

## Association of demographic characteristics, emotional intelligence and academic self-efficacy among undergraduate students

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### Abstract

**Objective:** To investigate the association of emotional intelligence with academic self-efficacy and gender difference among undergraduate students.

**Method:** The survey-based study was conducted at the Institute of Clinical Psychology, University of Karachi, Karachi, from January 2016 to October 2017, and comprised undergraduate students of either gender aged 16-25 years from different academic institutions. Data was collected using a demographic form, Schutte Emotional Intelligence Scale and the Academic Self-Efficacy Scale. Data scrutiny and scoring was done according to the relevant manuals, and analysis was done using SPSS 17.

**Results:** Of the 400 subjects, 206(51.5%) were females and 194(48.5%) were males. The overall mean age was  $21.28 \pm 2.12$  years. Emotion perception, emotion utilisation, manage emotion with self and with others were significant predictors of academic self-efficacy ( $p < 0.05$  each). Gender difference was significant on all variables ( $p < 0.05$ ).

**Conclusion:** Emotional intelligence was found to play a significant role in promoting academic self-efficacy among undergraduate students.

**Keywords:** Emotional intelligence, Academic self-efficacy, Gender, Undergraduates (JPMA 70: 457; 2020).

<https://doi.org/10.5455/JPMA.11384>

### Introduction

Emotional intelligence (EI) is defined as the ability to monitor one's own as well as others' feelings and emotions, to discriminate amongst them, and utility of the very information that directs one's thinking for predictive behavioural response or actions.<sup>1</sup> Moreover, it is observed that individuals who acquired high academic grades have good EI capability. While students who have low EI capability feel frustrated, dejected and avoid studies that results in significant decline in academic grades. A study showed that high EI level brings remarkable success in academic performance.<sup>2</sup> EI involves awareness, regulation and true expression of a range of emotions. Therefore, the ability to identify, express and control these emotions is an important aspect of EI, and lack of such an ability in each of these domains can lead to personality disorders.<sup>2</sup> Similarly, some studies reported the socio-emotional cognitive aspects of personality, like EI and self-efficacy (SE), help in educational growth and advancement.<sup>3-5</sup> Some studies believe that EI and self-efficacy (SE) are part of individual's talent and growth, and these aspects help

the students in keeping focus on the desired objectives.<sup>6</sup> A study defined SE as "a personal judgement of one's capabilities to organise and execute courses of action to attain designated goals".<sup>7</sup> The study sought to assess SE level, generality and strength across activities and contexts.<sup>7</sup>

Similarly, another study investigated significant positive relationship between EI and SE, and concluded that EI enhanced the resources in an individual and played a role in the growth of SE in students.<sup>8</sup> Moreover, this capability helps the individual to manage and regulate their emotions according to the situations, and to formulate a strategy to resolve the situations.<sup>9-11</sup> It has been proved that high EI predicts high SE.<sup>12,13</sup> A study reported that effects of academic SE turned the students into optimists on academic performance, stress, health and commitment to attaining the desired goal.<sup>14</sup> In addition, studies have also confirmed the connection of EI and SE in high academic achievements.<sup>15,16</sup>

The current study was planned to investigate the association of EI and academic SE among undergraduate students, with focuses on the role of gender in this regard.

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## Subjects and Methods

The survey-based study was conducted at the Institute of Clinical Psychology, University of Karachi, Karachi, from January 2016 to October 2017, and comprised regular undergraduate students of either gender aged 16-25 years from different academic institutions.

After taking permission from administrative authorities, the sample size was calculated using the formula  $n = z^2 p(1-p)/d^2$  in line with previous studies.<sup>15-17</sup> Subjects were enrolled using purposive sampling technique from different institutions and study programmes, like the two-year bachelor, and the four-year Bachelor of Science. Students with any kind of physical and psychological disability were excluded.

Data was collected using a demographic form, Schutte Emotional Intelligence Scale (SEIS) and the Academic Self-Efficacy Scale (ASES). The demographic form was administered to gather personal data. SEIS was used to measure general EI of students.<sup>18</sup> It is based on EI model emotional quotient-1 (EQ-I).<sup>1</sup> It has 33 items with four subscales: Emotion Perception (EP), Utilising Emotions (UE), Manage Self-relevant Emotions (MSE), and Manage Others' with Emotions (MOE). The Cronbach's alpha coefficient for the original Schutte Self-Report Emotional Intelligence Test (SSEIT) subscales is between 0.70 and 0.85 ( $p=0.01$ ), indicating high reliability.

The ASES is a 10-item scale.<sup>19</sup> Each statement is rated on a 4-point Likert type scale that ranges from "Not at all true" to "Exactly True". ASES has good reliability ( $r=0.80$ ) and internal consistency has been calculated to be between -0.76 and 0.90 ( $p=0.01$ ). High scores indicate high academic efficacy and vice versa. All the three data-collection tools were administered after taking informed consent and ensuring confidentiality. Data was analysed using SPSS 17.

## Results

Of the 400 subjects, 206(51.5%) were females, 194(48.5%) were males, 150(37.5%) were in a two-year programme, and 250(62.5%) were in a four-year programme. The overall mean age was  $21.28 \pm 2.12$  years. There were 362(90.5%) single students and 38(9.5%) were married. Fathers of 93(23%) students were businessman, 107(26.8%) were government employees, 115(28.8%) were private employees and 86(21.5%) were unemployed. Mothers were classified into working women 108(27%) and non-

**Table-1:** Linear Regression Analysis of Subscales and Overall Emotional Intelligence with Academic Self-Efficacy among Undergraduate Students (n=400).

Model	R <sup>2</sup>	Beta	t-test	p-value
(Constant)	0.204		10.76	<0.000
EP		0.452	10.10	<0.000
(Constant)	0.281		12.694	<0.000
EU		0.530	12.48	<0.000
(Constant)	0.286		8.95	<0.000
MES		0.535	12.63	<0.000
(Constant)	0.168		13.88	<0.000
MEO		0.410	8.97	<0.000
(Constant)	0.313		6.82	<0.000
EI-Overall		0.560	13.47	<0.000

EP: Emotion Perception; EU: Emotion Utilisation; MES: Manage Emotion with Self; MEO: Manage Emotion with Other.

a. Dependent Variable: Academic Self-Efficacy

b. Predictors: (Constant), Emotional Intelligence (EI)

**Table-2:** Correlation Matrix and Descriptive Statistics for Subscales of Emotional Intelligence and Self-Efficacy among Undergraduates (n= 400).

Scales	Age	MEO	MES	EU	EP	EI	SE
Age	1						
MEO	0.066	1					
MES	0.079	0.624**	1				
EU	0.048	0.676**	0.658**	1			
EP	-0.002	0.646**	0.606**	0.655**	1		
EI	0.054	0.860**	0.843**	0.857**	0.863**	1	
SE	0.112*	0.410**	0.535**	0.530**	0.452**	0.560**	1

\* =  $p < .05$ ; \*\* =  $p < .01$

MEO: Mage Emotion with Other; MES: Manage Emotion with Self; EU: Emotion Utilisation; EP: Emotion Perception; EI: Emotional Intelligence; SE: Self-Efficacy.

**Table-3:** Descriptive and t-test statistics for subscales of Emotional Intelligence and Self-Efficacy between Male and Female Undergraduates (n=400).

Scales	Gender	n	Mean±SD	t-test	p-value
EP	Male	194	33.850±5.768		
	Female	206	35.407±5.749	-2.703	<0.007
EU	Male	194	21.757±4.281		
	Female	206	23.097±4.269	-3.132	<0.002
MES	Male	194	30.732±5.080		
	Female	206	32.538±5.150	-3.530	<0.000
MEO	Male	194	26.680±5.472		
	Female	206	28.184±4.764	-2.936	<0.004
EI	Male	194	113.02±7.567		
	Female	206	119.23±16.997	-3.592	<0.000
SE	Male	194	28.57±5.135		
	Female	206	29.84±5.221	-2.456	<0.014

MEO: Mage Emotion with Other; MES: Manage Emotion with Self; EU: Emotion Utilisation; EP: Emotion Perception; EI: Emotional Intelligence; SE: Self-Efficacy.

working mothers were 292(73%). Students from joint family system were 185(46.3%) and 215(53.7%) were from nuclear family system (Table 1).

EP, UE, MSE, and MOE were significant predictors of academic SE ( $p < 0.001$  each).

There was a significant relationship among age, EP, UE, MSE, MOE and SE (Table 2).

Also, there were significant gender differences in terms of EP, UE, MSE, MOE, overall EI and SE (Table 3).

## Discussion

Findings showed that EP, UE, MSE, and MOE were significant positive predictors of SE among undergraduate students. These findings are consistent with literature.<sup>20</sup> EI plays an essential role in predicting academic SE, helps students to find better options and better ways of adjustment and academic performance. Therefore, students remain warm, genuine and academically motivated, carrying optimistic sense of attitude towards academic tasks.<sup>7</sup> Regarding the bonding of EI and academic SE, a study reported that EI helps the students in processing the information and management of emotions.<sup>21</sup> Correspondingly, these capabilities help individuals to overcome negative emotions when they undergo stressful academic situations, and help them to think logically about the different situations, which ultimately increases the level of academic SE.<sup>19</sup> Hence, the ability to assess, regulate and utilise emotions has been found to be associated with a variety of better academic outcomes, including achievement tasks, goals attainment and academic performance.<sup>22,23</sup>

Some academic factors, like educational environment, resources and guidance, are key aspects in terms of academic SE and achievements. However, in terms of negative environment, students feel threatened and preoccupied which affects academic performance and intermittently causes emotional disturbance. In order to resolve the problem, the role of EI is extraordinary as, together with SE, it significantly enhances educational performance.<sup>24-26</sup>

Besides, students with high EI perceive better SE and academic performance in all circumstances.<sup>27</sup> In this sense, EI is a predictor of high academic SE in undergraduates because of high emotional stability and adaptability with a new environment.<sup>28</sup>

On the basis of the findings, we recommend that academic institutions shall plan various ways to help a student maintain not just academic performance but also healthy cognitive and daily-life functions through designed

curriculums, trainings, activities and awareness sessions. Also, counselling from time to time about academic programmes and stressful factors can also reduce chances of academic burnout.

## Conclusion

There was a strong association of EI and academic SE among undergraduate students. High EI scores were found to be indicative of high emotional stability, and, subsequently, academic SE. Also, there were significant gender differences on the various EI variables and SE.

**Disclaimer:** The study is part of a Ph.D thesis.

**Conflict of Interest:** None.

**Source of Funding:** None.

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