Education in Medicine Journal ISSN 2180-1932

ORIGINAL ARTICLE
Volume 7 Issue 4 2015
DOI:10.5959/eimj.v7i4.397
www.eduimed.com

Emotional Intelligence of USM Medical Students

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ARTICLE INFO

Received : 19/10/2015
Accepted : 12/11/2015
Published : 15/12/2015

KEYWORD

Emotional intelligence
Personal competence
Social competence
Medical students

ABSTRACT

Introduction: Emotional intelligence (EI) refers to the ability to perceive, control and evaluates emotion. Research results found that EI is relevant to organizational development and manpower development. It is also important to academic success, emotional adaptability, stress management and other lifestyle issues. EI principles help one to understand and assess people's behaviors, interpersonal skills, attitudes and potentials. It also plays an important role in human resource planning, job placement and recruitment interviews and selection, business development, customer care services, and more. The study focused on exploring students' EI, subscales of EI (i.e., personal competencies and social competencies) and its associated factors. **Methods:** A cross-sectional study was conducted on 571 medical students from year 1, 3 and 5. Years of study, gender, and ethnic groups were included as factor variables. USM Emotional Quotient Inventory (USMEQ-i) was used to measure EI, personal competence and social competence. **Results**: Years of study significantly associated with EI ($F = 18.41$, $p < 0.001$), personal competency ($F = 16.93$, $p < 0.001$) and social competency levels ($F = 12.92$, $p < 0.001$). There was a decreasing pattern of EI, personal competency and social competency level as medical training progresses. Male significantly had a higher EI ($t = -1.99$, $p < 0.05$) and personal competence ($t = -1.99$, $p < 0.05$) levels than female medical students. Nevertheless, male and female students had equal levels of social competence ($t = -1.39$, $p = 0.730$). Ethnic groups demonstrated no significant association with EI, personal competency and social competency level. **Conclusion**: This study found that years of study were the main associated factor, followed by gender. In addition, there is a cause of concern regarding the decreasing pattern of EI throughout medical training. Further research is required to investigate this concern, so that appropriate intervention can be taken to alleviate the concern.

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Introduction

Emotional intelligence (EI) refers to the ability to perceive, express, understand, motivate, control and regulate emotion (1-6). Emotionally intelligent people considered to be self-aware, have the ability to manage their emotions under difficult situations which may cause depression, anxiety, or stress, and these people are able to react peacefully to disturbing circumstances, rather than being overwhelmed by immediate wishes. EI is a popular research topic in various

work-related areas which include management, work performance, personnel-related problem, medical work, and gender differences (7).

The first EI model was introduced by Salovey and Mayer in 1990 (8) that proposed three constructs of EI – appraisal and expression of emotion, utilization of emotion, and regulation of emotion (Table 1). They described EI as "a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and action" (8). This model was revised in 1997 by them that resulted in four constructs of EI – 1) perception, appraisal and expression of emotion, 2) emotional facilitation of thinking, 3) understanding and analyzing emotion, and 4) reflective regulation of emotions (9).

Table 1: Summary of EI models

Salovey and Mayer 1990	Goleman 1995	Mayer & Salovey (1997)	Bar-On (1997)	Cooper & Sawaf (1997)
Appraisal and expression of emotion Utilization of emotion Regulation of emotional	Self awareness Self regulation Self-motivation Empathy Handling relationships	Perception appraisal, and expression of emotion Emotional facilitation Of thinking Understanding and analyzing emotions , employing emotional knowledge Reflective regulation of emotions to promote emotional and intellectual growth	Intrapersonal Emotional self-awareness Assertiveness Self-regard Self-actualization Independence Interpersonal -empathy -interpersonal relationship -social responsibility Adaptation problem solving Reality testing flexibility Stress management Stress tolerance Impulse control General mood Happiness Optimism	Emotional literacy Emotional fitness Emotional depth Emotional alchemy

The second model by Goleman 1995, Goleman proposed that EI was integral for life success (1). Since then, several theories have emerged with conflicting views, and subsequently, different measures (10). Daniel Goleman's model focuses on emotional intelligence as a wide array of skills and competencies that drive leadership performance, consists of five aspects – 1) self-awareness, 2) self-regulation, 3) social skills, 4) empathy, 5) motivation (1, 2).

After that Bar-On (1997) came with a model of non-cognitive intelligence that consists of certain emotional and social competencies, skill and facilitators (11). The model shows to be the most extensive conceptualization of emotional intelligence, and also related to personality traits. The model is based on Bar-On's research on well- being and consists of five big areas of skills and competencies from the personality domain and within each, more specialized skills contribute to success. His model consists of 1) intrapersonal capacity 2), interpersonal skills, 3) stress management, 4) adaptation, 5) general mode.

Table 1: Continued

Goleman (1998)	Weisinger (1998)	Dulewicz & Higgs (1999)	Petrides & Furnham (2001)
Self-awareness Emotional self-awareness Accurate self-assessment Self-confidence Self-regulation Self-control Trust worthiness Conscientiousness Adaptability innovation Self-motivation Achievement orientation Commitment Initiative Optimism Empathy -Empathy -Organizational awareness -Service orientation -Developing others -Leveraging diversity Social Skills -Leadership -Communication -Influence -Change catalyst -Conflict management -Building bonds -Collaboration and Co-operation -Team capabilities	Self-awareness Emotional management Self-motivation -Effective Communication skills -Interpersonal expertise -Emotional coaching	Drivers Motivation Intuitiveness Constrainers Conscientiousness Emotional resilience Enablers Self-awareness Interpersonal sensitivity Influence Trait	Adaptability assertiveness Emotion appraisal (self & others) -Emotion expression Emotion management (others) Emotion regulation -impulsiveness (low) -relationship skills -self-esteem -self motivation -social competences -stress management -trait empathy -trait happiness -trait optimism

After that, several other models were created and tested such as Cooper & Sawaf based on emotional literacy (12), and Weisinger 1998 who claimed that EI is a major determinant of workplace success and achievement (13). Others like Dulewicz & Higgs (1999) (14) and Petrides and Furnham 2001 also discussed new models (15) (Table 1).

Table 1: Continued

Yusoff et al (2010)	Arifin, Yusoff & Naing (2012)
1. Emotional Control 2. Emotional Maturity 3. Emotional Conscientiousness 4. Emotional Awareness 5. Emotional Commitment 6. Emotional Fortitude 7. Emotional Expression	1. Personal competency - Emotional awareness 2. Social competency - Emotional Conscientiousness - Emotional Maturity - Emotional Control

Yusoff et al 2010 model was based on the creation of EQ domains of the USMEQ-i (16, 17). They developed it based on the mixed model approach and grouped into seven dimensions which were Emotional Control, Emotional Maturity, Emotional Conscientiousness, Emotional Awareness, Emotional Commitment, Emotional Fortitude and Emotional Expression. Their models' dimensions are – 1) emotional control, 2) emotional maturity, 3) Emotional

Conscientiousness, 4) Emotional Awareness, 5) Emotional Commitment, 6) Emotional Fortitude, 7) Emotional Expression (16, 17). In 2012, this model was revised based on the study conducted by Arifin et al (2012) that yielded two main constructs namely social competence and personal competence (18). Social competence refers to the ability of knowing and understanding one's own and other persons' internal states, preferences, resources and intuitions as well as their effects (16-18). Personal competence refers to the ability of self-control from disruptive emotions and impulsive feelings, the ability to facilitate and guide emotional tendencies to achieve and reach intended goals, and the ability of aligning and working with others in a group or organization towards common goals (16-18). In a nutshell, based on the various models mentioned in Table 1, it appears that EI has two common constructs that in line with the model proposed by Arifin et al (2012) – personal competency and social competency (18).

In general, there has been considerable work on the subject of success at workplace and on social relations, for examples, a positive correlation was found between EI and social network size and quality (19), good associations, apparent family support, and lesser number of crises with close friends (4), more optimism, greater understanding of other's feelings and position in social situations, better public-dealing skill, and a greater satisfaction and success at marriage (19). In addition, EI has been reported to be negatively correlated with the use of drugs and alcohol consumption, deflector behavior, poor relationship with surrounding community (20), absence without reason, insularity from studying areas and despair (21), consistently predicts positive social and academic outcomes in children (22, 23), people who appear higher in EI tend to receive better performance ratings from peers and supervisors (even after controlling for cognitive intelligence, personality, trait affect, observer liking, demographic characteristics, and common method bias), helps to improve academic success by improving the drive to utilize maximally the intellectual capacities that persons possessed, and good predictors of psychological well-being (Mayer et al., 2008). In short, EI, if validly measured, is a predictor of significant outcomes across diverse samples in a number of real world domains. It predicts social relations, workplace performance, and mental and physical well-being (23).

In health care context, Arora et al. (2010) suggested that emotional intelligence contributed towards many of the skills that helped a medical professional achieves these core competencies (24). Emotional intelligence is included as one of the assessment items under affective and moral domains. EI has been related to higher academic achievement and improved doctor-patient relationships. Doctors who are more aware of their patients' emotions are more successful in treating them than their less perceptive colleagues. There are a number of ways physician emotional intelligence can impact quality of care, for an example through patient-physician interaction (25) – it appears that doctors' emotional intelligence has positive correlation with patients' trust, which leads to better doctor–patient relationships and furthermore indirectly increased patients' satisfaction with both the doctors and hospital (26). It also showed significant correlations between group's emotional intelligence and team effectiveness (26). Studies found that EI has significant correlations with both coping ability and organisational commitment, and significant negative relationship with depression and stress in the work settings. These facts together suggest that, in the medical profession, EI plays major roles in different aspects of competencies of future medical doctors leading to increased doctor-patient relationship, increased empathy, supportive teamwork and better communication skills effectiveness, improved clinical abilities and increased stress management and organizational capabilities.

A majority of psychologists recognized roles of the environment and genetics in determination of intelligence (20). Personal factors such as gender, ethnicity and hometown location may affect the level of EI of an individual (27). Gender play as an important variable as females score a higher level of EI compared to men (27)

and women also are comparatively superior to men in perceiving emotions (24, 28). While other studies show no influence of gender on the level of EI (29). Some studies show that EI is also affected by ethnic difference (27) while other studies show no relation of ethnicity difference on EI such as (30). The location of a persons' life, grow up and the environment of their living place can be a factor that affects the EI of an individual, however Nicholas et al (2005) claimed that these factors do not influence an individual's EI (31). Family factor were also considered as one of the most important elements of demographical backgrounds that might affect EI – parents are the persons who directly affect the EI of their children (32) that suggested significant relation between family and EI. Family economical status also plays some role on EI level for examples a study found higher economical status reflects higher EI level (31), however a different study found that low economical status family have better emotional stability when compare to children from middle-income class (33).

Apart from that, several previous studies that examined the relationships between emotional intelligence and academic performance produced mixed results (23, 34, 35). Academic factor such as years of study, degree qualifications, types of curriculums used and modern teaching methodologies used inside the university or the school found that students' GPA influences their EI (30) and Cook et al (2011) who engage their studies in three different universities found only one university showed that the fourth year accounting students have higher EI than the first year (36).

Even though many studies were carried out worldwide, relatively lacks of data were reported on Malaysian students. From that notion, this study was carried out to explore EI and its association with years of study, gender and ethnicity groups among medical students.

Method

A cross-sectional study was conducted on medical students of School of Medical Sciences, Universiti Sains Malaysia (USM). The school adopts an innovative curriculum design, SPICES, which has three phases, for their medical course. Phase one of the study is known as the study in the first year, Phase II is the second and third years, and Phase III is the fourth and fifth years. The population that was selected in this study comprised of first, third, and fifth year medical students – a total of 571 medical students. This study was conducted between Jun 2013and Jan 2014 and carried out in compliance with the approval that obtained from the Human Ethical Committee (HEC), USM (USMKK/PPP/JEPeM [204.4(2.6)]).

Sample size

Sample size was calculated based on the sample size table of Krejcie and Morgan at 95% confidence interval and 5% margin of error (37). Based on the table, a total of 177 students were required for each year of study (i.e., 177 × 3 = 531 students in total). However, since the total number of medical students available were 571, we decided to invite all of them to participate in this study.

Data collection

In this research, USMEQ-i was used to measure EI, personal competence and social competence of participants. The advantages of using this questionnaire in the study are:

- The questionnaire format is standardized for all respondents
- The questionnaire is a rapid and efficient data collection tool
- The questionnaire is a valid tool for collecting such data, as confirmed after data analysis
- Collection of data of large samples is difficult using other instruments
- Time and effort are reduced through this process

USMEQ-i was validated and reported to have high internal consistency and good construct validity (16, 17, 38, 39). The Cronbach's alpha values ranged from 0.8 to 0.9, indicating a high level of internal consistency (38).

The USMEQ-i (Appendix A) consists of 13 items related to EI and 4 items for faking index (18). For all of the questions in the inventory, the responses were measured on Likert scale of 0 to 4: 0 - (not like me); 1 - (a bit like me); 2 - (quite like me); 3 - (a lot like me); 4 - (totally like me).In this study, faking index was not included for analysis due to the construct validity issues – it seems that the faking index construct does not measure the overrating tendency in fact it predicts favorable outcomes. Based on two-factor model, EI items were grouped into personal competence (*kemahiran kendiri*) and social competence (*kemahiran sosial*) (18). The personal competence items includes Q1, Q2, Q4, Q6, Q8, Q10, Q11, Q 12, Q13and Q17, while the social competence includes Q7, Q15 and Q16 (18). The USMEQ-i scores are interpreted based on the recommended guideline provided in the USMEQ-i manual – high mean scores indicate high level of EI (16). The printed USMEQ-i forms were administered to the participants immediately after they completed their examinations through a face-to-face session by years of study. The forms were immediately returned upon completion.

Data Analysis

The completed forms were entered into the SPSS data sheet. The data were checked to ensure its completeness and cleaned for missing data. Data analysis was performed by SPSS version 20. Demographic characteristics of respondents were described in term of frequencies and percentages for categorical variables (gender, race, years of study and ethnic groups). Independent-t test was performed to determine the difference between gender and EI scores. One-way ANOVA was performed to determine the EI score differences by years of study and ethnic groups. Assumptions of each statistical test were checked prior to the analysis.

Result

Table 2 shows that the majority of the participants were female and Malays. Meanwhile, participants were equally sampled from each year of study.

Table 2: The distribution of respondents

Variable	Frequency (%)
Sex	
Male	233 (40.8)
Female	338 (59.2)
Year	
First year	180 (31.5)
Third year	188 (32.9)
Fifth year	203 (35.6)
Ethnic group	
Malay	311 (54.5)
Chinese	185 (32.3)
Indian	65 (11.3)
Others	10 (1.9)

Emotional Intelligence

Table 3 shows EI among years of study, sex and different ethnic groups. The results show that mean EI levels were highest for the students belonging to fifth year of education. Among the respondents, EI levels were higher for males as compared to females, suggesting that males, on average, possess higher EI than their female counterparts.

Table 3 shows that there is a significant association between EI scores and years of study. The first year students have the highest EI mean score with highly significant p-value when comparing to year 3 and 5, also year three show low significant p-value with year five. The study results indicate that:

- There's a significant difference of EI among year 1 compared to 2 years of medical students because ($p < 0.001$).
- There's a significant difference of EI among year 1 compared to 5 years of medical students because ($p < 0.001$).
- There's no significant difference of EI among year 3 compared to 5 years of medical students because ($p > 0.995$).

Table 3: The EI level by years of study, sex and ethnic group

Variable	Mean	SD	F-stat (df)*	t-stat (df)**	p-value
Year of study					
First Year	3.41	0.55			
Third Year	3.13	0.61	18.41 (2;570)		< 0.001[a]
Fifth Year	3.97	0.53			
Sex					
Male	3.25	0.58		-1.996 (569)	0.046
Female	3.15	0.58			
Ethnic group					
Malay	3.16	0.54			
Chinese	3.20	0.67	1.956 (3;570)		0.119
Indian	3.32	0.50			
Others	3.41	0.42			

*One-way ANOVA test. p-value of < 0.05 as significant at 95% CI; Assumptions for One-way ANOVA were met: 1) normality of distribution was normal and 2) homogeneity of variance test (Levene's test) was not significant (p-value more than 0.05).
**Independent-t test, significant at p < 0.05 as significant at 95% CI
SD = Standard Deviation
[a] Post-hoc Bonferroni test:
- Year 1 vs Year 3 p = < 0.001
- Year 1 vs Year 5 p = < 0.001
- Year 3 vs Year 5 p = <0.995

Table 3 shows that there is a significant association between gender and level of EI. Male students have a higher score than female students. However, the significance level was borderline.

Table 3 shows that the difference between mean scores of EI level and ethnic groups is not significant.

Table 4: The personal competence level by years of study, sex and ethnic group

Variable	Mean	SD	F-stat (df)*	t-stat (df)**	p-value
Year of study					
First Year	3.42	0.62			
Third Year	3.13	0.64	16.93 (2; 570)		< 0.001[a]
Fifth Year	3.09	0.55			
Sex					
Male	3.27	0.62		-1.997 (569)	0.046
Female	3.17	0.61			
Ethnic group					
Malay	3.17	0.58			
Chinese	3.23	0.70	1.554 (3; 570)		0.200
Indian	3.31	0.54			
Others	3.42	0.41			

*One-way ANOVA test. p-value of < 0.05 as significant at 95% CI; Assumptions for One-way ANOVA were met: 1) normality of distribution was normal and 2) homogeneity of variance test (Levene's test) was not significant (p-value more than 0.05).
**Independent-t test, significant at p < 0.05 as significant at 95% CI, SD = Standard Deviation
[a] Post-hoc Bonferroni test:
- Year 1 vs Year 3 p = < 0.001
- Year 1 vs Year 5 p = < 0.001
- Year 3 vs Year 5 p = 1.000

Personal Competence

Table 4 shows the personal competence levels among years of study, sex and different ethnic groups.

Table 4 shows that there is a significant association between personal competence scores and years of study. The study results indicate that:

- There is a significant difference of personal competence among year 1 compared to 2 year of medical students because ($p < 0.001$).
- There is a significant difference of personal competence among year 1 compared to 5 year of medical students because ($p < 0.001$).
- There is no significant difference of personal competence among year 3 compared to 5 year of medical students because ($p > 0.995$).

The year 1 students have more positive personal competence followed by the year 3 and then the year 5 medical students. The differences of the personal competence are significant between the year 1 of study, year 3 and year 5 students. Also show that the difference between year 3 and year five not significant.

Table 4 shows the mean scores of personal competence for male and female students are significantly different, however, it is borderline. This finding suggests that there is a significant association between students' personal competence level and gender.

Table 4 shows that the difference of personal competence between ethnic groups are not significant. The results suggest that there is no association between ethnicity and personal competence.

Social competence

Table 5 shows mean scores of social competence by years of study, gender and ethnic groups.

Table 5: The social competence by years of study, sex and ethnic group

Variable	Mean	SD	F-stat (df)*	t-stat (df)**	p-value
Year of study					
First Year	3.34	0.58			
Third Year	3.12	0.68	12.92 (2; 570)		< 0.001[a]
Fifth Year	3.01	0.69			
Sex					
Male	3.20	0.65		-1.397 (569)	0.730
Female	3.11	0.68			
Ethnic group					
Malay	3.12	0.63			
Chinese	3.13	0.76	2.60 (3; 570)		0.051
Indian	3.34	0.57			
Others	3.40	0.47			

*One-way ANOVA test. p-value of < 0.05 as significant at 95% CI; Assumptions for One-way ANOVA were met: 1) normality of distribution was normal and 2) homogeneity of variance test (Levene's test) was not significant (p-value more than 0.05).
**Independent-t test, significant at $p < 0.05$ as significant at 95% CI
SD = Standard Deviation
[a]Post-hoc Bonferroni test:
- Year 1 vs Year 3 p = 0.004
- Year 1 vs Year 5 p = 0.000
- Year 3 vs Year 5 p = 0.231

Table 5 shows there is a significant association between years of study and social competence level. Year 1 students have more positive social competence followed by year 3 and then year 5 medical students. The differences of the social competence are significant between the year 1 of study, year 3 and year 5 students. The study results indicate that:

- There's a significant difference of social competence among year 1 compared to 2nd year medical students because ($p = 0.004$).
- There's a significant difference of social competence among year 1 compared to 5th year medical students because ($p < 0.001$).

- There's no significant difference of social competence among 3rd year compared to 5th year medical students because (p = 0.231).

Table 5 shows the mean scores of social competence for male and female students are statistically not significant, therefore there is no significant association between gender and social competence.

Table 5 shows that the difference of social competence level between ethnic groups are not significant. The results suggest that there is no association between ethnic groups and social competence.

Discussion

To recap, this study showed there were 1) significant differences between years of study and overall EI as well as personal and social competencies, 2) a significant association between sex and overall EI, and 3) a significant association between sex and personal competency. Other factor variables failed to demonstrate any significant differences.

The study discovered a significant relationship between gender and EI levels. EI was higher among male than female students. In contrast, when MEIS was applied to Australian psychology undergraduates, the findings showed female students significantly outscored males (19). In addition, a systematic review found that, three of four studies discovered that female medical students had higher EI than male medical student (24). Possible explanations include that men appear to be able to have better self-regard, cope better with stress, solve problems better, and be more independent, flexible, and optimistic than women (40). We postulate our findings are different from the previous fingdins due to in Malaysian's culture males use to be more dominant than females and commonly the decision makers in family matters. However, even though our results were as such, the p-value was borderline significant (p=0.046). Therefore, further research is required to verify this finding in other medical schools.

Years of study significantly was found to significantly associate with the level of overall EI, and interestingly there is a decreasing trend of EI throughout the medical training – the highest level of EI was in the first year and the lowest in the fifth year. This may be due to the influence of the demanding and challenging learning environment at different phases of medical training. For examples, prior to medical training, the psychological health of medical students resembles that of the general population (39, 41, 42), however during medical training the psychological health deteriorated (39, 42) and the main source of stress was related to academic requirements such as examinations, overloaded content and lack of time to do revision (39, 42, 43). This finding point out an area of concern that need to be taken care as soon as possible because it seems that the emotion of students are hardening – it is indeed an alarming sign for the medical school to consider appropriate measures to alleviate the condition.

Apart from that, this study found that ethnic groups were not associated with EI level. This results come to be opposite of an American study of undergraduate psychology students with using of emotional intelligence scale (EIS) found that Hispanic students significantly outscored their white counterparts (27). Another study found Asian/Pacific Islander adolescents scored significantly higher on the MEIS than their white, Hispanic/Latino and multiethnic colleagues (44). It is worthy to note that Mayer et al. (2002) assert that EI scales may, to a certain extent, lack of cross-cultural applicability and are developing, what they believe to be, a more sensitive measure of EI amongst ethnic minorities (45), thus may lead to inconsistent results on this aspect.

Similar to the finding on EI level, years of study significantly associated with personal competence level, whereby a decreasing pattern was observed throughout medical training. Similar findings was reported by one study in the undergraduate literature that compared EI level of medical students in their third year with that in their first year and found it to be significantly

decreased in the latter years (46). This led to several implications that include 1) medical students might be at risk to the personal emotional exhaustion that might lead to burnout, 2) medical schools should take proactive measures to prevent or alleviate this situation from worsening, and 3) special training packages should be designed for medical students to equip them with self-care skills (47). In addition to that, personal competence level was higher for males compared to females. They seem to be more confident about themselves and they believe in their ability to perform a task or achieve certain goal better than females. Different findings found in another Australian study, applying the MSCEIT to a sample of adolescents and adults drawn from the general population, females significantly outscored males on all measures (48). Apart from that, this study found that ethnic group was not associated with personal competence. To our knowledge, none of previous studies reported on relationship between ethnicity and social competence.

This study found that social competence did not associate with gender and ethnic groups. This is in line with previous studies found that there were no significant differences of emotional and social intelligence competencies between male and female (49, 50). Interestingly, consistent with the previous results, social competence significantly associated with years of study and showed a similar decreasing pattern – highest at first year and lowest at fifth year (40). In contrast, a study found that emotional and social intelligence increases with age (51). Socially competent people are able to interact with others positively, as a result achieving greater social relationships during work (23). From that notion, a decreasing pattern observed in this study should be considered as an early warning sign for medical schools to look at this matter seriously because socially incompetent future doctors might compromise the quality of patient care. Apart from that, socially incompetence might be an indication of depression or other mental health problems. This is supported by the fact that a high prevalence of depression or mental health problems among medical students (52-54).

Based on the results, several recommendations are suggested that include 1) increase research in the area related to emotional intelligence among university students across different educational settings in Malaysia, 2) future research on emotional intelligence in Malaysia should include other important variables such as personality traits, critical thinking, problem solving ability and communication skills, 3) introduce special modules to strengthen emotional intelligence skills among university students based on different phases of training, and 4) emotional intelligence could be considered as a criteria in student admission process since it predicts on several important outcomes as discussed in the previous chapters.

This study has several limitations that should be considered for the future research. First, this study was conducted in one medical school that might be giving limited data to generalize the results to other medical schools. Second, this study used only one tool to measure EI therefore the results might be different from other studies that used different tools. Third, due to time constraints, limited variables were included that might compromise the results. Fourth, due to the nature of a cross-sectional design that unable to assess the causal-effect relationships, a better study design such as comparative study will be able to verify the study findings. Last, this study purely depended on quantitative data that gave limited view on EI, therefore including qualitative approach in future research will be able to provide more evidence to support the study findings

Conclusion

This study found that years of study was the main associated factor, followed by gender. In addition, there is a cause of concern regarding the decreasing pattern of EI throughout medical training. Further research is required to investigate this concern so that appropriate intervention can be taken to alleviate the concern.

Acknowledgement

We like to express a greatest appreciation to the medical students who willingly participated in this study.

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Appendix A: The USMEQ-i

Q1	I can make my own decision rationally *Sayamampuuntukmembuatkeputusansendiriberdasarkanpemikiran yang rasional.*	[0]	[1]	[2]	[3]	[4]
Q2	When I'm in setback, I accept it is happened and try to find solutions *Apabiladitimpamusibah, sayamenerimahakikatbahawaianyatelahberlakudanmencarilangkah yang sesuaiuntukmengatasinya.*	[0]	[1]	[2]	[3]	[4]
Q3	I always proactive in completing a task *Sayasentiasaproaktifdalammenyelesaikansesuatutugasan.*	[0]	[1]	[2]	[3]	[4]
Q4	I will continue to carry out responsibilities given to me even other won't do it *Sayaakanmelakukantanggungjawabsayawalaupun orang lain tidakberbuatdemikian.*	[0]	[1]	[2]	[3]	[4]
Q5	I always feel that I can solve any problems regardless of situations *Sayasentiasamerasakan yang sayadapatmenyelesaikanapajuamasalahdalamapajuakeadaan*	[0]	[1]	[2]	[3]	[4]
Q6	I carry out my duty full-heartedly *Sayamemikulsesuatuamanahdenganpenuhtanggungjawab.*	[0]	[1]	[2]	[3]	[4]
Q7	I can understand and feel other feelings as if I was them *Sayadapatmemahamidanmerasaiperasaan orang lain seolah-seolahdirisendiriberadadalamsituasi orang itu.*	[0]	[1]	[2]	[3]	[4]
Q8	When I'm given a task, I will do it at my best *Apabiladiberitugasan, sayaakanmendorongdiridanmemikirkancara-carauntukmelakukan yang terbaik.*	[0]	[1]	[2]	[3]	[4]
Q9	I always sensitive to changes occur around me *Sentiasapekadenganperkaradankeadaan yang berlaku di sekelilingsaya.*	[0]	[1]	[2]	[3]	[4]
Q10	In any situation, I can calm down myself and make rationale decision to the situation *Dalamapajuasituasi, sayadapattenangkandiridanmembuatkeputusanterhadapsesuatuperkara.*	[0]	[1]	[2]	[3]	[4]
Q11	When I'm facing a difficult task, i will try to solve is properly *Apabilamenghadapitugas yang mencabar, sayaakanmenyelesaikannyadengancara yang terbaik.*	[0]	[1]	[2]	[3]	[4]
Q12	I appreciate with what I have *Sayamenghargaikeupayaandirisendiri.*	[0]	[1]	[2]	[3]	[4]
Q13	I face daily life calmly even I'm in difficulty *Sayamenempuhikehidupanseharian dengantenangwalaupunberadadalamkesusahan.*	[0]	[1]	[2]	[3]	[4]
Q14	I always investigate problems arise thoroughly in order to solve it appropriately *Sayasentiasamengkajisesuatumasalahsecaratelititerlebihdahuluuntukmencarijalanpenyelesaianterbaikkepadamasalahitu.*	[0]	[1]	[2]	[3]	[4]
Q15	I sensitive to others feelings *Sayapekaterhadapperasaan orang lain*	[0]	[1]	[2]	[3]	[4]
Q16	I appreciate others opinion and feelings *Sayamenghargaipandangandanperasaan orang lain.*	[0]	[1]	[2]	[3]	[4]
Q17	I know how to use my ability and potential for my success *Sayatahumenggunakankeupayaandanpotensisayauntukberjaya.*	[0]	[1]	[2]	[3]	[4]