they must internalize and intellectualize their emotions in order to maintain an image of professionalism and competence³. Some researchers have identified university teaching professional as one of the most stressed occupational groups⁴. Overall, there are many threats to academic professionals' mental health and overall wellness⁵.

Outside of academic institutions, mental health remains a serious issue. Mental, neurological, and substance-use disorders are more prevalent than both cardiovascular disease and cancer worldwide⁶. Low-income countries especially struggle to ensure sufficient availability of mental health professionals and treatments⁶. Researchers, clinicians, and advocates have agreed that universities should play a key role in dealing with the global mental health crisis⁶. Thus, addressing the global mental health crisis requires that university and college administrators, teaching professionals, and other stakeholders cooperate to improve global mental health.

Research discussing the stress and mental health of college and university teaching professionals is limited; most existing research is also based in a Western context⁷. This is problematic as many factors play a role in shaping discussions surrounding stress and mental health. Within Asia alone, diverse cultural, religious, and economic factors, as well as different levels of modernization affect the way in which mental health issues are addressed⁸. The education system and technology available in different regions of the world also vary⁹. Therefore, further research examining the mental health and wellness of university and college teaching professionals is needed. This study focuses on Thai college and university teaching professionals in order to address this gap.

Academic Culture and Teaching in Higher Education

There seems to be consensus across various universities that occupational stress levels in higher education are high and continuing to rise^{4,10-11}. Many factors which are identified as stressors by researchers are unique to academic teaching careers, resulting in university teaching staff experiencing some of the highest levels of burnout and stress across all occupational groups^{4,10-11}.

Teaching careers are demanding for many reasons including the volume of work hours, work pace, deadlines, time pressures, schedules, distractions, organization, and management of time¹². In many countries, increased college and university enrollment has strained resources and increased instructor-to-student ratios^{9,13-16}. At the same time, many institutions rely on teaching excellence and student outcome targets as a way to establish excellence and merit⁵.

Additionally, teaching professionals must actively serve as researchers, especially since many governments worldwide provide funding for higher education institutions based on research publications and output¹⁷. This aspect of the career is most commonly cited as a source of stress and anxiety among university and college teaching professionals globally¹⁸. Some studies of the experiences of university and college teaching professionals have revealed a feeling of incompatibility between the roles of teacher and researcher^{2,19}. This is because the roles of teaching and researching compete with one another in terms of the time that must be spent doing each activity. The two roles are also quite different in terms of the nature and demands of the work.

Studies of university and college teaching professionals across Asia reveal that they face added pressure associated with the need to publish academic research. This is because many universities rely on research productivity in order to help grow and maintain funding and prestige for their institutions. Teaching professionals are therefore responsible for not only their own performance but also for the performance of the institution as research helps generate international recognition and income^{2,9,20-21}. On an individual level, the performance of teaching professionals is largely determined by their research outputs²². This results in a culture in which researchers must publish or perish—academics must publish their research because their jobs depend on it, given that the rate of research publication is directly linked to contract renewal, tenure, promotion, salary increment, and performance bonus^{9,23-25}.

In Thailand and other countries where English is not the primary language, university and college teaching professionals also struggle with an additional barrier when it comes to publishing research. There is pressure to publish research in well-established journals in English²⁵. Academics rely on publishing research not only for their own reputation as professors, but also to improve the ranking, funding, and prestige of the institutions at which they are employed²⁵. Still, the number of publications per academic staff in Thailand is low. Research shows that college and university academic staff identify several worries including grammar usage, appropriateness of word use, and weak English writing skills²⁵. These challenges can result in low performance and may contribute to added stress and anxiety for Thai university and college professors.

The pressure to demonstrate merit in the area of academic research exists within the context of increasing enrollments which have already strained the resources available at many Asian universities and colleges. As the ratio of students to instructors increases, it is more likely that university and college professionals will suffer more intense occupational stress and increased workload^{9,16}.

Finally, college and university teaching professionals globally must constantly adapt within organizations where their roles are constantly evolving. Teaching professionals must navigate institutional changes such as restructuring, mergers, and a lack of opportunities for professional growth¹³. Time constraints and having limited time are also frequently mentioned as stressors throughout global studies of college and university teaching professionals^{12-14,26-28}.

Mental Health

Studies have found that academics derive much of their own sense of identity from their work²⁶. While this can seem beneficial, viewing one's occupation in this way can lead academics to take on more emotionally draining and challenging work²⁶. One researcher found that despite the heavy and increasing workload, many academic professionals remain dedicated to the success of their institution, and to their profession¹⁷. Feeling a moral obligation to one's work can be damaging to the mental health and overall well-being of teaching professionals²⁹. Additionally, the nature of academic work requires teaching professionals to spend many hours alone in their offices surrounded by computers, creating a very mentally and physically draining environment³⁰. Studies have also found that physical inactivity is highly common among university and college teaching professionals¹¹. This can have many implications for their overall mental health and wellness.

It is important to monitor the experience of stress and burnout among university and college teaching professionals because burnout can lead to depression in both men and women³¹. Several studies have also determined that academic staff such as teaching professionals experience higher levels of burnout and psychological distress including depression, anxiety, and burnout than non-academic staff²⁰. Additionally, studies have found that job satisfaction is lower among academic staff than non-academic staff¹⁹.

Within Thailand, several factors specific to the Thai cultural context influence university and college teaching professionals' experience of depression. Thailand recently recorded its highest unemployment rate on record, with 3-5 million unemployed throughout the nation³². This has serious implications for mental health, as job loss has been identified as a significant risk factor for depression in previous studies³². Furthermore, it is important to keep in mind that many college and university teaching professionals feel that they are at constant threat of job and income loss if they do not meet key performance indicators relating to teaching and research^{2,9,20-21}. Therefore, the relationship between job loss and depression, anxiety, and stress is particularly concerning for this population.

Some studies have found that academic scholars may tend to intellectualize their experience of physical and emotional distress⁵. This ultimately prevents them from directly confronting their emotional pain. Despite this, emotional conditions such as depression, anxiety,

and stress are often accompanied by many embodied experiences such as physical illness and fatigue⁵. Self-esteem is a factor that has been found to have positive impact on mental health³³. No previous study has specifically examined the impact of self-esteem on mental health of college and university teaching professionals in Thailand.

Quality of Life among Teaching Professionals

Studies have found that academic teaching professionals often feel unappreciated by their organizations, and report that they do not earn enough money to live²⁷. This affects their overall satisfaction with their work and quality of life. Themes of being overworked are revealed in many global studies on college and university teaching professional^{10,30}. This diminishes their overall quality of life, as studies have found that full-time university professionals who hold dual roles in both research and teaching report poorer well-being than their peers who did not hold dual roles¹⁰. It has also been indicated in previous studies that university and college teaching professionals are reluctant to take time off from work, including sick leave, due to fear of falling behind in work-related projects and demands¹⁰. High workload and exhaustion may also prevent university and college teaching professionals from having adequate time for resource replenishment and recovery, ultimately resulting in increased difficulty recovering from stress, and ultimately, burnout²⁹. Occupational stress can also affect personal and family relationships³¹. This phenomenon can be understood to be a negative downward spiral that contributes to poor quality of life²⁹.

Specifically in Thailand and other Asian countries, the higher education system has needed to expand rapidly in recent years due to growing enrollment trends¹. As a result, ensuring job satisfaction to retain full-time teaching professionals is crucial at this time; this will help improve organizational effectiveness and better serve the needs of students and society³⁴. Current research shows that although university and college teaching professionals are highly respected and honored in Thai society, they are commonly dissatisfied with their salary, supervision, working conditions, organization policy, and administration³⁴⁻³⁵. Addressing this is necessary in order to ensure the continued retention and success of the higher education system in Thailand.

Materials and Methods

Participants and Procedures

An a priori power analysis was conducted using G*Power 3.1³⁶ to determine the minimal sample size required to test the hypotheses of this study. Results indicated that the required sample size for this study to achieve 95% power with a medium effect size (0.15), and an alpha of 0.05 was 129 for multiple regression analyses with four predictors. The obtained sample size of 360 is more than adequate to test the study hypotheses.

The 360 participants for this study were recruited from four higher education institutions in Thailand, including one large public university, one medium-sized private university, and two small colleges. Participants must be at least 18 years old and teaching at one of the colleges or universities during the recruitment period.

Paper-based survey was distributed to all teaching professionals at the four institutions. Those who agreed to volunteer to be part of the study signed the informed consent form and completed the anonymous survey that took approximately 20 minutes to complete. Each survey included instruments on mental health and quality of life along with questions on participant demographic, health, and financial information.

The average age of participants was 42 years old with average of 13 years working as teaching professionals. Majority of participants are female (75.6%). Forty percent of participants have monthly income between 30,001–45,000 Baht (approximately US\$850-US\$1,285). See Table 1 for additional demographic, health, and financial information.

Measures

The Depression, Anxiety, and Stress Scale (DASS-21) was used to assess the mental health among college and university teaching professionals³⁷. The 21-item scale has 3 subscales (Depression, Anxiety, Stress) with 7 items each. Participants rate each item on a Likert scale from 0 (did not apply to me at all) to 3 (applied to me most of the time). Higher scores indicated more symptoms. The DASS-21 has been used by other studies in Thailand³⁸. The Cronbach's alpha for this study was .79 for depression, .77 for anxiety, and .84 for stress.

The 26-item WHO Quality of Life Scale-BREF (WHO-QOL-BREF) was used to assess the total quality of life among teaching professionals³⁹. The total WHO-QOL-BREF score was

calculated from the average of the transformed scores of the 4 subscales (physical health, psychological, social relationship, environment). The WHO QOL-BREF has been used by other studies in Thailand⁴⁰. For this study, the Cronbach's alpha was .93 for the 26-item total WHO-QOL-BREF score.

The third instrument used for this study was the Rosenberg Self-Esteem Scale (RSE)⁴¹. The 10-item RSE assessed the teaching professional's level of self-esteem using Likert scale from 1 (strongly disagree) to 4 (strongly agree) for each item. Higher scores indicated higher level of self-esteem. The RSE has been used by other studies in Thailand⁴². For this study, the Cronbach's alpha was .83 for the RSE. Demographic variables collected include age, gender, monthly salary, savings and loans, sleep, weight, height, and number of years work as teaching professional.

Table 1: Demographic, health and finance (*n* = 360)

Variables	Frequency	%
<i>Gender</i>		
Females	272	75.6
Males	88	24.4
<i>Salary (n = 357)</i>		
15,000-30,000B	128	35.9
30,001-45,000B	145	40.6
45,001-60,000B	49	13.7
60,001-75,000B	22	6.2
> 75,000B	13	3.4
<i>Has monthly savings (n = 359)</i>		
Yes	244	68.0
No	115	32.0
<i>Has loan (n = 359)</i>		
Yes	126	35.1
No	233	64.9
		<i>Mean (SD)</i>
<i>Age</i>	42.1 (10.3)	23-85
<i>Sleep hours/day</i>	6.5 (1.2)	3-14
<i>BMI</i>	23.2 (3.8)	16.6-40.8
<i>Year work as teaching professional</i>	13.0 (10.7)	0-59

Results

The results of this study revealed varying levels of depression, anxiety, and stress among Thai college and university professors, lecturers, and instructors. While a majority of participants had normal level of depression, anxiety, and stress, 20.4% indicated mild to moderate level of depression, 27.9% indicated mild to moderate level of anxiety, and 18.4% indicated mild to moderate level of stress. Additionally, 3% of participants indicated severe or extremely severe depression, 7.2% indicated severe or extremely severe anxiety, and 4.4% indicated severe or extremely severe stress (see Table 2).

Table 2: Depression, Anxiety, Stress Levels among Teaching Professionals

	Frequency	%
<i>Level of Depression (n = 358)</i>		
Normal	274	76.5
Mild	44	12.3
Moderate	29	8.1
Severe	8	2.2
Extremely Severe	3	0.8
<i>Level of Anxiety (n = 358)</i>		
Normal	232	64.8
Mild	34	9.5
Moderate	66	18.4
Severe	13	3.6
Extremely Severe	13	3.6
<i>Level of Stress (n = 358)</i>		
Normal	276	77.1
Mild	44	12.3
Moderate	22	6.1
Severe	13	3.6
Extremely Severe	3	0.8

Multiple regression analyses were used to identify predictors of mental health and quality of life among participants. Results identified several predictors of mental health and quality of life among Thai college and university professors, lecturers, and instructors. Self-esteem, BMI, years of working, and gender are significant predictors of the *depression* ($R^2 = .34$). The higher the self-

esteem, the lower the BMI, the more years working as teaching professional, and being male, the lower the depression. Self-esteem, salary, sleep, and savings are significant predictors of the *anxiety* ($R^2 = .23$). The higher the self-esteem, the higher the salary, the higher the sleep hours per day, and the ability to have savings, the lower the anxiety. Self-esteem, years of working, and loan are significant predictors of *stress* ($R^2 = .18$). The higher the self-esteem, the more years working as teaching professional, and the lack of loans, the lower the stress. Self-esteem, years of working, sleep, and loan are significant predictors of the *overall quality of life* ($R^2 = .48$). The higher the self-esteem, the more years working as teaching professional, the higher the sleep hours per day, and the lack of loans, the better the overall quality of life. See Table 3.

Table 3: Multiple regression analyses of variables predicting mental health and quality of life.

Variables	Adjusted							
	R^2	R^2	F	df	B	SE	Beta	t
<i>Depression</i>	.34	.33	44.91***	(4, 346)				
Self-Esteem					-.35	.03	-.51	-11.49***
BMI					.13	.03	.18	3.84***
Years work					-.04	.01	-.14	-2.89**
Gender					-.94	.30	-.14	-3.16**
<i>Anxiety</i>	.23	.22	25.44***	(4, 347)				
Self-Esteem					-.27	.04	-.37	-7.68***
Salary					-.33	.15	-.11	-2.24*
Savings					-.78	.32	-.12	-2.42*
Sleep hours/day					-.30	.12	-.12	-2.54*
<i>Stress</i>	.18	.17	25.00***	(3, 348)				
Self-Esteem					-.31	.04	-.35	-7.00***
Years work					-.03	.02	-.10	-2.01*
Loan					1.07	.37	-.14	-2.86**
<i>Quality of Life</i>	.48	.48	80.58***	(4, 345)				
Self-Esteem					1.72	.11	.63	15.73***
Years work					.12	.04	.12	2.94**
Loan					-2.23	.93	-.09	-2.41*
Sleep hours/day					1.08	.39	.11	2.76**

* $p < .05$ ** $p < .01$ *** $p < .001$

Discussion

The results of this study identified several predictors of mental health and quality of life among Thai college and university professors, lecturers, and instructors. First, gender, years of work as a teaching professional, BMI, and self-esteem are significant predictors of depression. Next, salary, savings, sleep, and self-esteem were identified as significant predictors of anxiety. Additionally, years of work as a teaching professional, loans, and self-esteem are significant predictors of stress. Finally, years of work as a teaching professional, loan, sleep, and self-esteem are significant predictors of overall quality of life. It is also worth noting that self-esteem was identified as a significant predictor for all measures of mental health and quality of life for this study.

Overall, it is evident that Thai college and university teaching professionals experience a significant degree of depression, anxiety, and health issues. The findings from this study are consistent with previous studies which indicate that college and university teaching faculty are among the most stressed occupations^{4,22}. This is especially concerning because high stress can lead to worsened physical and mental health outcomes, substance use, depression, and anxiety^{22,27}.

Thai society as a whole faces mental health challenges relating to stigma, as well as economic issues and natural disasters which affect mental health nationally^{8,43}. These issues may intensify the occupational stress that college and university teaching professionals already face.

Previous research has identified many reasons why college and university teaching professionals are one of the most stressed occupational groups worldwide⁴. Role-related stress and high workloads characterize careers in higher education teaching^{16,19,22,44}. Other factors include increasing enrollment which further strains teaching staff and institutional resources, as well as institutional factors such as restructuring, merging, and unilateral decision changes driven by the need to remain productive and globally competitive^{9,13,16}.

The findings of this study resemble earlier findings by researchers who aimed to understand the occupational stress and research productivity associated with university and college teaching professionals. For example, one study which included faculty from nearly 400 institutions across the United States found that women are more likely to report stress relating to

household responsibilities¹⁴. Several other studies show that younger, nontenured, female faculty are at the highest risk for experiencing occupational stress^{26,28,35}. The results of the current study affirm these prior findings, while also expanding upon existing knowledge. In this study, female teaching professionals had higher levels of depression. Additionally, those who had less years of work experience were found to have greater depression, stress, and lower overall quality of life.

Another issue that was commonly discussed in studies on college and university teaching professionals was the prevalence of research-related anxiety due to the relationship between research publications and financial security¹⁵. Many studies report that the threat of job and income loss for those who struggle with research is imminent, characterizing the publish or perish culture which defines academic work^{2,9,20-21}. In this study, financial security through the possession of savings and higher salaries was observed to be a protective factor that led to lower rates of anxiety among college and university teaching professionals. Furthermore, those with loans had higher levels of stress and lower overall quality of life.

This study's findings complement prior research showing how job performance relates to job security and financial security. Because research publication is such an essential part of their role, university and college teaching professionals who struggle to produce research may feel their job and financial security are threatened^{2,9,20-21}. Lower salary and lower job status have also been associated with higher stress in previous studies⁴⁴.

Within this research study, self-esteem was identified as a predictor for all outcomes being studied—depression, anxiety, stress, and overall quality of life. This finding can be further understood in the context of Bandura's Self-Efficacy Theory; self-efficacy is concerned with one's own expectations of their own ability to exert control over their own life⁴⁵. Although self-efficacy and self-esteem are two separate concepts, many studies have shown these terms to be quite similar and highly correlated⁴⁶. For college and university teaching professionals, self-efficacy is positively correlated with productivity²². Perceived self-efficacy also affects the teaching and the overall educational process of academic professionals⁴⁷. The findings of this study validate previous research articulating the importance of self-esteem and self-efficacy in affecting teaching professionals' personal well-being and professional performance.

Recommendations

It is critical that academic institutions work to resolve issues relating to stress, anxiety, depression, and the overall quality of life as well as promote self-esteem of university and college teaching professionals. This will be challenging because of the mismatch between the demands of academic work, and the needs of academic teaching professionals, such as more time and decreased workload^{2,30}. It is necessary to fundamentally transform academic culture and institutional structures in order to effect change that will substantially improve the state of teaching professionals' mental health.

Evaluation measures are frequently cited as a source of stress for many college and university teaching professionals^{2,48}. Many college and university teaching professionals are stressed because their salary, tenure, opportunities for promotion, and job stability are contingent upon their production of research publications^{2,9,23-25}. It may be beneficial for institutions to balance the role of research productivity in the overall evaluation measures to help reduce the pressure.

Several researchers have found mentorship to improve the mental health and wellness of college and university teaching professionals^{27,49-51}. Certain populations which are minoritized within academia, such as women, would especially benefit from mentorship opportunities. Women and minorities should also be recruited and hired more extensively in academia, to help reduce the experiences of sexism and subtle discrimination they may face⁴⁷.

Limitations for this study include the focus only on mental health a few potential predictor variables and the sample from only four institutions. Further research on this issue is needed with participants from more institutions. Academic researchers and teachers work tirelessly to study and generate new knowledge about the world; meanwhile, they seldom take time to learn about the state of their own profession²⁸.

Conclusion

Prior research has identified university and college teaching professionals as one of the most highly stressed occupational groups. This study found that self-esteem significantly impacts the overall mental health and quality of life of university and college teaching professionals. It is necessary to improve mental health and quality of life among this group because prolonged occupational stress can lead to poor physical and mental health outcomes.

Further research should focus on understanding the mental health and wellness of teaching professionals across non-Western settings. Consideration should especially be given to diverse populations including women, younger and emerging professionals, and international faculty.

Ethical Approval Statement

This study was reviewed and approved by the Institutional Review Board at California State University, Long Beach (Ref#17-141).

Author Contributions

PR designed the study, analyzed and interpreted the data, and contributed to the drafting and revising of the manuscript. SS, SH, and PC conducted the study, including data collection. FG contributed to the drafting of the manuscript. SS contributed to the revising of the manuscript. All authors read and approved the manuscript prior to submission for publication.

Acknowledgements

None.

Source of Funding

None.

Conflicts of Interest

None.

References

1. Hanson M. College Enrollment & Student Demographic Statistics: Education Data Initiative; 2022. Available from: <https://educationdata.org/college-enrollment-statistics>, accessed 10 November, 2023.
2. Tian M, Lu G. What price the building of world-class universities? Academic pressure faced by young lecturers at a research-centered University in China. *Teaching in Higher Education* 2017; 22(8): 957-74. DOI: 10.1080/13562517.2017.1319814
3. Bloch C. Managing the Emotions of Competition and Recognition in Academia. *The Sociological Review* 2002; 50(2_suppl): 113-31. DOI: 10.1111/j.1467-954X.2002.tb0359

4. Iqbal A, Kokash H. Faculty perception of stress and coping strategies in a Saudi private university: An exploratory study. *International Education Studies* 2011; 4(3): 137-49. DOI: 10.5539/ies.v4n3p137
5. Smith C, Ulus E. Who cares for academics? We need to talk about emotional well-being including what we avoid and intellectualise through macro-discourses. *Organization* 2020; 27(6): 840-57. DOI: 10.1177/13505084198672
6. Collins PY, Patel V, Joestl SS, March D, Insel TR, Daar AS, et al. Grand challenges in global mental health. *Nature* 2011; 475(7354): 27-30.
7. Urbina-Garcia A. What do we know about university academics' mental health? A systematic literature review. *Stress and Health* 2020; 36: 563-85. DOI: 10.1002/smj.2956
8. Ng CH. The stigma of mental illness in Asian cultures. *Australian and New Zealand Journal of Psychiatry* 1997; 31(3): 382-90. DOI: 10.3109/00048679709073848
9. Noor AA, Ismail NH. Occupational stress and its associated factors among academician in a research university, Malaysia. *Malaysian Journal of Public Health Medicine* 2016; 16: 81-91.
10. Kinman G, Siobhan W. Higher Stress: A survey of stress and well-being among staff in higher education; 2013.
11. Valkov P, Peeva KG. Stress among university teachers: An empirical research in Bulgaria. *Trakia. J of Sciences* 2020; 18(Suppl.1): 257-66. DOI: 10.15547/tjs.2020.s.01.045
12. Monroy-Castillo A, Juárez-García A. Occupational psychosocial risk factors in academics of higher education institutions in Latin America: A systematic review. *J of Educational Psychology - Propositos y Representaciones* 2019; 7(3): 261-72.
13. Bezuidenhout A, Cilliers FVN. Burnout, work engagement and sense of coherence in female academics in higher education institutions in South Africa. *South African Journal of Industrial Psychology* 2010; 36(1): Art#872. DOI: 10.4102/sajip.v36i1.872
14. Dey EL. Dimensions of faculty stress: Evidence from a recent national survey. *ASHE Annual Meeting Paper*; 1990.
15. Higgins CC. Factors associated with research anxiety of human resource education faculty in higher education: ProQuest Dissertations Publishing; 2001.
16. Huda BZ, Rusli BN, Naing L, Winn T, Tengku MA, Rampal KG. Job strain and its associated factors among lecturers in the School of Medical Sciences, Universiti Sains Malaysia and Faculty of Medicine, Universiti Kebangsaan Malaysia. *Asia-Pacific Journal of Public Health* 2004; 16(1): 32-40. DOI: 10.1177/101053950401600106

17. Houston D, Meyer LH, Paewai S. Academic staff workloads and job satisfaction: Expectations and values in academe. *Journal of Higher Education Policy and Management* 2006; 28(1): 17-30. DOI: 10.1080/13600800500283734
18. Kiriakos CM, Tienari J. Academic writing as love. *Management Learning* 2018; 49(3): 263-77. DOI: 10.1177/1350507617753560
19. Ahmady S, Changiz T, Masiello I, Brommels M. Organizational role stress among medical school faculty members in Iran: Dealing with role conflict. *BMC Medical Education* 2007; 7:14.
20. Mohamed S, Nikmat A, Hashim NA, Shuib N, Raduan NJN. Burnout and its relationship to psychological distress and job satisfaction among academicians and non-academicians in Malaysia. *International Journal of Higher Education* 2021; 10(1): 85.
21. Colacion-Quiros H, Gemora RB. Causes and effects of stress among faculty members in a state university. *Asia Pacific Journal of Multidisciplinary Research* 2016; 4(1): 18-27. DOI: 10.11591/ijphs.v10i3.20832
22. Abbas SG, Roger A, Asadullah MA, editors. *Impact of organizational role stressors on faculty stress and burnout (An exploratory analysis of a public sector university of Pakistan)*. In 4ème colloque international (ISEOR-AOM); 2012.
23. Fan A-C. The relationship of self-efficacy and perceptions of work environment to the research productivity of faculty in selected universities across Taiwan: ProQuest Dissertations Publishing; 1997.
24. Lee I. Publish or perish: The myth and reality of academic publishing. *Language Teaching* 2014; 47(2): 250-61. DOI: 10.1017/S0261444811000504
25. Wilang JD, Jantori P, Chutataweesawas S. Worries of novice researchers in writing research papers. Online Submission, Paper presented at the 6th International and 2nd National Conference on Learning Innovation in Science and Technology (Hua Hin, Thailand, Mar 21-24, 2018); 2018.
26. Barkhuizen N, Rothmann S, van de Vijver FJR. Burnout and work engagement of academics in higher education institutions: Effects of dispositional optimism. *Stress And Health: Journal of The International Society for the Investigation of Stress* 2014; 30(4): 322-32. DOI: 10.1002/smi.2520
27. Daniels K. An exploratory study of stress in a British University. *Higher Education Quarterly* 1994; 48(2): 135-44. DOI: 10.1111/j.1468-2273.1994.tb01646.x

28. Gmelch WH, Wilke PK, Lovrich NP. Dimensions of stress among university faculty: Factor-analytic results from a national study. *Research in Higher Education* 1986; 24(3): 266-86.
29. Rhew ND, Jones DR, Sama LM, Robinson S, Friedman VJ, Egan M. Shedding light on restorative spaces and faculty well-being. *Journal of Management Education* 2021; 45(1): 43-64. DOI: 10.1177/1052562920953456
30. Lashuel HA. Mental health in academia: What about faculty? *eLife* 2020; 9.
31. Muhamad Nasharudin NA, Idris MA, Young LM. The effects of work conditions on burnout and depression among Malaysian spouses: A crossover explanation. *Journal of Human Behavior in the Social Environment* 2020; 30(4): 429-46. DOI: 10.1080/10911359.2019.1694616
32. Ruengorn C, Awiphan R, Wongpakaran N, Wongpakaran T, Nochaiwong S. Association of job loss, income loss, and financial burden with adverse mental health outcomes during coronavirus disease 2019 pandemic in Thailand: A nationwide cross-sectional study. *Depression and Anxiety* 2021; 38(6): 648-60. DOI: 10.1002/da.23155
33. Ratanasiripong P, China T, Ratanasiripong N, Toyama S. Resiliency and mental health of school teachers in Okinawa. *Journal of Health Research* 2021; 35(6): 470-81. DOI: 10.1108/JHR-11-2019-0248
34. Suwandee S. Job satisfaction and selected characteristics of faculty members in public and private universities in Bangkok, Thailand. Illinois: Illinois State University; 1994.
35. Goldenberg D, Waddell J. Occupational stress and coping strategies among female baccalaureate nursing faculty. *Journal of Advanced Nursing* 1990; 15(5): 531-43. DOI: 10.1111/j.1365-2648.1990.tb01852.x
36. Faul F, Erdfelder E, Lang AG, Buchner A. G*Power 3: A flexible statistical power analysis program for social, behavioral, and biomedical sciences. *Behavioral Research Methods* 2007; 39: 175-91. DOI: 10.3758/bf03193146
37. Lovibond SH, Lovibond PF. Manual for the depression anxiety stress scales. Sydney: Psychology Foundation; 1995.
38. Ratanasiripong P, Kaewboonchoo O, Bell E, Haigh C, Susilowati I, Isahak M, et. Al. Depression, anxiety and stress among small and medium enterprise workers in Indonesia, Malaysia, Thailand, and Vietnam. *International Journal of Occupational Health and Public Health Nursing* 2016; 3(2): 13-29.

39. The WHOQOL Group. Development of the World Health Organization WHOQOL-BREF Quality of Life Assessment. *Psychological Medicine*. 1998;28(3):551-558. DOI: 10.1017/s0033291798006667
40. Phungrassami T, Katikarn R, Watanaarepornchai S, Sangtawan D. Quality of life assessment in radiotherapy patients by WHOQOL-BREF-THAI: a feasibility study. *J Med Assoc Thai* 2004; 87(12): 1459-65.
41. Rosenberg M. *Conceiving the self*. New York, NY: Basic Books; 1979.
42. Ratanasiripong P. Mental health of Muslim nursing students in Thailand. *ISRN Nursing* 2012; 2012: 463471. DOI: 10.5402/2012/463471
43. Burnard P, Naiyapatana W, Lloyd G. Views of mental illness and mental health care in Thailand: a report of an ethnographic study. *Journal of Psychiatric and Mental Health Nursing* 2006;13(6): 742-9. DOI: 10.1111/j.1365-2850.2006.01028.x
44. Akbar A, Akhter W. Faculty stress at higher education: a study on the business schools of Pakistan. *World Academy of Science, Engineering and Technology*; 2011.
45. Bandura A. Self-efficacy mechanism in human agency. *American Psychologist* 1982; 37(2): 122-47. DOI: 10.1037/0003-066X.37.2.122
46. Stanley KD, Murphy MR. A comparison of general self-efficacy with self-esteem. *Genetic, Social, and General Psychology Monographs* 1997; 123(1): 79-99.
47. Haddad SI, Taleb RA. The impact of self-efficacy on performance (An empirical study on business faculty members in Jordanian universities). *Computers in Human Behavior* 2016; 55: 877-87. DOI: 10.1016/j.chb.2015.10.032
48. He X-X, Li Z-Y, Shi J, Mao R, Mu R-H, Zhou Y-A. A comparative study of stress among university faculty in China and Japan. *Higher Education* 2000; 39(3): 253-78.
49. Collins JM. Coming to America: Challenges for faculty coming to United States' universities. *Journal of geography in higher education* 2008; 32(2): 179-88. DOI: 10.1080/03098260701731215
50. Gregorutti G. A mixed-method study of the environmental and personal factors that influence faculty research productivity at small-medium, private, doctorate-granting universities: ProQuest Dissertations Publishing; 2008.
51. Jaschik S. Stress and the female faculty member. *Inside Higher Ed*. 2005. Available from: <https://www.insidehighered.com/news/2005/08/23/stress-and-female-faculty-member#>, accessed 10 November, 2023.