



# Anxiety in Medical Students: In Terms of the Influence of Efficacy Aspects and Emotional Intelligence

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## Abstract

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**BACKGROUND:** Anxiety is a condition, especially for students who have just entered the lecture period. Students usually feel anxious, especially medical students. Learning for students is assessed from several aspects, such as affective aspects and emotional intelligence. Efficacy aspects are aspects related to a person's attitudes and behavior, while emotions are the ability to manage feelings in this case being able to motivate yourself.

**AIM:** The aim of this study is to find out the relationship between efficacy aspects and emotional intelligence with anxiety for 1st-year medical students of the Faculty of Medicine, Universitas Baiturrahmah, Padang.

**METHODS:** The design of this study was cross-sectional with a correlation analytic approach. The research population is students of the faculty of medicine with 135 samples using the total sampling technique. Univariate data analysis is presented in the form of frequency distribution and percentage and bivariate analysis using Pearson test and data processing using SPSS version 16.0 computerized program.

**RESULTS:** The results of this study show that there is no relationship between anxiety and efficacy aspects with a positive and no significant value,  $r = 0.3$   $p = 0.09$  and there is a significant relationship between anxiety and emotional intelligence, and a  $p$ -value of (0.04), a positive correlation with a Pearson's strength value of  $r = 0.7$ . In the efficacy aspect, the highest category was 92 people (68.1%), the most emotional intelligence was moderate, namely, 86 people (63.7%), and the most anxiety was in the normal category, namely, 116 people (85.9%).

**CONCLUSION:** There is a significant relationship between anxiety and emotional intelligence with a strong correlation, and there is no significant relationship between anxiety and efficacy aspect.

## Introduction

Anxiety is a condition, especially for students who have just entered the lecture period because the lecture period is a transition period from adolescence to adulthood that students feel including psychological development. Students should learn, but they also have to think about their future survival. All changes make students vulnerable to psychological problems; anxiety is one of them [1], [2].

According to Huberty in 2012, if the level of anxiety is not excessive, anxiety can be said to be normal, but if it is excessive that it will be a serious problem [2]. Anxiety in students will also affect several things, such as the amount of material that must be mastered in a short time, difficulty completing assignments on time, frequent examinations, irregular sleep patterns, and a competitive environment, interfere with thought processes, and reduce concentration and memory [3], [4]. Anxiety is needed to prepare for or anticipate events that will occur. Anxiety can be overcome by relaxation methods, where the individual sits for a while, stretches all the muscles,

and tries to calm the mood. However, if this method is not accompanied by the ability to be aware of one self, namely, being aware of one's state and emotions; then, it cannot be solved effectively. This ability is one component of emotional intelligence [4], [5].

Student learning is a means to increase interest, talent, and motivation. Learning in students is assessed from several aspects, one of which is the affective aspect. Affective aspects are aspects related to a person's attitudes and behavior. Assessment with affective aspects aims to get diligent and thorough students with good knowledge and performance, which can solve problems systematically and logically. Another definition of an affective aspect is belief in one's abilities, this belief is self-confidence, which can encourage a person to achieve everything he wants [6], [7], [8].

The efficacy aspect affects student learning achievement. Things that affect learning achievement are influenced by internal and external factors. Internal factors consist of psychological aspects consisting of intelligence, talent, interests, and motivation. Some of these things are very instrumental in learning achievement. External factors include friends, teachers,

lecturers, or other things that are external from the surrounding environment. Individuals with high self-efficacy do not feel burdened, so they are not easily anxious, while individuals with low self-efficacy are prone to anxiety, because they feel that everything is a threat and an obstacle, so it would be very good if medical students have a high level of self-efficacy [2].

Emotional intelligence of student is closely related to the teaching and learning process. Emotional intelligence can train the ability to manage feelings in this case being able to motivate your-self, be able to deal with pressure, regulate moods, empathize, and work together. Some of these abilities are very useful for achieving learning-related goals. Emotional intelligence functions in controlling emotions and controlling oneself in the environment. Individuals who have emotional intelligence can know their emotional state and know how to express their emotions appropriately [6], [9], [10], [11].

High emotional intelligence can help maintain a state of harmony with oneself and eventually will feel confident in facing the challenges of life and learning in educational institutions. Furthermore, emotional intelligence is also referred to as the ability to feel and understand the feelings or emotions of others, which makes individuals sensitive to their feelings and emotions surrounding conditions. Sensitivity allows individuals to know their surroundings quickly and can respond quickly, precisely, and accurately to the circumstances that occur [6], [12], [13], [14].

This description of the student's condition was obtained using a survey method conducted on students who of course experienced problems in the teaching and learning process. Research conducted by Ramadan in 2017 conducted research on differences in the anxiety levels of 1<sup>st</sup>-year students at the Faculty of Medicine, University of Lampung, the results showed that 1<sup>st</sup>-year students experienced higher levels of anxiety than final year students with details of the average anxiety score of early-level students 14.1% and the final level is 9.53% because final year students are used to and have adapted so they have a little anxiety disorder [15].

Research conducted by Andi in 2013, based on the results of the study, showed that most students did not have emotional intelligence on anxiety. High emotional intelligence will not experience anxiety when facing examinations and *vice versa* [16]. Research conducted by Duarsa in 2019 at the Faculty of Medicine, University of Lampung showed that there was a strong negative relationship between self-efficacy and anxiety levels of 1<sup>st</sup>-year students at the Faculty of Medicine, University of Lampung [17].

Aspects of emotional intelligence are self-awareness, managing emotions or self-regulation, motivation, and empathy. Regarding the emotional intelligence aspect, the effective aspect has similarities in terms of motivation, interest, and frustration. The

intersection of the similarities in aspects of emotional intelligence and effective aspects can be assessed through a questionnaire. Researchers are interested in assessing, in which aspects have the most influence on the anxiety of medical students, affective aspects, or emotional intelligence. This research will produce research-related data that will later show student behavior related to affective aspects and emotional intelligence [9], [12].

## Research Methods

The respondent of this research is the 1<sup>st</sup>-year medical students of the Faculty of Medicine, Baiturrahmah University, Padang. This research was conducted from March 2020 to August 2021. The design of this research is cross-sectional. The target population in this study were students of the Faculty of Medicine, Baiturrahmah University, Padang with 135 samples by total sampling with the inclusion and exclusion criteria in the study.

The research instrument used efficacy questionnaires, emotional intelligence, and questionnaires to assess anxiety. The questionnaire to assess the affective aspect was used the general efficacy scale questionnaire which has fairly high reliability, the emotional intelligence assessment used the schutte emotional intelligence scale (SEIS) instrument. For the assessment of anxiety the zung self anxiety scale (ZSAS) questionnaire was used. These three questionnaires use a Likert scale and the results are ordinal data with low, medium, and heavy scale divisions.

## Research Results

The sample of this research is 135 respondents. From the test results, the reliability of the questionnaire obtained 0.87 for the GES questionnaire, the reliability of the SEIS questionnaire is 0.95, and the ZSAS questionnaire has a reliability of 0.74. It can be concluded that the three questionnaires have high and high reliability.

The results of the study are described in the presentation below:

From Table 1, most respondents are dominated by female students 103 (76.3%). The efficacy aspect of students in the high category is 92 (68.1%) people, emotional intelligence is dominated by the high category as many as 86 people (63.7%), and the anxiety category is 116 (85.9%) students in the normal category.

**Table 1: Characteristics and frequency of efficacy aspects, emotional intelligence, and anxiety**

Variable/s	f	%
Sex		
Male	32	23.7
Female	103	76.3
Efficacy aspect		
Low	0	0
Middle	43	31.9
High	92	68.1
Emotional intelligence		
Low	3	2.2
Middle	46	34.1
High	86	63.7
Anxiety		
Normal	116	85.9
Low-middle	18	13.3
Severe	1	0.7
Very severe	0	0

### **Bivariate test**

A bivariate test of efficacy aspects with anxiety and it was carried out by Chi-square test. Therefore, it is necessary to combine the data. The result of combining the data is that the expected value is  $<5$ , then the Pearson test is continued.

The relationship between anxiety and efficacy aspects does not have a significant relationship, with  $p > 0.09$ , while anxiety and emotional intelligence have a significant relationship with a correlation value of 0.7 (strong correlation) (Table 2).

## **Discussion**

### **Efficacy aspect**

The results obtained from 135 respondents showed that the most efficacy aspects were high, namely, 92 people (68.1%) in 1<sup>st</sup>-year students of the Faculty of Medicine, Universitas Baiturrahmah, Padang. This could be due to the educational status of respondents who are currently studying medicine majoring in medicine, thus providing a broad view of the affective aspect of themselves.

This research is in line with Saba's research in 2018 which obtained the highest efficacy aspect results, namely, (40.1%) [17]. Slightly different from the research conducted by Masruroh *et al.* in 2019 obtained that the most self-efficacy was moderate, namely, (42.9%). The similarity with previous research could be due to both currently undergoing medical education with almost the same age, so they have a high view of the efficacy aspect while the difference in results with Masuroh's research could be due to differences in the number of samples so that they give different results from the previous research. Different questionnaire answers [18].

Research conducted by Sasmita and Rustika in 2015 stated that 1<sup>st</sup>-year Udayana University medical students had high self-efficacy so it helped students

in adjusting learning from high school to college. A successful experience is the most important source of self-efficacy, where to form self-efficacy a person must face challenges or problems in his life so that these challenges and problems will teach individuals to develop effort and persistence. Individuals who can overcome challenges will have an impact on increasing self-efficacy [19].

The level of a person's self-efficacy in each task varies greatly. This is due to the existence of several factors that influence the perception of individual abilities. The underlying thing to increase self-efficacy, one of which is one's own personal experience, the experience of success has been gained or the experience of failure obtained can increase self-efficacy. The longer the education undertaken, the more trained students will be in managing their problems, then skills will be formed that are well-integrated [18], [20], [21].

Students who have high efficacy aspects have confidence in the level of difficulty of the task, besides that students have confidence in facing difficult tasks in various situations. High self-efficacy can convince students in an effort to improve their learning achievement. Self-efficacy beliefs can increase learning achievement, even though their peers have the same intelligence and ability [6], [9].

### **Emotional intelligence**

The results obtained from 135 respondents showed that the highest emotional intelligence was 86 (63.7%) respondent. This is because there are factors that affect a person's emotional intelligence such as family environmental factors with attention from parents and friendly environment, thus affecting the emotional intelligence of respondents.

This study is in line with research conducted by Fathilla, it was found that the level of emotional intelligence of students at the Faculty of Medicine at Diponegoro University was at most moderate (64.2%), but in contrast to the research conducted by Ramdhani *et al.*, in 2020, the emotional intelligence of medical students was obtained. Universitas Sebelas Maret is high that is (51%). The similarity with Fathilla's research is due to the similarity of gender characteristics, where most of the sexes are both female and there are differences in results with Ramdhani's research due to the different research locations with different samples, they provide different views [15], [21].

Most students' emotional intelligence is in the medium category, the next student's emotional intelligence is in the high category (37.8%). This is in accordance with research conducted by Sundararajan and Gopichandra in 2018 on medical students in Chennai India, that medical students have high emotional intelligence, they learn to manage emotions as early as possible to train themselves to face patients and the

world of the society later. In the moderate category, it must be supported by direct support from the family, adapt well at the university, and be satisfied with the available teaching and learning facilities so that good family closeness is treated and a conducive learning environment to increase emotional intelligence [14].

### **Anxiety**

The study obtained results from 135 respondents, the most anxiety was normal, namely, 116 people (85.9%) in the 2020 students of the Faculty of Medicine, Baiturrahmah University, Padang. This is due to environmental factors, namely, friends who have one goal, namely, completing lectures, thus providing enthusiasm for learning together. The results of this study are different from the research conducted by Duarsa in 2019 where the anxiety level of 1<sup>st</sup>-year medical students was mild, namely, (71%) and followed by the normal category (23.5%). different views and also different views of assessing anxiety, so the research results are also different.

First-year students tend to be prone to experiencing psychological problems, one of which is anxiety disorders because 1<sup>st</sup>-year students are students who have just undergone a lecture period and are a period when students experience a transition from adolescence to adulthood, including psychological development. Thinking about his future survival, but this is still a normal condition if not excessive [1].

The results show that the anxiety of 1<sup>st</sup>-year medical students, Faculty of Medicine, Baiturrahmah University, Padang, is still normal. During the 1<sup>st</sup>-year, there was stress and anxiety in medical students due to adjustment from the previous educational environment which was not too heavy to become a heavy medical education environment. Anxiety symptoms are still normal in medical students due to the high academic burden, medical students have to study a large number of lecture materials, and a lot of assignments, and there are high levels of depression, anxiety, and stress, which tend to stay higher if the exams are completed. Close, but they can handle it well by studying as much as possible to achieve good grades [11].

### ***The relationship of efficacy aspects to anxiety levels***

The results of the statistical test with the Person's test obtained a value Pearson's  $r = 0.3$  and  $p = 0.09$ , so it can be concluded that there is no relationship between efficacy aspects and the anxiety of the 2020 students of the Faculty of Medicine, Universitas Baiturrahmah, Padang. This is because the 1<sup>st</sup>-year students are still in the adaptation phase to the new learning environment.

The previous research conducted by Saba in 2018 found a significant relationship between

self-efficacy toward 1<sup>st</sup>-year student anxiety with  $p = 0.000$  ( $p < 0.05$ ) and also Hartono's research in 2012 obtained a significant relationship between self-efficacy toward the anxiety of the 1<sup>st</sup>-year medical students at Sebelas Maret University with a value of  $p = 0.000$  ( $p < 0.05$ ). The similarity of some of the studies above could be due to the measurement of anxiety and affective aspects both using a questionnaire measuring instrument with a Likert scale so that the opportunity to give results that both influence the results of the study [1], [22].

Individuals with low self-efficacy or lack of confidence in their ability to perform tasks successfully tend to focus on their perceived incompetence. High self-efficacy will motivate individuals cognitively to act more defensively and purposefully, especially if the goals to be achieved are clear goals. This study is by the theory expressed by Bandura which states that self-efficacy is useful for exercising control over stressors that play an important role in anxiety arousal. Individuals who believe they can exert control over threats do not experience high levels of anxiety. Individuals who believe that they cannot manage threats experience high anxiety arousal [18], [22].

The fact is that high self-efficacy can manage and control themselves when students are exposed to negative events or stressful situations such as stress in the form of anxiety. Students with low self-efficacy generally feel inefficient about themselves when dealing with stressful situations, so they give up easily and feel pressured, anxious, and frustrated. There is a negative relationship between psychological stress in the form of depression, stress, and anxiety disorders on general self-efficacy. This theory shows that students who find it difficult to cope with learning in higher education, lecturers, and academic curricula may experience higher psychological stress (frustration, stress, and anxiety disorders) [20].

It is proven that the high affective aspect can affect student anxiety and make student anxiety normal. This is because a person's high and low self-efficacy in each task varies greatly. This is caused by the existence of several factors that influence the perception of individual self-ability. One of the basic things that can increase self-efficacy is one's own experience, the experience of success that has been obtained or the experience of failure gained can increase self-efficacy. The education that students are currently undergoing helps in overcoming self-anxiety. The longer the education undertaken, the more trained students will be in managing their problems, then skills will be formed that is well-integrated [2], [6].

### ***The relationship of emotional intelligence to anxiety levels***

The results of the statistical test obtained a value of  $p = 0.04$ , so it can be concluded that there is a relationship between emotional intelligence and

anxiety for the 1<sup>st</sup>-year medical students of the Faculty of Medicine, Baiturrahmah University, Padang. The correlation value is 0.7, which means that it has a strong correlation between the two variables. This shows that a person's emotional intelligence affects anxiety because when the respondent can control emotional intelligence such as discussing personal problems with the right person and at the right time and can control emotions when there is a problem so that anxiety can be overcome. The results of the study found that there was no relationship between emotional intelligence and anxiety in medical students, this could be because students who have well-developed emotional intelligence will be able to deal with feelings of anxiety when facing problems; because they can gather control in every situation they face [9], [11], [23].

This research is different from that conducted by Fikry and Khairani in 2016 the results obtained that there is a relationship between emotional intelligence and anxiety of students conducting thesis guidance at Syiah Kuala University with  $p = 0.000$  [13]. Research conducted by Ramdhani *et al.* in 2020 showed that there was a relationship between emotional intelligence and anxiety in medical students. Sebelas Maret University [13].

Emotional intelligence is needed by individuals when facing a problem that can cause pressure or anxiety for them. Individuals with a high level of emotional intelligence will be able to regulate their emotions so that they can minimize or even avoid these feelings of anxiety. Emotional intelligence serves to reduce the level of anxiety itself, besides that individuals with high levels of emotional intelligence will also be able to manage the negative emotions they feel into something positive. It can be said that emotional intelligence is an important factor in the life of each individual, as explained by Goleman that emotional intelligence rests on the relationship between feelings, character, and moral instincts so that individuals can control their emotional impulses or others. Anxiety is one form of manifestation of the emotional reaction of fear accompanied by a feeling of the presence of unpleasant things. Individuals who have high emotional intelligence will be able to control the emotions they feel, including anxiety [23].

**Table 2: The relationship between anxiety and efficacy aspects and the relationship between anxiety and emotional intelligence**

Variable/s	Efficacy aspect		Emotional intelligence	
	p	r	p	r
Anxiety	0.09	0.3	0.04	0.7

## Conclusion

There is a significant relationship between emotional intelligence and anxiety with a strong

correlation, and there is no significant relationship between anxiety and efficacy aspect.

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