A Systematic Review on Academicians' Job Stress Risk Factors in Public Higher Education Institutions in the Asia Region

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In recent years, academicians reported rising mental health issues, including stress pandemic, compared to other professions. Reports from past studies suggest many predictors of stress among academicians across the continents, especially in public universities. Nevertheless, there are still inadequate studies that are being systematically reviewed related to this topic in Asia. Hence, this paper aims to review the risk factors of stress from past literature systematically. In doing so, the reviewers utilised the bibliographic databases and search engines such as Scopus, Web of Sciences, Science Direct, and Emerald to search and extract records systematically. A total of eleven articles were included for the review after the process of quality assessment. The risk factors related to job stress are divided into two, which are individual factors and job factors. We found that job risk factors to be more critical than individual risk factors among academicians in public higher education institutions. Finally, individual and organisational level stress management interventions are suggested to reduce stress.

Keywords: academician, risk factors, job stress, public higher education institutions, Asia

Job stress improves performance when it helps motivate people to explore opportunities, enhancing job productivity (Muraale, Basit, & Hassan, 2017). However, it is limited to a certain level by which a deteriorating pattern will follow it. This phenomenon is real among many professions, including academicians in higher education institutions. For example, academics are responsible for undertaking teaching, research, and administrative duties. They hold several roles to ensure that their learners achieve the expected learning outcomes corresponding to education, key performance index, and educational policy. The consequences of balancing multiple responsibilities may lead to job stress. Apart from that, the competitive nature of the academic sector between universities and dynamic changes in the higher education system took a significant toll on educators' stress levels.

A stress survey conducted among tertiary level educators summarised that most lecturers experienced severe stress due to their engagement with research-related works and the pressure placed upon them by the university management (Blix, Cruise, Mitchell, & Blix, 1994; Noor & Ismail, 2016). In turn, academicians' failure to manage their stress accordingly will further impact academic productivity. A study by Mukosolu, Ibrahim, Rampal, and Ibrahim (2015) reported a prevalence of stress is 23.1% among educators, which

was higher than that among non-educators (19.8%). In Asia, public universities struggle to continuously compete against each other to maintain the high rank and titles of research universities by conforming to the key performance index and producing research publications. Thus, most academicians in public higher education institutions were highly exposed to burnout due to the nature of their stressful work conditions (Panatik et al., 2012). Also, academicians are frequently exposed to job pressures that make them highly vulnerable and susceptible to being stressed out to the target performance.

Many previous studies had highlighted the issues among academician stress by identifying various possible risk factors. (Gunawan et al., 2018; Ismail, Abd Rahman, & Zainal Abidin, 2014; Kaewanuchit, 2017; Kang & Sidhu, 2015; Nur Aqilah & Juliana, 2012; Schulz, 2013).

Generally, these stressors inflict negative emotions to academicians due to their own shortcomings and inability to handle the stressful situation. Nevertheless, even in the presence of stressors, academicians often turn a stressful situation into a productive environment to perform work productively. Yet, it is known that stressors hinder the efficiency and effectiveness of performing work tasks, thus contributing to further elevated stress levels among academicians.

Based on the reviewers' observation, a systematic review study often focuses on identifying risk factors of stress among students and employees in other working industries. In addition to that, there is no systematic literature review published on the job stress risk factors among academicians in Public Higher Education Institutions, especially in the Asia region. Thus, the findings of this study will significantly contribute toward the empirical knowledge within the topic. Therefore, this study's main objective is to identify academicians' various job stress risk factors in public higher education institutions in Asia.

Method

This systematic review was guided by a publication standard, Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Liberati et al., 2009). Authors also benchmark numerous systematic literature reviews by the scholars as a standard to follow (Shaffril, Ahmad, Samsuddin, Samah, & Hamdan, 2020; Tai, Ng, & Lim, 2019; Wuthrich, Jagiello, & Azzi, 2020). The formulation of the research question for this study was based on a tool named PICo (Lockwood, Munn, & Porritt, 2015) that guide the reviewers in developing appropriate research questions for the review. Based on the tool, one research question is formulated: What are academicians' job stress risk factors in public higher education institutions in the Asia region?

Search Strategy

For the first step in search strategy, the reviewers conduct a broad search of four academic databases of Science Direct, Emerald Insight, Scopus, and Web of Science. The reviewers used various keywords for the literature search to match the study's context. Several search terms used in this review process include "risk factor", "predictor", "stressor", "job stress", "occupational stress", "academic staff" "university teacher" and "academician". The search's period was from the earliest date up to the year 2020. It was limited to research articles on risk factors of academician stress written in English and Bahasa Malaysia. In addition to that, research articles within this research interest were limited only to the study conducted among Asia countries. Following the search strategy procedures, retrieved research findings from all

electronic databases were exported into the reference management software EndNote X7. Studies that met with the following criteria are selected as references for the present literature review:

Inclusion criteria:

1. This review only includes cross-sectional studies.
2. This review includes all studies that investigate the risk factors of academician stress.
3. All possible risk factors of academician stress are included in this review.
4. This review only includes studies conducted among Asia countries.

Exclusion criteria:

1. This review excluded all meta-analysis papers, systematic review papers, students' thesis, or unauthorised or unrecognised dissertations.
2. The study conducted outside of the Asia region.
3. Study of academician stress, which is not the outcome measurement.

Quality Assessment of the included study

After the screening process, two reviewers carried out a quality assessment on all selected articles using the modified assessment tools described by Kitchenham and Stuart (2007). The quality assessment tool consisted of five items as follows: [1] topic; [2] research context; [3] methodology; [4] data collection; [5] data analysis. The assessment was scored on a 3 Likert scale from 0 to 1 with 0 indicating no, 0.5 unclear, and one indicating yes, adapted from Alsolai and Roper (2020). The quality assessment guides the reviewers to include only good and moderate scored papers by scoring one point for each assessment question with a maximum score of 4 to 5 representing good quality, moderate quality with a score of 2 to 3.5, and low quality of 0 to 1.5. Next, two independent reviewers conducted data extraction and the results were present in the following section.

Data Extraction

Two independent reviewers conducted data extraction. The data extraction was performed based on the research questions in which any data from the reviewed papers that could answer the research questions were extracted and put into a table. First, the reviewers came up with risk factors of academicians in general. Then, the risk factors were divided into two: individual risk factors and job risk factors. The risk factors were divided based on the reading from past studies. The categories under the individual risk factors and job risk factors were categorised from reading knowledge and numerous systematic literature reviews by previous scholars (Shaffril, Ahmad, Samsuddin, Samah, & Hamdan, 2020; Tai, Ng, & Lim, 2019; Wuthrich, Jagiello, & Azzi, 2020).

Results

Results of the Search

Based on a comprehensive database search, 1127 findings were identified. Two reviewers identified and eliminated 151 duplicate articles during the first screening process. Next, detailed screening of research titles and abstracts was carried out to exclude another 938 articles from the remaining findings. The process was followed by filtering the remaining full-text articles based on the outlined inclusion and exclusion criteria. Finally, based on the outlined criteria, the reviewers exclude another 23 findings that did not fulfil the inclusion criteria. Thus, the final step of the selection strategy is left with 11 articles that meet all the inclusion criteria.

Quality of the included studies

Two independent reviewers conducted a quality assessment of each included study. As a result, the following eight studies were rated as good quality: Ahsan, Abdullah, Fie, and Alam (2009); Al-Kahtani (2017); Ekawarna and Kohar (2019); Kaewanuchit (2015, 2017); Kaewanuchit, Muntaner, and Isha (2015); Noor and Ismail (2016); Nur Aqilah and Juliana (2012), and three studies were rated as moderate quality articles: Gunawan et al. (2018); Ismail, Abd Rahman, and Zainal Abidin (2014); Kang and Sidhu (2015). Figure 1 illustrates the PRISMA flow diagram for the included and excluded studies.

Location and Setting

Four studies were conducted in Malaysia (Ahsan et al., 2009; Ismail et al., 2014; Noor & Ismail, 2016; Nur Aqilah & Juliana, 2012), three studies were conducted in Thailand (Kaewanuchit, 2015, 2017; Kaewanuchit et al., 2015), two studies were conducted in Indonesia (Ekawarna & Kohar, 2019; Gunawan et al., 2018), and one study was conducted in India (Kang & Sidhu, 2015) and Saudi Arabia (Al-Kahtani, 2017) respectively.

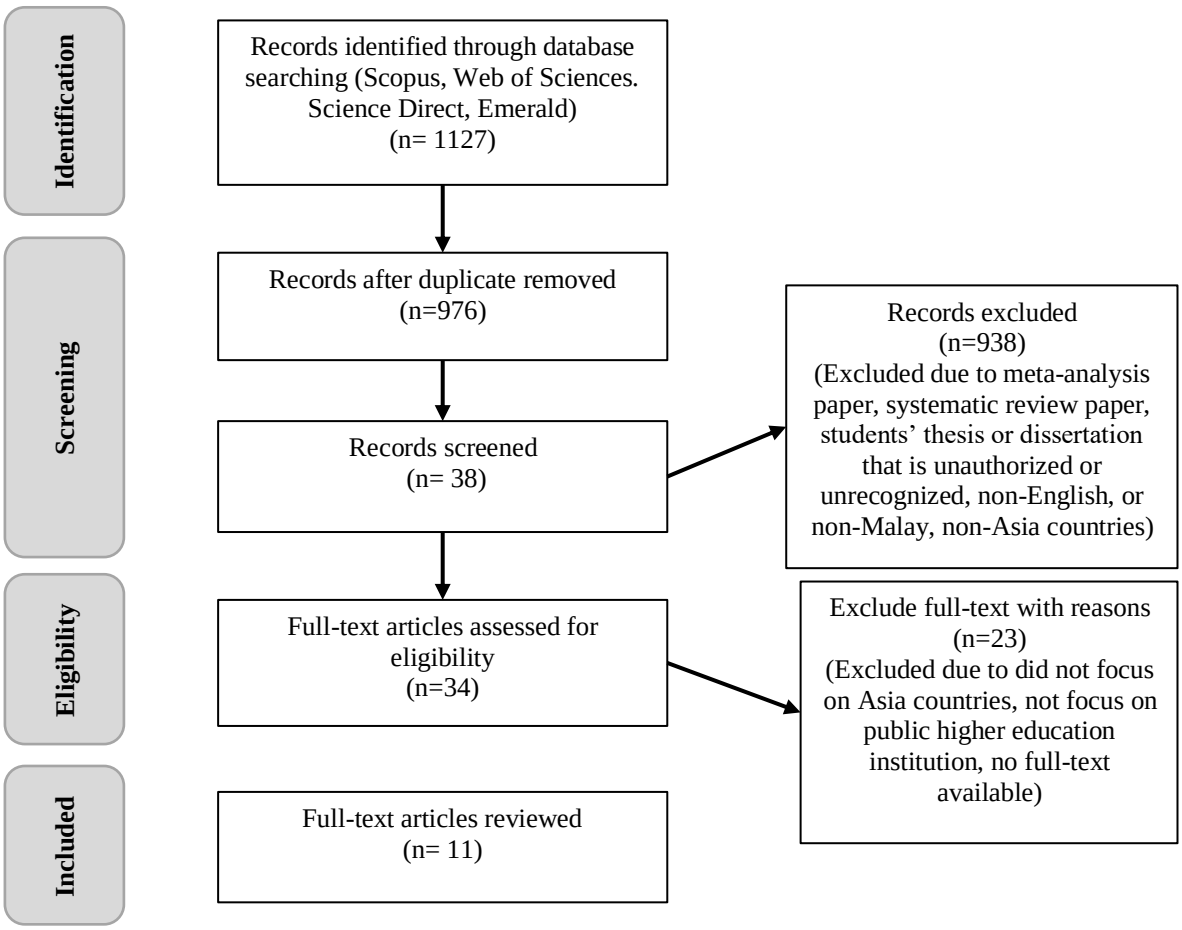

Figure 1 Flow diagram for Inclusion and Exclusion studies

Risk Factors of Job Stress

The risk factors associated with job stress can be divided into individual and job factors (see Table 1).

Individual risk factors

The individual factors include age (Al-Kahtani, 2017), family/life (Ahsan et al., 2009; Ekawarna & Kohar, 2019; Gunawan et al., 2018; Kaewanuchit, 2015; Kaewanuchit et al., 2015), gender (Al-Kahtani, 2017; Nur Aqilah & Juliana, 2012), health problems (Gunawan et al., 2018), personal feeling (Kang & Sidhu, 2015), religion/spirituality (Gunawan et al., 2018), and working experience (Kaewanuchit, 2015; Kaewanuchit et al., 2015).

Four selected articles identified age as a non-risk factor of job stress among academicians (Gunawan et al., 2018; Ismail et al., 2014; Noor & Ismail, 2016; Nur Aqilah & Juliana, 2012). An article by Al-Kahtani (2017) discovered that age is a predictor of job stress. The study reported that the younger academicians suffered a high-stress level than the older academicians due to their inadequacy. Factors such as lack of knowledge, skill, or capabilities to execute a specific task at work have caused younger academicians to show a higher stress level in Saudi Arabia (Al-Kahtani, 2017).

Family and personal life situations are also associated with academicians' job stress. For example, issues at home, low family support, unhealthy lifestyles, stressful life event, and conflict between family and work have a positive direct effect on job stress (Ahsan et al., 2009; Ekawarna & Kohar, 2019; Gunawan et al., 2018; Kaewanuchit, 2015; Kaewanuchit et al., 2015). A study conducted in Thailand reported that being a home leader has caused academicians to experience stress at work (Kaewanuchit, 2015). In addition, studies from Kaewanuchit (2015) and Kaewanuchit et al. (2015) have shown that limited support from family has led to job stress.

Another risk factor of academicians' job stress is gender. Although four selected articles recorded the prevalence of stress among females is higher than the male counterpart; however, there is no relation or effect of gender on stress among the academicians (Gunawan et al., 2018; Ismail et al., 2014; Kaewanuchit, 2015; Noor & Ismail, 2016). On the other hand, two studies by Nur Aqilah and Juliana (2012) and Al-Kahtani (2017) conducted in Malaysia and Saudi Arabia found a direct effect of gender on job stress. The findings reported females was having a higher stress level than males.

Next, health issues emerged as the fourth outcome measure for individual-risk factors. Job stress may cause health-related problems and vice versa. Among academicians in a public higher education institution in Indonesia, psychological health issues positively correlate with job stress (Gunawan et al., 2018). In this study, the psychological health issue among academicians is related to the mental-emotional disorder.

Personal feeling is another outcome measure for individual risk factors. According to Kang and Sidhu (2015), academicians' ability to do their jobs has deteriorated since they have become less competent or qualified. The inadequate competencies of university teachers have caused the academicians to build a personal feeling that leads to stress at work. Factors such as feeling their colleague or student are superior in some aspects, unable to use technologies in teaching, or feeling not trained enough to perform their job are causing stress among the academicians in

India's public universities (Kang & Sidhu, 2015).

In terms of individual risk factors under the spirituality domain, lack of control over one's desire, low level of self-worth, and lacking connection with others may result in job stress (Gunawan et al., 2018). On the other hand, the meaning, understanding, uncertainty, and inner peace related to spirituality show no impact on stress. Nevertheless, a study conducted by Ismail et al. (2014) found no correlation between religion/spirituality with job stress in a public higher education institution.

Finally, two studies in Thailand show that academicians with more working experience tend to suffer a high stress level (Kaewanuchit, 2015; Kaewanuchit et al., 2015).

Job risk factors

The job factors include job control (Ismail et al., 2014; Kang & Sidhu, 2015; Nur Aqilah & Juliana, 2012), job demand (Ahsan et al., 2009; Ismail et al., 2014; Kang & Sidhu, 2015; Noor & Ismail, 2016; Nur Aqilah & Juliana, 2012), job insecurity (Ismail et al., 2014), role stress (Ahsan et al., 2009; Al-Kahtani, 2017), work condition (Al-Kahtani, 2017; Kaewanuchit, 2015, 2017; Kaewanuchit et al., 2015; Kang & Sidhu, 2015), workload/work overload (Ahsan et al., 2009; Al-Kahtani, 2017; Kaewanuchit, 2017; Kang & Sidhu, 2015; Noor & Ismail, 2016), wages/pay (Kaewanuchit et al., 2015), and work relationship (Ekawarna & Kohar, 2019; Ismail et al., 2014; Kang & Sidhu, 2015).

Inability to use skills executing tasks and having authority in making decisions causes high stress among academicians (Ismail et al., 2014; Kang & Sidhu, 2015; Nur Aqilah & Juliana, 2012). According to Ismail et al. (2014), the organisation made almost all decisions at work, and no opportunity was given to academicians in having the freedom of speech when providing opinions had cause stress among academicians. Moreover, academicians experienced job stress when they feel powerless and helpless as they no longer had any control over their role as members of organisations (Kang & Sidhu, 2015).

One of the most crucial risk factors of job stress among academicians is job demand. Four studies conducted in Malaysia and one study in India found job demand as significant positive factors of job stress (Ahsan et al., 2009; Ismail et al., 2014; Kang & Sidhu, 2015; Noor & Ismail, 2016; Nur Aqilah & Juliana, 2012). The job demands reported from the studies are performance pressure, the obligation to follow the rules and procedures, challenging and dull jobs, and career development as in rank promotion.

Next, only one study from the selected articles identified job insecurity as a risk factor for job stress (Ismail et al., 2014). Although most respondents had low job insecurity, a significant percentage of academicians are still experiencing high job insecurity (Ismail et al., 2014). This could be due to academicians' lack of on-the-job experience and training, which causes them to lose confidence in their abilities. Nevertheless, a study by Nur Aqilah and Juliana (2012) reported job insecurity as a non-risk factor of job stress among academicians in a public higher education institution.

Role stress such as role ambiguity, role isolation, inter-role distance, role stagnation, role expectation conflict, role erosion, and self-role distance was reported as significant positive stressors for the academician's job stress (Ahsan et al., 2009; Al-Kahtani, 2017). The study conducted in Saudi Arabia also discovered the differences of role stress based on gender and found that females suffered higher role stress in all variables except for role erosion (Al-Kahtani, 2017). Regardless of that, a

study by Ahsan et al. (2009) reported management role conflict as insignificant to academicians' job stress.

Work condition emerged as the fifth outcome measure. According to Al-Kahtani (2017); Kaewanuchit (2015, 2017); Kaewanuchit et al. (2015); Kang and Sidhu (2015), some examples of job stress among academicians causes by the working condition are unpleasant working conditions, lack of teaching resources, bad physical working conditions, not enough infrastructure, and a packed timetable. The studies also reported that work conditions directly affect stress and are one of the critical risk factors that cause high stress to academicians.

In public higher education institutions, workload/work overload was a significant source of job stress among academicians (Ahsan et al., 2009; Al-Kahtani, 2017; Kaewanuchit, 2017; Kang & Sidhu, 2015; Noor & Ismail, 2016). For example, a study by Al-Kahtani (2017) reported that younger employees experienced a higher workload than senior employees as they need to fulfil demands from various levels of employees. Moreover, other studies have found teaching, research, and academic service tasks as work overload, causing academicians a lot of stress. These are reflected in the number of hours and quantity of teaching, developing course content, marking papers for exams, conceptualising research problems, accessing the literature for research, and stringent performance requirements (Kaewanuchit, 2017; Kang & Sidhu, 2015; Noor & Ismail, 2016).

Wages/pay is another outcome measure for job-risk factors. Based on a study conducted by Kaewanuchit et al. (2015) in Thailand, wages/pay negatively correlate with job stress. In other words, low wages/pay will cause higher stress among academicians in public higher education institutions. Nonetheless, studies conducted in the same year have identified wages as a non-risk job stress factor (Kaewanuchit, 2015; Kang & Sidhu, 2015).

Finally, According to Ekawarna and Kohar (2019); Ismail et al. (2014); Kang and Sidhu (2015), poor relationship with top management, colleagues, and students causes high stress at the workplace.

Some of the factors that created unpleasant relationships at public higher education institutions are low social support from top management, poor quality students from the university, and a negative perception of organisational politics. Nevertheless, three studies in Malaysia had identified work relationship as a non-significant factor of academicians job stress (Ahsan et al., 2009; Noor & Ismail, 2016; Nur Aqilah & Juliana, 2012).

Discussion

This review aimed to understand the individual and job risk factors of stress at the workplace among academicians in public higher education institutions in Asia. When compared to other individual outcome variables, age, health problems, personal feelings, and spirituality appear to be non-crucial stress factors. Only three research, conducted in India, Indonesia, and Saudi Arabia, show that the outcome measures mentioned above are important stress factors (Al-Kahtani, 2017; Gunawan et al., 2018; Kang & Sidhu, 2015). The findings may indicate that each individual has a unique personality and may react to situations based on their characteristics (Suls & Martin, 2005). Nevertheless, family or personal life situations were the most significant risk factors for individual-related stress. According to Russo and

Table 1
Table of summary

NO	AUTHOR (YEAR)	COUNTRY	STUDY SAMPLE	INDIVIDUAL RISK FACTORS	JOB RISK FACTORS
1.	Ahsan et al. (2009)	Malaysia	n = 203	Family/life	Job demand, role stress, workload/work overload
2.	Nur Aqilah and Juliana (2012)	Malaysia	n = 61	Gender	Job control
3.	Ismail et al. (2014)	Malaysia	n = 189	-	Job control, job insecurity, work relationship
4.	Kaewanuchit (2015)	Thailand	n = 2000	Family/life, working experience	Work condition
5.	Kaewanuchit et al. (2015)	Thailand	n = 2000	Family/life, working experience	Work condition, wages/pay
6.	Kang and Sidhu (2015)	India	n = 570	Personal Feeling	Job control, work condition, workload/work overload, work relationship
7.	Noor and Ismail (2016)	Malaysia	n = 308	-	Job control, workload/work overload
8.	Al-Kahtani (2017)	Saudi Arabia	n = 546	Age, Gender,	Role stress, work condition, workload/work overload
9.	Kaewanuchit (2017)	Thailand	n = 500	-	Work condition, workload/work overload
10.	Gunawan et al. (2018)	Indonesia	n = 330	Family/life, health problems, religion/spirituality	-
11.	Ekawarna and Kohar (2019)	Indonesia	n = 192	Family/life	Work relationship

Vitaliano (1995), job stress will occur as a result of significant life problems at home, such as issues at home, low family support, unhealthy lifestyles, stressful life event, and conflict between family and work (Ahsan et al., 2009; Ekawarna & Kohar, 2019; Gunawan et al., 2018; Kaewanuchit, 2015; Kaewanuchit et al., 2015).

For job-risk factors, it appears that workload/work overload, job demand, and working conditions were the most important factors that cause stress among academicians. According to Erat, Kitapci, and Comez (2017), the number of higher education institutions and students has soared significantly compared to previous years. Nonetheless, the number of academicians has not gone up at the same rate and causes them to shoulder extra tasks, leading to work overload. Demand by the organisation regarding performance pressure, formalities, and job promotion (Ahsan et al., 2009; Kang & Sidhu, 2015; Noor & Ismail, 2016) does not make the situation better. This is because the academics are required to perform multi-duties such as teaching, doing research, and performing management tasks (Kaewanuchit, 2017; Kang & Sidhu, 2015; Noor & Ismail, 2016) at the same time. Additionally, unpleasant working conditions such as lack of teaching resources, bad physical working conditions, and not enough infrastructure (Al-Kahtani, 2017; Kaewanuchit, 2015, 2017; Kaewanuchit et al., 2015; Kang & Sidhu, 2015) worsen the situation by causing a soar in academicians' stress. According to Ahsan et al. (2009), the academic institution's failure to prepare a healthy working environment may lead to more future issues, especially for the academicians' job performance.

Overall, job stress risk factors are more critical than individuals themselves. Based on the past studies, we found that job factors have been reported nearly twice as compared to individual factors (Ahsan et al., 2009; Al-Kahtani, 2017; Ekawarna & Kohar, 2019; Gunawan et al., 2018; Ismail et al., 2014; Kaewanuchit, 2015, 2017; Kaewanuchit et al., 2015; Kang & Sidhu, 2015; Noor & Ismail, 2016; Nur Aqilah & Juliana, 2012). On top of that, Erkutlu, Chafra, and Bumin (2011) identified that a high degree of job stress may lead to a high degree of staff turnover and may further result in a high cost of training and trouble maintaining the service quality of academicians.

To address these issues, stress-management interventions on both individual and organisational level are suggested to overcome employees' stress. For example, promoting relaxation techniques (e.g. progressive muscle relaxation, autogenic training and meditation) helps reduce stress and calm the mind. In addition, conducting health promotion programs, staff appreciation and changing the design, management and organisation of work may also help reduce employee stress. Nevertheless, the employees need to be more proactive in attending and cooperating with the programs and efforts provided by their institutions or government to improve their mental health.

Conclusion

To summarise, both institutions and educators are responsible for handling stress at the workplace. As reported in the review, individual risk factors (age, family/life, gender, health problems, personal feeling, religion/spirituality, working experience) and job risk factors (job control, job demand, job insecurity, role stress, work condition, workload/work overload, wages/pay, work relationship) are associated with stress among academicians in public higher education institutions in Asia. Furthermore, we found that it is hard to perform a task and achieve job satisfaction at the same time when dealing with various degrees of stress. Therefore,

by understanding the individual risk factors and job risk factors from this review, both academicians and higher institutions can explore and develop suitable interventions or programs to manage stress.

References

Ahsan, N., Abdullah, Z., Fie, D. Y. G., & Alam, S. S. (2009). A Study of Job Stress on Job Satisfaction among University Staff in Malaysia: Empirical Study. *European Journal of Social Sciences, 8*(1), 121-131.

Al-Kahtani, N. S. (2017). Organisational Role Stress among University Academic Staff: Reflect and Influence. *Man in India, 97*(10), 197-210.

Alsolai, H., & Roper, M. (2020). A systematic literature review of machine learning techniques for software maintainability prediction. *Information and Software Technology, 119*, 106214. doi:https://doi.org/10.1016/j.infsof.2019.106214

Blix, A. G., Cruise, R. J., Mitchell, B. M., & Blix, G. G. (1994). Occupational stress among university teachers. *Educational Research, 36*(2), 157-169.

Ekawarna, & Kohar, F. (2019). The Effect of Perception of Organisational Politics and Work-Family Conflict on Job Stress and Intention to Quit: The Case of Adjunct Faculty Members in One State University. *International Journal of Scientific and Technology Research, 8*(10), 322-333.

Erat, S., Kitapci, H., & Comez, P. (2017). The effect of organisational loads on work stress, emotional commitment, and turnover intention. *International Journal of Organizational Leadership, 6*(2), 221-231. doi:10.33844/ijol.2017.60304

Erkutlu, H., Chafra, J., & Bumin, B. (2011). Organizational Culture's Role in the relationship between Power Bases and Job Stress. *Hacettepe Universitesi Egitim Fakultesi Dergisi-Hacettepe University Journal of Education*(40), 198-209.

Gunawan, E., Deo, P., Hidayat, T., Pandia, V., Iskandar, S., Yuni, P. S., . . . Sidi, H. (2018). Factors Correlated with Occupational Stress among University Lecturers. *Medicine and Health-Kuala Lumpur, 13*(2), 95-102. doi:10.17576/mh.2018.1302.9

Ismail, N., Abd Rahman, A., & Zainal Abidin, E. (2014). Organisational Factors Associated with Occupational Stress among Lecturers in Community Colleges, Peninsular Malaysia. *Iranian Journal of Public Health, 43*, 125-130.

Kaewanuchit, C. (2015). A Study of Causal Relationship of Occupational Stress among Male Academic University Employees in Thailand. *Pertanika Journal of Social Sciences and Humanities, 23*(4), 1243-1256.

Kaewanuchit, C. (2017). A Psychosocial Occupational Stress Modal Among Academic Employees in Thai Government Universities under Job Conditions. *Malaysian Journal of Public Health Medicine, 17*(1), 24-32.

Kaewanuchit, C., Muntaner, C., & Isha, N. (2015). A Causal Relationship of Occupational Stress among University Employees. *Iranian Journal of Public Health, 44*(7), 931-938.

Kang, L. S., & Sidhu, H. (2015). Identification of Stressors at Work: A Study of University Teachers in India. *Global Business Review, 16*(2), 303-320. doi:10.1177/0972150914564421

Kitchenham, B., & Stuart, C. (2007). Guidelines for performing Systematic Literature Reviews in Software Engineering. *2*.

Liberati, A., Altman, D., Tetzlaff, J., Mulrow, C., Gøtzsche, P., Ioannidis, J., . . . Moher, D. (2009). The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration. *Journal of clinical epidemiology, 62*, e1-34. doi:10.1016/j.jclinepi.2009.06.006

Lockwood, C., Munn, Z., & Porritt, K. (2015). Qualitative research synthesis: Methodological guidance for systematic reviewers utilising meta-aggregation. *International journal of evidence-based healthcare, 13*. doi:10.1097/XEB.0000000000000062

Mukosolu, O., Ibrahim, F., Rampal, L., & Ibrahim, N. (2015). Prevalence of job

stress and its associated factors among Universiti Putra Malaysia staff. *Malays J Med Health Sci, 11*(1), 27-38.

Muraale, S., Basit, A., & Hassan, Z. (2017). Impact of job stress on employee performance. *International Journal of Accounting and Business Management, 5*(2), 13-33.

Noor, A., & Ismail, N. H. (2016). Occupational Stress and its Associated Factors among Academician in a Research University, Malaysia. *Malaysian Journal of Public Health Medicine, 16*(1), 81-91.

Nur Aqilah, M. Y., & Juliana, J. (2012). Association between Occupational Stress and Respiratory Symptoms among Lecturers in Universiti Putra Malaysia. *Global journal of health science, 4*(6), 160-169. doi:10.5539/gjhs.v4n6p160

Panatik, S., Rajab, A., Shaari, R., Shah, I. M., Rahman, H. A., & Badri, S. (2012). *Impact of work-related stress on well-being among academician in Malaysian Research University.* Paper presented at the International conference on education and management innovation.

Russo, J., & Vitaliano, P. P. (1995). Life events as correlates of burden in spouse caregivers of persons with Alzheimer's disease. *Exp Aging Res, 21*(3), 273-294. doi:10.1080/03610739508253985

Schulz, J. (2013). The impact of role conflict, role ambiguity and organisational climate on the job satisfaction of academic staff in research-intensive universities in the UK. *Higher Education Research & Development, 32*(3), 464-478.

Shaffril, H. A. M., Ahmad, N., Samsuddin, S. F., Samah, A. A., & Hamdan, M. E. (2020). Systematic literature review on adaptation towards climate change impacts among indigenous people in the Asia Pacific regions. *Journal of Cleaner Production, 258*, 120595.

Suls, J., & Martin, R. (2005). The Daily Life of the Garden-Variety Neurotic: Reactivity, Stressor Exposure, Mood Spillover, and Maladaptive Coping. *Journal of Personality, 73*(6), 1485-1510. doi:https://doi.org/10.1111/j.1467-6494.2005.00356.x

Tai, K. L., Ng, Y. G., & Lim, P. Y. (2019). Systematic review on the prevalence of illness and stress and their associated risk factors among educators in Malaysia. *PloS one, 14*(5), e0217430.

Wuthrich, V. M., Jagiello, T., & Azzi, V. (2020). Academic Stress in the Final Years of School: A Systematic Literature Review. *Child Psychiatry Hum Dev, 51*(6), 986-1015. doi:10.1007/s10578-020-00981-y