

The Association between Insomnia & Stress Levels among Faculty of Health Sciences Students
(*Perkaitan antara Insomnia dan Tahap Tekanan di Kalangan Pelajar Fakulti Sains Kesihatan*)

AZRIN NATASHA AMIN, SHARIFAH NADRAH SYED IDRUS, FAZLIN HAZIRAH MOHD,
NUR IZZATI NADIAH NOR AZMAN, NURUL FADHILAH SAFRINA HAMZAH, SITI
HASMAHIDAYAH HASWADI & SITI SHAHARA ZULFAKAR*

ABSTRACT

University students are more susceptible to insomnia due to the stress from academic, social and other physical factors surrounding their studies. This study was conducted to ascertain and compare the prevalence of insomnia and stress levels among the students from the Faculty of Health Sciences, Universiti Kebangsaan Malaysia, and to study the association between stress and insomnia. Results from the *Perceived Stress Scale* (PSS) score found that 79.01% of the respondents reported moderate stress, in which the highest stress level was found among the 3rd Year students with a mean PSS Score of 19.5 ± 5.36 . No significant difference between the stress levels among different academic years was detected. By utilising the *Insomnia Severity Index* (ISI), less than half of the students were clinically insomniacs, in which 54.73% of the students reported no clinically significant insomnia while 32.10% and 13.7% suffer from subthreshold insomnia and clinical insomnia (moderate severity), respectively. There exists a statistically significant difference ($p < 0.05$) between the insomnia scores among different academic years, with the highest mean ISI score obtained by 2nd Year Students (9.16 ± 5.68). The results indicate a medium positive correlation between insomnia and stress level, as $r = 0.33$, $p < 0.001$. The findings from this study will help develop stress management strategies to maximise the quality and quantity of sleep among university students.

Keyword: University, Students, Insomnia, ISI, PSS, Stress.

ABSTRAK

Pelajar universiti adalah lebih terdedah kepada insomnia disebabkan oleh tekanan akademik, sosial dan faktor fizikal yang lain sepanjang tempoh pengajian mereka. Kajian ini dijalankan bagi mengenalpasti dan membandingkan kelaziman insomnia serta tahap tekanan dalam kalangan pelajar Fakulti Sains Kesihatan, Universiti Kebangsaan Malaysia di samping mengkaji perkaitan di antara tahap tekanan dan insomnia. Hasil daripada analisis Skala Tekanan yang Dirasakan (PSS) mendapati bahawa 79.01% pelajar telah dilaporkan mengalami tekanan sederhana di mana tahap tekanan yang tertinggi telah dikenalpasti dalam kalangan pelajar Tahun 3 dengan skor min PSS 19.5 ± 5.36 . Tiada perbezaan yang signifikan pada tahap tekanan dalam kalangan pelajar mengikut tahun pengajian. Hasil penggunaan Indeks Keterukan Insomnia (ISI), kurang daripada separuh pelajar mempunyai insomnia di mana 54.73% daripada pelajar dilaporkan tiada insomnia yang signifikan secara klinikal manakala 32.10% dan 13.7% pelajar telah dilaporkan mempunyai insomnia subambang dan insomnia klinikal (keterukan sederhana) secara berturutan. Terdapat perbezaan yang signifikan secara statistik ($p < 0.05$) bagi skor insomnia mengikut tahun pengajian, dengan skor min ISI tertinggi yang diperolehi oleh Pelajar Tahun 2 (9.16 ± 5.68). Hasil analisis telah menunjukkan korelasi positif sederhana di antara tahap insomnia dan tekanan dengan nilai $r = 0.33$, $p < 0.001$. Penemuan daripada kajian ini adalah berguna dalam pengembangan strategi pengurusan tekanan yang bertujuan untuk memaksimumkan kualiti dan kuantiti tidur dalam kalangan pelajar universiti.

Kata Kunci: Universiti, Pelajar, Insomnia, ISI, PSS, Tekanan.

INTRODUCTION

According to Salam et al. (2013), stress can be defined as a condition that reduces the quality of one's physical and mental state due to having to adjust to the social and physical demands from their surroundings. It is also reflective of how one appraises success. (Bhujade 2017; Yikealo et al. 2018). Among college students, stress is one of the prevailing mental health issues faced in which students commonly self-report experiencing ongoing stress throughout their education in what is referred to as 'academically related stress' (Pascoe et al. 2020). University students experience several life changes that could impose stress upon their lives; detachment from home, shift in peer groups, increased independence, new social conditions, pressing academic responsibilities and accessibility to alcohol and recreational drugs are some of the prominent and common stressors (Taylor et al. 2013).

Meanwhile, insomnia can be defined as the individual's complaint of having sleeping difficulties (Roth 2007). According to Drake et al. (2014), insomnia can be defined as a type of clinical disorder characterised by chronic difficulty in initiating or sustaining sleep, which is associated with significant daytime impairment or distress. There have been numerous studies regarding different patterns of sleep difficulties among college students (Lemma et al. 2012; Lund et al., 2010; Suen et al. 2010). Many university students have been reported to experience poor sleep due to academic stress, which reflects poorly on academic performance and wellbeing (Lund et al. 2010). Gaultney (2010) determined that 27% of all university students are at risk of at least one sleep disorder. Severe insomnia issues and stress among university students causes them to face the problem of not being able to sleep at night and will suffer from fatigue the next day.

Although insomnia has several causal factors, psychological job stress is closely related to the development of insomnia (Nishitani et al. 2010). A study conducted by Kim et al (2011) on the association between job stress and insomnia in Korean workers had found that individuals under tremendous stress were significantly more frequent to suffer from insomnia than those who are not. Exposure to stress is also a known stimulant for insomnia (Pillai et al. 2014). The same study also found that about 60% of college students suffer from poor sleep quality, with 7.7% of that number fitting all the criteria for insomnia. A recent study by Alsaggaf et al. (2016) found a significant association between stress and sleep quality as well as insomnia among medical students. According to Ellis et al. (2012), insomnia may occur when an individual's

stress-response threshold is exceeded, which is also influenced by the chronicity of the encountered stressors.

Previous studies concerning insomnia present varying results, with the prevalence higher among a certain group of individuals than others. Studies on the prevalence of insomnia among university students, in general, have identified it as a growing disorder with several causative factors. While insomnia has been assessed based on several factors, different academic years have not been fully explored. Increasing stress levels and insomnia symptoms should be viewed as a concerning predicament and should be further studied. Moreover, the prevalence of insomnia and the level of stress among health science students have not yet been explored in depth. The uncertainty of previous data can only be seen as a stimulant to drive this study, as more research must be conducted to ascertain a clearer picture of the association between stress and insomnia among students in the field of health sciences. This study will offer insight into the current situation faced by the health sciences students regarding insomnia symptoms and whether there is an association with stress.

MATERIALS AND METHODS

This study has adopted a cross-sectional study design that utilised a questionnaire distributed to students from Year 1 to Year 4 of Faculty of Health Sciences, Universiti Kebangsaan Malaysia (UKM), with a total population of 1355 students. The sample size representative of the students in this study was 299 based on Krejciek and Morgan's sample size calculation. The study was conducted from March 2020 to May 2020.

Two separate questionnaires were utilised in this study. The *Insomnia Severity Index* (ISI) was used as an assessment tool for insomnia in this study to determine the prevalence of insomnia among targeted respondents (Morin et al. 2011). Meanwhile, the stress level was determined using the established *Perceived Stress Scale* (PSS), developed by Sheldon Cohen in 1983. Demographic information was obtained through a separate section of the questionnaire adapted from the questionnaire used in a study by Barakat et al. (2016) that asked for participant's demographic information. The combined questionnaire consisted of three parts: the demographic section, ISI and PSS. The questionnaire was distributed via Google Form Application to the respondents, with informed consent from all the participants prior to participation in the study. The confidentiality of the information collected and the respondent's anonymity was assured.

The ISI consists of seven items that assess the participant's sleep pattern during the past two weeks. Through this questionnaire, the questions were evaluated based on the severity of insomnia symptoms which encompasses severity of sleep onset, issues of early morning awakening, sleep maintenance, sleep dissatisfaction, noticeability of sleep problems by others and interference of sleep difficulties with daytime functioning. The scores obtained were based on a rating from a 5-point Likert scale (e.g. 0 = very satisfied, 4 = very dissatisfied), which amounts to a total score ranging from 0 to 28. Following the respondent's

answer for each question, the scores are totalled and interpreted based on the tool's 'Guidelines for Scoring/ Interpretation' to categorise their insomnia severity. The total scores were categorised as follows: no clinically significant insomnia (0-7), subthreshold insomnia (8-14), clinical insomnia (moderate severity) (15-21) and clinical insomnia (severe) (22-28). A high ISI score indicates more severe sleep difficulties and a greater presence of an insomnia disorder.

The *Perceived Stress Scale* (PSS) consists of ten questions that assess respondents' perception of stress by quantifying stress during the last month.

TABLE 1. Characteristics of the study group

Variables		Frequency	Percentage (%)
Sex	Male	35	14.64
	Female	204	85.36
Race	Malay	162	67.78
	Chinese	57	23.85
	Indian	7	2.93
	Others	13	5.44
Year	First-year	70	29.29
	Second-year	54	22.59
	Third-year	82	34.31
	Fourth-year	33	13.81
Marital Status	Single	238	99.58
	Married	1	0.42
Occupation	Unemployed	233	97.49
	Employed	6	2.51
Course	Biomedical Science	51	21.34
	Occupational Therapy	32	13.39
	Dietetic	25	10.46
	Diagnostic & Radiotherapy Imaging	25	10.46
	Physiotherapy	21	8.79
	Environmental Health & Industrial Safety	17	7.11
	Nutrition Science	15	6.28
	Speech Science	15	6.28
	Audiology	14	5.86
	Optometry & Vision Science	12	5.02
	Forensic Science	12	5.02

The items were rated based on a 5-point Likert scale which ranged from never (0) to very often (4). After participants completed the questionnaire, we calculated

the score by reversing the responses (e.g.: 0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0) for the four positively stated questions which were question 4, 5, 7, and 8 and then

summing across all scale items. The total scores were categorised as follows: low (0- 13), moderate (14-26) and high perceived stress (27-40). A high PSS score obtained is associated with high stress experienced by the participants.

The data were collected, coded, and fed into the statistical package for the Social Sciences (SPSS) Version 25. Descriptive analysis was used to analyse the data and describe the prevalence of insomnia and stress among students in different years from the Faculty of Health Sciences, UKM. For comparison of prevalence of insomnia and stress levels between students in different years from Faculty of Health Sciences, UKM, Kruskal-Wallis Test was conducted. Lastly, the association of insomnia and stress levels among students from the Faculty of Health Sciences was determined using Spearman's Rho Test. All data is considered significant when $p < 0.05$ or otherwise stated

RESULTS

The characteristics of participants in this study are as shown in Table 1. In total, 239 Faculty of Health Sciences, UKM students aged 17-29 years old and above participated in this study. It may be noted that the age range 20 to 22 years old represented the largest

percentage of respondents (67.49%). A predominant number of respondents were female ($n=207$, 85.19%), Malay ($n=166$, 68.31%) and not in a relationship ($n=242$, 99.59%). Regarding the year of academic study, demographic results found that 34.16% of the respondents were in their third year, 29.22% in their first year, 23.05% in their second year and 13.58% in their fourth year.

According to the Perceived Stress Scale (PSS) obtained by the respondents (Figure 1), more than half of the respondents reported a moderate stress level (79.01%), whereas 14.81% have low-stress levels and 6.17% reported experiencing high-stress levels. The summary of PSS scores based on students' academic years was presented in Table 2. Based on the results, most of the students from all academic years were found to have moderate stress levels. High-stress levels were reported by the First-Year students (11.30%), Second-Year students (11.06%) and Third-Year (10.82%) students, but no Fourth-Year students reported high-stress levels. It can also be observed that the Third-Year students have the highest mean PSS score (19.48 ± 5.36), followed by the Fourth-Year students who have the lowest mean PSS score (16.60 ± 6.06). However, the Kruskal-Wallis ANOVA test showed no significant difference in the PSS scores between students from different academic years ($p > 0.05$).

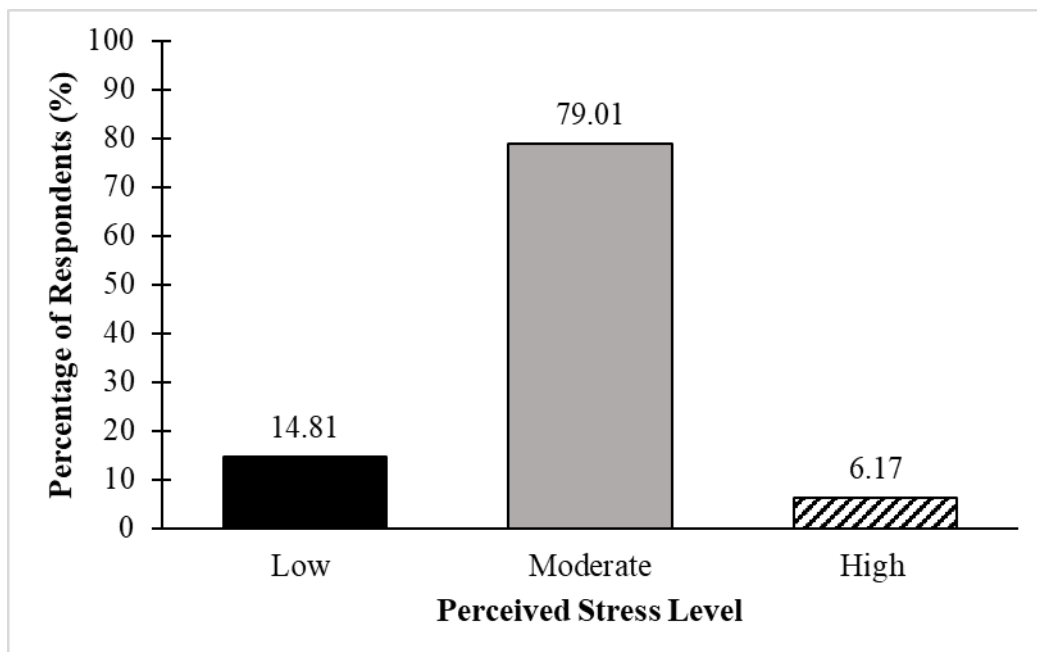


FIGURE 1. Students' stress level based on the Perceived Stress Scale

TABLE 2. Summary of Perceived Stress Scale (PSS) score based on students' academic years

Academic Year	PSS score (Mean \pm SD)	Perceived Stress Level		
		Low	Moderate	High
First Year	18.48 \pm 5.33	8.92 ^a	79.95	11.13
Second Year	19.38 \pm 5.29	5.71	83.23	11.06
Third Year	19.48 \pm 5.36	6.86	82.31	10.82
Fourth Year	16.60 \pm 6.06	11.86	88.14	0

^aPercentage (%) of respondents for each stress level category

Table 3 shows the respondents' responses for each of the PSS questionnaire items. It could be observed that most of the respondents answered 'sometimes' for each of the questions indicating a moderate control over stress experienced during the past month. This is evidenced in response to the question of whether they 'felt on top of things in the last month' in which 53.1% of the respondents felt that they were 'sometimes' able to do so. Not many respondents felt 'completely unable

to control important things in life' as less than half of the respondents (46.5%) 'sometimes' observe an inability to control to do so. The respondents possess a reasonable degree of control over irritations in their life as only 0.4% of the respondents have never been able to control this feeling. However, feelings of nervousness and stress are evident as 42.3% of the respondents reported 'sometimes' experiencing these feelings.

TABLE 3. Summary of respondents' responses from Perceived Stress Scale questionnaire items.

Perceived Stress Scale (PSS) Questionnaire items	Frequency (n)	Percentage (%)
In the last month how often you have been upset because of something that happened unexpectedly?		
Almost never	49	20.5
Fairly often	45	18.8
Never	18	7.5
Sometimes	119	49.8
Very often	8	3.3
In the last month, how often have you felt that you were unable to control the important things in your life?		
Almost never	60	25.1
Fairly often	13	5.4
Never	27	11.3
Sometimes	112	46.9
Very often	6	2.5
In the last month, how often have you felt nervous and "stressed"?		
Almost never	53	22.2
Fairly often	58	24.3
Never	9	3.8
Sometimes	102	42.7
Very often	17	7.1

In the last month, how often have you felt confident about your ability to handle your personal problems?

Almost never	23	9.6
Fairly often	88	36.8
Never	5	2.1
Sometimes	114	47.7
Very often	9	3.8

In the last month, how often have you felt that things were going your way?

Almost never	25	10.5
Fairly often	64	26.8
Never	3	1.3
Sometimes	141	59.0
Very often	6	2.5

In the last month, how often have you found that you could not cope with all the things that you had to do?

Almost never	69	28.9
Fairly often	36	15.1
Never	16	6.7
Sometimes	113	47.3
Very often	5	2.1

In the last month, how often have you been able to control irritations in your life?

Almost never	37	15.5
Fairly often	74	31.0
Never	1	0.4
Sometimes	112	46.9
Very often	15	6.3

In the last month, how often have you felt that you were on top of things?

Almost never	59	24.7
Fairly often	35	14.6
Never	15	6.3
Sometimes	128	53.6
Very often	2	0.8

In the last month, how often have you been angered because of things that were outside of your control?

Almost never	76	31.8
Fairly often	50	20.9
Never	14	5.9
Sometimes	91	38.1
Very often	8	3.3

In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Almost never	80	33.5
Fairly often	38	15.9
Never	14	5.9
Sometimes	94	39.3
Very often	13	5.4

Figure 3 shows the respondents' insomnia level based on the Insomnia Severity Index (ISI) categorisation. In general, only 54.73% were not identified as having clinically significant insomnia. Among the remaining students that were clinically identified as insomniacs, a total of 32.10% students were classified as having subthreshold insomnia, and 13.17% of students were identified as having clinical insomnia with moderate severity. None of the students were classified as having severe clinical insomnia. The summary of ISI scores based on students' academic years was presented in Table 4. More than half of the First-Year students (51.80%) reported having subthreshold

insomnia, while 21.25% were experiencing clinical insomnia with moderate severity. The distribution of respondents for sub-threshold and moderate severity insomnia categories is quite similar between Second-Year and Third-Year students. However, this trend ceases approaching the fourth year of academic study, as more than half (67.55%) had an ISI score interpreted as having no clinically significant insomnia. Based on Kruskal Wallis analysis, there was a significant difference in ISI score between academic years, with the mean ISI score was highest for the Second-Year students (9.16 ± 5.68) and lowest for the fourth year students (4.58 ± 3.00).

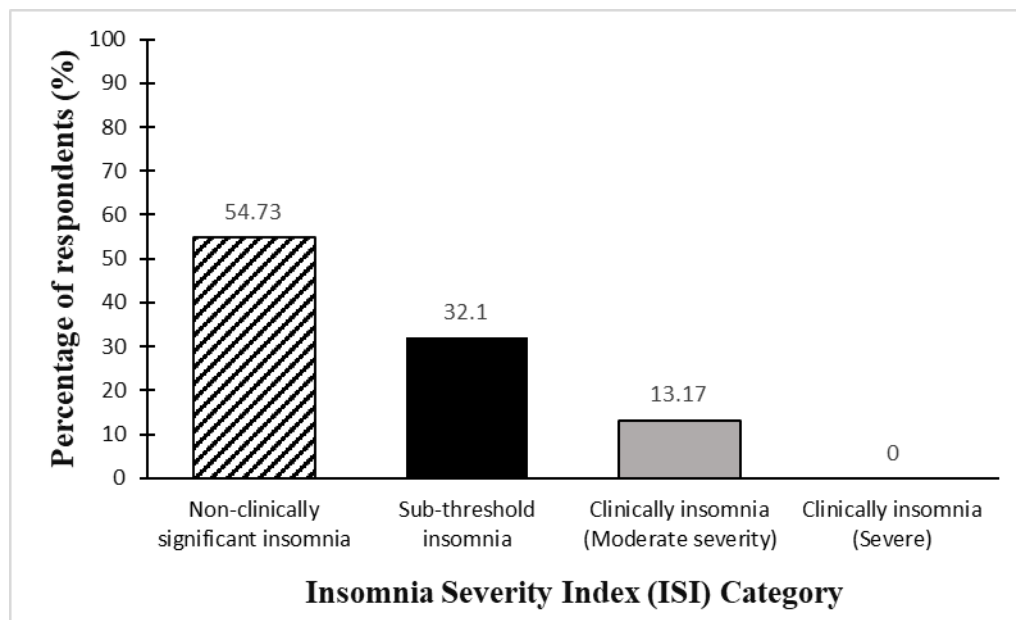


FIGURE 2. Students' insomnia category based on the Insomnia Severity Index

TABLE 4. Summary of Insomnia Severity Index (ISI) score based on students' academic years

Academic Year	ISI score (Mean ± SD)	ISI category		
		No Clinically Significant Insomnia	Sub-threshold Insomnia	Clinical Insomnia (Moderate Severity)
First Year	7.42 ± 4.27	26.94 ^a	51.80	21.25
Second Year	9.16 ± 5.68	23.98	38.99	37.04
Third Year	8.79 ± 5.38	23.56	40.55	35.89
Fourth Year	4/58 ± 3.00	67.55	32.40	0

^aPercentage of respondents for each insomnia category

Spearman Rho test result revealed a statistically significant, medium positive correlation between students' perceived stress and insomnia severity level ($r_s = 0.33$, $p < 0.001$). Table 5 presents the distribution of respondents based on their perceived stress level and insomnia severity category. As shown, 27.78% of students with lower stress levels also experienced

subthreshold insomnia. It can be noted that none of the students with low-stress levels has clinical insomnia. A total of 20% of high-stress level students were also experiencing moderate severity clinical insomnia, while 40% of high perceived stress students reported having subthreshold insomnia and no clinically significant insomnia.

TABLE 5. Distribution of respondents based on their perceived stress level and insomnia severity category.

Perceived Stress Level	Insomnia Severity Category			Total
	No Clinically Significant Insomnia	Sub-threshold Insomnia	Clinical Insomnia (Moderate Severity)	
Low	26 (72.22) ^a	10 (27.78)	0	36 (100)
Moderate	97 (51.60)	62 (32.98)	29 (15.42)	188 (100)
High	6 (40)	6 (40)	3 (20)	15 (100)
Total	129 (53.98)	78 (32.63)	32 (13.39)	293 (100)

^a Data presented in n (%)

DISCUSSION

Health sciences is a branch of interdisciplinary science concerned with the application of medicine, nutrition, environmental health and other health-related topics towards the betterment of public health. In Universiti Kebangsaan Malaysia, the subjects studied by the Faculty of Health Sciences (FSK) students comprised medically-related topics such as anatomy and physiology, biochemistry, infectious diseases, dietetics

and more. The vastness of the discipline means that health science students require a broad knowledge of skills. The breadth of their academic studies carries a degree of stress that may contribute to the development of stress-related disorders, which is purported to be insomnia (Alqudah et al. 2019).

Most university students face a lot of pressure stemming from excessive workload and stress from their family, peers, and lecturers to maintain good results and complete their assignments on time without

fail (Ganesan et al. 2018). Results from this study found that more than half of the respondents from FSK students collectively reported suffering from moderate stress, which is in line with the findings by Hamaideh et al. (2014) and Gao et al. (2020). However, no significant difference was observed in the stress level between students from different academic years. University life poses a unique developmental period of transition from adolescence into young adulthood, which can be stressful due to experiences of academic failure, moving away from home, meeting parents' expectations, limited time for rest and changes in friendship (Johari & Hassim 2009, Zhai et al. 2020). Some studies suggested that these stressors can be implicated in university students' physical and psychosocial health problems if they do not appropriately manage the struggles they face (Dol 2019).

While stress level is not high, a moderate stress level must still be investigated as persistent stress is associated with the development of physical and psychological diseases like anxiety and depression (O'reilly et al. 2014). Sidhu (2007) discusses that the prevalence of stress will depend on the individual's coping mechanisms with daily challenges. According to a study by Ganesan et al. (2018), coping mechanisms play a significant part in overcoming or reducing the stress experienced by individuals, such as exercising, meditating, and listening to music. The moderate stress level found to be present among respondents of this study can be attributed to their coping strategies. Some stress management strategies used is constant exposure to stress-inducing activities like decision making in complex situations (Salam et al. 2015). The same study also states that emotion-oriented coping assists in stress management, in which spiritual strength and socio-emotional support helps in coping and planning.

It is interesting to note that none of the Fourth-Year respondents reported to be having high perceived stress levels, which contradicts the findings from previous reports (Beiter et al. 2015, Elias et al. 2011; Loubir et al. 2014) that reported higher stress levels were found among the upperclassmen. One possible reason for this finding is that the FSK's Fourth-Year students have developed skills to manage their studies, similar to the findings by Abdulghani et al. (2011). Hence, they are better able to cope with stress than students with other academic years. Besides, most of the fourth-year respondents are currently undergoing Industrial Training, whereby most of their time is spent at their internship place, and they no longer have to experience the persistent stresses from assignments, quizzes, and other aspects of their study.

Overall results from the study showed that

more than half of the FSK students do not have clinically significant insomnia, and none reported to be having severe clinical insomnia. A study conducted by (Choueiry et al. 2016) ascertained that only a small percentage of respondents had clinical insomnia (10.6%), which is comparable to the results of this study. According to Roth (2007), there are some diagnostic criteria to be met in order to diagnose a sleep disorder as insomnia; difficulty in falling asleep, staying asleep or non-restorative sleep (despite having an opportunity to sleep), an impairment that leads to daytime sleepiness and all of the above symptoms must be experienced for a frequency of 3 times per week and once per month. Moreover, according to a study, the affected individuals may present different levels of difficulties falling asleep or maintaining sleep or some combination of these two as the result of meeting diagnostic criteria for insomnia (Floam et al. 2015).

It can also be observed that subthreshold and moderate severity insomnia was more commonly reported among the students from the lower academic years than the Fourth-Year Students. The development of sleeping problems is largely attributed to stress and anxiety at the beginning of university life, which more often than not progresses to an insomnia disorder (Taylor et al. 2013). Generally, it is found that stressors contributing to the development of insomnia differs at the initial stage of enrolment and nearing the end of their undergraduate studies. A study by Barakat et al. (2016) which also reported that insomnia was more prevalent during the initial years of tertiary education, discussed that stress during the early years of study is mainly due to academic and social factors. Physical and mental workload has also been noted to affect the sleep performance of individuals (Kageyama et al. 2001). Depending on the workload in different years, students are often faced with the stress of finishing assignments and meeting deadlines (Vedaa et al. 2019).

The trend from the answers given by the students indicate overall satisfaction with the sleep patterns within the last two weeks, with a majority finding that daily functioning is not hindered by any sleep problems. However, this does not negate the potential for the development of clinical insomnia as some answers indicate disturbances in sleep and falling or staying asleep that is seen as early indicators of insomnia. Alsaggaf et al. (2016) explain that the sleep pattern of early morning awakenings can be influenced by early class start times, which may contribute to shorter sleep durations experienced by some students. Currently, there is no universal pathophysiology of insomnia; however, it is mainly regarded that indications of insomnia include dissatisfaction with the frequency

and quality of sleep, difficulty falling and staying asleep, which includes regular nighttime awakenings with difficulty returning to sleep and earlier morning awakenings than desired (Levenson et al. 2015). The aforementioned characteristics are reported by a minority of the respondents.

The association between stress levels and insomnia among FSK students is prevalent, indicating that stress was moderately proportional to insomnia among FSK students. This observation is in accordance with previous studies (Barakat et al. 2016, Średniawa et al. 2019), which believes insomnia which is characterised by the lack of sleep or low sleep quality, is regularly connected to the occurrence of stress. According to a study conducted by Talala et al. (2012), insomnia and stress are related to one another. Moreover, the prevalence of insomnia in chronic terms may result in dire implications, as it is reported that there are increased levels of depression, anxiety, stress and fatigue among respondents in the chronic insomnia group, which in return results in the reduction of the life quality (Taylor et al. 2013).

According to Burke et al. (2015), lifestyle and environmental stressing factors influence the cerebral structures involved in sleep at which modulate the neuronal responses of the human brain. Sleep architecture and circadian rhythms were reported to be affected by stress due to close linkage to the Hypothalamic Pituitary Adrenal (HPA) axis (Barakat et al. 2016). Caldwell et al. (2010) has concluded that the relationship between greater mindfulness and improved sleep quality is influenced by perceived stress as a significant mediator. The students who are reported with insomnia symptoms are regularly linked to poorer academic performance. There is also a close association between stressful events with the onset of chronic insomnia, which are mediated by some predisposing personality factors (Basta et al. 2007). According to Średniawa et al. (2017), poor sleep quality could also jeopardise one's judgements to cope with stress in the right way. Hence, it is crucial to find the right solution to overcome the occurrence of stress and insomnia as it may result in detrimental effects on the health and wellbeing of the students in the long run. Introduction of various positive coping mechanisms to students, with targeted interventions for the affected students by trained psychologists or counsellors, will allow students to find different approaches that suit them, thus helping them reduce their stress levels and have a better sleep quality.

CONCLUSION

The study revealed that most Faculty of Health Sciences (FSK) students reported to be experiencing moderate stress level. However, no significant difference was observed in the stress level between different academic years. More than half of the respondents do not have any clinically significant insomnia. A significant positive medium correlation was found between stress and insomnia level. This preliminary study propels research into insomnia and stress among university students, particularly health science students who have seldom been focused. The findings from this study will also help develop stress management strategies to maximise the quality and quantity of sleep among university students. Further research on the effectiveness of the planned intervention strategies will help choose the best approach in helping the students cope and manage their sleeping quality and stress level. Precautionary measures and interventions need to be strategised to help the students cope with their stress to maintain their wellness and have a better learning experience throughout their academic years.

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Azrin Natasha Amin, Sharifah Nadrah Syed Idrus, Fazlin Hazirah Mohd, Nur Izzati Nadiah Nor Azman, Nurul Fadhilah Safrina Hamzah, Siti Hasmahidayah Haswadi & Siti Shahara Zulfakar*

Environmental Health and Industrial Safety Program,
Center for Toxicology and Health Risk Studies,
Faculty of Health Sciences,
Universiti Kebangsaan Malaysia,
Jalan Raja Muda Abdul Aziz, 50300 Kuala Lumpur, Malaysia

*Pengarang untuk surat menyurat; e-mel: sitishahara.zulfakar@ukm.edu.my

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