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ORIGINAL ARTICLE

Adult Personality and its Relationship with Stress Level and Coping Mechanism among Final Year Medical Students

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ABSTRAK

Setiap individu mempunyai sifat keperibadian sendiri dan ia adalah penting dalam menangani tekanan dan masalah dalam kehidupan seharian. Kajian ini bertujuan untuk mengkaji hubungan antara Big Five Personality Traits dengan mekanisma mengatasi tekanan di kalangan pelajar perubatan tahun akhir Universiti Kebangsaan Malaysia (UKM). Dalam kajian keratan rentas ini, 152 pelajar perubatan tahun akhir kumpulan 2017/2018 dipilih secara rawak, tidak termasuk mereka yang mempunyai penyakit kronik, berkahwin dan mengulang tahun akhir. Soal selidik yang digunakan ialah Big Five Personality Inventori dan 12-Item Soal Selidik Kesihatan Diri. Soalan terbuka digunakan untuk menentukan bagaimana responden mengatasi tekanan mereka. Data dianalisa dengan menggunakan SPSS 20.0. Agreableness adalah sifat keperibadian yang paling banyak digambarkan di kalangan pelajar, sedangkan Openess to Experience adalah yang paling sedikit. Ciri-ciri Big Five Personality Traits mempunyai kaitan yang signifikan dengan mekanisme mengatasi tekanan ($p=0.016$; $p<0.05$). Dalam mengatasi tekanan, pelajar yang mempunyai keperibadian Neuroticism didapati menggunakan mekanisme mengelak dari masalah yang dihadapi, manakala pelajar dengan keperibadian Extraversion mengamalkan mekanisma aktif dalam mengatasi tekanan. Terdapat perbezaan yang signifikan dalam jumlah skor stres dengan sifat keperibadian setiap individu ($p<0.001$; $p<0.05$). Walau bagaimanapun, ciri Big Five Personality Trait dan tahap tekanan seseorang pelajar tidak menunjukkan keputusan yang signifikan terhadap prestasi akademik dengan nilai p 0.359 ($p>0.05$) dan 0.94 ($p>0.05$). Mengetahui personaliti sendiri amat bermanfaat bagi pelajar perubatan tahun akhir dalam mengenal pasti mekanisme pencegahan yang paling berkesan untuk mengurangkan tekanan mereka sewaktu bergelar pelajar perubatan.

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Kata kunci: *ciri keperibadian, dewasa, gangguan emosi, mekanisme mengatasi tekanan, pelajar perubatan*

ABSTRACT

Each human being exhibits their own personality traits and each aspect of stress and coping is essential and related. The relationship between the big five personality traits, coping mechanisms and stress level among final year medical students of Universiti Kebangsaan Malaysia (UKM) was investigated in this study. In this cross-sectional study, 152 final year medical students batch 2017/2018, were randomly selected, excluding those who had chronic diseases, married and repeated final year. The questionnaires used were Big Five Personality Inventory and 12-Item General Health Questionnaire. An open-ended question was used to determine how the respondents cope with their stress. Data was analyzed using SPSS 20.0. Agreeableness was the most common personality trait portrayed among the students, whereas Openness to Experience appeared to be the least. The relationship between the Big Five Personality Traits and coping mechanisms ($p=0.016$; $p<0.05$) were significantly related. Students with Neuroticism personality had the highest rate of practicing avoidant coping mechanism, while students with Extraversion personality had the highest rate of practicing active coping mechanism. Total score of stress were significantly difference between the different personality traits ($p<0.001$; $p<0.05$). However, the p value of 0.359 ($p>0.05$) and 0.94 ($p>0.05$) for the Big Five Personality Traits and level of stress showed no significant results on academic performance. Identified own personality were beneficial for final year medical students as it helps to identify the most effective coping mechanism in reducing stress during studying medicine.

Keywords: adult, personality traits, stress disorders, coping mechanism, medical students

INTRODUCTION

Stress is a normal, necessary and unavoidable life phenomenon. Stress can give rise to short term discomfort as well as long-lived consequences for every human (Dumitru & Cozman 2012). This stress condition may affect all types of profession, including students. Students involved with medical school are perceived as being stressful because of the difficulties in the field, long period of study and the need to deal with patients. In Malaysia, stress among medical students is as high as 56%, and 41.9% of them are undergraduates who have depression-related psychological stress (Siraj et al. 2014). Coping is a regulatory process that can reduce the negative feelings resulting from stressful events (Compas et al. 2001). Coping is like the changing

of thoughts and actions to manage the external and/or internal demands for a stressful event (Lazarus 2006). Indeed, coping is a dynamic process that fluctuates over time in response to changing demands and appraisals of the situation (Moos & Holahan 2003).

Personality traits have been found to play an important role in almost every aspect of stress and coping as it is the coherent pattern of affect, cognition, and desires that leads to behaviour (Revelle & Wilt 2013). Every human exhibits their own personality traits. Identifying own personality traits is important as it portrays individual differences in characteristic patterns of thinking, feeling, and behaving in managing stress and coping (APA 2017). Personality traits are considered to be biologically based, genetic and stable, once adulthood is reached (Eysenck 1963).

The Big Five Personality Traits consists of five factors. 'Openness to experience' is a general appreciation of intellectual curiosity, creativity and a preference for novelty and variety a person has (Matthews et al. 2003). 'Conscientiousness' possesses the behaviour of hardworking, diligent, organised, responsible, dependable, and persistent (Judge & Ilies 2002). Individuals with 'extraversion' personality trait display qualities of gregariousness, excitement seeking, warmth, activity, positive emotions, assertiveness, very jovial, vocal, interactive and naturally have great social interaction (Konopaske et al. 2014). Caring, courteous, soft-hearted, tolerant and forgiving make 'agreeableness' individual an effective team player as they can maintain good interpersonal relationships (Neuman & Wright 1999). Experiencing unpleasant emotions easily, such as anger, anxiety, depression or vulnerability causing 'neuroticism' individuals to likely experience stress and emotional breakdowns when handling with a new or challenging job (Toegel & Barsoux 2012).

In an educational context, numerous studies explore the relation between the Big Five personality factors and academic performance. 'Conscientiousness', 'agreeableness' and 'openness' have persistently emerged as a stable predictor of academic performance (Poropat 2009; Chamorro-Premuzic & Furnham, 2003; Paunonen & Ashton 2001), as they are characterised by their orderly, un-superficial, and precise manner of working (Conard 2006). In contrast, 'neuroticism' which is related to emotional instability is negatively associated with academic achievement (Chamorro-Premuzic & Furnham 2003). Students high in 'neuroticism' are less likely to do well in most specialties (Sobowale et al. 2018). These findings may confirm the significance of personality traits generally even though the students' learning styles and methods still need further investigation.

Adaptive personality traits are significantly positively associated with active coping styles. For example, 'conscientiousness' predicts emotion-focused and problem-focused coping strategies like direct action, planning, positive reinterpretation and growth (Leandro & Castilo 2010). Individuals

with 'extraversion' and 'agreeableness' personality traits tend to use more adaptive forms of emotion-focused coping like active coping strategies and social support seeking (Chai & Low 2015; Watson & Hubbard 1996). 'Openness to experience' personality can only predict emotion-focused coping strategies like hostile reaction, relaxation, recurrent appraisal and then think about or plan their coping (Watson & Hubbard 1996). In contrast, maladaptive personality traits ('neuroticism') are positively associated with avoidance coping (Afshar et al. 2015), that are typically related to poorer outcome such as an increase in the end-of-day stress (Gunthert et al. 1999). These individuals use more passive or emotion-focused strategies such as escape avoidance, self-blame, wishful thinking and relaxation (Gunthert et al. 1999; Karimzade & Besharat 2011).

To date, there is still dearth of information regarding adult personality traits and their relationships to stress level and coping mechanism in Malaysia. Therefore, the aims of this study were to determine the prevalence of personality traits among the final year medical students of 2017/2018 session in Faculty of Medicine, Universiti Kebangsaan Malaysia (UKM), and to ascertain the relationship between personality traits and their stress score, the relationship between the Big Five Personality Traits and the coping mechanisms, and the relationship between the student's stress score and their academic performance.

MATERIALS AND METHODS

This was a cross-sectional study looking at the relationship between the Big Five Personality Traits and stress level, and the coping mechanisms among the final year medical students in Universiti Kebangsaan Malaysia (UKM). The study was approved by the UKM Research and Ethics Committee (Project Code JEP-2018-259). It utilised convenience sampling where all the final year medical students of 2017/2018 academic session were invited to take part in this study. The total population was 252 (N=252). The sample size required for this study (n=152) was calculated using the Krejcie & Morgan (1970) formula, which the sample size represents the total population of the study. Final year medical students having chronic diseases, married and repeating final year subject(s) were excluded from the study.

Research Tools

This study was carried out using a self-reported, validated questionnaire. The questionnaire consists of four parts; Part A, B, C and D. Part A comprised questions about demographic factors such as age, gender, race and academic performance. The academic performance was measured using the respondents' final Cumulative Grade Point Average (CGPA). The CGPA values of 2.99 and below were considered as low, 3.00-3.49 were considered as moderate, and 3.50-4.00 were considered as high.

Part B consisted of the Big Five Personality Inventory which was used

to measure the personality traits in this study. This scale was developed by John and Srivastava (1999). It consisted of 44 items grouped into five subscales: Extraversion, neuroticism, agreeableness, openness to experience, and conscientiousness. Respondents rated each item on a one (strongly disagree) to five (strongly agree) scale. The reliability for the entire scale was (a =0.70) (Afshar et al. 2015).

Part C measured the 12-Item General Health Questionnaire (GHQ-12). This scale was developed by Goldberg and Williams (1988). GHQ-12 is a consistent and reliable instrument for using in general population studies. The validity of GHQ-12 is good and it has the satisfactory internal consistency (a=0.87) (Montazeri et al. 2003). Each item was rated on a four-point scale. The system chosen to score the GHQ-12 questionnaires was GHQ scoring method (0-0-1-1) over the simple Likert scale of 0-1-2-3, as this particular method is believed to help eliminate any biases which might result from the respondents who tend to choose responses 1 and 4, or 2 and 3, respectively (Goldberg and Williams 1988). Using this method, a participant could have been scored between 0 and 12 points; a score of 4 or more was used to identify a participant with high-stress level (Yusoff et al. 2011).

Part D assessed the Coping Strategies. An open-ended question was used to determine how the respondents cope with their stress. Respondents were allowed to state only one answer they frequently used to cope with their stress. The data or response received from the respondents was analysed using content analysis. Each respondent's different ways to cope with stress were categorised into either active coping mechanisms or avoidant coping mechanisms. Activities (such as alcohol use) or mental states (such as withdrawal) that keep them from directly addressing stressful events are due to their avoidant coping mechanism, whereas the stressor itself or how one thinks about it is the change in response to their active coping mechanism either through behaviour or psychology (Holahan & Moos 1987).

Data Collection

This study was initiated by sending an email of enquiry to all the final year medical students in the Faculty of Medicine, UKM. This was to ensure that all them were aware of the study being conducted. They were then approached by the researchers and after that, eligible students who gave their consent were given a set of questionnaires. They could answer the questions at any convenient time and then were required to return the questionnaires in three days. The students sealed their completed questionnaires in the envelope provided and placed it in an identified locked box in the designated place. There were 152 students who completed the questionnaire.

Data Analysis

The data collected were tabulated and entered into IBM SPSS Statistics Software version 23.0 (Statistical

Package for the Social Sciences, IBM Corp., Armonk, NY, USA). A descriptive analysis was done where the calculation of frequency and mean was derived. Due to small sample size e.g. respondents with 'extraversion', 'conscientiousness' and 'openness' (total n less than 30), the Fisher Exact Test was used to examine the relationships between personality traits and coping mechanisms. The Kruskal-Wallis test was used to examine the relationship between personality traits and stress score due to small sample size and the outcome variable which was not normally distributed. The relationship between the levels of stress and academic performance was analysed using the Chi-Square test.

RESULTS

The sample mainly consisted of students aged 24 and 25 years with the frequency of 77 (50.66%) and 56 (36.84%), respectively. On average, they were 24.57 years (SD=0.726). The respondents mainly consisted of females (n=107, 70.4%) and Malays (n=101, 66.4%). The demographic characteristics of the respondents were tabulated (Table 1).

'Agreeableness' was the most common personality trait portrayed among the final year medical students of UKM with the frequency of 51 (33.6%), followed by 'neuroticism' at 49 (32.2%) and 'extraversion' at 43 (28.3%). Lesser students had the personality traits of 'conscientiousness' and 'openness to experience' with the frequency of 7 (4.6%) and 2 (1.3%), respectively.

In males, the most common personality found was 'agreeableness' with the frequency of 16 (36%) followed by 'extraversion' at 13 (29%). On the other hand, for females, the most common personality found was 'neuroticism' with the frequency of 38 (35%) followed by 'agreeableness' at 35 (33%). 'Agreeableness' was the most common personality trait shown among the Malays (33.7%) and Indians (48.1%). However, for Chinese (53%) and other ethnicity (80%), they frequently portrayed the personality trait of 'neuroticism'. The 24-year-old students mostly had the personality of 'neuroticism' with the frequency of 28 (36%), whereas 'extraversion'

Table 1: Demographic characteristics of respondents.

Demographic	n (%)
Gender	
Female	107 (70.4)
Male	45 (29.6)
Ethnicity	
Malay	101 (66.4)
Indian	27 (17.8)
Chinese	19 (12.5)
Others	5 (3.3)
Age	
23	3 (1.9)
24	77 (50.7)
25	56 (36.8)
26	15 (9.9)
27	1 (0.7)
CGPA	
Low	77 (50.7)
Moderate	68 (44.7)
High	7 (4.6)
Total	152 (100)

Table 2: The prevalence of personality traits according to demographic characteristics

	Agreeableness n (%)	Neuroticism n (%)	Extraversion n (%)	Conscientiousness n (%)	Openness n (%)
Gender					
Female	35 (33)	38 (35)	30 (28)	4 (4)	0 (0)
Male	16 (36)	11 (24)	13 (29)	3 (7)	2 (4)
Ethnicity					
Malay	34 (33.7)	30 (29.7)	31 (30.7)	5 (4.9)	1 (1)
Indian	13 (48)	5 (18)	8 (30)	1 (4)	0 (0)
Chinese	4 (21)	10 (53)	3 (16)	1 (5)	1 (5)
Others	0 (0)	4 (80)	1 (20)	0 (0)	0 (0)
Age					
23	1 (33.3)	1 (33.3)	1 (33.3)	0 (0)	0 (0)
24	23 (30)	28 (36)	20 (26)	5 (7)	1 (1)
25	14 (25)	19 (34)	20 (36)	2 (3)	1 (2)
26	12 (80)	1 (7)	2 (13)	0 (0)	0 (0)
27	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)

(36%) was commonly seen among the students at the age of 25 years with the frequency of 20. Out of 15 students aged 26 years, 12 students portrayed the personality of 'agreeableness' (80%). The prevalence of personality traits according to demographic characteristics were tabulated (Table 2).

Coping mechanism used towards stress showed that sharing problems with loved one was the most popular choice 27 (17.8%) among the respondents with active coping strategies. On the other hand, sleeping was the highest 29 (19.1%) avoidant coping strategies (Table 3). Students with 'neuroticism' personality had the highest rate of practicing avoidant coping mechanism (n=33, 67.3%), while students mostly applied active coping mechanism with 'conscientiousness' personality (85.7%). Table 4 showed the coping mechanism according to personality traits. By using the Fisher Exact Extension Test, the p-value (p=0.016) signified that there was a statistically significant difference between personality traits and coping mechanism used.

As shown in Table 5, there was a statistically significant difference in the total score of stress between the five types of the personality traits; $X^2(2)=40.880$, p=0.000. The mean ranks of the five personality traits showed that 'neuroticism' personality had the highest stress score (107.24) followed by 'extraversion' (70.09), 'agreeableness' (57.11), 'openness' (52.00) and 'conscientiousness' personality reporting the lowest (48.93). The Dunn's pairwise tests (p<0.005 adjusted using Bonferroni correction) were carried out to examine the location of the significant difference. Results showed that the significant difference in the stress level

Table 3: Coping Mechanism Used Towards Stress

Types of coping mechanism	Coping Strategies	n (%)
Active	Sharing problems with loved one	27 (17.8)
	Doing exercise	17 (11.2)
	Listening to music	7 (4.6)
	Being flexible	2 (1.3)
	Studying	4 (2.6)
	Praying/ Meditation	6 (4.0)
	Reflection	9 (5.9)
Avoidant	Sleeping	29 (19.1)
	Watching drama/movie	19 (12.5)
	Hanging out	18 (11.8)
	Reading novel	3 (2.0)
	Shopping	5 (3.3)
	Eating	4 (2.6)
	Playing video games	2 (1.3)
Total		152 (100)

Table 4: Relationship Between Big Five Personality Traits and Coping Mechanism

Big Five Personality Traits	Coping Mechanism		p value
	Active n (%)	Avoidant n (%)	
Agreeableness	28 (54.9)	23 (45.1)	
Neuroticism	16 (32.7)	33 (67.3)	
Extraversion	25 (58.1)	18 (41.9)	0.016
Conscientiousness	6 (85.7)	1 (14.3)	
Openness	1 (50.0)	1 (50.0)	
Total	76	76	
Test: Fisher's Exact test			

Table 5: Relationship Between Big Five Personality Traits and Coping Mechanism

	Big Five Personality Traits	N	Mean Rank	X^2	p value
Stress Score	Agreeableness	51	57.11		
	Neuroticism	49	107.24		
	Extraversion	43	70.09	40.880	0.000
	Conscientiousness	7	48.93		
	Openness	2	52.00		
	Total	152			
Test: Kruskal-Wallis H test					

Table 6: Relationship between Stress Level and Academic Performance (CGPA).

		Academic Performance (CGPA)			TOTAL n (%)	p value
		Low n (%)	Moderate n (%)	High n (%)		
Stress Level	Low	59 (51.3)	51 (44.3)	5 (4.3)	115 (100)	0.940
	High	18 (48.6)	17 (45.9)	2 (5.4)	37 (100)	
Test: Pearson Chi-Square test						

between the five types of personality traits was contributed by the three pairs of variable; 'Agreeableness-Neuroticism' (p=0.000) and 'Extraversion-Neuroticism'(p=0.000), and 'Conscientiousness-Neuroticism (p=0.007)

Students with high stress level had the highest rate of achieving low CGPA with the percentage of 48.6%, which was in the same situation as students with low stress level recording the percentage of 51.3%. High CGPA achieved mostly by students with high stress level was recorded at 5.4%. Since the p value was larger than 0.05 (p=0.94) the difference was statistically insignificant. Therefore, the relationship between stress level and academic performance among the UKM final year medical students was insignificant (Table 6).

DISCUSSION

The findings of this study indicated that maladjusted personality attributes such as 'agreeableness' and 'neuroticism' were prevalent among the students. Interestingly, we noted that 'agreeableness' was mainly contributed by males compared to females who scored highest in 'neuroticism'. 'Agreeableness' was found to be beneficial for doctors' future professional practice as the nature of their profession involves working in multidisciplinary health care team and dealing with people (Bradley et al. 2013). This manner is a crucial value for medical students to become compassionate doctors with great, soft and communication capability in the future.

Even though 'agreeableness' can bring a positive effect to certain conditions, a negative outcome can also be created from this character as it may just lead to unpleasant consequences such as untimely agreement and unquestioned submissive personality (Schermerhorn & Bond 1997). On the other hand, future doctors with 'neuroticism' are believed to undergo stress and emotional breakdowns when they come up against an unfamiliar or a demanding job. Compared to those low on the trait, a stronger relationship was seen between daily stress and negative effect for persons high in 'neuroticism' (Mirhaghi & Sarabian 2016; Virga et al. 2014; Mroczek & Almeida 2004).

A study has shown that problem-focused coping was commonly used by students with high analytical personality dimension, while socially supported coping strategies were

commonly used by those with high relational and low 'openness' personality dimension (Chai & Low 2015). Adaptive personality traits are strongly correlated with active coping styles (Afshar et al. 2015). This is similar to the findings of this study where students with 'conscientiousness' trait applied active coping mechanism in reducing their stress disorders. The significance of this study was to help final year medical students to identify their own personality traits which correlated with the most effective coping mechanism. Choosing the best coping mechanism according to one's own personality may avoid negative effects of future occupational stress in the medical field.

'Conscientiousness' predicts emotion-focused and problem-focused coping strategies like straight action, detail arrangement, positive reinterpretation and growth (Leandro & Castilo 2010). Healthcare workers tend to use emotional coping rather than problem-focused strategies in highly stressful condition and situation (Wan Salwina et al. 2009). It may be due to when a person is in high level of stress, it is straightforward for a person to respond psychologically in order to reduce tension rather than cognitively solving the problems to make alteration to the stressful circumstances. Therefore, it is understandable that students in final year, which is a very stressful period, would use more of the emotion coping mechanism as compared to the problem-focused strategies.

Coping is a regulatory strategy to adapt with the negative feelings resulting from stressful situations (Compas et al. 2001) and it is like the changing of thoughts and actions to manage the external and/or internal demands for a stressful event (Lazarus 2006). Coping styles can be predicted and influenced by personality traits (Van Berkel 2009). It fluctuates over time responding to changing demands and appraisals of the situation making it a dynamic process (Moos & Holahan 2003). Three main coping styles are problem-focused coping (highly action-focused and associated with altering or managing the problem that causes the stress), emotion-focused coping (action-oriented which diminish the negative emotions associated with stressor such as seeking support and accepting responsibility) and avoidant coping (a passive coping style that focused more on ignoring the stressor and is directed towards minimising, denying or ignoring dealing with a stressful condition or situation) (Lazarus, 2006; Admiraal et al. 2000; David & Suls 1999; Holahan et al. 2005).

Adaptive personality traits such as 'extraversion' and 'conscientiousness' were less affected by daily stresses while contrarily, 'neuroticism' which is related to being exposed to stressful life events and most likely making that individual vulnerable to experience negative emotion and frustration (Vollrath & Torgersen 2000). 'Neuroticism' individuals are more likely to perceive life events as highly stressful while the 'extraversion' individuals are definitely the opposite (Ebstrup et al. 2011). There was a stronger association between daily

stress and negative effect for persons high in 'neuroticism' as compared to those low on the trait (Mroczek & Almeida 2004).

On the other hand, maladaptive personality traits ('neuroticism') are correlated with avoidance coping (Afshar et al. 2015). 'Neuroticism' individuals have been found to use more passive strategies such as avoidant coping which are typically related to poorer outcome as well as interpersonally antagonistic means of coping such as hostile reaction, venting of negative emotions and confrontative coping (Gunthert et al. 1999; Karimzade & Besharat 2011). The findings in the current study were parallel with the findings from previous studies where students with 'neuroticism' personality trait were found to practice avoidant coping mechanism. Individuals with 'neuroticism' were found to have difficulty to cope adaptively in which these individuals usually use ineffective avoidant coping plan that give poor outcome (Afshar et al. 2015; Khan et al. 2011). Therefore, those with 'neuroticism' trait were recommended to seek support in preventing and controlling the development of chronic neuroticism (Widiger & Oltmanns 2017).

In the aspect of relating the Big Five Personality Traits and stress level, this study found that individuals with 'neuroticism' were the most vulnerable to stress. This outcome was consistent with the results of the previous studies where 'neuroticism' individuals have low perceived coping ability as they are positively associated with perceived stress and total negative emotion (Mirhaghi & Sarabian 2016). Stress is natural and certain to happen in any individuals. However, individuals who seldom socialise and stay in isolation are very risky (Mahdy & Srijit 2018). They need to seek proper support and help, have good hobbies, extracurricular activities and inclination for sports (Janes 2009).

Maladaptive personality traits such as 'neuroticism' are related with being exposed to stressful life events and most likely making that individual vulnerable to experience negative emotion and frustration (Vollrath & Torgersen 2000). However, contrarily, adaptive personality traits such as 'extraversion' and 'conscientiousness' are less affected by daily stresses (Vollrath & Torgersen 2000).

'Conscientiousness' and 'agreeableness' exhibit emotion-focused and problem-focused coping strategies in which 'conscientiousness' individuals often make direct action, planning, positive reinterpretation and growth (Leandro & Castilo 2010) while 'agreeableness' individuals focused on social support and positive reappraisal, as well as planning (Watson & Hubbard 1996). 'Extraversion' and 'openness to experience' individuals both tend to use emotion-focused coping as 'extraversion' individuals preferred active coping strategies and social support seeking (David & Suls 1999) while the 'openness to experience' individuals have hostile reaction, relaxation, recurrent appraisal and then think about or plan their coping (Watson & Hubbard 1996).

There were negative correlation between 'conscientiousness' with

perceived stress and fear (Mirhaghi & Sarabian 2016). Aida et al. (2014) found that medical students especially in their clinical years preferred to seek support from their friends, parents and siblings. Their preference to seek each other's help to deal with any problems including emotional disturbances could be explained by staying together with friends, sharing similar academic stressors and having good friendships (Aida et al. 2014). As also discovered in the current study, students with 'conscientiousness' personality had the highest rate of practicing active coping mechanism by sharing problems with loved ones and doing exercise. Thus, they perceived the lowest level of stress.

A previous study found that there was no obvious relationship between school and educational achievement with the level of stress perceived by medical students (Alsalhi et al. 2018). The association between level of stress and academic performance showed no significance in the current study. This finding proved to be similar to another study which showed that excluding the final year, as the year of study increased, the level of stress seems to be significantly decreased (Abdulghani et al. 2011). Probable explanations for such contrasting findings could be that academic achievement during examination was affected by only acute stress, and not longstanding (Shah et al. 2010). High levels of personality traits and academic stressors were evident that proved to be similar with these findings, but not significant predictors of academic performance (Goff 2011). Academic performance becomes better when there is stress which keeps them motivated (Siraj et al. 2014).

CONCLUSION

In conclusion, the most common personality trait shown among the final year medical students of UKM was 'agreeableness', whereas 'openness to experience' seemed to be the least. Students with 'neuroticism' personality had the highest rate of practising avoidant coping mechanism, while students with 'extraversion' personality had the highest rate of practising active coping mechanism. There was a significant difference in the total score of stress between the different personality traits, whereby students with 'neuroticism' personality had the highest mean rank total score for stress level. However, there was no significant relationship between stress level and academic performance. Even though there was no significant association between stress level and academic performance, it is important for medical students to identify their own personality traits, sources, and levels of stress in order to practice the most effective coping mechanism for better psychological health. Choosing the best approach to deal with the factors that can potentially affect the emotional well-being should be performed according to one's own personality to avoid negative effects of future occupational stress in the medical field.

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