

## Level of emotional intelligence among nurses

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### ABSTRACT

**Background:** Emotional intelligence (EI) is defined as the comprehension, use and the management of one's emotions in a positive manner to reduce stress, communicate efficiently, empathise with others, overcome challenges, and resolve conflicts. EI is important among nurses as it influences their decision-making abilities, clinical judgment, and well-being that directly affect the quality of patient care and outcome.

**Objective:** The objective of this study was to determine the EI level and its association with demographic variables among nurses in a private hospital in Petaling Jaya, Selangor.

**Methods:** This was a cross-sectional, descriptive study involving 130 nurses at one of the private hospitals in Petaling Jaya, Selangor, through simple random sampling. Questionnaire consists of Part A (demographic data) and Part B (Wong and Law's Emotional Intelligence scale (WLEIS), self-assessment tool that consists of 16 items on four components inclusive of self-emotions appraisal (SEA), regulation of emotion (ROE), use of emotion (UOE), and other's emotion appraisal (OEA) on a set of 7-Likert scale).

**Results:** Findings showed that 63.1% ( $n = 82$ ) scored high EI. Nurses' age and years of nursing experience are significantly associated with their level of EI. No association is found on the nurses' level of EI with their gender, ethnicity, highest nursing education level, marital status, and current work setting. The null hypothesis was rejected.

**Conclusion:** Findings showed that most of the nurses have high EI. There is a significant association between the level of EI and demographic variables such as age and years of nursing experience.

**Keywords:** *Emotional intelligence, nurses, emotion, self-emotions appraisal, regulation of emotion, use of emotion*

### Introduction

The nursing profession involves a selfless act of caring for healthy and sick individuals as well as promoting health to the community in collaboration with various multidisciplinary teams to improve patient outcomes. Hence, emotional intelligence (EI) is important for nurses as it influences their decision-making abilities, clinical judgment, and well-being that directly affect the quality of patient care and outcome. EI or in other words also known as emotional quotient (EQ), is defined as the comprehension, using, and managing of one's emotions in a positive manner to reduce stress, able to communicate efficiently, empathise with others, overcome challenges, and to resolve conflicts (Segal et al., 2019). This theory was published in the mid-1990s by Daniel Goleman, an American psychologist, where he had stated that EI is a set of attributes that influence a person's happiness and professional success (Wilding, 2017).

Along with the rapid worldwide expansion of the healthcare system, it has significantly increased the demand of the nursing workforce to meet healthcare demand. The need for more nurses is necessary in order to meet patient's needs and to ensure a high satisfaction level towards nursing care provided (Permarupan et al., 2020). However, in order to address shortage of nurses, corrective measures such as longer working hours or more frequent overtime, might result in exhaustion or even burnout among nurses. Relevant to these, EI is truly essential for nurses' psychological well-being while delivering quality nursing care (Szczygiel & Mikolajczak, 2018). Various studies have shown that

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nurses' EI influences nurses' well-being and patient outcome, as well as its role in the progression towards care of patient-centered concept as EI assists individuals in managing emotions and reacting to other's emotions. Ng et al. (2014) had conducted a cross-sectional study in a Malaysian hospital to determine the mediating role of work locus of control on the relationship of EI, organisational citizenship behavior, and mental health among nurses. The study was conducted among 242 nurses who work in a hospital in Malaysia. Findings showed that nurse's work behaviour and mental health are influenced by EI components. Thus, it is concluded that EI should be incorporated into nurses' training. In addition, studies have shown a significant relationship between the level of EI and age, years of experience, marital status (Srinivasan & Samuel, 2016), types of the hospital (Tomar, 2016), and gender (Hua et al., 2019).

Despite the importance of EI in the nursing profession and healthcare industry, few studies have been carried out to study the association between the level of nurses' EI and their demographic information (Ng, Ke & Raymond, 2014). The understanding between these associations may assist nursing managers and the organisation in developing effective strategies to improve nurses' EI to meet the needs of their patients and nursing staff, along with achieving the organisational goals.

Hence, this study will enable nurses to understand the importance of EI in their daily interactions with patients, peers, and other healthcare professionals. Moreover, this will allow nursing managers to implement effective strategies in enhancing nurses' EI to improve the quality of patient care and outcome, as well as provide recommendations to the healthcare institution to improve nurses EI. Besides that, this will create awareness in the society that EI enhances an

individual's decision-making, judgment, and well-being. The purpose of this study was to determine the level of EI, as well as the association between the level of EI and demographic variables among nurses in a private hospital in Petaling Jaya, Selangor.

## Methods

### *Study design, setting and sample*

A descriptive, cross-sectional, quantitative study was used to determine the level of EI among nurses and the association between the level of EI and demographic variables among nurses in a private hospital, Petaling Jaya, Selangor from January to February 2020.

The target population of this study was registered nurses from the medical/surgical and critical care disciplines who have more than one year of working experience as those who have less than a year of working experience in the clinical setting may influence the result of the findings as they are novice nurses and still adapting to the new clinical environment.

The total number of registered nurses from the general setting (medical-surgical) and critical care setting (Intensive Care Unit, ICU/High Dependency Unit, HDU/Neonatal Intensive Care Unit, NICU/Coronary Care Unit, CCU/Accident and Emergency, A&E) was 169. Using the Raosoft sample size calculator software, with total registered nurses of 169 participants, 5% margin error, 95% confidence level, and 50% distribution rate, the sample size recommended was 118. However, a 10% attrition rate was added to the calculated sample size ( $n = 12$ ), which makes the final sample size of 130. A simple random sampling using Microsoft Excel was used to sample 130 participants randomly from a total of 169 participants.

### ***Inclusion and exclusion criteria***

The inclusion criteria for this study included registered nurses who have at least one year of working experience in medical-surgical or critical care settings. Conversely, the exclusion criteria for this study were the registered nurses who have less than one year of working experience in medical-surgical or critical care settings, nurses of the managerial level, and those who had participated in the pilot study.

### **Ethical considerations**

Ethical approval was obtained from the ethics committee of the International Medical University (BN 1/20 (PR-51)), the management of the selected private hospital, and consent was obtained from the respondents prior to the conduct of the study. To ensure the anonymity and confidentiality of the respondents, the completed questionnaires were sealed in an envelope.

### **Measurement and instrument**

The questionnaire consisted of two sections to be answered, Part A, which is the demographic data, and Part B, the Wong and Law's Emotional Intelligence scale, WLEIS (Wong & Law, 2002). Part A is the demographic data that consists of participants' age, gender, ethnicity, years of nursing experience, highest nursing education level, marital status, and current work setting. Whereas, Part B is the WLEIS, which measures the level of EI among registered nurses in a private hospital in Petaling Jaya, Selangor. WLEIS was fully adopted for this study with written permission granted by both researchers Wong Chi Sum and Kenneth Law. The self-assessment tool consisted of 16 items that measured the level of EI

in four components, which are self-emotions appraisal (SEA) - 4 items, regulation of emotion (ROE) - 4 items, use of emotion (UOE) - 4 items and other's emotion appraisal (OEA) - 4 items. Respondents' level of EI was measured using the 7-points Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

### ***Validity and reliability testing***

A pilot study on 30 nurses was carried out to determine the reliability and validity of the instrument in the month of November. As the result of the pilot study showed a Cronbach's alpha, value of 0.907, which exceeds the acceptable level of 0.70 (Polit and Beck, 2018), therefore, the instrument for the study was considered reliable. The questionnaire was reviewed and validated by a three-member panel of experts who comprised of the Director of Nursing, Head of Nursing Education department, and Senior Manager of Clinical Research Centre. No amendments were required as they agreed that the contents of the questionnaire were appropriate to measure the research variables.

### ***Data analysis***

Data collected were analysed using IBM SPSS Statistics Version 25.0. Descriptive statistics, including frequency, mean, standard deviation, percentages, were used to analyse the demographic and the research variables. Table format was then used to illustrate the findings of the study according to the American Psychological Association (APA) format. As the data was not normally distributed, a non-parametric test, Mann-Whitney U, was used to determine the association between the level of EI and nurses' demographic data.

## Results

### *Demographic data*

The socio-demographics of nurses are summarised in Table 1. The age of participants ranged from 22 to 51 years. Therefore, the participant's age was categorised into two groups according to the mean age of 28 years. A total of 50.8% ( $n = 66$ ) of participants aged between 22-27 years and 49.2% ( $n = 64$ ) aged between 28-51 years.

In this research study, majority of the participants were female, 84.6% ( $n = 110$ ), whereas, the minority are male that made up of 15.4% ( $n = 20$ ). Out of the total 130 participants, 40.8% ( $n = 53$ ) were Malay in ethnicity, and 59.2% ( $n = 77$ ) were non-Malay.

The study results showed that the participants' years of nursing experience ranged from 1 to 30 years. Therefore, they were categorised into two groups based on the mean of 6 years. 55.4% ( $n = 72$ ) have less than 6 years of nursing experience, whereas 44.6% ( $n = 58$ ) have more or equal to 6 years of nursing experience. 19.2% ( $n = 25$ ) of the participants hold the education qualification of Bachelors' in Nursing, whereas the remaining 80.8% ( $n = 105$ ) were of Diploma in Nursing holders. None had a Masters' in Nursing qualification.

Majority of the participants were single which made up the 60.8% ( $n = 79$ ), and 39.2% ( $n = 51$ ) were others. Finally, the questionnaires were equally distributed to general medical/surgical ward 50% ( $n = 65$ ) and critical care areas such as ICU/HDU/CCU/NICU/A&E, respectively, which made up the total of 100% ( $n = 130$ ).

Table 1: Social demographic data of nurses (n = 130)

Variables	Frequency	%	M±SD
<b>Age</b>			28.55±5.40
< 28	66	(50.8%)	
≥ 28	64	(49.2%)	
<b>Gender</b>			
Male	20	(15.4%)	N/A
Female	110	(84.6%)	N/A
<b>Ethnicity</b>			
Malay	53	(40.8%)	N/A
Non-Malay	77	(59.2%)	N/A
<b>Nursing experience (years)</b>			6.35±5.14
< 6	72	(55.4%)	
≥ 6	58	(44.6%)	
<b>Highest nursing education level</b>			
Diploma in Nursing	105	(80.8%)	N/A
Bachelor's in Nursing	25	(19.2%)	N/A
<b>Marital status</b>			
Single	79	(60.8%)	N/A
Others	51	(39.2%)	N/A
<b>Current work setting</b>			
General setting (Medical/ Surgical Ward)	65	(50%)	N/A
Critical Care setting (ICU/ HDU/CCU/ NICU/ A&E)	65	(50%)	N/A

### *Level of emotional intelligence among nurses*

There are four dimensions on a set of 7-point Likert scale to measure the level of EI among nurses, as shown in Table 2. The four dimensions are self-emotions appraisal (SEA), regulation of emotions (ROE), use of emotion (UOE), and others' emotion appraisal (OEA). Likert scale consisted of the following: (1 - Strongly disagree, 2 - Disagree, 3 - Slightly disagree, 4 - Neither agree nor disagree, 5 - Slightly agree, 6 - Agree, 7 - Strongly agree). Total EI scores for nurses ranged from 55 to 112 with the mean score of 89.92, and standard deviation of 10.30. There was no classification on the level of EI stated in the WLEIS. Therefore, the higher the total EI scores than the mean value indicated higher EI.

SEA dimension in Table 2 comprises of 4 items (Q1-Q4). The item that has the highest mean and standard deviation was Q4, "I always know whether I am happy or not" (M = 5.98, SD = 1.02), followed by Q3, "I really understand what I feel" (M = 5.88, SD = 1.01), subsequently Q2, "I have a good understanding of my own emotions" (M = 5.82, SD = 0.97, and the lastly Q1, "I have a good sense of why I feel certain feelings most of the time" (M = 5.70, SD = 0.90). The mean of the total score for SEA dimension was  $5.48 \pm 0.77$ , with scores ranging from 3.25 to 7.00.

Meanwhile for ROE dimension as shown in Table 2, it comprised of 4 items (Q5-Q8). The item that had the highest mean and standard deviation was Q8, "I have a good understanding of the emotions of people around me" (M = 5.61, SD = 1.02), followed by Q7,

"I am sensitive to the feelings and emotions of others" (M = 5.50, SD = 1.11), subsequently Q6, "I am a good observer of other's emotions" (M = 5.46, SD = 1.01), and the lastly Q5, "I always know my friends' emotions from their behaviour" (M = 5.36, SD = 1.05). The mean of the total score for ROE dimension was 5.48 (SD 0.81), with scores ranging from 3.00 to 7.00.

The UOE dimension in Table 3 comprised of 4 items (Q9-Q12). The item that has the highest mean and standard deviation was Q12, "I would always encourage myself to try my best" (M = 6.00, SD = 0.89), followed by Q9, "I always set goals for myself and then try my best to achieve them" (M = 5.85, SD = 1.06), subsequently Q11, "I am a self-motivated person" (M = 5.69, SD = 1.10, and the lastly Q10, "I always tell myself I am a competent person." (M = 5.57, SD = 1.09). The mean of the total score for UOE dimension was  $5.78 \pm 0.89$ , with scores ranging from 1.75 to 7.00.

Lastly, in the OEA dimension, as shown in Table 3, it comprised of 4 items (Q13-Q16). The item that has the highest mean and standard deviation was Q13, "I am able to control my temper so that I can handle difficulties rationally" (M = 5.45, SD = 1.10), followed by Q14, "I am quite capable of controlling my own emotions" (M = 5.43, SD = 1.08), subsequently Q15, "I can always calm down quickly when I am very angry" (M = 5.32, SD = 1.23, and the lastly Q16, "I have good control of my emotions" (M = 5.29, SD = 1.12). The mean of the total score for OEA dimension was  $5.38 \pm 1.00$ , with scores ranging from 1.25 to 7.00.

**Table 2: Self-emotions appraisal (SEA) and Regulation of emotion (ROE) dimensions in level of emotional intelligence among nurses (n = 130)**

Self-emotions appraisal (SEA) Items	1 Strongly disagree	2 Disagree	3 Slightly disagree	4 Neither agree nor disagree	5 Slightly agree	6 Agree	7 Strongly agree	M ± SD
<b>Q4.</b> I always know whether I am happy or not	0	1	4	6	16	62	41	5.98±1.02
	(0%)	(0.8%)	(3.1%)	(4.6%)	(12.3%)	(47.7%)	(31.5%)	
<b>Q3.</b> I really understand what I feel	0	1	2	11	19	61	36	5.88±1.01
	(0%)	(0.8%)	(1.5%)	(8.5%)	(14.6%)	(46.9%)	(27.7%)	
<b>Q2.</b> I have a good understanding of my own emotions	0	1	1	12	23	63	30	5.82±0.97
	(0%)	(0.8%)	(0.8%)	(9.2%)	(17.7%)	(48.5%)	(23.1%)	
<b>Q1.</b> I have a good sense of why I feel certain feelings most of the time	0	0	3	10	30	67	20	5.70±0.90
	(0%)	(0%)	(2.3%)	(7.7%)	(23.1%)	(51.5%)	(15.4%)	
<b>TOTAL</b>								<b>5.84±0.77</b>

(cont'd) Table 2: Self-emotions appraisal (SEA) and Regulation of emotion (ROE) dimensions in level of emotional intelligence among nurses (n = 130)

Regulation of emotion (ROE) Items	1 Strongly disagree	2 Disagree	3 Slightly disagree	4 Neither agree nor disagree	5 Slightly agree	6 Agree	7 Strongly agree	M ± SD
<b>Q8.</b> I have a good understanding of the emotions of people around me	0	0	6	14	24	67	19	5.61±1.02
	(0%)	(0%)	(4.6%)	(10.8%)	(18.5%)	(51.5%)	(14.6%)	
<b>Q7.</b> I am sensitive to the feelings and emotions of others	0	3	5	14	26	66	16	5.50±1.11
	(0%)	(2.3%)	(3.8%)	(10.8%)	(20%)	(50.8%)	(12.3%)	
<b>Q6.</b> I am a good observer of other's emotions	0	1	6	14	31	67	11	5.46±1.01
	(0%)	(0.8%)	(4.6%)	(10.8%)	(23.8%)	(51.5%)	(8.5%)	
<b>Q5.</b> I always know my friends' emotions from their behaviour	0	1	6	18	39	52	14	5.36±1.05
	(0%)	(0.8%)	(4.6%)	(13.8%)	(30%)	(40%)	(10.8%)	
<b>TOTAL</b>								<b>5.48±0.81</b>



**Table 3: Use of emotion (UOE) and Other's emotion appraisal (OEA) dimensions in level of emotional intelligence among nurses (n = 130)**

Use of emotion (UOE) Items	1 Strongly disagree	2 Disagree	3 Slightly disagree	4 Neither agree nor disagree	5 Slightly agree	6 Agree	7 Strongly agree	M ± SD
<b>Q12.</b> I would always encourage myself to try my best	0 (0%)	1 (0.8%)	1 (0.8%)	5 (3.8%)	20 (15.4%)	66 (50.8%)	37 (28.5%)	6.00±0.89
<b>Q9.</b> I always set goals for myself and then try my best to achieve them	1 (0.8%)	2 (1.5%)	1 (0.8%)	8 (6.2%)	18 (13.8%)	69 (53.1%)	31 (23.8%)	5.85±1.06
<b>Q11.</b> I am a self-motivated person	2 (1.5%)	1 (0.8%)	0 (0%)	13 (10%)	29 (22.3%)	57 (43.8%)	28 (21.5%)	5.69±1.10
<b>Q10.</b> I always tell myself I am a competent person	0 (0%)	1 (0.8%)	7 (5.4%)	12 (9.2%)	28 (21.5%)	61 (46.9%)	21 (16.2%)	5.57±1.09
<b>TOTAL</b>								<b>5.78±0.89</b>

(cont'd) Table 3: Use of emotion (UOE) and Other's emotion appraisal (OEA) dimensions in level of emotional intelligence among nurses (n = 130)

Other's emotion appraisal (OEA) Items	1 Strongly disagree	2 Disagree	3 Slightly disagree	4 Neither agree nor disagree	5 Slightly agree	6 Agree	7 Strongly agree	M ± SD
<b>Q13.</b> I am able to control my temper so that I can handle difficulties rationally	1 (0.8%)	2 (1.5%)	5 (3.8%)	12 (9.2%)	32 (24.6%)	65 (50%)	13 (10%)	5.45±1.10
<b>Q14.</b> I am quite capable of controlling my own emotions	2 (1.5%)	0 (0%)	4 (3.1%)	14 (10.8%)	37 (28.5%)	60 (46.2%)	13 (10%)	5.43±1.08
<b>Q15.</b> I can always calm down quickly when I am very angry	0 (0%)	4 (3.1%)	8 (6.2%)	17 (13.1%)	32 (24.6%)	51 (39.2%)	18 (13.8%)	5.32±1.23
<b>Q16.</b> I have good control of my emotions	1 (0.8%)	2 (1.5%)	6 (4.6%)	17 (13.1%)	38 (29.2%)	55 (42.3%)	11 (8.5%)	5.29±1.12
<b>TOTAL</b>								<b>5.38±1.00</b>

#### Comparison of four dimensions of emotional intelligence

A comparison of the mean between four dimensions of EI is shown in Tables 2 and 3. SEA had the highest mean and standard deviation ( $M = 5.84$ ,  $SD = 0.77$ ),

followed by UOE ( $M = 5.78$ ,  $SD = 0.89$ ), ROE ( $M = 5.48$ ,  $SD = 0.81$ ), and lastly OEA ( $M = 5.38$ ,  $SD = 1.00$ ). The overall EI mean and the standard deviation was 5.62 and 0.64, with scores ranging from 3.44 and 7.00.

### Association between the level of emotional intelligence and demographic variables among nurses

The association between the level of EI and demographic variables among nurses were analysed using the non-parametric test by Mann Whitney U. The overall mean score for EI is 89.92, with a score range of 55-112.

In this study, Table 4 showed that older nurses have a higher level of EI than nurses who are younger. Therefore, the finding showed that there is a significant

association between the level of EI according to age ( $p \leq .001$ ,  $z = -4.574$ ).

In addition, Table 4 showed that nurses with  $\geq 6$  years of nursing experience had a higher level of EI than nurses who had  $< 6$  years of nursing experience. Meanwhile, nurses with  $< 6$  years of nursing experience had lower EI levels as compared to nurses with  $\geq 6$  years of nursing experience. Therefore, the finding showed that there is a significant association between the level of EI and years of nursing experience ( $p \leq .001$ ,  $z = -4.886$ ).

**Table 4: Association between Demographic Variables and Emotional Intelligence Score (n = 130)**

Variables	Emotional Intelligence Score		p-value	z
	n (%) < 89	n (%) $\geq 89$		
<b>Age</b>			$\leq .001^*$	-4.574
< 28	37 (28.5%)	29 (22.3%)		
$\geq 28$	11 (8.5%)	53 (40.7%)		
<b>Gender</b>			0.487	-.695
Male	6 (4.6%)	14 (10.8%)		
Female	42 (32.3%)	68 (52.3%)		
<b>Ethnicity</b>			0.951	-.062
Malay	19 (14.6%)	34 (26.2%)		
Non-Malay	29 (22.3%)	48 (36.9%)		
<b>Years of nursing experience</b>			$\leq .001^*$	-4.886
< 6	40 (30.8%)	32 (24.6%)		
$\geq 6$	8 (6.2%)	50 (38.5%)		
<b>Highest nursing education level</b>			0.306	-1.025
Diploma in Nursing	41 (31.5%)	64 (49.2%)		
Bachelor's in Nursing	7 (5.4%)	18 (13.8%)		
<b>Marital status</b>			0.088	-1.706
Single	35 (26.9%)	44 (33.8%)		
Others	13 (10.0%)	38 (29.3%)		
<b>Current work setting</b>			0.717	-.362
General setting (Medical/Surgical Ward)	23 (17.7%)	42 (32.3%)		
Critical Care setting (ICU/ HDU/ CCU/ NICU/ A&E)	25 (19.2%)	40 (30.8%)		

## Discussion

### *Demographic data*

The total number of nurses who participated in this study was 130. The majority of the nurses were female (84.6%), and the minority were male (15.4%). This is similar to the study conducted by Hua et al. (2019), where their studies comprised of 99.31% female nurses and 0.69% male nurses. In this study, there were more nurses whose age was <28 years (50.8%), compared to those  $\geq$  28 years (49.2). However, another study showed that there were 57.73% of nurses whose age ranged from 20-30 years, 31.62% of those whose age ranged from 31-40 years, and only 10.65% of nurses with age ranging from 41-50 years and above (Hua et al., 2019). This also indicated that both our study and other study were similar, where the number of respondents comprised of younger nurses compared to the older nurses.

In addition, most nurses were non-Malay (59.2%), as nurses who are Malay only comprised of 40.8% in this study. There was a lack of related studies in Malaysia or other Asian countries. Hence, the comparison could not be carried out. Besides that, most nurses were those who had < 6 years of nursing experience (55.4%), while the minority of nurses were those who have  $\geq$  6 years of nursing experience (44.6%). However, other study findings showed that their majority of the respondents were mostly nurses who work  $\leq$  6 years (37.3%), followed by 7-10 years (32.6%), and  $\geq$  12 years (30.1%) (Konstantinou et al., 2017).

Moreover, the highest nursing education level of nurses who participated in this study was mostly Diploma in Nursing (80.8%), and only a few hold a bachelor's degree in nursing (19.2%). In contrast, a study

conducted by Kahraman and Hicdurmaz (2015) showed that 58.97% of nurses hold a Bachelor of Science, 22.44% medical vocational schools, 15.06% associate degree and 3.54% Masters or doctoral degree.

Nurses in this study were mostly single (60.8%), while others are not (39.2%). In contrast, most of the respondents in other studies comprised of 64.8% of nurses who are married, 30.9% single, 3.8% divorced, and 0.5% widowed (Konstantinou et al., 2017).

Lastly, this study included 50% of nurses who worked in general settings (medical/surgical) and 50% of nurses who worked in critical care settings. Nevertheless, Hua et al. (2019) showed 32.99% of their respondents were from medical unit, 29.55% surgical unit, 6.87% paediatric unit, 4.47% obstetrics and gynaecology unit, 6.19% operating room, 6.53% emergency room, 5.50% intensive care unit, and 7.90% out-patient department.

### *Level of emotional intelligence among nurses*

Nurses scored a higher mean value and standard deviation ( $5.84 \pm 0.77$ ) in the dimension of SEA but scored the lowest mean value and standard deviation in the dimension of OEA ( $5.38 \pm 1.00$ ). This showed that nurses had higher self-emotion awareness due to their profession itself that require them to assess, understand and express their feeling in their daily interactions with patients' and their family as well as other healthcare personnel that led to higher scores in self-emotional awareness. Similarly, in the study by Hua et al. (2019), nurses had higher mean value and standard deviation ( $22.80 \pm 3.48$ ) in the dimension of SEA. In contrast, it was reported that nurses scored lower mean value and standard deviation ( $19.20 \pm 4.33$ ) in the dimension of ROE.

Besides that, study findings showed that nurses' EI mean value, and standard deviation scores in other dimensions, UOE and ROE, were  $5.78 \pm 0.89$  and  $5.48 \pm 0.81$ , respectively. Whereas study findings by Hua et al. (2019), reported a mean value and standard deviation for OEA and UOE, as  $19.57 \pm 5.45$  and  $19.76 \pm 3.94$  respectively. In contrast with our study, nurses were reported to have lower EI scores in the dimension of OEA. Hua et al. (2019) stated that the overwhelming workload of nurses might lead to a lack of time and attention for their patients. Hence, nurses may lose their abilities to discover and appraise others' emotions caused by a lack of communication.

Moreover, the overall mean score of EI in this study was 89.92, and a standard deviation of 10.30. Correspondingly in the study by Hua et al. (2019), the mean score of EI was 81.32 and a standard deviation of 12.13. It was reported that a high emotional awareness allowed the nurses to regulate their emotions appropriately despite encountering tough situations in delivering quality nursing care.

#### ***Association between level of emotional intelligence and demographic variables among nurses***

This study revealed that 40.7% ( $n = 53$ ) of the nurses who were older had higher EI level as compared to the younger nurses that made up of 28.5% ( $n = 37$ ) from the total target population of the study. Correspondingly, a study conducted by Srinivasan and Samuel (2016) on EI among 152 employed nurses in 10 hospitals in Villupuram District, India, showed that respondents who are older had a higher level of EI as compared to the younger respondents. Besides that, Hua et al. (2019) had carried out a descriptive study to determine the level of

nurses' emotional intelligence among 298 nurses at two tertiary hospitals in Dali, Yunnan, China. It was found that older individuals scored higher EI than younger individuals. This revealed that older nurses display a higher level of EI compared to younger nurses.

Meanwhile, more than half of the nurses 38.5% ( $n = 50$ ) in this study who had more years of nursing experience had displayed higher EI level as compared to the group of nurses who had less years of nursing experiences, which made up of a total of 30.8% ( $n = 40$ ) from the targeted population in this study. Similarly, Srinivasan and Samuel (2016) in their study on EI among 152 employed nurses in 10 hospitals in Villupuram District, India, found that nurses who had more years of working experience had a higher EI as compared to nurses who were new to the profession. In addition, another study by Kahraman and Hicdurmaz (2015) on identifying EI skills of Turkish clinical nurses based on their sociodemographic variables, found that there was a significant association between EI and years of working experience. Nurses who were more experienced had a higher level of EI.

#### **Conclusion**

EI is truly essential for nurses' psychological well-being while delivering quality nursing care. The majority of nurses in this private hospital in Petaling Jaya, Selangor had a high level of EI. It was shown that the demographic variables, namely age and years of nursing experiences, were significantly associated with the level of EI. Hence, it is recommended that healthcare and education institutions carry out more training in recognising and assessing one's emotions, such as courses or workshops that teaches how to interpret one's body

language, effective communication skills, and strategies in managing difficult situations. As a result, nurses will be better equipped and more confident in dealing with patients in any situation especially if they are nursing leaders. At the same time, hopefully this can result in better patient care and health outcomes. Furthermore, a more diverse population should be considered to obtain generalisability of the study findings other than considering stratified sampling method to study the relationship between the level of EI, gender, the highest level of education, and marital status for more accurate results pertaining to a specific demographic variable. Lastly, upcoming studies should also consider looking into other possible influencing factors that can impact the nurses' EI level, such as culture, leadership styles and type of hospital settings.

### **Limitation**

One of the limitations of the study was the study population where it was confined only to nurses from a private hospital in Petaling Jaya, Selangor with a sample size of 130. Therefore, the findings were insufficient to represent nurses in Malaysia due to the small sample size and lack of access to other private and government hospitals.

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