



# Emotional Intelligence And Personality Traits Among International Medical Students

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**Abstract:** Personality is not merely a collection of individual traits or disconnected behaviors but is structured, organized, and integrated. Behavioral indicators of that structure may vary, yet, according to the situational framework because behavior is a function of the interface of personality and situational factors. There is a developmental feature to personality that occurs over time out of a matrix of biological and social influences. Goleman (1995), a proponent of EI, notes that "Emotional intelligence consists of abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope." Emotional intelligence (EI) is a significant indicator of future achievement in every walk of life, as well as academic achievement and career success (Saarni, 1999; Goleman, 1995; Li, Wang & Li, 2012; Bar-On, 2002). The purpose of the present study was to understand which of the personality dimensions (extroversion/neuroticism) has a significant relationship with Emotional Intelligence. The total sample consisted of 110 first-year International Medical students from academic years 2019-2020, 2020-2021, and 2021-2022 (Male-37/F-74). All participant students were asked to complete the Emotional Intelligence Scale developed by Dr. S. K. Mangal and Mrs. Shubhra Mangal and Eysenck Personality Inventory (Form-B). Statistical analysis of the data involved inferential statistics, including means, standard deviations, t-test, and Pearson's correlation coefficients. The results show that Emotional Intelligence will possibly predict extroversion positively and neuroticism negatively, the dimensions of personality, respectively. Relationships of the two hypotheses could be explained by "affect regulation," "tendency to have positive experiences," and "tendency to have negative experiences."

**Keywords:** Extroversion, Neuroticism, Emotional Intelligence.

## I. INTRODUCTION

Personality is not merely a collection of individual traits or disconnected behaviors but is structured, organized, and integrated. Behavioral indicators of that structure may vary, yet, according to the situational framework because behavior is a function of the interface of personality and situational factors. There is a developmental feature to personality that occurs over time out of a matrix of biological and social influences. The dimension neuroticism measured in the present study is regarded as a tendency for experiencing anxiety, tension, self-consciousness, hostility, impulsiveness, timidity, illogical thinking, depression, and low self-esteem (John, 1989; McCrae and John, 1992; McCrae and Costa, 1987), and the dimension of extraversion is described as a tendency to be positive, firm, active, kind, and sociable.

Goleman (1995), a proponent of EI, notes that "Emotional intelligence consists of abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope." Emotional intelligence (EI) is a significant indicator of future achievement in every walk of life, as well as

academic achievement and career success (Saarni, 1999; Goleman, 1995; Li, Wang & Li, 2012; Bar-On, 2002).

## II. REVIEW OF LITERATURE:

### Personality and Emotional Intelligence Relationship:

Bibinaz (2011) investigated the relationship between personality dimensions and emotional intelligence in a sample of 443 students. The findings revealed that emotional intelligence (EI) could be positively and negatively predicted by extraversion and neuroticism.

Brackett and Mayer (2003) reported a highly significant correlation between emotional intelligence and Neuroticism, Extraversion. Sala (2002) examined EI using Goleman's Emotional Competence Inventory (1998) and found a significant relation to extraversion.

Lean & Schwartz (1987) regarded emotional ability as a factor of mental health, emphasizing its role in developing mental and personality disorders. Extensive research on the association of the five dimensions of personality and EI has consistently pointed to a meaningful association of extraversion and neuroticism. Based on available research, it is assumed that extraversion and neuroticism can predict changes related to EI, respectively, in positive and negative ways.

### Gender Differences in EI:

Biologically, women's biochemistry is suggested to be well-prepared to consider one's own emotions and those of others as an important element in survival (Baron-Cohen, 2002; 2003; Gur, Gunning-Dixon, Bilker, & Gur, 2002). Certain areas of the brain devoted to emotional processing may be larger in women than in men (Craig et al., 2009; Jausovec & Jausovec, 2005). Cerebral processing of emotions also differs between men and women.

From a social perspective, women are reported to obtain education biased towards the emotional, while men are trained to minimize certain emotions related to sadness, guilt, vulnerability, and fear (Brody & Hall, 1999; Hall, 1978; Sánchez,

Fernández-Berrocal, Montañés, & Latorre, 2008). Women spend more time socially in communication with the emotional world and are more considerate in maintaining a positive tone in their and others' emotions to avoid weakening interpersonal relations and to build satisfying social networks (Candela, Barberá, Ramos, & Sarrió, 2001; Nolen-Hoeksema & Jackson, 2001).

Researchers often conclude that women score higher than men on EI measures (Van Rooy, Dilchert, Viswesvaran, & Ones, 2006). This supposition is supported by an extensive literature on gender differences in emotional characteristics, indicating that women are more capable of interpreting nonverbal emotional information (Brody & Hall, 2000; Hall, 1978), have a larger emotional understanding (Ciarrochi et al., 2005), are more sensitive to the emotions of others (Hall & Mast, 2008), and are more expressive, showing greater interpersonal competencies (Hargie et al., 1995).

## III. RESEARCH METHODOLOGY

### Hypotheses:

1. There will be a significant positive relationship between extroversion and Emotional Intelligence (EI) in International Medical students.
2. There will be a significant negative relationship between neuroticism and Emotional Intelligence (EI) in International Medical students.
3. There will be a significant difference between male and female Emotional Intelligence (EI) scores among International Medical students.

**Sample:**

The total sample comprised 110 first-year International Medical students from the academic years 2019-2020 (43 females, 33 males), 2020-2021 (22 females, 14 males), and 2021-2022 (45 females, 27 males), resulting in a gender distribution of 37 males and 74 females.

**Instruments:**

The study utilized the following instruments:

1. Eysenck Personality Inventory: This inventory comprises 57 items designed to measure extroversion, neuroticism, and a lie scale.
2. Emotional Intelligence Scale: Developed by S.K Mangal and Shubhra Mangal, this scale consists of 100 items, assessing intrapersonal awareness, interpersonal awareness, intrapersonal management, and interpersonal management.

**Procedure:**

Data for the present research were collected over three academic years (2019-2020, 2020-2021, and 2021-2022) from first-year international medical students enrolled at USM-KLE International Medical College in Belagavi, Karnataka, India. The tests were administered as part of an annual personality development program. Student consent was obtained during the personality development activity.

**IV. RESULTS AND DISCUSSION**

**Table No.1: Correlation between Extroversion scores with EI and its dimensions by Karl Pearson's correlation coefficient**

Variables	Correlation between Extroversion scores with		
	r-value	t-value	p-value
<b>EI</b>	0.2503	2.6996	0.0080*
<b>I</b>	0.2500	2.6961	0.0081*
<b>II</b>	0.2137	2.2842	0.0243*
<b>III</b>	0.1739	1.8440	0.0679
<b>IV</b>	0.1814	1.9263	0.0567

\*p<0.05

The Pearson correlation test revealed a statistically significant positive correlation between the total Emotional Intelligence (EI) score and extroversion ( $p = 0.0080^*$ ). Additionally, positive correlations were observed between extroversion and two dimensions of EI, namely (I) Intrapersonal Awareness ( $p = 0.0081^*$ ) and (II) Interpersonal Awareness ( $p = 0.0243^*$ ). However, no significant relation was found between EI and (III) Intrapersonal Management and (IV) Interpersonal Management. These findings provide support for the hypothesis suggesting an association between extroversion and Emotional Intelligence.

**Table No.2: Correlation between neuroticism scores with EI and its dimensions by Karl Pearson's correlation coefficient**

Variables	Correlation between neuroticism scores with		
	r-value	t-value	p-value
<b>EI</b>	-0.4991	-6.0140	0.0001*
<b>I</b>	-0.5324	-6.5658	0.0001*
<b>II</b>	-0.4187	-4.8129	0.0001*
<b>III</b>	-0.2631	-2.8468	0.0053*
<b>IV</b>	-0.4173	-4.7948	0.0001*

\*p<0.05

Similarly, a statistically significant negative correlation was identified between Emotional Intelligence (EI) and neuroticism ( $p = 0.0001^*$ ). Furthermore, a robust negative correlation was observed across all four dimensions of EI and neuroticism. These outcomes provide substantial support for the hypothesis proposing a negative association between neuroticism and Emotional Intelligence.

**Table No.3: Comparison of male and female students with Extroversion and neuroticism scores by t test**

Variables	Male		Female		t-value	p-value
	Mean	Std.Dev.	Mean	Std.Dev.		
Extroversion	11.68	3.46	10.78	3.56	1.2556	0.2120
Neuroticism	11.38	4.44	11.51	4.89	-0.1415	0.8878

\* $p < 0.05$

In Table No.3, the t-test results indicate that there is no significant relationship between male and female students in terms of Extroversion and Neuroticism scores, with p-values greater than 0.05.

**Table No.4: Comparison of male and female students EI and its dimensions scores by t test**

Variables	Male		Female		t-value	p-value
	Mean	Std.Dev.	Mean	Std.Dev.		
EI	75.46	14.89	71.76	13.33	1.3264	0.1875
I	19.46	3.86	17.61	4.35	2.1926	0.0305*
II	19.19	5.15	17.15	4.19	2.2371	0.0273*
III	17.49	5.10	18.65	3.29	-1.4504	0.1498
IV	19.32	4.14	18.35	3.99	1.1955	0.2345

\* $p < 0.05$

In the above Table No.4 we can see that there is no significant relation between male and female EI total scores but, there is significant relation for two of the dimensions of EI (II) Interpersonal awareness; (III) Intrapersonal management.

#### Conclusion:

The findings of the research reveal a significant positive association between extraversion and emotional intelligence (EI). Similarly, a negative correlation was observed between neuroticism and emotional intelligence. The association of extraversion and neuroticism with EI is deemed acceptable based on the characteristics of positive mood adjustment and negative mood adjustment. Extraversion and neuroticism serve as indicators of the tendency to experience both negative and positive emotions. This tendency manifests in mood adjustment in two distinct ways: positively under extraversion and negatively under neuroticism. Conversely, there was no significant association found between male and female EI, except for two dimensions, namely (II) Interpersonal Awareness and (III) Intrapersonal Management.

#### Limitations:

Limitations include an unequal gender proportion in the sample and the inclusion of students from a single international college and course.

#### Implications:

Personality qualities may be reflected in learning styles, thereby influencing the development of learning strategies and contributing to specific learning outcomes. Generally, personality assessment aims to enhance self-awareness, while emotional intelligence assessment aims to enhance skill utilization. Both assessments play a crucial role in fostering positive outcomes.

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