

# The Perplexing Role of Emotional Intelligence in Driving; Anger and Violence in Medical Students

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**Abstracts:** Emotionally intelligent medical students have an awareness about how to respond in a particular situation, they considered the pros and cons before giving response whereas the medical students who are low on the scale of emotional intelligence may react in an absurd way such as being anger and violent. Objectives: This study aimed to investigate the interplay between emotional intelligence (EQ), anger, and violent behavior among medical students. Specifically, it sought to analyze the association between emotional intelligence levels and the expression of anger and violence, as well as to compare emotional intelligence and aggression tendencies between male and female students. Methods: A correlational research design was employed, utilizing online surveys as the data collection method. A total of 200 medical students aged between 19 to 30 years participated in the study. Emotional intelligence, anger expression, and violent behavior were measured using standardized scales. Statistical analyses including descriptive statistics, Pearson correlation, and independent sample t-tests were conducted using SPSS 23.0 software. Results: The findings revealed a significant negative correlation between emotional intelligence and both anger expression and violent behavior. Male students exhibited higher levels of anger and violent behavior compared to female students. Emotional intelligence scores were lower in male students, indicating a potential contributing factor to their heightened aggression tendencies. Conclusion: The study provides empirical evidence supporting the association between emotional intelligence, anger, and violence in medical students. Lower emotional intelligence levels were linked to increased anger expression and violent behavior. These findings underscore the importance of integrating emotional intelligence education programs into medical curricula to mitigate aggression tendencies and promote healthier interpersonal relationships among students.

**Keywords:** Emotional Intelligence, Anger, Violence, Medical Students, Correlation Analysis, Gender Differences.

## 1. INTRODUCTION

Emotional Intelligence also known as EQ is defined as social intelligence that entails observing & managing one's own as well as others emotions, thinking patterns and behavior. In other words it is the ability to manage, perceive and handle emotions according to the requirement of time. (Mayer & Salovey, 1993; Joseph et al., 2015; Serrat, 2017; Mattingly & Kraiger, 2019). People who are emotionally intelligent consider it easy to handle situations (on- going emotions) when they are faced with hurdles in day to day life (Peterson, 2019). Few of the studies revealed that the higher the EQ (Emotional Intelligence), the higher the empathy and social responsibility (Castillo et al., 2013; Aguilar-Luzón et al., 2014; Robinson et al., 2019). EQ helps a person make an awareness about oneself and the surrounding observing minute changes. Studies revealed that emotional intelligent individuals have better strategies to manage their feeling of depression, anger and disgust compared to those individuals who are not emotionally intelligent (Schutte et al., 2019; Carmeli, 2020; Lopes et al., 2004).

The study was conducted by Zhou et al., (2022). The aim was to explore emotional intelligence and its impact in students during driving. The study highlighted how emotional intelligence, emotional regulation and angry feelings are related with one another. The findings of the study highlighted the less the emotional intelligence, the more anger a student will be, a negative association was observed in the study (Zhou, Qu, & Ge, 2022). Emami Zeydi et al., 2022, conducted a study in hospital out-patients department. The emotional intelligence of nurses was analyzed in order to study an association of EI and feeling of anger, the findings highlighted that anger was the outcome of low emotional intelligence.

One of the most important worldwide problem faced by individuals now-a-days is anger and violence as in recent decade, the growth of violent behavior increasing in student population (Espelage and Hong 2019; Larrain and Garaigordobil 2020). Individuals who are less emotional intelligent were found to be indulged in illegal acts such as anger outbursts, vandalism, violent activities and substance dependency (Johnston, 2003). Also, the individuals with low social skills are at higher risk of getting offensive (Anastasi, 1990).

Concern across society about violence in daily life has increased in recent decades (Espelage and Hong 2019; Larrain and Garaigordobil 2020). Students with lower EQ may indulge in bullying behaviors that give rise to poor social & interpersonal relationships, as well as mistreatment to oneself and on another (Romera et al. 2021) along with the worst consequences they had because of the discrepancy between the emotions they felt, and they express (Nocentini et al. 2019; Reyزابال and Sanz 2014; Martínez-Martínez et al. 2020).

Human anger is a behavior that is directed towards other individuals and is carried out in order to cause immediate intense harm to that person (Anderson & Bushman, 2002). Anger not only leaves a long lasting impact on the victim but also on the person being aggressive. Mostly the medical students who are angry show clear psychological mal-adjustment, and lower performance along with it the rate of psychological disorders is also high in those individuals (Moffitt, 2006; Ostrov & Godleski, 2009; Piquero, Daigle, Gibson, Piquero, & Tibbetts, 2007).

The rate of anger is also linked with the prevalence of psychiatric disorders such as depression, anxiety, causing social as well as behavioral problems (Alsaker & Olweus, 2002; Asberg, 1994; Coccaro, Noblett, & McCloskey, 2009; Farrington, 1991). The victims of murderer have low self-esteem, they face difficulty concentration and unable to fall asleep in turn these medical students start skipping their colleges, practice and workplace (Cava, Buelga, Musitu, & Murgui, 2010; Crick & Bigbee, 1998; O'Moore & Kirkham, 2001).

## 2. LITERATURE REVIEW

Anger and violence are considered as one of the symptoms for psychiatric disorders. The type of mental health issues are prevalent in students of Pakistan due to less emotional intelligence. Previous studies explain the incidence of mental illnesses, anger, violence, and student suicide in Pakistan in comparison to other states (Bibi, Blackwell, & Margraf, 2019; Saleem, Mahmood, & Naz, 2013), because of multiple challenging issues such as Stress, lower levels of EQ, economical crises, and socioeconomic status. Among several forms of psychological distress aggression also considered as 'extreme of anger' is the most common (WHO, 2010- 1<sup>st</sup> global report on violence).

According to Abi-Jaoude et al., 2022, emotional intelligence plays an important role in surgery. It also helps determine the association of EI in doctor patient relationship. The findings of the study revealed that emotional intelligence contributes in well-being of the patients. The more EI a person is, the better recovery chances (s)he had (Abi-Jaoude, Kennedy-Metz, Dias, Yule, & Zenati, 2022).

According to WHO, the aggressive behavior leads to the death of almost 1.6 million population all over the world. Almost every single year, people age ranges from 15-44 die being the victim of aggression. The statistics of WHO revealed the 14% deaths among males occur every year, which is quite higher percentage as compared to females, with a percentage of 7% (Half of the males). Aggression and Anger (either direct or indirect) are those behaviors that compels forcing someone to behave a certain manner, through which harm and sometimes injury may occur to the other person (Anderson & Bushman, 2002).

Direct Aggression is being physical in nature, via words or fights, whereas indirect aggression is spreading false news and propaganda impacting the other person (Björkqvist, 2001). Successively, it impacts physical & Mental health. Individual with aggression usually face emotional instability (Moffitt, 2006; Ostrov & Godleski, 2009; Piquero, Daigle, Gibson, Piquero, & Tibbetts, 2007), insomnia, lethargy (Cava, Buelga, Musitu, & Murgui, 2010; Crick & Bigbee, 1998; O'Moore & Kirkham, 2001). They are also faced with issues such as unemployment, and poor marital contentment (Alsaker & Olweus, 2002; Coccaro, Noblett, & McCloskey, 2009).

The need to identify the variables that feed anger, aggressive behavior, and violence was emphasized in certain studies on the impact of anger and violence on mental health. In order to cater aggression and anger, researchers pay an emphasis on the factors associated with its

enhancement and reduction, and the ways to manage it. Emotional intelligence (EI) was considered as a related idea (Brackett, Mayer, & Warner, 2004), comprised of understanding and thus regulating the mood according to the demand of situation (Mayer & Salovey, 1997). An evident evidence of Emotional Intelligence and its association with empathy and bullying (enhanced and reduced effect), has been studied previously (Buck, Leenaars, Emmelkamp, & van Marle, 2012; Grieve & Panebianco, 2013), only a few studies studied the association of Emotional intelligence on Anger and aggressive behavior (Anderson & Bushman, 2002; Wilson & Lipsey, 2007).

According to Shaygan, Saranjam, Farghi & Mohebbi (2022), anger and emotional intelligence are the predictors of our well-being (Subjective & objective). The study was analyzed in order to draw an association of migraine patients and normal individuals in term of emotional intelligence and anger & how feeling of anger, increases migraine. The results from the t-test revealed that anger was higher among migraine patients compared to normal individuals. Low level of Emotional Intelligence was observed in migraine patients (Shaygan et al., 2022).

Emotional intelligence is measured on two continuum, a mental state or either a part of personality (trait). Mental capacity is measured in terms of maximum performance and supports the appropriate use of emotions as part of our thinking processes. (Mayer, Salovey, Caruso, & Sitarenios, 2003). On the contrary, EI as an evident feature of personality helps managing one's emotions accurately including feelings of anger, disgust, worry, or fatigue. Multiple self-reported inventories are designed to assess emotional intelligence as a trait of a person. Individuals with high level of Emotional Intelligence are good in retention, achieve more than other individuals and mostly live their life to the fullest (Wong, Wong, & Chau, 2001), whereas individuals with

lower Emotional intelligence has an increase in anger and aggressive behavioral tendencies (García-Sancho, Salguero, & Fernández-Berrocal, 2014).

People who experience different continuum of aggression e.g, anger, violence, aggressive behavior are unable to regulate their negative emotions because of less emotionally intelligent (Peled & Moretti, 2007). These traits are linked with EI than directly effect behaviors (Mayer, Roberts, & Barsade, 2008).

Mayer and Salovey (1997) defined emotional intelligence as a form of intelligence that helps people in overcoming difficulties and making better social adjustments. It is also clear that individuals who are good at understanding, managing and solving emotional issues adjust better while performing their social roles, and are faced with less emotional breakdown (anger outburst) (Mayer et al., 2008).

Hemalatha et al., (2022), highlighted humans are differentiated on the basis of how one feels, known as emotions. There are certain emotions human beings experience such as happiness, anger, guilt, joy, sadness, or stress. It is not easy to give a proper definition to emotions as every scientist has a different way of defining it subjectively. Most of the psychologist define emotions as a feeling that helps makes a human differ from an animal. Emotional Intelligence is how a person perceive and interpret a situation keenly without affecting any other individual (Chandra et al., 2022). Emotion including anger occurs in direct relation to emotional intelligence, the more EI the more stable a personality would be (Hemalatha, Chandra, Azim, Annapurna, Ngalakshmi, & Kilyani, 2022).

Negative interactions are also associated with lower levels of EI (Brackett, Rivers, & Salovey, 2011). Studies indicate a strong evidence of EI and anger and is negatively linked with violence

(Brackett, Rivers, & Salovey, 2011). Emotional Intelligence is also negatively associated with anger and aggression as evident by Denson (2013) study (Denson, 2013, Denson Pedersen, Friese, Hahm, & Roberts, 2011; Garcia-Sancho et al., 2014; García-Sancho, Salguero, & Fernández-Berrocal, 2015-16, ; Liao, Liao, Teoh, & Liao, 2003).

Garcia-Sancho et al (2014) A systematic review of 19 research found that lower emotional intelligence was associated with violent conduct in eighteen of them and anger tendencies in all the cultures such as UK, US, Spain, & China. Similarly, an experiment done by Cohn, Jakucak, Seibert, Hildebrandt, & Zeichner (2010), found a positive association of emotional dysregulation with verbal aggression.

Sullivan, Helms, Kliewer, & Goodman (2010) highlighted difficult to manage anger, sadness or violence is correlated with emotional intelligence (Lerner & Arsenio, 2000). Gender may also play an important role in the development processes of emotional intelligence and anger management. Males are typically thought to hide greater aggressive tendencies than females (Hughes, 2015; Kruttschnitt, 1994). The evolutionary biologist study of the view that young women display less aggressive tendencies than young men, even in competitive setting (Campbell, 2013). Bjorkqvist (2018) highlighted male and female differences with reference to aggressive tendencies and concluded that males show more physical aggression, on the contrary both gender are equal on the continuum of verbal aggression. The main cause of mental illness and gender norms among students, both male and female, is insufficient emotional regulation.

Karim & Weisz (2010) compared emotional intelligence of French with Pakistani students came to the conclusion that female participants on the emotional intelligence scale scored higher than male participants, likewise females are considered emotionally intelligent

than males (Das & Tripathy, 2015; Katyal & Awasthi, 2005; Liang & Dunn, 2002), & thus have higher ability of empathy and respect compared to male population.

Culture also plays an important role in understanding the emotional processing of aggressive behavior Bergeron & Schneider, 2005; Bond, 2004; Forbes, Zhang, Doroszewicz, & Haas, 2009). a significant association of emotional intelligence and mental illness was observed, including Depression (Fernández-Berrocal, Salovey, Vera, Extremera, & Ramos, 2005).

Western researchers conduct the majority of the culture investigated association of emotional intelligence and aggression in eastern context, where being male dominant society, women frequently avoid. Because of gender roles, women are expected to be more obedient, and should compromise instead of being aggressive. On the contrary, males can react in any way either aggressive. This highlights the association of emotional intelligence and aggression in Pakistani population despite of this fact that these aggressive tendencies are quite alarming and need to be catered (Lochman, Powell, Clanton, & McElroy, 2006)

### **3. THEORETICAL FRAMEWORK**

#### **3.1. Social Perception Theory (Norman H. Anderson's et, al., 1981)**

Norman H. Anderson's et, al., (1981) The nature, causes, and effects of perceptions of social entities, such as one's self, other people, social categories, and collections or groups to which one may or may not belong, are described as social perception in psychology. The higher the Emotional intelligence, the lower the level of anger and vice versa. The content of a perception can be nearly any property (Anderson et, al., 1981). Individual attributes include things like personality traits, behavioural tendencies, physical characteristics, and ability scores. Group features include things like size, coherence, cultural traits, stratification patterns, network patterns, legitimacy, and historical elements. With a few notable exceptions, the study of social perception has, however, generally placed an emphasis on the micro, concentrating on personal assumptions about a single or a small group of other people.

The ability to be aware of one's own and others' emotions, to be able to manage those emotions, and to understand the complex relationships that can occur between emotions and likely emotional transitions are just a few of the abilities that researchers generally claimed students needed early in order to succeed in their environment (Austin et al., 2005; Mayer & Salovey, 1997). Studies on emotional intelligence that are both descriptive and correlational are notable for having their roots in earlier attempts (Goleman, 1995).

### **3.2. Salovey & Mayer Emotional Intelligence Theory (Salovey and Mayer. 1990)**

Salovey and Mayer (1990) Studies on emotional intelligence that are both descriptive and correlational are notable for having their roots in earlier attempts. Both not only emphasized on understanding of emotions but its discrimination as well (Bechtoldt 2008).

According to Mayer & Salovey (1990):

- ✓ It is how an individual manage emotions via handling things.
- ✓ It is how an individual manage emotion to achieve certain goals.
- ✓ It is how an individual manage emotions to facilitate thoughts.

### **3.3. Daniel Golman Emotional Intelligence Theory (Goleman et, al., 1995)**

Goleman et, al., (1995), demonstrated Mayer's & Salovey theory and explained major fiveelements of EI that includes:

- ✓ Emotional self awareness means being aware of one's emotion in the presentmoment.
- ✓ Self Regulation means redirecting emotions towards a positive channel.
- ✓ Motivation is the energy one feel to achieve a goal.
- ✓ Empathy is sensing other's emotions.
- ✓ Social Skills are those skills that helps managing relationships.

### **3.4. Rationale**

The rationale for conducting this study lies in the critical importance of understanding the intricate relationship between emotional intelligence (EQ), anger, and violent behavior among medical students. Several factors contribute to the significance of investigating this topic. Firstly, medical students are future healthcare professionals who will be responsible for patient care. Their emotional well-being and ability to manage emotions effectively are crucial for providing high-quality healthcare services. Understanding how emotional intelligence influences their expression of anger and propensity for violence can have implications for patient safety and the overall quality of healthcare delivery. Secondly, medical education is rigorous and often stressful, leading to potential emotional challenges among students. Higher levels of emotional intelligence have been associated with better coping mechanisms and psychological well-being. Investigating the relationship between emotional intelligence, anger, and violence can provide insights into potential interventions to support the mental health and well-being of medical students. Additionally, emotional intelligence plays a vital role in interpersonal relationships and communication skills. Medical professionals must effectively navigate challenging interactions with patients, colleagues, and other healthcare team members. Understanding how emotional intelligence relates to anger expression and violent behavior can inform training programs aimed at enhancing communication and conflict resolution skills among medical students. Moreover, aggressive behavior and violence pose significant risks to individuals' safety and well-being in educational and healthcare settings. By identifying factors associated with increased anger and violence tendencies, such as lower emotional intelligence, preventive measures and interventions can be developed to mitigate these risks. This study can contribute to the development of targeted interventions aimed at reducing

aggressive behavior and promoting a positive learning and working environment. Finally, exploring potential gender differences in emotional intelligence, anger expression, and violent behavior among medical students can provide insights into unique challenges faced by male and female students. Understanding these differences can inform tailored interventions and support mechanisms to address the specific needs of different student populations. Overall, by examining the relationship between emotional intelligence, anger, and violence in medical students, this study aims to contribute to the promotion of a supportive and safe learning environment, the enhancement of students' psychological well-being, and the improvement of patient care outcomes in the healthcare sector.

## **4. METHOD**

### **4.1. Objectives of the Study**

- To investigate emotional intelligence (EQ) in students (males & females).
- To examine Anger and violence in students (males and females).
- To analyze the relationship between emotional intelligence (EQ) and anger and inmedical students.
- To negotiate the difference of emotional intelligence (EQ) in male and female andlevel of anger.

### **4.2. Operational Definitions**

#### **4.2.1. Emotional Intelligence**

Emotional Intelligence also known as EQ is defined as social intelligence that entails observing & managing one's own as well as others emotions, thinking patterns and behavior. In other words it is the ability to manage, perceive and handle emotions according to the requirement of time. (Mayer & Salovey, 1993; Joseph et al., 2015; Serrat, 2017; Mattingly & Kraiger, 2019). People who are emotionally intelligent consider it easy to handle situations (on- going emotions) when they are faced with hurdles in day to day life (Peterson, 2019).

#### **4.2.2. Anger Expression**

Human anger is a behavior that is directed towards other individuals and is carried out in order to cause immediate intense harm to that person (Anderson & Bushman, 2002). Anger not only leaves a long lasting impact on the victim but also on the person being aggressive. Mostly the medical students who are anger show clear psychological mal-adjustment, and lower performance along with it the rate of psychological disorders is also high in those individuals (Moffitt, 2006; Ostrov & Godleski, 2009; Piquero, Daigle, Gibson, Piquero, & Tibbetts, 2007).

#### **4.2.3. Violent Behavior**

Concern among society about violence in daily life has grown in recent decades (Espelage and Hong 2019; Larrain and Garaigordobil 2020). Students with lower EQ may indulge in bullying behaviors that give rise to poor social & interpersonal relationships, as well as mistreatment to oneself and on another (Romera et al. 2021) along with the worst consequences they had because of the discrepancy between the emotions they felt, and they express (Nocentini et al. 2019; Reyzaabal and Sanz 2014; Martínez-Martínez et al. 2020).

### **4.3. Research Design**

The research was designed to study the relationship between emotional intelligence (EQ) anger and violence in students. Correlational design was used to measure, understand and access the statistical relationship between emotional intelligence, anger and violent behavior. In the present study, online survey method was utilized as a tool for data collection method. Correlational research design was used in order to see whether there us a positive,

negative or no significant *relation exists between the variables*.

#### **4.4. Sampling Technique**

Data was collected via random sampling technique, where the sample size was 200. Their age ranges varies from 19-30 years. Both males and females were the part of the study.

The inclusion criteria set for the sample was age range between '19-30 years.' The sample was comprised of both males and females, with marital status either single or divorced. The data was collected from medical students (students with background of medical knowledge only).

Whereas the exclusion criteria was composed of the students other than medical field. The age was neither above 30 years, nor below 18 years as the aim of the study was to opt for those students who have started their medical education.

#### **4.5. Research Instruments**

- Emotional Intelligence Scale (EIS)
- Anger Expression Scale (AES)
- Violent Behavior Scale (VBS)

##### **4.5.1. Emotional Intelligence Scale (Schutte et, al., 1998)**

Schutte et, al., (1998), devised the Emotional Intelligence Scale (EIS) is a self- administered tool and is based on 5-point Likert scale where 5 represents strongly agree, 4 represents agree, 3 represents neutral, 2 represents disagree, and 1 represents strongly disagree. The instrument comprises of 33 items in total measuring different modalities of Emotional Quotient. The score ranges from 10 to 60, where 10 are the least scores representing low EQ whereas 60 are the highest representing higher EQ. The multiple themes of the scale includes emotions in the self-verbal and non-verbal, emotions in others verbal and non-verbal, control of their own and other people's emotions, and also creative thinking. Schutte et al. used a set of 62 items derived from the model of Salovey and Mayer, 1990. (See Appendix C)

##### **4.5.2. Anger Expression Scale (DiGiuseppe and Tafrate, 2011)**

DiGiuseppe and Tafrate (2011), deviser the anger expression scale (AES) in order to examine anger and its intensity in individuals with the help of 3 sub-scales. The total items of this scale are 20. It is a self-administered tool and is based on 5-point Likert scale where 5 represents strongly agree, 4 represents agree, 3 represents neutral, 2 represents disagree, and 1 represents strongly disagree. The higher the scores the more anger it represents (See Appendix D).

##### **4.5.3. Violent Behavior Scale (Pamela, Orpinas, and Frankowski, 2001)**

Pamela, Orpinas, and Frankowski (2001), devised the Violent Behavior Scale (VBS) was created to examine behavioral problems that are associated with being violent by doing physical assault and causing physical harm to other people. The scale was devised by Vignette. It has Likert 10 points rating comprised of 1=Once, 2=Twice, 3=Three times, 4=Four times, 5=Five times, 6=Six times, 7=Seven times, 8=Eight times, 9=Nine times or more, 0=Never. The total items of this scale are 8. The scoring for 0 represents never whereas the scoring of 9 represents nine times or more. The scale basically measures the intensity of violent behaviors (See Appendix D).

#### 4.6. Procedure

Participants signed informed permission forms indicating their willingness to take part in the study. They were informed that their responses will be kept confidential, if in case of any disclosure it would bring into their consideration, along with their right to withdraw from participation any time without any obligation if they do not feel comfortable. After data collection from 200 participants, the data was analyzed through SPSS 23.0. The data was collected in the form of survey questionnaire. The survey questionnaire comprised of all the assessment instruments that measure different variables in the study.

The protocol comprised of an informed consent form, demographic sheet and assessment instruments on the basis of which the emotional intelligence and anger and violent behavior is measured among males and females. The three measures used in the present study comprised of

(a) Emotional Intelligence scale (33 items) designed by Peter Salovey and John Mayer, (b) Anger expression scale (AES) 20 items, and (c) Violent Behavior Scale (8 items).

#### 4.7. Data Collection

This study applied a quantitative methodology. The strategy was viewed as having accurate measurements, objective observations, and statistical analysis. The data was collected via two means, the primary mean was via distributing questioners (Emotional intelligence questionnaire, anger expression scale, violent behavior scale) and recording the responses, whereas The secondary sources included previous literature evaluations and related articles. The Participants age ranges from 19 years to 30 years. Both males and females were the part of the study.

#### 4.8. Data Analysis

Collecting secondary data from journals, websites, and other printed materials relevant to the analysis, this research was carried out using both field research and literature research methods. A quantitative research analysis was carried out in order to analyze the original data. A number of analyses were used to examine the results of the questionnaire survey, starting with a descriptive analysis, second was correlational analysis the third was comparative analysis (to compare means of male and female scores)for hypothesis testing.

Data was entered and analyzed using the Statistical Package for Social Sciences (SPSS) version 23.0 software program (IBM Corp., USA). Dataprocessing has doneusing statistical softwareSPSS. Descriptive statistics calculated for all demographic variables, using means, standard deviations, frequencies and percentages.

### 5. RESULTS

**Table 1 Computing Descriptive Statistics of the Demographic Variables.**

Variables	Categories	f	%
<b>Age</b>		200	100
<b>Marital Status</b>			
	Married	51	24.5
	Single	149	74.1
<b>Education</b>			
	DBT	99	49.3
	Medical Student	101	50.2
<b>Gender</b>			
	Male	66	32.8
	Female	134	66.7

Table 1 demonstrating descriptive statistics of the demographic variables. .Minimum age range was 19, whereas the maximum age range was 30 years. All participants were medical students with MBBS and DPT Background.

The frequency of MBBS students was 101 with a percentage of 50.2, whereas the frequency of DBT students was 99 with a percentage of 49.3; showing the response rate was higher from MBBS students. Females participated highly compared to male participants, whereas the percentage and frequency of single participants were higher than married participants.

**Table 2 Cronbach Alpha Reliability of the tools used (N=200)**

Reliability Statistics		
Scales	Items	α (Alphavalue)
EIS	33	.94
VBS	8	.992
AES	20	.829

Note: EIS = Emotional Intelligence scale VBS = Violent Behavior scale, AES = Anger Expression scale.

Table 2 shows that all scales used in the study have an acceptable reliability value (>.5). The reliabilities are good and acceptable. Therefore, decision was to proceed with the study

**Table 3 Mean, Standard Deviation, Skewness & Kurtosis of the main variables of the study (N=200).**

Descriptive Statistics								
Scales	No. Ofitems	Range			SD	M	Skewness	Kurtosis
		α	UL	LL				
EIS	33	.94	156	75	14.0	119.2	-.768	.898
VBS	08	.92	52	16	10.6	7.1	1.06	4.0
AES	20	.82	74	17	11.4	46.3	.020	-.053

Note: EIS = Emotional Intelligence scale VBS = Violent Behavior scale, AES = Anger Expression scale, M = mean, SD= standard deviation, a= Cronbach alpha value, UL= upper case, LL= lower case.

Table 3 indicates descriptive statistics of the scales. The skewness of all three scales (EIS,VBS, AES) is below 1 which shows the data is normally distributed and is negatively skewed.. The mean on EIS scale is 119.2, VBS scale is 7.1, and AES is 46.3.

**Table 4 Pearson Correlation matrix among Emotional Intelligence Scale, Violent Behavior Scale, and Anger Expression Scale (N=200)**

Variables	1	2	3
PSS	-	.274**	-
WBI	.274**	-	.135
MEGS	-	.135	-

Note: EIS = Emotional Intelligence scale VBS = Violent Behavior scale, AES = Anger Expression scale, \*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 4 demonstrated the correlation of the sample. Pearson’s correlation was calculated determining the association of emotional intelligence with anger and violence in medical students. N in the above mentioned table represents the sample size of 200. According to Pearson correlation, a significant correlation of (-0.274\*\* greater than 0.01) is observed between emotional intelligence, anger & violence highlighting association of emotional intelligence with anger. Hence Hypothesis 3 ‘There is a strong association between Emotional Intelligence (EI), anger and violence’ is thus proved.

**Table 5 Computing T-Test (Independent Sample T-Test) Analysis for Hypothesis testing(Males and Females Comparison).**

Table	Variables	Males (n = 200)		Females (n = 200)		t	p	95% CI	
		M	SD	M	SD			LL	UL
	EIS	117.1	14.4	120.3	13.7	-1.5	.369	-7.4	.87
	VBS	8.3	12.5	6.5	9.6	1.1	.040	-1.3	4.9
	AES	48.9	13.1	45.0	10.2	2.2	.087	.53	7.2

Note: EIS = Emotional Intelligence scale VBS = Violent Behavior scale, AES = Anger Expression scale, M = mean, SD = standard Deviation, p = significant value, UL = upper case whereas LL = lower case.

Table 5 indicated the significant variance between males and females with a significant difference in means. Males on EIS have a mean of 117.1, whereas for females the mean scores on EIS is 120.3. Males on VBS have a mean score of 8.3, whereas for females the mean scores on VBS is 6.5. Males on AES have a mean of 48.9, whereas for females the mean is 45.0. The results of the independent sample t-test indicates females as having more emotional intelligence compared to males.

Hence according to table 5 of t-test, mean scores on all the three variables of the study showed males scored higher than females directing towards Hypothesis 4 "Males are less emotional intelligent than females that's why males are more angry and violent than females." is proved.

## 6. DISCUSSION

Medical Students with high level of Emotional Intelligence were good in retention, and are able to achieve more than other students who are low at emotional intelligence (Wong, Wong, & Chau, 2001), whereas students with lower Emotional intelligence has an increase in anger and aggressive behavioral tendencies (García-Sancho, Salguero, & Fernández-Berrocal, 2014). A study was done to highlight the association of emotional intelligence and anger in Athletes (students), trait emotional intelligence scale was used to analyze the association and the results indicated that emotional intelligence has a direct association with anger, the less EI a player have, the more aggressive he is (Levillian, Martinent, Vacher, & Nicholas, 2022). Also, it is evident by the analysis of the present study, Anger and violence was seen as dominant traits in people with lower emotional intelligence. Anger usually in young age takes an indirect form (Anguiano-Carrasco & Vigil-Colet, 2011) with reference to female participants whereas, for male participants, this anger may range into physical fights and harm (Anguiano-Carrasco, 2011).

Khosravi et al., (2022), conducted a study to analyze the association of prevalence of suicide in students with lower emotional intelligence. Two group of participants were taken in consideration, a group of students diagnosed with borderline personality disorder and a group of participants who were normal. A scale was administered to check the EI, the results highlighted lower level of EI in students that were more aggressive and have suicidal tendencies than normal population. Hence, Emotional Intelligence was seen as deteriorating in students suffering from mental health illnesses (Khosravi, & Hassani, 2022).

## CONCLUSION

Female students display less aggressive tendencies than male students. Male medical students scored lower on Emotional intelligence continuum because of multiple factors, including the role of the society, than female medical students. The results of our study are consistent with the findings of Bjorkqvist (2018), he highlighted gender differences with reference to emotional intelligence and aggressive tendencies and concluded that boys show more physical aggression & verbal aggression (Bjorkqvist et al, 2018).

Our results provide proof for the poor relationship between anger, violence and emotional intelligence, people

with lower emotional intelligence were more likely to be aggressive. This findings is consistent with the finding of the study done by Kokkinos (2012), demonstrating bullying, aggression and anger as those factors dominating a person with lower emotional intelligence (Kokkins & Kipritsi, 2012). Researchers have also analyzed how brain chemicals change that impacts the way one feels. A study was conducted by Haicka & Szewczuk (2021), reported domaminergic neurons decomposition in people with deteriorating emotional intelligence and anger expression. Buss-Perry aggression scale along with an emotional intelligence scale, and self report inventory was used to analyzed the association of EI with angerand aggressive feelings tendency.

## Implications

The present study will be helpful to device ways to educate students develop Emotional intelligence (EI) in order to reduce aggressive tendencies. In summary, the research has theoretical as well as the practical implications. From a theoretical perspective, there is an evidence through analysis that 'an association between emotional intelligence and violence has been observed, directly leading to aggressive acts. Our results also extended knowledge in this area as the present study uncover a few psychological issues associated with lower EI. The findings of present study have practical implications, in order to reduce aggression, the most important step should be to educate students about emotional intelligence via seminars, webinars, workshops, awareness programs or social media sites. Emotional learning programs helps in the reduction of aggressive behaviors (Castillo, Salguero, Fernandez-Berrocal, & Balluerka, 2013), itsuggests that emotional learning programs should be introduced in order to help students cater with lack of emotional intelligence & aggression.

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