Correlation between Emotional Intelligence and Workplace Flourishing among Nurses Working in Critical Care Units

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ABSTRACT

Context: Emotional intelligence is a group of skills not related to mental capabilities and includes social competencies that enhance an individual's flourishing when confronting daily needs and stress. Emotional intelligence is crucial to one's intelligence for many people to achieve ascendency in their lives and professional careers. As human beings, success and, specifically, professional advancement relies upon a person's ability to recognize other personnel's signals and react to them appropriately.

Aim: This study aimed to assess the correlation between emotional intelligence and workplace flourishing among nurses working in critical care units.

Methods: A descriptive cross-sectional correlation design was utilized. The study was conducted at the critical care units in two hospitals, one public, and one private hospital; both hospitals are in Riyadh-KSA. The study used a systematic sampling of nurses working in critical care units at both hospitals (n=137). The data was collected using two tools: Genos EI self-report inventor, PERMA-Profiler model.

Results: A statistically significant positive correlation was revealed between total emotional intelligence and overall wellbeing domain of workplace flourishing (r=0.585, p <0.05), Happiness domain (r=0.430, p<o.o5), and Health domain (r= 0.370, p <0.05), and a statistically significant negative correlation between total emotional intelligence and loneliness (r=-0.184, p<0.05). Emotional intelligence scores were statistically significant single positive predictors of flourishing workplace scores.

***Conclusion*:** The study results provide a pathway for researchers to better understand a positive correlation between emotional intelligence and workplace flourishing among critical care nurses, statistical significance positive correlation between workplace flourishing and emotional intelligence in overall wellbeing, happiness, and health domain. A statistically significant correlation between negative emotion and loneliness domains. Emotional intelligence must be improved for all nurses and nurse managers by conducting continuing educational training programs about emotional traits and enhancing workplace flourishing.

Keywords: Emotional intelligence, flourishing, workplace, critical care unit, nurses

1. Introduction

Seligman (2012) described positive psychology theory as focusing on "the study of positive emotions, engagement, meaning, positive achievement, and good relationships." The positive psychology approach focuses on recognizing and reinforcing positive organizational behavior, individual strengths, and the reciprocal nature of workplace conditions and individual strengths. Examples of employee strengths that are beneficial include self-efficacy, optimism, resilience, positive emotions, the ability for transformational leadership *(Fitzgerald & Schutte, 2010; Fullagar & Kelloway, 2012),* and very significant emotional intelligence and its correlation with workplace flourishing *(Joseph & Newman, 2010; O'Boyle et al., 2010; Schlaerth et al., 2013).*

Emotional intelligence is the capacity to communicate with other people successfully. A person can comprehend and value others by recognizing and considering his/her own emotions *(Slåtten & Mehmetoglu, 2015).*

Emotional intelligence is defined as the emotional assessment and arrangement for easily behaving. Emotional intelligence helps individuals successfully manage and adapt to workplace stressors *(Salovey et al., 2004).* According to the model of four branches, emotional intelligence contains four areas of cognitive skills: Emotional perception, emotional understanding; emotional facilitation; and emotion management (*Ashraf & Asif Khan 2014).*

Emotional perception states that the capability to notice direct emotions accurately. Emotional understanding includes the utilization of emotions to ease thinking and solve problems. Emotional facilitation denotes recognizing and analyzing complicated feelings, whereas managing emotion includes achieving a goal by handling emotions. Providing various viewpoints of emotional intelligence, the Bar-On model outlines emotional intelligence as various social competencies, non-cognitive capabilities, and skills

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that affect an individual's capacity to flourish when confronted with daily pressures and needs *(Baillien et al., 2017).*

Emotional intelligence is not firm, and over time it develops as individuals learn and grow through integrating cognitive skills and personality competencies. The model is set up on the gratitude and arranging emotions of oneself and emotions of others and plans the following four classes of skills: Self-awareness, self-management; social awareness; and relationship management. Self-awareness indicates the capability to recognize oneself emotions and influence decisions *(Baldry et al., 2017).* Self-management includes the capacity to regulate one's feelings and successfully adapt to changing situations; social awareness contains the capability to be realized, sense, and react to others' emotions appropriately. Relationship management involves communicating effectively, affecting, and evolving others while managing conflict and collaboration construction *(Carter et al., 2013).*

Flourishing is a popular concept utilized to illustrate the high levels of wellbeing. The concept of flourishing describes positive emotions and positive functioning styles in life, including social, psychological, and emotional aspects of wellbeing. Flourishing can be related to various theories and models that conceptualize aspects of flourishing. The mental health continuum (MHC) focuses on the function pattern of individuals, for both personal and social levels, and characterize persons as fragile (i.e., low levels of social, psychological, and emotional wellbeing), middling mentally healthy (i.e., neither fragile nor flourishing) and flourishing (i.e., high levels of social, psychological, and emotional wellbeing) *(Chia, & Kee, 2018).*

Flourishing is defined broadly to include employee thriving (e.g., vitality and learning), happiness (e.g., positive moods and emotions), and engagement (e.g., job satisfaction and self-determined motivation). Two broad traits (extraversion and core self-evaluations) were identified as being central to employee flourishing. Examination of the behaviors, attitudes, emotions, emotional intelligence and outcomes experienced by people high in these traits leads to the conclusion that people who naturally flourish at work tend to have a positive approach to the self, others, and work situations, also tend to take an active, engaged, and forward-looking approach to work, especially in the novel or challenging situations *(Bono et al., 2012).*

Flourishing is a constructive characteristic (i.e., stabilization of emotional state, flexibility, cheerfulness. liveliness, optimism, self-esteem, and self-respect); approach characteristics (i.e., significance, involvement, competence, and constructive relations); and positive evaluation characteristics (i.e., constructive feelings and life satisfaction) *(Bernstein & Trimm, 2016).*

Based on the mental health continuum (MHC), flourishing consists of three essential elements: emotional, social, and psychological wellbeing. This model is based on humanistic and optimistic psychology societies and contains an individual's psychological and social working (*Qureshi et al., 2014).* Emotional wellbeing involves positive feelings of existence, adoration of life, and achieving life satisfaction. Flourishing could be conceptualized as the affiliation and presence of positive relationships, feelings of significance, self-esteem, self-satisfaction, accomplishment, hope, and social involvement. Social wellbeing indicates the social approaches that the individual follows and includes social actualization, social consistency, social adherence, social involvement, and social acceptance. Psychological wellbeing includes the individual's psychological performance: Autonomy, individual development, self-acceptance, positive relationships, and environmental perfection *(D'Cruz et al., 2018).*

Accomplishing human flourishing is an existential journey throughout life of hope, results, regrets, losses, illnesses, suffering, and coping. The nurse helps the individual recover or develop new paths to human flourishing. It is easy to realize a flourishing workplace. It is a culture of increasing mutual trust, transparency, and unity. From top to bottom, it is a culture in which people expect to come to work every day because they feel much attached. It is a culture in which everyone works together because they believe in the organization's mission and believe in each other *(Escartin et al., 2011).*

Higher emotional intelligence was significantly related to better mental health, more work engagement, more satisfaction with social support in the workplace, and more perceived power in the workplace. Mediation path models indicated that more satisfaction with social support in the workplace and more perceived power in the workplace linked greater emotional intelligence to indicators of flourishing *(Petrides et al., 2016).*

Critical care nurses are specialized in providing care for very ill patients. Pressing concerns require special skills and knowledge and must protect their patients from serious complications. In some conditions, the nurse must also take care of hospice patients. The nurse is the person who spends more time with the patient and the family than all the health team members *(Bakker & Demerouti, 2014).* Patients with critical conditions command the nurse to prioritize saving patients' lives and meeting their physical needs *(Alberto, 2013).* Difficulties in making decisions with life-threatening situations result in high-stress levels for critical care nurses *(Bakker & Demerouti, 2018).*

Health care managers must establish systematic and dynamic policies and procedures to look after emotional intelligence and organizational citizenship to help emergency and critical care nurses *(Baillien et al., 2009).* Highly emotionally intelligent individuals have greater mastery that enables them to manage the demanding situations more effectively, which prevents them from experiencing negative wellbeing. Thus, emotional intelligence as a personal resource appears to play a significant role in enhancing the wellbeing (flourishing) of individuals *(Huppert & So, 2013).*

2. Significance of the study

The individual difference in the characteristic of emotional intelligence may be a platform for the progress of intra-personal and interpersonal workplace features such as perception of power and satisfaction with social support, which bolsters workplace flourishing. Emotional intelligence is entrenched in environmental and social circumstances and thus falls into the positive psychology conceptualization of the separate institutions and groups *(Carter & Loh, 2017).*

Healthier perception, understanding, and regulation of emotion, core components of emotional intelligence, may enable employees' mastery of workplace events and reactions to events, encouraging a greater sense of power. Better perception, understanding, and emotion regulation may also lead to better interpersonal work relationships and, thus, more satisfaction with the workplace's social support. The competencies comprising emotional intelligence may directly facilitate workplace flourishing. They may also indirectly impact workplace flourishing by encouraging the development of other qualities such as perception of power and workplace satisfaction that may further promote workplace flourishing *(Engelland, 2018).*

Emotional intelligence may facilitate the development of various adaptive intra- and interpersonal qualities in many realms of life, and these adaptive qualities may, in part, account for the connection between greater emotional intelligence and flourishing *(Schutte & Malouff, 2013).* The researchers are interested in exploring the correlation between emotional intelligence and workplace flourishing so that this study will shed light on this relationship among nurses working in critical care units

3. Aim of the study

This study aims to assess the correlation between emotional intelligence and workplace flourishing among nurses working in critical care units.

3.1. Research Questions

- What are the levels of emotional intelligence among nurses working at critical care units?
- What are the levels of workplace flourishing among nurses working at critical care units?
- What is the relationship between emotional intelligence and workplace flourishing among nurses working at critical care units?

4. Subjects & Methods

4.1. Research Design

The researchers used a descriptive cross-sectional correlational research design. Correlational designs are typically cross-sectional. These designs are used to examine if changes in one or more variables are related to changes in another variable(s). Descriptive correlational studies describe the variables and the relationships that occur naturally between and among them *(Sousa et al., 2007)*

4.2. Study setting

This study was conducted at critical care units in two hospitals, one governmental and another private hospital; both hospitals are in Riyadh-KSA. The first governmental hospital is King Fahd Medical City Hospital, which has about 42 beds in the ICU and has a total of 163 nurses. In addition, it also has about 16 beds in the CCU and 48 nurses. The second hospital is Dallah Hospital. It is a private hospital with about 40 beds in the ICU and 82 nurses, plus 17 beds in the CCU and about 31 nurses.

4.3. Subjects

The study sample included a systematic sampling of the nurses working in critical care units at both hospitals (n=137 nurses).

$$n = \frac{\mathrm{N} \times \mathrm{P}(1-\mathrm{P})}{(N-1 \times (d2 \div z2) + p\,(1-p)}$$

- n= sample size
- N=population size
- d=the error rate is 0.05
- z= the standard score corresponding to the significance level is 0.95 and equal 1.96.
- p=availability of property and neutral=0.50

The total population after confirming the inclusion criteria (324) nurses working in the two intensive care units in both hospitals, after excluding the nurses who refused to participate in the study and number of the pilot study and making the sample size equation (137), and according to the sampling frame technique, a list of the number of nurses was prepared, their names arranged alphabetically, the nurses were chosen from odd numbers until collecting the sample size.

Inclusion criteria

The study included RNs (registered nurses) working in the ICUs (intensive care units), staff nurses, nursing managers as supervisors, coordinators, or educators regardless of the type of employment such as part-time, full-time, and contract.

4.4. Tools of data collection

Two data collection tools were used:

4.4.1. The Genos Emotional Intelligence Self-Report Inventory

It was used to assess emotional intelligence traits based on *Palmer et al. (2009).* It consisted of two parts:

The first part was a socio-demographic datasheet. It aimed to obtain information about nationality, age, gender, nursing qualification, marital status, income, working unit, years of experience, and job position for studied nurses.

The second part was the self-report Genos Emotional Intelligence inventory designed to measure the frequency with which an individual shows emotionally intelligent behaviors through seven dimensions. They were emotional self-awareness, emotional self-expression, emotional awareness of others, emotional reasoning, emotional self-management, emotional management of others, and

emotional self-control. Each dimension contained ten statements with a total of 70 statements.

Emotional Self-Awareness (ESA) aimed to measure the relative frequency with which an individual consciously identifies their emotions at work. Emotional Expression (EE) measures the relative frequency that an individual appropriately expresses their emotions at work. Emotional Awareness of Others (EAO) was designed to measure the relative frequency with which an individual identifies the emotions expressed by others in the workplace. Emotional Reasoning (ER) measures the relative frequency with which an individual incorporates emotionally relevant information in the process of decision-making or problem-solving at work. Emotional Self-Management (ESM) aimed to measure the relative frequency with which individuals successfully manage their own emotions at work. Emotional Management of Others (EMO) measured the relative frequency with which an individual manages the emotions of others at work successfully. Emotional Self-Control (ESC) measures the relative frequency with which an individual controls their strong emotions appropriately in the workplace.

The tool tested for consistency reliability. It estimates (Cronbach's α) for the Total EI scale and the seven subscales across five nationalities: American, Asian, Australian, Indian, and South African. The Genos Total EI scale scores were associated with very high levels of internal consistency reliability (0.91) across all nationalities. Overwhelming, the subscale scores were also associated with respectable levels of internal consistency reliability. The mean subscale reliabilities were above 0.70, ranging from 65.7% to 84.7%. Overall, the internal consistency reliability estimates associated with the Genos EI Inventory subscales may be regarded favorably alongside other self-report measures of EI.

Scoring system

Each item was rated on a 5-point Likert scale in which 1=almost never and 5= almost always. Twenty items are reverse scored (5, 9, 11, 12, 16, 17, 21, 26, 30, 35, 36, 38, 43, 49, 55, 57, 61, 64, 65, and 67). The score range for each dimension is 10 to 50. The total score of EI range from 70 to 350, with higher scores, indicate increased engagement of EI behavior. Each domain is categorized as low with a range (10-39.9) and high (40-50). The total score was categorized as low (70-280) and high (280.1-350).

4.4.2. PERMA-Profiler Model

The second tool was the PERMA-Profiler model. It was adopted for assessing workplace flourishing among critical care nurses from *Butler and Kern (2016).*

PERMA-Profiler model developed for adults, which measures flourishing in terms of 5 domains: It consisted of 23 questions on an 11-point scale ranging from 0 to 10, first domain considered as overall wellbeing and contain positive emotion, engagement, relationships, meaning, and accomplishment, three questions for each domain. The second domain was 1 question on happiness. The third domain included three questions on negative emotion (sadness, anger, and anxiety), the fourth domain included three questions on self-perceived physical health to measure a subjective sense of health (feeling good and healthy each day), and the fifth domain included one question on loneliness.

These eight additional items act as filler items between the main 15 items and provide additional information relevant to wellbeing. Questions 5, 10, 22 measure the positive emotion, questions 3, 11, 21 measure the engagement, questions 6, 15, 19 measure the relationships, questions 1, 9, 17 measure the meaning, questions 2, 8, 16 measure the accomplishment, to this point the scale are summed to show the overall wellbeing, question 23 measures happiness, questions 7, 14, 20 measures the negative emotions, questions 4, 13, 18 measures the self-perceived physical health, and question 12 measures the loneliness. The Cronbach's alpha for the PREMA-Profiler Model was 0.89. In the present sample, Cronbach's alpha was 0.94.

Scoring system

Nurses' responses ranged from zero for "Never" answers to 10 for "Always" answers with the endpoints labeled; researchers have often used radial buttons, but slider scales are an alternative, which seems easier for participants and more visually appealing. Scores are calculated as the average of the items comprising each factor. Mean and standard deviation was calculated and then converted into a percent score.

Table (1): The scoring levels of workplace flourishing.

Flourishing Levels	Low	High
Positive emotion	0-22.5	22.6-30
Engagement	0-22.5	22.6-30
Relationships	0-22.5	22.6-30
Meaning	0-22.5	22.6-30
Accomplishment	0-22.5	22.6-30
Overall wellbeing	0-112.5	112.6-150
Happiness	0-7.5	7.6-10
Negative emotion	0-22.5	22.6-30
Self-perceived physical Health	0-22.5	22.6-30
Loneliness	0-7.5	7.6-10

4.5. Procedures

The operational design for this study included the preparatory phase, pilot study, fieldwork, ethical considerations. The preparatory phase included reviewing past, current, local, and international related literature and theoretical knowledge of emotional intelligence and workplace flourishing and critical care nurses' role by using textbooks, articles, periodicals, and other available resources through the Internet search.

Ethical Consideration: Permissions were obtained from the managers of the participants' hospitals before data collection and after receiving the IRB (Institutional Review Board) approval. Participation in this survey was voluntary. The questionnaires had a cover letter that stated the purpose of the survey, the needed time to complete the survey, a description of the survey's topics and contents, the statements about anonymity, confidentiality, and the way to

obtain additional information the participant may prefer to add.

Prior to fieldwork, a pilot study was conducted on 14 critical care nurses in the first and second week of March 2019. They represent 10% of study subjects to examine the language's clarity, practicability, and the feasibility of the research process. It was also used to estimate the time needed to fill the questionnaires, which ranged between 30-40 minutes. Critical care nurses who participated in the pilot study were excluded from the primary study sample as simple tool modifications were done due to tool translation into Arabic language and back translation into the English language by language experts, and any discrepancies found between the back translation and the original tools were taken as an indication of a translation error.

Fieldwork: The study was implemented in four months, from the beginning of the third week of March 2019 to the end of the third week of July 2019. The interview method was used for the data collection tools; the researchers interviewed subjects after explaining the study's aim by collecting two questionnaires in a one-word document preceded by a cover letter.

The researchers requested the nurses' names list from the nursing manager in both hospitals. The data was collected in two days weekly on Sunday and Wednesday during the morning shift from 9.00 am to 3.00 pm, at both hospitals in critical care units, and each critical care nurse (who agreed to participate in the study) was interviewed individually by one of the researchers.

The researchers distributed the nurses' questionnaires after endorsement. The respondents were asked to return the completed surveys within 30-40 minutes. Nurses filled in the questionnaires in the researchers' presence to clarify any ambiguous sentences. The questionnaires were completed easily without any problems and returned to the researchers in the same shift; then, the researchers thanked the respondents and ensured that the collected data would be used for the sole purpose of research.

4.6. Data Analysis

The data was inputted into a Microsoft Excel worksheet. The collected data were then analyzed using the Statistical Package for Social Science (SPSS) version 20. A descriptive statistical analysis was used: Descriptive statistics frequency, percentage, mean and standard deviation, and inferential statistics. The observed differences, associations were considered as follows: $p>0.05$ Not significant (NS), $p\leq0.05$ Significant (S), $p\leq0.001$ High significant (HS). ANOVA test was used to test for a significant relationship between dimensions of both variables.

A multiple regression analysis was conducted to predict factors that could affect the emotional intelligence of critical care nurses. The confidence level chosen for the study was 95%. An F-test is any statistical test where the test statistic has an F-distribution under the null hypothesis. It is most often used when comparing statistical models that have been fitted to a data set to identify the model that best fits the population from which the data were sampled. Exact "F-tests" mainly arise when the models have been fitted to the data using least squares.

5. Results

Table 2 shows that three-fifths (60.6%) of nurses were Filipino. Nearly half (45.3%) of them were between 30-40 years of age. A majority (82.5%) of the nurses were females, and more than one-third (36.4%) had a bachelor's nursing degree. Slightly more than three-fifth (62%) of nurses were married, and more than half (57.7%) had income equivalent to expenditure. Almost half of the nurses worked at the Adult Intensive Care Unit (49.6), and their experiences from one year to five years (47.4%). Moreover, most of the study participants (82.48%) are staff nurses.

Table 3 ranks the mean score of emotional intelligence and workplace flourishing among studied subjects. As noticed from the table, the mean score of emotional management of others is the highest-ranked emotional intelligence domain (41.00) with a mean score of (36.73±5.49). The lowest mean scores were for emotional expression and emotional reasoning (37.00), with a mean score of 34.29±3.56, and 34.68±3.87 respectively.

While happiness among studied subjects (9.00) ranked as the highest mean score of workplace flourishing with a mean score of (7.35±2.04), the lowest mean score of workplace flourishing is negative emotion (6.33) with a mean score of (5.12±1.92). The overall wellbeing was revealed at a high level with a mean score of 117.34±21.32.

Figure 1 shows that 84.7%, 83.8%, 81.8%, 78.8%, 75.9%, and 65.7% of nurses had a low level of Emotional Reasoning (ER), Emotional Management of Others (EMO), Emotional Expression (EE), Emotional Self-Management (ESM), Emotional Self-Awareness (ESA), and Emotional Awareness of Others (EAO) respectively. At the same time, 70.8% of them had a high level of Emotional Self-Control (ESC).

Figure 2 shows that 94.17%, 88.33%, 83.22%, 81.02%, 79.54%, 75.19%, 70.08%, 62.78%, and 44.53% of nurses had a high level of meaning, health, engagement, happiness, loneliness, accomplishment, negative emotion, relationships, and positive emotion respectively.

Table 4 shows a statistically significant relationship between nurses' emotional intelligence and gender, income, units, and job position. In contrast, there was no statistically significant relationship between nurses' emotional intelligence and their nationality, ages, qualifications, marital status, and years of experience.

Table 5 shows a statistically significant relationship between nurses' workplace flourishing and their income and units. In contrast, there was no statistically significant relationship between nurses' workplace flourishing and their nationality, ages, gender, qualifications, marital status, years of experience, and job position.

Table 6 shows the correlation matrix of emotional intelligence domains. It reveals a statistically significant positive correlation between all emotional intelligence domains scores.

Table 7 shows the correlation matrix of workplace flourishing domains. It reveals a statistically significant positive correlation between workplace flourishing domains scores. Except between negative and positive emotion; negative emotion and relationships; negative emotions and meaning; negative emotions and accomplishment, and negative emotions and happiness, there is no statistically significant relationship. Also, no statistically significant relationship was found between loneliness, and positive emotion, engagement, relationships, meaning, accomplishment, happiness, and health. However, there was a positive statistically significant relationship between loneliness and negative emotions.

Table 8 shows a statistically significant positive correlation between the total score of emotional intelligence and overall wellbeing, happiness, and health. There is a statistically significant negative correlation between the total score of emotional intelligence and loneliness. Besides, a non-statistically significant correlation was revealed between the total score of emotional intelligence and negative emotions.

Table 9 indicates that nurses' marital status, income, and cardiac care unit were statistically significant positive predictors of emotional intelligence (p-value 0.013, 0.001, 0.001 respectively).

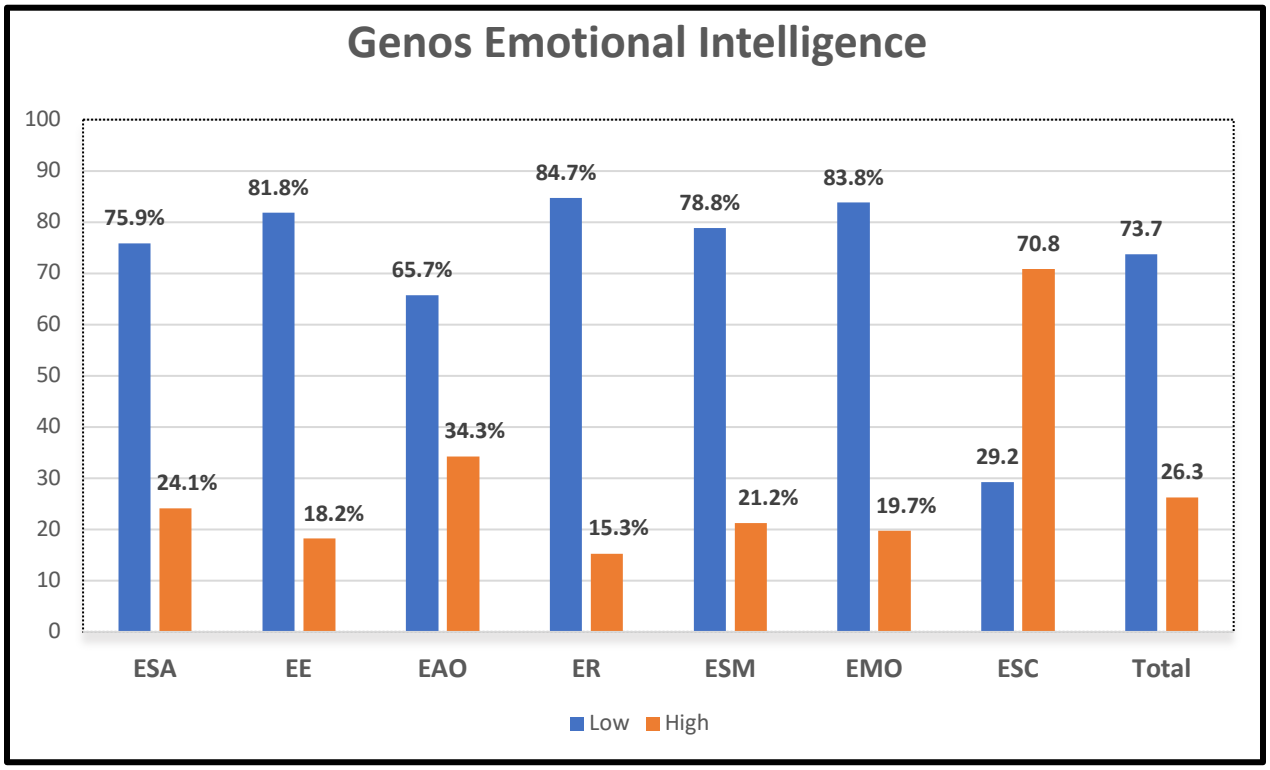
Table 10 indicates that nurses' emotional intelligence scores were a statistically significant positive predictor of workplace flourishing (p-value <0.001).

Table (2): Frequency and percentage distribution of socio-demographic characteristics of studied nurses (n=137).

Socio-Demographic Characteristics	Frequency	Percent
Nationality		
Saudi	3	2.2
Filipino	83	60.6
Indian	48	35.0
Lebanese	3	2.2
Age		
<30	52	38.0
30-40	62	45.3
40+	23	16.8
Gender		
Male	24	17.5
Female	113	82.5
Nursing qualification		
Diploma	38	27.7
Bachelor	50	36.4
Master	49	35.7
Marital status		
Single	52	38.0
Married	85	62.0
Income		
Less than expenditure	43	31.4
Equivalent to expenditure	79	57.7
More than expenditure	15	10.9
Working unit		
Adult Intensive Care Unit	68	49.6
Critical Care Unit	18	13.1
Coronary Care Unit	35	25.5
Cardiac Intensive Care Unit	16	11.7
Years of experience		
<1	21	15.3
1-5	65	47.4
6-10	32	23.4
11+	19	13.9
Job position		
Staff nurses	113	82.48
Nurse manager	24	17.51

Table (3): Scores of emotional intelligence and workplace flourishing of studied nurses (n=137).

Emotional intelligence	Range		Mean±SD	Median	Quartiles	
	Min	Max			1st	3rd
Geno's emotional intelligence						
Emotional self-awareness	25.00	49.00	36.39±4.61	37.00	33.00	39.00
Emotional expression	28.00	44.00	34.29±3.56	34.00	32.00	37.00
Emotional awareness of others	26.00	45.00	35.35±3.85	35.00	32.50	38.00
Emotional reasoning	23.00	44.00	34.68±3.87	35.00	32.50	37.00
Emotional self-management	24.00	47.00	35.08±4.38	35.00	32.00	38.00
Emotional management of others	25.00	49.00	36.73±5.49	37.00	32.00	41.00
Emotional self-control	27.00	47.00	35.11±3.90	35.00	32.00	38.00
Total	205.00	312.00	247.64±23.54	251.00	228.00	262.00
Workplace flourishing						
Positive emotion	3.00	10.00	7.21±1.55	7.33	6.00	8.33
Engagement	2.00	10.00	6.88±1.48	7.00	6.00	7.67
Relationships	3.33	10.00	7.25±1.63	7.33	6.33	8.50
Meaning	3.67	10.00	7.66±1.53	8.00	6.83	8.67
Accomplishment	3.33	10.00	7.66±1.50	8.00	6.67	8.67
Overall wellbeing	48.00	150.00	117.34±21.32	120.00	105.50	130.00
Happiness	1.00	10.00	7.35±2.04	8.00	6.00	9.00
Negative emotion	0.00	9.67	5.12±1.92	5.33	4.00	6.33
Self-perceived physical Health	0.33	10.00	7.19±1.91	7.33	6.00	8.67
Loneliness	0.00	10.00	5.15±2.79	5.00	4.00	7.00



**(ESA): Emotional Self-Awareness*
(EE): Emotional Expression
(ECO): Emotional Awareness of Others
(ER): Emotional Reasoning
(ESM): Emotional Self-Management
(EMO): Emotional Management of Others
(ESC): Emotional Self-Control

Figure (1): Percentage distribution of levels of emotional intelligence of studied nurses (n=137).

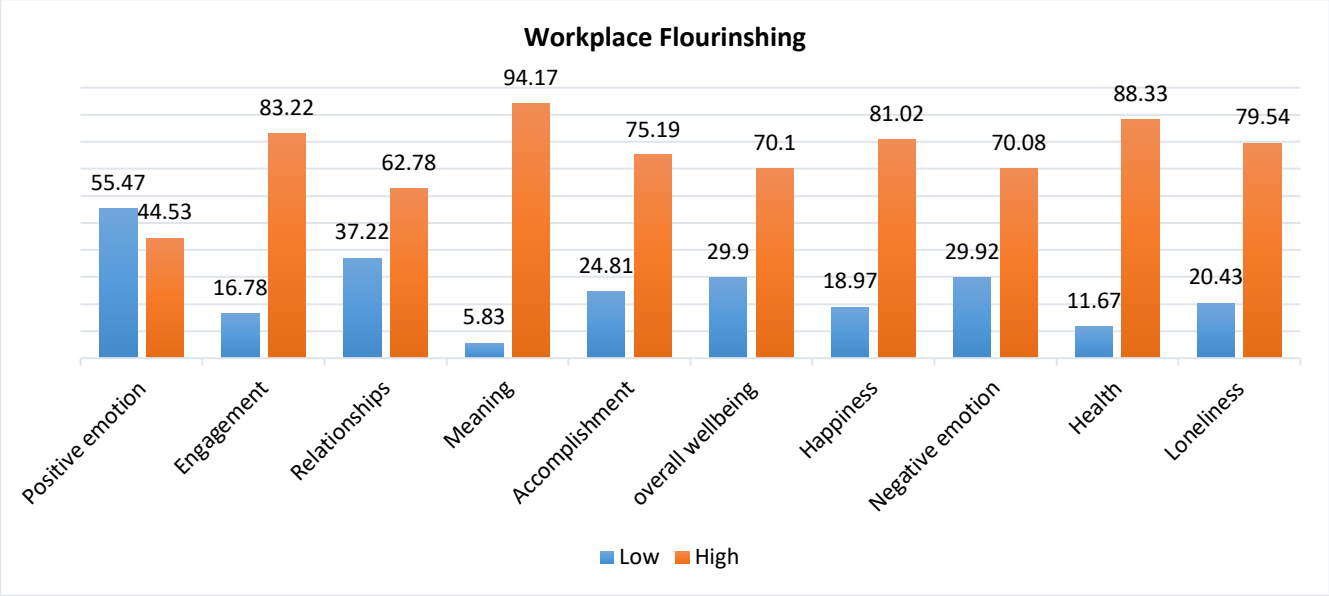


Figure (2): Percentage distribution of levels of workplace flourishing of studied nurses (n=137).

Table (4): Relations between emotional intelligence and the characteristics of the studied nurses (n=137).

Socio-Demographic Characteristics	Scores Mean±SD	F-test	p-value
Nationality			
Saudi/Arab	250.50±29.80		
Filipino	248.00±22.70	0.096	0.909
Indian	246.65±24.65		
Age			
<30	246.87±21.08		
30-40	245.53±24.78	1.423	0.245
40+	255.04±24.94		
Gender			
Male	256.54±26.31		
Female	245.74±22.59	4.265	0.041
Nursing qualification			
Diploma	248.34±24.08		
Bachelor	247.25±23.55	0.081	0.922
Master	253.00±24.04		
Marital status			
Single	244.48±18.47		
Married	249.56±26.08	1.510	0.221
Income			
Less than expenditure	238.56±20.81		
Equivalent to expenditure	250.22±24.66	6.204	0.003
More than expenditure	260.07±15.49		
Working unit			
Adult Intensive Care Unit	250.56±21.72		
Critical Care Unit	259.78±23.65		
Coronary Care Unit	243.14±24.84	5.392	0.002
Cardiac Intensive Care Unit	231.38±18.44		
Years of experience			
<1	251.67±21.77		
1-5	245.49±23.00		
6-10	248.59±23.21	0.415	0.742
11+	248.89±28.49		
Job Position			
Staff nurses	245.74±22.59	4.265	0.041
Nurse manager	256.54±26.31		

Table (5): Relations between workplace flourishing and characteristics of the studied nurses (n=137).

Socio-Demographic Characteristics	Scores Mean±SD	F-test	p-value
Nationality			
Saudi/Arab	109.33±33.09		
Filipino	118.23±22.54	0.506	0.604
Indian	116.81±17.40		
Age			
<30	116.60±18.10		
30-40	115.90±22.27	0.958	0.386
40+	122.91±25.20		
Gender			
Male	123.54±18.67		
Female	116.03±21.69	2.487	0.117
Nursing qualification			
Diploma	115.39±20.15		
Bachelor	117.79±21.80	0.683	0.507
Master	132.50±23.33		
Marital status			
Single	118.02±18.39		
Married	116.93±23.02	0.084	0.773
Income			
Less than expenditure	109.12±23.19		
Equivalent to expenditure	120.73±20.64	5.022	0.008
More than expenditure	123.07±11.04		
Working unit			
Adult Intensive Care Unit	119.25±21.14		
Critical Care Unit	119.72±23.35		
Coronary Care Unit	119.86±16.54	3.742	0.013
Cardiac Intensive Care Unit	101.06±23.81		
Years of experience			
<1	120.38±21.47		
1-5	117.66±17.51		
6-10	111.72±24.95	1.248	0.295
11+	122.37±25.81		
Job Position			
Staff nurses	123.54±18.67		
Nurse manager	116.03±21.69	2.487	0.117

Table (6): Correlation matrix of emotional intelligence domains among studied nurses (n=137).

Emotional Intelligence domains	Spearman's rank correlation coefficient						
	Emotional intelligence domains						
	ESA	**EE**	**EAO**	**ER**	**ESM**	**EMO**	**ESC**
Emotional self-awareness (ESA)							
Emotional expression (EE)	0.568**						
Emotional awareness of others (EAO)	0.754**	0.598**					
Emotional reasoning (ER)	0.538**	0.436**	0.591**				
Emotional self-management (ESM)	0.462**	0.495**	0.557**	0.609**			
Emotional management of others (EMO)	0.658**	0.511**	0.714**	0.651**	0.583**		
Emotional self-control (ESC)	0.497**	0.520**	0.620**	0.381**	0.642**	0.583**	

Table (7): Correlation matrix of workplace flourishing domains among studied nurses (n=137).

Workplace flourishing domains	Spearman's rank correlation coefficient								
	PERMA Profiler domains								
	Positive emotion	Engagement	Relationships	Meaning	Accomplishment	Happiness	Negative emotion	Health	Loneliness
Positive emotion (PE)									
Engagement	0.622**								
Relationships	0.697**	0.510**							
Meaning	0.644**	0.573**	0.606**						
Accomplishment	0.653**	0.551**	0.600**	0.844**					
Happiness	0.768**	0.461**	0.659**	0.607**	0.601**				
Negative emotion	0.120	0.250**	0.036	-0.077	-0.067	0.076			
Health	0.632**	0.437**	.626**	0.549**	0.564**	0.563**	-0.054		
Loneliness	-0.117	0.081	-0.120	-0.023	-0.085	-0.108	0.273**	0.003	0.273**

Table (8): Correlation between total workplace flourishing domains and emotional intelligence domains among studied nurses (n=137).

Emotional Intelligence domains	Spearman's rank correlation coefficient				
	PERMA Profiler				
	Overall wellbeing	Happiness	Negative emotion	Health	Loneliness
Emotional self-awareness	0.444**	0.318**	-0.174*	0.333**	-0.161
Emotional expression	0.360**	0.393**	-0.104	0.257**	-0.065
Emotional awareness of others	0.555**	0.245**	-0.107	0.330**	-0.190*
Emotional reasoning	0.496**	0.262**	0.110	0.309**	0.054
Emotional self-management	0.483**	0.370**	0.068	0.293**	-0.180*
Emotional management of others	0.461**	0.433**	-0.233**	0.295**	-0.206*
Emotional self-control	0.392**	0.285**	-0.064	0.274**	-0.304**
Total	0.585**	0.430**	-0.123	0.370**	-0.184*

Table (9): Best fitting multiple linear regression model for the emotional intelligence score among studied nurses (n=137).

Predictor*	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Constant	224.29	8.87		25.291	<0.001	206.75	241.83
Married	10.03	3.99	0.21	2.516	0.013	2.14	17.92
Income	10.70	3.00	0.28	3.563	0.001	4.76	16.64
Cardiac Care unit	-6.09	1.75	-0.29	-3.468	0.001	-9.56	-2.61

**r-square=0.16. *Model ANOVA: F=9.37, p<0.001. *Variables entered and excluded: age, gender, qualification, experience, nationality.*

Table (10): Best fitting multiple linear regression model for workplace flourishing score among studied nurses (n=137).

Predictor*	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Constant	-14.19	15.70		-0.904	0.368	-45.25	16.87
Emotional intelligence score	0.53	0.06	0.59	8.413	<0.001	0.41	0.66

**r-square=0.34. *Model ANOVA: F=70.79, p<0.001 *Variables entered and excluded: age, gender, qualification, experience, nationality, marital status, income, unit.*

6. Discussion

Emotional intelligence as a personal resource appears to significantly enhance individuals' wellbeing (flourishing). Many researchers show employee emotional intelligence has previously been related to good outcomes in the workplace flourishing *(Joseph & Newman, 2010; O'Boyle et al., 2011; Schlaerth et al., 2013).* The individual difference characteristic of emotional intelligence may be a foundation for workplace flourishing *(Schutte & Loi, 2014).* The present study assesses the correlation between emotional intelligence and workplace flourishing among nurses working in critical care units.

Regarding socio-demographic characteristics, the current study shows that three-fifth of nurses were Filipino, nearly half of them were 30-40 years old, the majority of nurses were females, more than one-third of them had a bachelor degree in nursing, slightly more than three-fifth of nurses were married; more than half of them had income equivalent to expenditure, the majority of the studied are staff nurses, nearly half of the nurses worked at the Adult Intensive Care Unit and their experiences from one year to five years.

This study agreed with *Miao et al. (2018),* who conducted a study entitled "Emotional intelligence and authentic leadership: A meta-analysis" and found that most participants were females and married. More than half of the participants had experiences from 1-5 years. Conversely, this result disagreed with *Cartwright, and Pappas (2008),* who conducted a study entitled "Emotional intelligence, its measurement, and implications for the workplace" and found that most participants had a diploma degree in nursing, majority of participants were singles. This result disagrees with *Schlaerth et al. (2013),* who conducted a study entitled "A meta-analytical review of the relationship between emotional intelligence and leaders' constructive conflict management" and found that more than half of participants were men.

Regarding the mean score of emotional intelligence and workplace flourishing wellbeing among studied subjects, the highest mean score of emotional intelligence is the emotional management of others. This result may be due to their being humble, socially friendly, empathetic, accepting constructive criticism, and being aware of what makes colleagues feel satisfied at work.

While ranking with the mean score of workplace flourishing, wellbeing reveals a high overall wellbeing level among studied subjects. This result may be due to the ability to express their feelings effectively about issues at work and build successful personal relationships, particularly in a closed unit like the ICUs, which makes them feel joy and satisfaction. The lowest mean score for workplace flourishing is a negative emotion. The low score of negative emotion is rationalized with the high score of high overall wellbeing, as the high wellbeing is always linked to less negative emotions.

Regarding levels of emotional intelligence, the current study shows that most of the studied nurses had a low level of Emotional Reasoning (ER), Emotional Management of Others (EMO), Emotional Expression (EE), and more than three quarters had Emotional Self-Management (ESM), Emotional Self-Awareness (ESA), and slightly more than three-fifth had Emotional Awareness of Others (EAO). This result may be due to nurses not having the power to integrate emotionally relevant information into decision-making or to problem-solve at work (ER), and nurses being able to control their negative emotions appropriately in the workplace because it is one of the duties of the nursing profession (ESC). They may be due to most of them being foreigners, responsible for families as they are married, need for their income the most, as it revealed by the regression analysis that marriage, income were predictors for the EI.

This study agrees with *Sharon and Grinberg (2018),* who conducted a study entitled "Does the level of emotional intelligence affect the degree of success in nursing studies," and found that nearly half of the studied participants had a low level of Emotional Management of Others (EMO)

This study was not similar to *Delpasand et al. (2011)*. They conducted a study entitled "Relationship between emotional intelligence and occupational burnout among nurses in Critical Care Units and found that less than one-quarter of the study had a high level of Emotional Self-Control (ESC).

Regarding flourishing levels, the current study shows that most nurses had a high level of meaning, health, engagement, happiness, loneliness, accomplishment. Nearly one-third of nurses had a low level of negative emotion. These findings may be related to the high overall wellbeing, as they revealed a high mean score. It was also evident by the statistically positive relationship between the total EI score and overall wellbeing and between the total EI score and health in the current study.

Near two-thirds of the studied participants had a high level of relationship, and nearly half of the nurses had a high level of positive emotion. This result may be due to being involved in something and being able to help and get support from others, to live a purposeful and meaningful life, able to handle responsibilities, hence this area of workplace flourishing might need attention from the nursing supervisors to support the critical care unit, nurses.

This study was not similar to *Bakker and Sanz-Vergel, (2013),* who conducted a study entitled "Weekly work engagement and flourishing: The role of hindrance and challenge job demands," and found a low level of meaning, health, engagement, happiness, loneliness, accomplishment.

This study agrees with *Sumner (2013),* who conducted a study entitled "Human flourishing and the vulnerable nurse" and found that more than half of nurses had negative emotions while the highest percentage of them had a high level of loneliness.

Regarding relations between nurses' emotional intelligence and their characteristics, the current study displayed a statistically significant association between nurses' emotional intelligence and their gender, income, and working units. In contrast, there are no statistically

significant relations between nurses' emotional intelligence and their nationality, ages, qualifications, marital status, and years of experience. This result is also supported by the current study evidence that income and working unit were predictors of emotional intelligence. This result may be due to the nature of work within the critical care unit leading to innovation and training on emotional intelligence. If the financial income return is appropriate and the nurses are satisfied, it enhances their emotional intelligence at work, which proved to be a factor in the current study.

This study was supported by *Hutchinson et al. (2018),* who conducted a study entitled "The utilization of emotional intelligence capabilities in clinical reasoning and decision making: A qualitative, exploratory study" and found that gender and income of nurses were statistically significant positive predictors of emotional intelligence.

This study agrees with *Gunavathy and Ayswarya (2011),* who conducted a study entitled "Emotional intelligence and job satisfaction as correlates with job performance" and found a non-statistically significant relationship between nurses' characteristics and their emotional intelligence. *Hutchinson and Hurley (2013)* also supported this study found. They conducted a study entitled "Exploring leadership capability and emotional intelligence as moderators of workplace" and found a statistically significant relationship between nurses' emotional intelligence and their characteristics.

This study disagrees with *Schutte (2014),* who conducted a study entitled "Social environment contexts of trait emotional intelligence." They found a non statistically significant association between nurses' emotional intelligence and their gender, income, and working units.

Regarding the relation between nurses' workplace flourishing and their characteristics, the current study reports a significant association between nurses' workplace flourishing and their income and working units. There was no statistically significant relationship between nurses' workplace flourishing and nationality, ages, qualifications, marital status, gender, and years of experience. This result may be due to when income is sufficient and covers the requirements of life, and is suitable for the nature of the unit in which the nurses work. This factor leads to suitable workplace flourishing.

This study was similar to *Ahlstedt et al. (2020*), who conducted a study entitled "Flourishing at work: Nurses' motivation through daily communication–An ethnographic approach" and found a significant association between nurses' workplace flourishing, their income, and working units.

Regarding the correlation matrix of emotional intelligence domains, the current study shows a statistically significant positive correlation between emotional intelligence domains scores. These findings accentuated the interrelationship present between the domains of emotional intelligence that must be integrated and emphasized if the nursing policymakers want to improve the nurses' emotional intelligence in the workplace, particularly the critical care nurses.

This study was similar to *Karimi et al. (2014)*. They conducted a study entitled "Emotional rescue: The role of emotional intelligence and emotional labor on wellbeing and job-stress among community nurses" and found a statistically significant positive correlation between emotional intelligence domains.

Regarding the correlation of workplace flourishing domains, the current study shows a statistically significant positive correlation between workplace flourishing domains except for negative emotions and loneliness. This finding may be due to workplace flourishing dependent on emotions, which are an important part of wellbeing. Emotions can range from very negative to very positive through engagement to being absorbed, interested, and involved in an activity or the world itself, feeling loved, supported, and valued by relationships with others. Having a positive relationship with others is an important part of life that leads to feeling good and going well. Mastery and achievement are also important. Physical health and vitality are other important parts of wellbeing; this characteristic leads to workplace flourishing when the employee has such characteristics.

This study was similar to *Villieux et al. (2016),* who conducted a study entitled "Psychological flourishing: Validation of the French version of the Flourishing Scale and exploration of its relationships with personality traits." They found a statistically significant positive correlation between workplace flourishing domains.

Regarding the correlation between total workplace flourishing domains and emotional intelligence domains, the current study shows a statistically significant positive correlation between total workplace flourishing and total emotional intelligence domains in the overall wellbeing, happiness, and health domain. This result may emphasize that if the nurse has a high level of emotional intelligence, especially if he/she is in good health, this must help them maintain their calm, focus, and continue in their role successfully and flourish towards the hospital in which they work.

Regarding best fitting multiple linear regression models for workplace flourishing, the current study reveals that nurses' emotional intelligence scores were a statistically significant positive predictor of workplace flourishing (p-value <0.001). This result may reflect that emotional intelligence could facilitate the development of various adaptive qualities of nurses in their work. These adaptive traits might explain, in part, the relationship between greater emotional intelligence and workplace flourishing.

This study was in agreement with *Schutte and Loi (2014),* who conducted a study entitled "Connections between emotional intelligence and workplace flourishing and found that nurses' emotional intelligence scores were statistically significant positive predictors of workplace flourishing.

This study agrees with *Powell et al. (2015),* who conducted a study entitled "Emotional intelligence: A critical evaluation of the literature with implications for mental health nursing leadership" and found a higher

emotional intelligence is associated with workplace flourishing.

This study agrees with *Schutte (2014),* who conducted a study entitled "Social environment contexts of trait emotional intelligence" and found a path between emotional intelligence and workplace flourishing.

This study agrees with *Dacre-Pool, (2018),* who conducted a study entitled "Emotional intelligence and the workplace" and found a good health and work engagement served as markers of flourishing.

7. Conclusion

The current study concluded a positive correlation between emotional intelligence and workplace flourishing among critical care nurses. Nurses understudy had a low level of Emotional Reasoning (ER), Emotional Management of Others (EMO), Emotional Expression (EE), Emotional Self-Management (ESM), Emotional Self-Awareness (ESA), and Emotional Awareness of Others (EAO), respectively. At the same time, less than three quarters had a high emotional Self-Control (ESC) level.

According to workplace flourishing, the meaning had the highest level. It also indicated that nurses' marital status and income were a statistically significant positive predictor of emotional intelligence and emotional intelligence scores of nurses were a statistically significant positive predictor of workplace flourishing.

A statistically significant positive correlation was revealed between workplace flourishing and emotional intelligence in overall wellbeing, happiness, and health domain. A statistically significant positive correlation was revealed between negative emotion and loneliness domains.

8. Recommendations

Based on the current study findings, the study recommended :

- Continue educational training programs about emotional traits to enhance workplace flourishing.
- Developing nurses' emotional intelligence is necessary to prevent occupational stress and susceptibility to burnout among critical care nursing staff and all nursing categories.
- Selecting and hiring emotionally matured individuals with high emotional intelligence through training and urging administrators to do so.
- Plan training sessions and workshops to continuously improve the level of emotional intelligence among nurses.
- Further studies should be conducted in different settings to generalize the findings and expand the burgeoning evidence base of the relationship between nurses' emotional intelligence and other work-related psychological variables.

9. References

Alberto, L. M. (2013). A description of intensive care nursing practices in two private intensive care units in Ciudad de Buenos Aires. *Universidad de San Andrés (Argentina)*. https://repositorioslatinoamericanos.uchile.cl/handle/2250/2950541.

Ahlstedt, C., Eriksson Lindvall, C., Holmström, I. K., & Muntlin, Å. (2020). Flourishing at work: Nurses' motivation through daily communication–An ethnographic approach. *Nursing & Health Sciences, 22*(4), 1169-1176. https://doi.org/10.1111/nhs.12789

Ashraf, F., & Asif Khan, M. (2014). Does emotional intelligence moderate the relationship between workplace bullying and job performance? *Asian Business and Management, 13*(2), 171–190. https://link.springer.com/article/10.1057/abm.2013.5.

Baillien, E., Escartín, J., Gross, C., & Zapf, D. (2017). Towards a conceptual and empirical differentiation between workplace bullying and interpersonal conflict. *European Journal of Work and Organizational Psychology, 26*(6), 870-881. https://doi.org/10.1080/1359432X.2017.1385601.

Baillien, E., Neyens, I., De Witte, H., & De Cuyper, N. (2009). A qualitative study on the development of workplace bullying: Towards a three-way model. *Journal of Community & Applied Social Psychology, 19*(1), 1-16. https://doi.org/10.1002/casp.977.

Bakker, A. B. & Demerouti, E. (2014) Job Demands-Resources Theory. In: P.Y., Chen, and C. L., Cooper, Eds., *Work and Wellbeing: A Complete Reference Guide, John Wiley & Sons,* New York, 1-28. http://doi.org/10.1002/9781118539415.wbwell019.

Bakker, A. B., & Demerouti, E. (2018). *Multiple levels in job demands-resources theory: Implications for employee wellbeing and performance.* In E. Diener, S. Oishi, & L. Tay, Eds., Pp. 1-13. https://nobascholar.com/chapters/36/download.pdf.

Bakker, A. B., & Sanz-Vergel, A. I. (2013). Weekly work engagement and flourishing: The role of hindrance and challenge job demands. *Journal of Vocational Behavior, 83*(3), 397-409. https://doi.org/10.1016/j.jvb.2013.06.008.

Baldry, A. C., Farrington, D. P., & Sorrentino, A. (2017). School bullying and cyberbullying among boys and girls: Roles and overlap. *Journal of Aggression, Maltreatment and Trauma, 26*(9), 937–951. https://doi.org/10.1080/10926771.2017.1330793.

Bernstein, C., & Trimm, L. (2016). The impact of workplace flourishing on individual wellbeing: The moderating role of coping. *South African Journal of Human Resource Management, 14*(1), a792. https://doi.org/10.4102/sajhrm.v14i1.792.

Bono, J. E., Davies, S. E., & Rasch, R. L. (2012). Some traits associated with flourishing at work. *In The Oxford handbook of positive organizational scholarship.* https://doi.org/10.1093/oxfordhb/9780199734610.013.001.

Butler, J., & Kern, M. L. (2016). The PERMA-Profiler: A Brief Multidimensional Measure of Flourishing.

International Journal of Wellbeing, 6(3). 1-48. https://doi.org/10.5502/ijw.v6i3.526.

Carter, L., & Loh, J. (2017). What has emotional intelligence got to do with it: The moderating role of EI on the relationships between workplace incivility and mental health? *International Journal of Work Organization and Emotion, 8*(1), 41-58. https://doi.org/10.1504/IJWOE.2017.083791.

Carter, M., Thompson, N., Crampton, P., Morrow, G., Burford, B., Gray, C., & Illing, J. (2013). Workplace bullying in the UK NHS: A questionnaire and interview study on prevalence, impact, and barriers to reporting. *BMJ Open, 3*(6), e002628. https://doi.org/10.1136/bmjopen-2013-002628.

Cartwright, S., & Pappas, C. (2008). Emotional intelligence, its measurement, and implications for the workplace. *International Journal of Management Reviews, 10*(2), 149-171. https://doi.org/10.1111/j.1468-2370.2007.00220.x.

Chia, S., & Kee, D. M. H. M. (2018). Workplace bullying and task performance: A study on salespeople in the retail industry. *Management Science Letters, 8*(6), 707-716. https://doi.org/10.5267/J.MSL.2018.4.011.

D'Cruz, P., Noronha, E., & Syal, A. (2018). Varieties of workplace bullying in India: Towards a contextualized understanding. *Indian Perspectives on Workplace Bullying, 2018,* 1-32. https://doi.org/10.1007/978-981-13-1017-1_1.

Dacre-Pool, L., & Qualter, P. (2018). *An introduction to emotional intelligence*, Wiley-Blackwell. P. 16.

Delpasand, M., Nasiripoor, A. A., Raiisi, P., & Shahabi, M. (2011). Relationship between emotional intelligence and occupational burnout among nurses in Critical Care Units. *jccnursing., 4*(2), 79-86. http://jccnursing.com/article-1-185-en.html.

Engelland, B. T. (2018). Team Building, Virtue, and Personal Flourishing in Organizations. *In Personal Flourishing in Organizations.* Springer International Publishing AG. Pp. 171-189. https://doi.org/10.1007/978-3-319-57702-9_9**.**

Escartin, J., Zapf, D., Arrieta, C., & Rodriquez-Carballeira, A. (2011). Workers' perception of workplace bullying: A cross-cultural study. *European Journal of Work and Organizational Psychology, 20*(2), 1-28. https://doi.org/10.1080/13594320903395652.

Fitzgerald, S., & Schutte, N. S. (2010). Increasing transformational leadership through enhancing self-efficacy. *Journal of Management Development. 29*(5), 495–505. https://doi.org/10.1108/02621711011039240

Fullagar, C., & Kelloway, E. K. (2012). New directions in positive psychology: Implications for a healthy workplace. Contemporary occupational health psychology: *Global perspectives on research and practice*, 2, 146. https://doi.org/10.1002/9781119942849.ch9.

Gunavathy, D. J., & Ayswarya, M. R. (2011). Emotional intelligence and job satisfaction as correlates of job performance: A study among women employed in the Indian software industry. *Paradigm, 15*(1-2), 58-65. https://doi.org/10.1177/0971890720110109.

Huppert, F. A., & So, T. (2013). Flourishing across Europe: Application of a new conceptual framework for defining wellbeing. *Social Indicators Research, 110*(3), 837-861. https://doi.org/10.1007/s11205-011-9966-7.

Hutchinson, M., & Hurley, J. (2013). Exploring leadership capability and emotional intelligence as moderators of the workplace. *Journal of Nursing Management, 21*(3), 553–562. https://doi.org/10.1111/j.1365-2834.2012.01372.x.

Hutchinson, M., Hurley, J., Kozlowski, D., & Whitehair, L. (2018). The utilization of emotional intelligence capabilities in clinical reasoning and decision making: A qualitative, exploratory study. *Journal of Clinical Nursing, 27*(3–4), 600–610. https://doi.org/10.1111/jocn.14106.

Joseph, D. L., & Newman, D. A. (2010). Emotional intelligence: An integrative meta-analysis and cascading model. *Journal of applied psychology, 95*(1), 54. https://doi.org/10.1037/a0017286.

Karimi, L., Leggat, S. G., Donohue, L., Farrell, G., & Couper, G. E. (2014). Emotional rescue: The role of emotional intelligence and emotional labor on wellbeing and job-stress among community nurses. *Journal of Advanced Nursing, 70*(1), 176-186. https://doi.org/10.1111/jan.12185.

Miao, C., Humphrey, R. H., & Qian, S. (2018). Emotional intelligence and authentic leadership: A meta-analysis. *Leadership & Organization Development Journal, 39*(2), 679-683. https://doi.org/10.1108/LODJ-02-2018-0066.

O'Boyle, E. H., Humphrey, R, H., Pollack, J. M., Hawver, T. H., & Story, P. (2010). The relation between emotional intelligence and job performance: A meta-analysis. *Journal of Organizational Behavior, 32*(5), 71-85. https://doi.org/10.1002/job.714.

Palmer, B. R., Stough, C., Harmer, R., & Gignac, G. (2009). The Genos Emotional Intelligence Inventory: A measure designed specifically for workplace applications. *In Assessing emotional intelligence*. Springer, Boston, MA. Pp. 103-117. https://doi.org/10.1007/978-0-387-88370-0_6.

Petrides, K. V., Mikolajczak, M., Mavroveli, S., Sanchez-Ruiz, M. J., Furnham, A., & Pérez-González, J. C. (2016). Developments in trait emotional intelligence research. *Emotion Review, 8*(4), 335-341. https://doi.org/10.1177/1754073916650493.

Powell, K. R., Mabry, J. L., & Mixer, S. J. (2015). Emotional intelligence: A critical evaluation of the literature with implications for mental health nursing leadership. *Issues in mental health nursing, 36*(5), 346-356. https://doi.org/10.3109/01612840.2014.994079.

Qureshi, M. I., Rasli, A. M., & Zaman, K. (2014). A new trilogy to understand the relationship among organizational climate, workplace bullying, and employee health. *Arab*

Economic and Business Journal, 9(2), 133-146. https://doi.org/10.1016/j.aebj.2014.05.009.

Salovey, P., Brackett, M. A., & Mayer, J. D. (2004). *Emotional Intelligence: Key Readings on the Mayer and Salovey Model.* National Professional Resources Inc./Dude Publishing. Pp. 301. https://www.amazon.com/Emotional-Intelligence-Readings-Mayer-Salovey/dp/1887943722.

Schlaerth, A., Ensari, N., & Christian, J. (2013). A meta-analytical review of the relationship between emotional intelligence and leaders' constructive conflict management. *Group Processes & Intergroup Relations, 16*(1), 126-136. https://doi.org/10.1177/1368430212439907.

Schutte, N. S. (2014). Social environment contexts of trait emotional intelligence. *Journal of Human Behavior in the Social Environment, 24*(7), 741-750. https://doi.org/10.1080/10911359.2013.866065.

Schutte, N. S., & Loi, N. M. (2014). Connections between emotional intelligence and workplace flourishing. *Personality and Individual Differences, 66,* 134-139. https://doi.org/10.1016/j.paid.2014.03.031.

Schutte, N. S., & Malouff, J. M. (2013). Adaptive emotional functioning: A comprehensive model of emotional intelligence. *Handbook of psychology of emotions: Recent theoretical perspectives and novel empirical findings,* 469-488. https://psycnet.apa.org/record/2013-39742-026.

Seligman, M. E. (2012). *Flourish: A visionary new understanding of happiness and wellbeing. Simon and Schuster.* New York. *Pp 1-322.*

Sharon, D., & Grinberg, K. (2018). Does the level of emotional intelligence affect the degree of success in nursing studies? *Nurse education today, 64*(1), 21-26. https://doi.org/10.1016/j.nedt.2018.01.030.

Slåtten, T., & Mehmetoglu, M. (2011). Antecedents and effects of engaged frontline employees: A study from the hospitality industry. *New Perspectives in Employee Engagement in Human Resources, 21*(1), 88-107. https://doi.org/10.1108/09604521111100261.

Sousa, V. D., Driessnack, M., & Mendes, I., A. C. (2007). An overview of research designs relevant to nursing: Part 1: Quantitative research designs. *Revista Latino-Americana de Enfermagem, 15*(3), https://doi.org/10.1590/S0104-11692007000300022.

Sumner, J. (2013). Human flourishing and the vulnerable nurse. *International Journal of Human Caring, 17*(4), 20-27. https://psycnet.apa.org/record/2013-41512-004.

Villieux, A., Sovet, L., Jung, S. C., & Guilbert, L. (2016). Psychological flourishing: Validation of the French version of the Flourishing Scale and exploration of its relationships with personality traits. *Personality and Individual Differences, 88*(1), 1-5. https://doi.org/10.1016/j.paid.2015.08.027.