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Emotional balance and stress of students who take private tutoring for entrance selection to state universities in Indonesia

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Abstract

The objective of this study is to identify emotional balance and stress in students who take private tutoring for state university tryouts. The convenience sample consisted of 384 students (mean age=16.78, standard deviation=0.42) from whom student data were taken from the emotional balance instrument (positive and negative dimensions) and stress instrument (pressure from study, workload, worry about grades, self-expectation, and despondency dimensions). These results explain that emotional balance is negatively correlated with each dimension of stress, the majority of which is in the moderate category, and negative emotions are positively correlated with each dimension of stress, the majority of which is in the moderate category. In general, the null hypothesis is rejected, but there will be differences in the average emotional balance and stress scores among students based on gender. Recommendations and limitations of the study are explained at the end.

Key words: adolescent stress, emotional balance, private tutoring, tryout, state university.

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Introduction

Students may encounter academic stress when confronted with rigorous academic demands, such as the pressure of examinations and the necessity to attain high grades. Additionally, parental and teacher expectations have been identified as contributing factors to students' stress levels. These conditions have the potential to engender feelings of fear of failure, frustration, and anxiety in students. A paucity of social support and a supportive learning environment, inadequate communication with parents and peers, and teachers' limited understanding of learning materials render students more vulnerable to stress. Furthermore, a multitude of internal factors have been identified as contributing to students' vulnerability to stress. These factors include self-perception, emotional regulation, and learning style.¹

Academic stress can have serious consequences for students.² It can trigger anxiety, mental fatigue, and various other psychological disorders. This condition can also reduce motivation and emotional regulation, and weaken students' mental and social well-being, thus impacting concentration and academic achievement.³

The experience of increased negative emotions has been documented in the context of study time and workload, despite the fact that these emotions remain within the bounds of what is considered normal. Additionally, social demands and a diminished school environment have been shown to predict an increased prevalence of negative emotions, including anxiety, stress, and depression.⁴ Consequently, an increase in negative emotions experienced by students corresponds to a decrease in learning outcomes and interest in

learning.⁵ Moreover, anxiety and depression, among other negative emotions, have been shown to diminish concentration, motivation, and information processing ability, thereby potentially impeding academic achievement.⁶ Consequently, negative emotions have been shown to be significant predictors of academic stress.

Conversely, positive emotions have been shown to predict increased psychological capital, including hope, optimism, and resilience. These factors have been demonstrated to directly impact academic outcomes. Positive emotions have been shown to play a crucial role in supporting students' learning by broadening their thinking patterns, encouraging creativity, and strengthening problem-solving skills.⁷ Positive emotions and life satisfaction have been identified as significant predictors of student academic engagement. The frequency with which students experience positive emotions has been shown to be positively correlated with their level of dedication and focus in learning.⁸

Additionally, positive emotions have been shown to contribute to students' psychological well-being. Students who experience elevated levels of positive emotions tend to demonstrate enhanced well-being and demonstrate superior ability to manage academic demand.⁹ Additionally, gratitude and positive reinterpretation skills have been demonstrated to enhance mental well-being. Engaging in simple activities, such as the act of recording positive experiences or emotions, has been demonstrated to enhance the emotional well-being of students.¹⁰

A positive learning environment has also been shown to enhance students' positive emotions, leading to increased engagement and academic achievement.¹¹ Furthermore, the present study

hypothesizes that self-regulation predicts the relationship between positive emotions and learning outcomes.¹² Consequently, positive emotions have been identified as a pivotal factor in enhancing student engagement, particularly when bolstered by psychological capital.¹³ Therefore, it can be concluded that positive emotions have the capacity to mitigate academic stress.

Academic stress occurs when learning demands exceed a student's coping abilities, impacting their emotional state.¹⁴ Pressures such as study load, competition, and academic evaluations can increase students' psychological tension.¹⁵ However, positive emotions such as self-confidence can broaden students' thinking and help them face academic challenges more flexibly, thereby reducing academic stress.⁷ Positive emotions can protect against stress.¹⁶ Therefore, there is evidence that higher levels of positive emotions lead to lower stress levels, demonstrating a consistent negative relationship between the two variables,¹⁷ while simultaneously explaining a positive correlation between stress and negative emotions.

Conversely, emotional balance is characterized by the predominance of positive emotions over negative emotions.¹⁸ Research has demonstrated a positive correlation between emotional balance and reduced emotional variability. In contrast, lower emotional balance has been associated with diminished positive affect and heightened negative affect.¹⁹ Furthermore, emotional balance has been shown to predict resilience.²⁰ Therefore, it can be concluded that emotional balance will be negatively correlated with stress. The following hypotheses are proposed by this study, based on the aforementioned literature: the first hypothesis (H1) posits that there is a negative relationship between stress and emotional balance. The second hypothesis (H2) posits that there is a positive relationship between stress and negative emotions.

Materials and Methods

Prior to data collection, this study received ethical approval from the Faculty of Psychology at Medan Area University. This cross-sectional study aimed to test the hypothesis of a relationship between stress and emotional balance in students participating in private tutoring for state university tryouts. Each participant provided informed consent using the provided instrument. Participants responded electronically. It took approximately 5 minutes to complete the provided instrument. All participants participated voluntarily.

The overall convenience sample consisted of 384 final-year students (mean age=16.78, standard deviation=0.42), consisting of a majority of females (57.6%). All participants (94.8%) participated in private tutoring to prepare for state university tryouts. Each student spent an average of 4 hours on private tutoring and reported attending private tutoring for an average of 4 days outside of school. The sample was randomly selected from a private school with a high percentage of admissions to state universities.

The first instrument uses the Indonesian version of the Subjective Well-Being Scale to assess positive and negative emotions and balance.¹⁸ This instrument consists of 20 items, with 10 positive emotions ($\alpha=0.86$) and 10 negative emotions ($\alpha=0.85$). On the Positive Affect and Negative Affect Scale (PANAS) scale, respondents are asked to indicate their agreement with statements on a 5-point Likert scale ranging from "almost never" to "almost all the time". This instrument has good item consistency and dimensionality.

The second instrument uses the Educational Stress Scale for Adolescents. This questionnaire, under validation, includes 16

items/questions. Each question includes a 5-point Likert-type scale (ranging from 1=strongly disagree to 5=strongly agree). The participants' responses to the questions add up to a total score. Moreover, five different factors resulted from the statistical analysis of their responses to the following: pressure from study, workload, worry about grades, self-expectation, and despondency. Higher scores indicate greater stress. The questionnaire has good internal consistency, with Cronbach's $\alpha=0.82$ for the total scale and $\alpha=0.79$, $\alpha=0.73$, $\alpha=0.69$, $\alpha=0.65$, and $\alpha=0.64$ for the five factors, separately.²¹ The scale was adapted using a machine translation system, which yielded similar results to human translation.^{22,23} Because machine and human translation are insignificant, subsequently back-translation process uses this system. Furthermore, to increase credibility, cognitive interviews were then conducted with 5 students to improve their validity, reliability, and clarity for each item.²⁴

The collected data will be analyzed using Pearson correlation to see the relationship between stress and emotional balance, which moves from -1 to +1 with categories 0.00-0.10="negligible correlation", 0.10-0.39="weak correlation", 0.40-0.69="moderate correlation", 0.70-0.89="strong correlation", 0.90-1.00="very strong correlation".²⁵ Effect size uses Fisher's z with 95% confidence interval. Then the z value is interpreted into effect sizes with the condition that the value: 0.12="small", 0.24="medium", 0.41="large".²⁶ Data distribution will be seen from skewness and kurtosis.²⁷ All analyses are supported by Jeffrey's Amazing Statistics Program.

Results

In general, in the emotional balance variable, the average positive emotion (mean=32.477) is higher than the negative emotion (mean=29.935), while in the stress variable, the average value of pressure from study (mean=12.932) is the highest dimension value compared to the others. Each variable is known to be normally distributed based on skewness and kurtosis, while the self-expectation dimension is known to be the only variable that is not consistent (Table 1).

Subsequently, there are differences in average emotional balance and stress levels between women and men. For the emotional balance variable, men are known to have higher levels of positive emotions and lower levels of negative emotions. Similarly, for the stress variable, men have lower average stress levels than women. Women are known to have more emotional imbalance (Table 2).

Each variable has a relationship except for positive emotions with self-expectation and worry about grades. The strongest correlation between variables is in the positive relationship between negative emotions and stress ($r=0.653$), and specifically, the strongest correlation is in the self-expectation dimension ($r=0.579$), while the weakest is in the relationship between positive emotions and workload ($r=-0.115$). Emotional balance has a negative relationship with all variables except positive emotion, conversely negative emotions have a positive relationship with all variables.

However, the largest effect size sequence is in the negative correlation between balance affect and negative affect ($z=-1.118$), then balance affect with positive affect ($z=0.846$), then negative affect with adolescent stress ($z=0.781$). While the smallest effect size sequence is in the negative correlation between negative affect and self-expectation ($z=-0.033$), which is not significant, then positive affect with worry about grades ($z=0.080$), but not significant, then negative affect with workload ($z=0.111$).

Discussion

The findings of this study indicate that negative emotions are likely to be positively correlated with all dimensions of stress in an academic context. However, self-expectations, pressure from study, and despondency are expected to be the biggest predictors of increased student stress. Despite the moderate correlation, this variable has a large effect size. Therefore, there is a high probability that when students have expectations for several months into their studies, they will certainly experience negative emotions throughout their studies.

This is consistent with previous findings that unmet self-expectations are associated with decreased motivation, performance, satisfaction, and lower long-term interest,²⁸ all of which can contribute to student stress. In fact, long-term expectations can increase internalizing problems.²⁹ While there is evidence that academic expectations are often imposed by parents,³⁰ they are also imposed on themselves,³¹ as well as expectations from peers, family, and teachers.³² Furthermore, Indonesian society generally has a collectivist culture.

Consequently, it often happens that, without realizing it, others' expectations become personal expectations.

Similarly, pressure from study and despondency are the second-largest predictors of increased student stress, with moderate correlation and the same large effect size. This is in line with previous research explaining that academic pressure will affect students' mental health and is expected to increase the study load to increase competition at school, ultimately leading to increased negative emotions. Therefore, there is a high probability that the closer the admissions period to state universities approaches, the higher the study pressure, and thus the despondency experienced by students. Study pressure is not only related to the study load or complex material; psychological stress is a determining factor, making despondency a significant factor in the stress experienced by students.

This hypothesis aligns with previous research that individuals with high levels of stress tend to display more intense negative emotions in response to psychological pressure.³³ Academic stress increases the likelihood of negative emotions such as anxiety, frustration, and emotional tension.³⁴ Academic stress is a strong determinant of negative emotions in college students.³⁵ Individuals expe-

Table 1. Descriptive variables of balanced affect and adolescents' stress.

	S (SE)	K (SE)	α	M _{female} (SD)	M _{male} (SD)
Balanced affect	0.265 (0.125)	0.222 (0.248)	0.86	-1.258 (11.253)	7.693 (10.555)
Positive affect	-0.208 (0.125)	0.234 (0.248)	0.86	31.136 (6.855)	34.294 (6.878)
Negative affect	-0.298 (0.125)	-0.400 (0.248)	0.90	32.394 (8.057)	26.601 (8.282)
Adolescents stress	-0.513 (0.125)	0.436 (0.248)	0.88	57.059 (10.205)	51.067 (11.363)
Self-expectation	-0.528 (0.125)	-0.318 (0.248)	0.44	11.747 (2.750)	10.086 (2.941)
Workload	-0.079 (0.125)	-0.209 (0.248)	0.80	9.973 (2.798)	9.043 (2.862)
Despondency	-0.317 (0.125)	-0.276 (0.248)	0.71	10.303 (2.615)	9.491 (2.932)
Pressure from study	-0.431 (0.125)	-0.057 (0.248)	0.75	13.579 (3.330)	12.055 (3.473)
Worry about grades	-0.365 (0.125)	-0.255 (0.248)	0.63	11.457 (2.388)	10.393 (2.616)

S, skewness; K, kurtosis; SE, standard error; M, mean; SD, standard deviation.

Table 2. Correlation between variables.

	r	Lower 95% CI	Upper 95% CI	z
Balanced affect				
Positive affect				
Negative affect				
Adolescents stress				
Self-expectation				
Workload				
Despondency				
Pressure from study				
Worry about grades				
Positive affect				
Negative affect				
Adolescents stress				
Self-expectation				
Workload				
Despondency				
Pressure from study				
Worry about grades				
Negative affect				
Adolescents stress				
Self-expectation				
Workload				
Despondency				
Pressure from study				
Worry about grades				

CI, confidence interval; *p<0.05; **p<0.01; ***p<0.001; r, Pearson's; z, Fisher's.

riencing high academic pressure exhibit a high frequency of negative emotions, especially under conditions of heavy study demands.³⁶ Stress triggers emotional eating as a form of expression of accumulated negative emotions.³⁷ Temporal increases in daily stress are followed by intensification of negative emotions.³⁸

These results also explain and prove that negative emotions are inversely related to emotional balance, which is dominated by positive emotions. However, in this case, emotional balance did not occur in women. Therefore, it is certain that someone with good emotional balance is predicted to be able to reduce expectations, learning pressure, and despondency. However, women do indeed respond to stress differently than men due to psychological and biological differences.³⁹

Balanced emotions can help mitigate the impact of adverse life events, facilitating healthy cognitive and emotional functioning after stress.⁴⁰ Individuals with high levels of stress experience a significant decrease in daily positive emotional experiences.⁴¹ Stress reduces positive emotions, which play a crucial role in maintaining mental well-being.⁴² Academic stress is associated with decreased motivation and positive energy.⁴³ Furthermore, positive emotions are strongly influenced by psychological stability, so stress is indeed negatively correlated with positive emotions.⁴⁴

Stress determines daily emotional changes, with high stress leading to a simultaneous decrease in positive emotions and an increase in negative ones.⁴⁵ Previous research has shown that changes in emotional balance are highly responsive to psychological stress.⁴⁶ Positive emotional recovery mechanisms can counterbalance the impact of stress on emotional balance, confirming that stress influences overall emotional dynamics.⁴⁷

Conclusions

These findings reject the null hypothesis and suggest a moderate relationship between emotional balance and reduced stress in high school adolescents, particularly stress due to self-expectations, pressure, and despondency. In preparing for university entrance exams, females are suspected of experiencing emotional imbalance and greater stress than males. Schools and parents should take note of female emotional imbalance to prevent future internalizing problems. It may be understandable that this issue is overlooked, as psychological issues tend to be more difficult for the general public to identify than physiological ones.

The sampling was collected from a single school and did not separate students who were involved or not in private tutoring. This study also limited the correlation analysis. Despite having more study hours than the general population, the correlation was still moderate. Therefore, it is suspected that other variables may be suppressing this correlation. Therefore, further research needs to identify more complex stress models using structural equation modeling to obtain a more comprehensive explanation of the factors involved. This finding is based on the interpretation of numbers that explain the psychological state of students, so it is necessary to conduct interviews with samples, teachers, and parents of students with the highest data values or those close to outliers.

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