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Mood and Stress Among Medical Students

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Summary

This is a study done about the mood and stress among a sample of 189 students of all stages of Sulaymaniyah Medical School. It was done to assess their mood fluctuations and level of stress and to know how these were affected by studying, examination stress, examination marks and other daily life activities.

A questionnaire was prepared which consisted of 55 questions and delivered to all the stages. The sample was chosen randomly where every 4^{th} student from the list of the names of that stage was chosen.

The data from a total of 162 returned questionnaires was analyzed using IBM SPSS v21. To find associations the “Chi-Squared” and “Fisher’s Exact” tests were used.

Most of the participants were of the female gender. Majority of the participants were from the sixth stage. Almost all of the participants lived in the city with the majority being from a moderate socioeconomic status.

Chapter I: Introduction

1.1 Overview of mood and stress

A ***mood*** is an emotional state. Moods differ from emotions in that they are less specific, less intense, and less likely to be triggered by a particular stimulus or event. Moods generally have either a positive or negative valence. In other words, people typically speak of being in a good mood or a bad mood. Mood also differs from temperament or personality traits which are even longer lasting. Nevertheless, personality traits such as optimism and neuroticism predispose certain types of moods. Long term disturbances of mood such as depression and bipolar disorder are considered *mood disorders*. Mood is an internal, subjective state, but it often can be inferred from posture and other behaviors. "We can be sent into a mood by an unexpected event, from the happiness of seeing an old friend to the anger of discovering betrayal by a partner. We may also just fall into a mood." [1]

Stress is a feeling of strain and pressure. Symptoms may include a sense of being overwhelmed, feelings of anxiety, overall irritability, insecurity, nervousness, social withdrawal, loss of appetite, depression, panic attacks, exhaustion, high or low blood pressure, skin eruptions or rashes, insomnia, lack of sexual desire (sexual dysfunction), migraine, gastrointestinal difficulties (constipation or diarrhea), and for women, menstrual symptoms. It may also cause more serious conditions such as heart problems. [2]

Mood disorder is the term designating a group of diagnoses in the Diagnostic and Statistical Manual of Mental Disorders (DSM IV TR) classification system where a disturbance in the person's mood is hypothesized to be the main underlying feature. [3]

Two groups of mood disorders are broadly recognized; the division is based on whether a manic or hypomanic episode has ever been present. Thus, there are depressive disorders, of which the best-known and most researched is major depressive disorder (MDD) commonly called clinical depression or major depression, and bipolar disorder (BD), formerly known as manic depression and characterized by intermittent episodes of mania or hypomania, usually interlaced with depressive episodes. However, there are also psychiatric syndromes featuring less severe depression known as dysthymic disorder (similar to but milder than MDD) and cyclothymic disorder (similar to but milder than BD). [4]

Classification

1) Depressive disorders

A) Major depressive disorder (MDD), commonly called major depression, unipolar depression, or clinical depression, wherein a person has one or more major depressive episodes. After a single episode, Major Depressive Disorder (single episode) would be diagnosed. After more than one episode, the diagnosis becomes Major Depressive Disorder (Recurrent). Depression without periods of mania is sometimes referred to as unipolar depression because the mood remains at one emotional state or "pole". [5]

Individuals with a major depressive episode or major depressive disorder are at increased risk for suicide. Seeking help and treatment from a health professional dramatically reduces the individual's risk for suicide. Studies have demonstrated that asking if a depressed friend or family member has thought of committing suicide is an effective way of identifying those at risk, and it does not "plant" the idea or increase an individual's risk for suicide in any way. [6]

B) Dysthymia, is a condition related to unipolar depression, where the same physical and cognitive problems are evident, but they are not as severe and tend to last longer (usually at least 2 years). [7] The treatment of dysthymia is largely the same as for major depression, including antidepressant medications and psychotherapy. [6]

C) Double depression can be defined as a fairly depressed mood that lasts for at least two years and is punctuated by periods of major depression. [7] When both Unipolar depression and Dysthymia co-occur, the resulting condition is known as double depression. [8]

D) Depressive Disorder Not Otherwise Specified (DD-NOS) is designated by the code 311 for depressive disorders that are impairing but do not fit any of the officially specified diagnoses. According to the DSM-IV, DD-NOS encompasses "any depressive disorder that does not meet the criteria for a specific disorder." [9]

E) Depressive Personality Disorder (DPD) diagnosis criteria based on the DSM-IV-TR (APA 2000)defines that a repetitive pattern of depressive episodes and behaviors from early childhood to adulthood can be indicated as five (or more) of the following: (a) if the usual mood seems to be always being unhappy, feeling joylessness,and gloominess (b) having a self-reflection of being worthless, incapable, or incompetent (c) constant patterns of always blaming oneself and being demeaning to oneself (d) easily sensitive to worry and a feel of dismay (e) negative and judgemental to others (f) is pessimistic (g) very liable and likely to feel guilt or anguish (h) does not occur exclusively during Major Depressive Episodes and is not accounted for by Dysthymic Disorder.[10]

2) Bipolar disorders

Bipolar disorder (BD), an unstable emotional condition characterized by cycles of abnormal, persistent high mood (mania) and low mood (depression), which was formerly known as "manic depression"(and in some cases rapid cycling, mixed states, and psychotic symptoms). Subtypes include: [8]

A) Bipolar I is distinguished by the presence or history of one or more manic episodes or mixed episodes with or without major depressive episodes. A depressive episode is not required for the diagnosis of Bipolar I disorder, but depressive episodes are often part of the course of the illness.
B) Bipolar II consisting of recurrent intermittent hypomanic and depressive episodes or mixed episodes.
C) Cyclothymia is a form of bipolar disorder, consisting of recurrent hypomanic and dysthymic episodes, but no full manic episodes or full major depressive episodes.
D) Bipolar Disorder Not Otherwise Specified (BD-NOS), sometimes called "sub-threshold" bipolar, indicates that the patient suffers from some symptoms in the bipolar spectrum (e.g., manic and depressive symptoms) but does not fully qualify for any of the three formal bipolar DSM-IV diagnoses mentioned above.

1.2 Objectives

The main objectives of this research are the following:

1. To identify the level of stress among different stages of the medical school
2. To identify any gender differences related to stress
3. To identify if mood & stress are affected by studying or exam marks and vice versa.

Chapter II: Methodology

2.1 Study Design

For this research a cross-sectional study (survey) was used. The questionnaire was composed of the following two sections:

1. *Socio-demographic information:* this contained 7 questions about (age, gender, weight, height, college stage, socioeconomic status, residence) of the participants.
2. *Questions about mood and stress:* this consisted of 48 questions assessing the participant's mood, stress and the factors affecting these.

2.2 Study Population and Sampling

The study population was the students of Sulaymaniyah Medical School. The sample that was selected consisted of the students from all the six stages of the school. The sample contained 25% of the students of each stage. To select this, a random sampling was used where every 4th student was chosen from the list of the names of that stage. For the first stage 34 students were selected from a total of 138. For the second stage 35 students were selected from a total of 141. For the third stage 36 students were selected from a total of 145. For the fourth stage 26 students were selected from a total of 105. For the fifth stage 27 students were selected from a total of 108. For the sixth stage 31 students were selected from a total of 124. So the total number of the sample was 189 students.

2.3 Data Collection

The questionnaires were distributed on 19th of February, 2013. Questionnaires of the first four stages were distributed and recollected on the same day. The representatives of each stage were very helpful in assisting us. The questionnaires of the fifth and sixth stages were recollected by 21st of February. Thus the total period of data collection was 3 days.

2.4 Data Processing

From the total 189 questionnaires, only 171 were returned. From these, 9 of them were discarded either because the questionnaire wasn't filled completely or because the participant hadn't taken the questionnaire seriously and had filled it randomly. So this makes a total of 162 questionnaires.

The software used for entering and analyzing the data was IBM SPSS v21.

Frequency tables were generated for the socio-demographic data and statistical measures of distribution (mean, median, mode, standard deviation…etc.) were calculated for the age, height, and weight of the students.

The Chi-Squared test and Fisher's Exact test were used for determining associations between the "mood & stress" questions and the socio-demographic data. A p-value of less than 0.05 was taken as significant when testing the associations.

If 20.0% or more of the data cells in the contingency tables had an expected cell count of less than 5, the result of Fisher's Exact test was considered instead of that of the Chi-Squared test.

Chapter III: Results

3.1 Socio-demographic data

Table 1. Frequency table for gender, stage, socioeconomic status, and residence of the students

		Frequency	Percent
Gender	**Male**	77	47.5 %
	Female	85	52.5 %
Stage	**1**	26	16.0 %
	2	27	16.7 %
	3	27	16.7 %
	4	26	16.0 %
	5	27	16.7 %
	6	29	17.9 %
Socioeconomic status	**Moderate**	128	79.0 %
	High (Rich)	32	19.8 %
	NR	2	1.2 %
Residence	**Village**	3	1.9 %
	City	157	96.9 %
	NR	2	1.2 %

NR= No response

Table 2. Mean, median, mode, standard deviation, minimum and maximum values for age, weight, and height of the students

Descriptive Statistical Measures	Age	Weight	Height
Mean	21.03	64.31	170.34
Median	21.00	63.00	170.00
Mode	19	60	160
Std. Deviation	2.099	12.199	8.686
Minimum	17	36	150
Maximum	27	105	190

3.2 Question associations

Table 3. Gender * Do you cry easily?

			Do you cry easily?				Total	P-value (X^2)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
Student Gender	Female	Count	13	27	28	17	85	0.000
		%	15.3%	31.8%	32.9%	20.0%	100.0%	
	Male	Count	43	26	6	2	77	
		%	55.8%	33.8%	7.8%	2.6%	100.0%	
Total		Count	56	53	34	19	162	
		%	34.6%	32.7%	21.0%	11.7%	100.0%	

Table 4. Gender * Does your stress increase when you have a family problem?

			Does your stress increase when you have a family problem?				Total	P-value (X^2)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
Student Gender	Female	Count	4	16	30	35	85	0.021
		%	4.7%	18.8%	35.3%	41.2%	100.0%	
	Male	Count	7	23	32	15	77	
		%	9.1%	29.9%	41.6%	19.5%	100.0%	
Total		Count	11	39	62	50	162	
		%	6.8%	24.1%	38.3%	30.9%	100.0%	

Table 5. Gender * Does other people's pain (accidents, death,…etc) affect your mood?

			Does other people's pain (accidents, death,…etc) affect your mood?				Total	P-value (X^2)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
Student Gender	Female	Count	8	19	33	25	85	0.030
		%	9.4%	22.4%	38.8%	29.4%	100.0%	
	Male	Count	18	21	23	13	75	
		%	24.0%	28.0%	30.7%	17.3%	100.0%	
Total		Count	26	40	56	38	160	
		%	16.3%	25.0%	35.0%	23.8%	100.0%	

Table 6. Gender * Do you eat less when under stress?

			Do you eat less when under stress?				Total	P-value (X^2)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
Student Gender	Female	Count	28	24	14	19	85	0.017
		%	32.9%	28.2%	16.5%	22.4%	100.0%	
	Male	Count	28	22	20	4	74	
		%	37.8%	29.7%	27.0%	5.4%	100.0%	
Total		Count	56	46	34	23	159	
		%	35.2%	28.9%	21.4%	14.5%	100.0%	

Table 7. Gender * Do you feel nauseous or get reflux when stressed?

			Do you feel nauseous or get reflux when stressed?				Total	P-value (X^2)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
Student Gender	Female	Count	23	25	17	18	83	0.002
		%	27.7%	30.1%	20.5%	21.7%	100.0%	
	Male	Count	36	21	11	3	71	
		%	50.7%	29.6%	15.5%	4.2%	100.0%	
Total		Count	59	46	28	21	154	
		%	38.3%	29.9%	18.2%	13.6%	100.0%	

Table 8. Gender * Do you get more stressed out while studying for the exams?

			Do you get more stressed out while studying for the examinations?				Total	P-value (X^2)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
Student Gender	Female	Count	6	10	28	39	83	0.000
		%	7.2%	12.0%	33.7%	47.0%	100.0%	
	Male	Count	6	32	24	14	76	
		%	7.9%	42.1%	31.6%	18.4%	100.0%	
Total		Count	12	42	52	53	159	
		%	7.5%	26.4%	32.7%	33.3%	100.0%	

Table 9. Gender * Do you get sleep-deprived during examination times?

			Do you get sleep-deprived during examination times?				Total	P-value (X^2)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
Student Gender	Female	Count	15	25	17	26	83	0.003
		%	18.1%	30.1%	20.5%	31.3%	100.0%	
	Male	Count	26	27	16	7	76	
		%	34.2%	35.5%	21.1%	9.2%	100.0%	
Total		Count	41	52	33	33	159	
		%	25.8%	32.7%	20.8%	20.8%	100.0%	

Table 10. Gender * Do your examination marks affect your mood?

			Do your exam marks affect your mood?				Total	P-value (X^2)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
Student Gender	Female	Count	8	26	19	32	85	0.017
		%	9.4%	30.6%	22.4%	37.6%	100.0%	
	Male	Count	17	32	11	17	77	
		%	22.1%	41.6%	14.3%	22.1%	100.0%	
Total		Count	25	58	30	49	162	
		%	15.4%	35.8%	18.5%	30.2%	100.0%	

Table 11. Gender * Do you have a tendency to addictions or substance abuse (smoking, alcohol, other drugs…) when under stress?

			Do you have a tendency to addictions or substance abuse when under stress?				Total	P-value (Fisher's Exact)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
Student Gender	Female	Count	80	2	1	2	85	0.000
		%	94.1%	2.4%	1.2%	2.4%	100.0%	
	Male	Count	48	15	7	6	76	
		%	63.2%	19.7%	9.2%	7.9%	100.0%	
Total		Count	128	17	8	8	161	
		%	79.5%	10.6%	5.0%	5.0%	100.0%	

Table 12. College Stage * Do you have a bad temper after facing a problem?

			Do you have a bad temper after facing a problem?				Total	P-value (Fisher's Exact)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
College Stage	1	Count	8	14	3	1	26	0.032
		%	30.8%	53.8%	11.5%	3.8%	100.0%	
	2	Count	3	9	4	11	27	
		%	11.1%	33.3%	14.8%	40.7%	100.0%	
	3	Count	4	8	6	9	27	
		%	14.8%	29.6%	22.2%	33.3%	100.0%	
	4	Count	3	14	4	5	26	
		%	11.5%	53.8%	15.4%	19.2%	100.0%	
	5	Count	3	15	4	4	26	
		%	11.5%	57.7%	15.4%	15.4%	100.0%	
	6	Count	2	12	10	5	29	
		%	6.9%	41.4%	34.5%	17.2%	100.0%	
Total		Count	23	72	31	35	161	
		%	14.3%	44.7%	19.3%	21.7%	100.0%	

Table 13. College Stage * Do you ever feel that you are in a bad mood for no reason?

			Do you ever feel that you are in a bad mood for no reason?				Total	P-value (Fisher's Exact)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
College Stage	1	Count	11	9	5	1	26	0.037
		%	42.3%	34.6%	19.2%	3.8%	100.0%	
	2	Count	6	7	9	5	27	
		%	22.2%	25.9%	33.3%	18.5%	100.0%	
	3	Count	4	7	12	4	27	
		%	14.8%	25.9%	44.4%	14.8%	100.0%	
	4	Count	5	10	5	6	26	
		%	19.2%	38.5%	19.2%	23.1%	100.0%	
	5	Count	11	11	3	1	26	
		%	42.3%	42.3%	11.5%	3.8%	100.0%	
	6	Count	4	11	11	2	28	
		%	14.3%	39.3%	39.3%	7.1%	100.0%	
Total		Count	41	55	45	19	160	
		%	25.6%	34.4%	28.1%	11.9%	100.0%	

Table 14. College Stage * Does your mood affect your relationship with your friends?

			Does your mood affect your relationship with your friends?				Total	P-value (Fisher's Exact)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
College Stage	1	Count	12	7	6	1	26	0.016
		%	46.2%	26.9%	23.1%	3.8%	100.0%	
	2	Count	13	4	6	3	26	
		%	50.0%	15.4%	23.1%	11.5%	100.0%	
	3	Count	5	11	10	1	27	
		%	18.5%	40.7%	37.0%	3.7%	100.0%	
	4	Count	8	9	5	4	26	
		%	30.8%	34.6%	19.2%	15.4%	100.0%	
	5	Count	14	8	3	2	27	
		%	51.9%	29.6%	11.1%	7.4%	100.0%	
	6	Count	7	18	4	0	29	
		%	24.1%	62.1%	13.8%	0.0%	100.0%	
Total		Count	59	57	34	11	161	
		%	36.6%	35.4%	21.1%	6.8%	100.0%	

Table 15. College Stage * Does hanging out with friends make your mood better?

			Does hanging out with friends make your mood better?				Total	P-value (Fisher's Exact)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
College Stage	1	Count	4	5	8	9	26	0.006
		%	15.4%	19.2%	30.8%	34.6%	100.0%	
	2	Count	3	7	4	13	27	
		%	11.1%	25.9%	14.8%	48.1%	100.0%	
	3	Count	3	6	7	11	27	
		%	11.1%	22.2%	25.9%	40.7%	100.0%	
	4	Count	0	8	14	3	25	
		%	0.0%	32.0%	56.0%	12.0%	100.0%	
	5	Count	2	10	12	3	27	
		%	7.4%	37.0%	44.4%	11.1%	100.0%	
	6	Count	0	14	9	6	29	
		%	0.0%	48.3%	31.0%	20.7%	100.0%	
Total		Count	12	50	54	45	161	
		%	7.5%	31.1%	33.5%	28.0%	100.0%	

Table 16. College Stage * Do you think about committing suicide to get rid of stress?

			Do you think about committing suicide to get rid of stress?				Total	P-value (Fisher's Exact)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
College Stage	1	Count	15	6	3	1	25	0.043
		%	60.0%	24.0%	12.0%	4.0%	100.0%	
	2	Count	14	4	4	2	24	
		%	58.3%	16.7%	16.7%	8.3%	100.0%	
	3	Count	22	4	0	1	27	
		%	81.5%	14.8%	0.0%	3.7%	100.0%	
	4	Count	18	7	1	0	26	
		%	69.2%	26.9%	3.8%	0.0%	100.0%	
	5	Count	25	0	0	1	26	
		%	96.2%	0.0%	0.0%	3.8%	100.0%	
	6	Count	22	6	0	1	29	
		%	75.9%	20.7%	0.0%	3.4%	100.0%	
Total		Count	116	27	8	6	157	
		%	73.9%	17.2%	5.1%	3.8%	100.0%	

Table 17. Socioeconomic Status * Do you have an increased sensitivity to pain?

			Do you have an increased sensitivity to pain?				Total	P-value (Fisher's Exact)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
Socioeconomic Status	Moderate	Count	64	39	17	7	127	0.018
		%	50.4%	30.7%	13.4%	5.5%	100.0%	
	High (Rich)	Count	10	18	1	3	32	
		%	31.3%	56.3%	3.1%	9.4%	100.0%	
Total		Count	74	57	18	10	159	
		%	46.5%	35.8%	11.3%	6.3%	100.0%	

Table 18. Socioeconomic Status * Do you lack stamina or tire easily?

			Do you lack stamina or tire easily?				Total	P-value (X^2)
			Never or not at all	Some of the time or mildly	Often or moderately	Always or severely		
Socioeconomic Status	Moderate	Count	28	56	30	11	125	0.038
		%	22.4%	44.8%	24.0%	8.8%	100.0%	
	High (Rich)	Count	13	16	2	1	32	
		%	40.6%	50.0%	6.3%	3.1%	100.0%	
Total		Count	41	72	32	12	157	
		%	26.1%	45.9%	20.4%	7.6%	100.0%	

Chapter IV: Discussion

4.1 Socio-demographic data results

The response rate was 90.47% (171 out of 189). From the results of the socio-demographic data it was seen that the majority (52.5%) of the participants were of the female gender. Majority (17.9%) of the participants were from the sixth stage. (79.0%) of the participants were of moderate socioeconomic level (only two students had left this part out). Almost all of the participants (96.9%) were living in the city (only two students left this part out).

The distribution of age of the participants is almost a normal distribution with a mode of 19 and median of 21. The mean age of the participants is 21.03 and the standard deviation is (2.099).

The mean, median and mode of the weight of the participants is 64.31, 63, and 50 respectively with a standard deviation of (12.199).

The mean, median and mode of the height of the participants is 170.34, 170, and 160 respectively with a standard deviation of (8.686).

4.2 Questions association data results

By Gender

From the results of gender association it is seen that the females are more sensitive and more prone to stress. They also have more mood fluctuations. 84.7% of the females reported that they cry easily. They (95.3%) also reported that they have more stress when they have a family problem or when they (90.6%) see other people's pain (accidents, deaths…etc.). Females (67.1%) tend to eat less when under stress and they are (72.3%) more likely to get nausea and reflux in stressful conditions.

Concerning medical school performance a larger number (92.8%) of females reported that they got more stressed out during examinations, this value is comparable to that of the males (92.1%). The females (81.9%) were more likely to get sleep-deprivation during examinations times, this is much lower in the males (65.8%). Also majority of the females (90.6%) reported that their mood was affected by their examination marks, while only (77.9%) of the males reported this.

The reason why the females are more prone to stress is because that the female body is more sensitive to the stress hormone corticotropinreleasing factor (CRF) which helps control the body's reaction to stress.

The only point where the males scored higher than the females, is in their tendency to addictions (smoking, alcohol, drugs…etc.). In the males (36.8%) reported that they had a tendency to addictions while this value was very much lower in the females (5.9%).

By College Stage

Regarding the mood and daily life there are some significant differences between the stages. (93.1%) of the sixth stage students reported that they had a bad temper after facing a problem. The results of the second, third, fourth and fifth stages were comparable to this while the first stage had a much lower value of (69.2%). When asked if they felt that they were in a bad for no reason, the sixth stage students had the highest rate (85.7%) of positive answers with a comparable result in the third and fourth stages. The same question had the lowest positive answers in the first and fifth stages (both 57.7%).

It was seen that friends had a great impact on the mood of the students. This effect increases with increasing of the stage. (84.6%) of the first stage students said that hanging out with their friends would make their mood better. This response is increased to (100%) in the fourth and sixth stages. The reason for this is that as the years go on, stronger connection is made between the students of the same stage, so that a student can share his/her sadness (or bad mood) with his/her friends and this will lead to a decrease in his/her stress levels. Also when the students where asked if their mood affected their relationship with their friends (81.5%) of the third stage students answered positively while this result was lowest (48.1%) in the fifth stage students with the other stages being between these two ranges in no significant pattern.

An interesting finding was that suicidal ideation was highest in the first two stages of the medical school with a value of 40% for the first and 41.7% for the second stage. On the other hand this value was dramatically lower in the fifth stage students with a value of (3.8%).

By Socioeconomic Status

(68.7%) of the students with high socioeconomic status reported that they had increased sensitivity to pain. While only (49.6%) of the students with moderate socioeconomic status reported this.

(77.6%) of moderate socioeconomic status students reported that they would tire easily and that they lacked stamina. This value was lower (59.4%) in the students with high socioeconomic status. This may be due to the fact that the high socioeconomic status had a more luxurious life style, better mode of transportation, better nutrition and more rest so they would not feel as tired as the students of moderate socioeconomic status.

4.3 Study comparison

According to a cross-sectional survey [11] from September-November 2009 of all 769 medical students enrolled at the University of Michigan Medical School, third- and fourth-year students were more likely than first- and second-year students to report suicidal ideation (7.9% vs 1.4%; p=0.001). While in this study the first and second year students had more suicidal ideations, (40%) for the first year and (41.7%) for the second year. Suicidal ideation for third and fourth year students was much lower at (18.5%) and (30.8%) respectively (p=0.043).

Conclusions

1. The female students have a higher rate of mood fluctuations and stress.
2. The males have a higher tendency for addiction to deal with stress
3. Friends had a great (positive) impact on the mood of the students and this effect increased with the college stage.
4. Suicidal ideation was higher among the first two stages unlike similar studies done on medical students where 3rd and 4th year students had more suicidal ideations.
5. Students of moderate socioeconomic status lacked stamina and they would tire more easily.
6. Students of high socioeconomic status had increased sensitivity to pain.

Chapter V: References

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Appendix: The Questionnaire

Part One: Sociodemographic Questions

Age:

Gender: ☐ Male ☐ Female

Weight:

Height:

College Stage: ☐ First ☐ Second ☐ Third ☐ Fourth ☐ Fifth ☐ Sixth

Socioeconomic status: ☐ High (rich) ☐ Moderate ☐ Low (poor)

Residence: ☐ City ☐ Village

Part Two: Questions About Mood & Stress *(Put a Check in the Answer Box)*

Questions	Never or not at all	Some of the time or mildly	Often or moderately	Always or severely
1. Do you worry excessively?				
2. Do you cry easily?				
3. Do you have many dreams each night?				
4. Do you find it hard to make decisions?				
5. Are you easily upset?				
6. Do you feel quite motivated at times, or feel like you can't be bothered at all?				
7. Do you feel you have a poor memory, or are you quite forgetful?				
8. Do you find it very difficult to concentrate?				
9. Do you feel physically lethargic or fatigued?				
10. Do you feel mentally lethargic or fatigued?				
11. Do you find it difficult to learn new things?				

12. Does your brain feel foggy?				
13. Do you have chronic aches and pains?				
14. Do you have an increased sensitivity to pain?				
15. Do you find it difficult if people talk to you when you've just woken up?				
16. Do you struggle with mental tasks which you used to find easy?				
17. Do you find it hard to get to sleep or stay asleep?				
18. Do you have shoulder and neck pain or stiffness?				
19. Do you feel tired in the morning?				
20. Do you skip some meals and/or eat excessively at others?				
21. Do you feel nauseous or get reflux when stressed?				
22. Do you have a bad temper after facing a problem?				
23. Does your mood affect your relationship with your friends?				
24. Do you think about committing suicide to get rid of stress?				
25. Do you think wisely when you are in a bad mood?				
26. Do your mood changes affect your studying?				
27. Do you get more stressed out while studying for the examinations?				
28. Does your stress increase when you have a family problem?				
29. Do you use anti-depressive or anxiolytic drugs?				
30. Do you think you get angry more easily when you are under stress?				
31. Do you get sleep-deprived during examination times?				

32. Do you eat more when under stress?				
33. Do you eat less when under stress?				
34. Do you do things when in a bad mood that you regret later?				
35. Do you have a tendency to addictions or substance abuse (smoking, alcohol, other drugs…) when under stress?				
36. Do you lack stamina or tire easily?				
37. Do you have difficulty completing projects or studying?				
38. Do you ever feel that you are in a bad mood for no reason?				
39. Do your moods fluctuate daily?				
40. Does hanging out with friends make your mood better?				
41. Are your bowel movements difficult, hard, dry or infrequent?				
42. Do you have high blood pressure?				
43. Do you tend to avoid facing problems?				
44. Do you feel like there is nothing in the future to be hopeful about?				
45. Do you feel lonely when you have a bad mood?				
46. Does other people's pain (accidents, death,…etc) affect your mood?				
47. Do you get insomnia when you have a problem?				
48. Do your examination marks affect your mood?				