

THE INFLUENCE OF SOCIAL SUPPORT AND SELF-ESTEEM ON ACADEMIC STRESS OF STUDENTS AT STATE VOCATIONAL HIGH SCHOOL 40 JAKARTA

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Abstract

This study aims to determine the effect of social support and self-esteem on academic stress among students of State Vocational School 40 Jakarta.. This study employs a survey method in a quantitative manner. The population in the study was 216 students from class XII of State Vocational School 40 Jakarta. The research sample was obtained using the Taro Yamane formula resulting in 140 students. SmartPLS 4.0 software was used to conduct SEM PLS data analysis by analyzing the measurement model, structural model analysis, and hypothesis testing for direct and indirect effects. The findings indicate that academic stress is significantly and negatively impacted by social support, that self-esteem is positively and significantly impacted by social support, and that social support indirectly affects academic stress through self-esteem mediation.

Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh dukungan sosial dan *self-esteem* terhadap stres akademik siswa SMK Negeri 40 Jakarta. Penelitian ini menggunakan metode survei dengan pendekatan kuantitatif. Populasi dalam penelitian ini adalah siswa kelas XII SMK Negeri 40 Jakarta yang berjumlah 216 siswa. Sampel penelitian diperoleh dengan menggunakan rumus Taro Yamane yang menghasilkan 140 siswa. Analisis data SEM PLS dilakukan dengan menggunakan software SmartPLS 4.0 dengan menganalisis model pengukuran, analisis model struktural, dan pengujian hipotesis pengaruh langsung dan tidak langsung. Hasil penelitian menunjukkan bahwa stres akademik dipengaruhi secara signifikan dan negatif oleh dukungan sosial, bahwa *self-esteem* dipengaruhi secara positif dan signifikan oleh dukungan sosial, dan bahwa dukungan sosial secara tidak langsung mempengaruhi stres akademik melalui mediasi *self-esteem*.

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INTRODUCTION

Stress is defined as a condition in which an individual feels pressure from their environment that they are unable to cope with, which can ultimately lead to psychological disorders. Stress is an individual's response to a situation that causes pressure or threat, specifically the body's unfocused reaction to the existing pressure. Stress in adolescents has a positive correlation with various issues, such as behavior, cognition, difficulty concentrating, sleep disorders, and excessive vigilance (Schwartz et al., 2021). According to the I-NAMHS survey, approximately 34.9% of adolescents face mental health issues, equivalent to around 15.5 million individuals. Additionally, 1 in 20 adolescents, equivalent to 5.5% or approximately 2.45 million adolescents, experienced anxiety during the same period.

Teenage students often face various difficulties that can trigger psychological stress, especially as they approach the end of the academic year. Academic stress is the main cause of problems faced by students during their academic careers. Factors contributing to academic stress in students include demands from the environment, how students perceive these demands, their response to stress, and the consequences of their behavior.

Schools are expected to meet various needs and prepare students for the future. Schools also impose various demands that often become a source of pressure, especially emotionally. The stress experienced by students due to learning demands is known as academic stress. The learning activities that pupils engage in at school are directly linked to this stress, particularly in completing assignments, which creates tension due to academic factors. This can lead to distortions in students' thinking and affect their physical, emotional, and behavioral conditions. One of the main causes of academic stress is the teaching and learning process, which hinders students' ability to learn, as well as the heavy workload, poor performance, and lack of focus on subjects. To achieve high competence, students must face various challenges, including academic pressure.

Prior studies have demonstrated that a variety of internal and environmental factors might impact academic stress. Self-efficacy, self-esteem, motivation, and resilience are examples of internal factors, to achieve, while external factors are related to social support from parents (Nur & Yusuf, 2020). The research gap identified by (Hidayat, Ramli, & Setiowati, 2021) focuses on final-year university students as the research subjects. In contrast, the study's research participants are vocational high school students. This study only focuses on the variables of social support and self-esteem that influence students' academic stress. The study by (Oktavia & Mariyati, 2024.)used SPSS for data analysis, and the research subjects were limited to high-achieving students. This study, however, applies SmartPls 4.0 for data analysis, and the research subjects are all 12th-grade vocational high school students.

LITERATURE REVIEW

Academic Stress

Barseli, Mufadhal & Ifdil (2020) argues that academic stress is an individual's reaction to pressure in certain situations, resulting in physical responses and negative emotions in students due to learning demands. Govaerts & Gregoire (Nindyati, 2020) define academic stress as a situation where students feel pressure due to how they perceive and evaluate the factors causing the stress, which are related to learning and education at school. Meanwhile, (Hanifah, W. F., & Dwityanto, 2020) define academic stress as learning needs that reach the extreme limit of an individual's adaptive capacity.

Social Support

Sarafino (Nurhadianti, 2022) defines social support as the feeling of happiness experienced by individuals as a result of help or assistance from others, as well as the sense of caring that is felt. When individuals receive this support, they feel accepted, valued, and loved by their community. Additionally, Mazyah (in Salmon, A. G., & Santi, 2021)) states that social support is known as a sense of comfort in social relationships, both physically and mentally, which helps individuals cope with the stress they experience. Social support has a significant influence in helping someone cope with psychological pressure during difficult times.

Self-Esteem

Self-esteem is a component of self-evaluation that can result in positive or negative self-worth, reflecting how a person views themselves in the context of life (Farhan, Y. T. & Rosyidah, 2021). Self-esteem is based on the opinions people have about themselves. Adolescents with high self-esteem are often better able to cope with academic stress because they have a strong sense of self-worth and are able to face various challenges (Oktaviani, 2020) .Meanwhile, (Refnadi, 2022) adds that high self-esteem can foster a sense of self-respect and increase motivation to achieve personal growth and development.

METHOD

In this study, the survey method was applied as part of a quantitative approach, which used original data collected directly by researchers through the survey method. The population used includes all 216 students and then the research sample is determined to be 140 students. Data collection for this study was carried out using questionnaires sent to relevant respondents. The study used SmartPLS 4.0 software to apply Structural Equation Modeling (SEM). The method applied is Partial Least Square, which is a multivariate statistical technique for comparing independent and dependent variables as well as evaluating how different variables relate to one another.

RESULTS AND DISCUSSION

Results

According to (Pering, 2020), a variable is considered to have a high degree of dependability if its AVE value is less than 0.5 and its Composite reliability and Cronbach's alpha values are less than 0.7%.

Table 1. Validity and Reliability

	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Social Support (X1)	0.928	0.932	0.607
Self-esteem (X2)	0.949	0.954	0.619
Academic Stress (Y)	0.950	0.951	0.604

Table 1. displays the results of the Cronbach's alpha and composite reliability tests for each variable, which reveal AVE values < 0.5 and values more than 0.7 (Pering, 2020). Thus, it can be said that every variable that has been suggested is legitimate and trustworthy (Pering, 2020).

Discriminant validity analysis is to ensure that the constructive reflective model has a stronger effect on the indicator than other constructs in the PLS model. When evaluating, the HTMT value must be between 0.9 (Hair Jr, et.al., 2021)

Table 2. Discriminant Validity

	Social Support (X1)	Self-esteem (X2)	Academic Stress (Y)
Social Support (X1)			
Self-esteem (X2)	0.753		
Academic Stress (Y)	0.791	0.831	

Table 2. produces HTMT from all variables that show values < 0.9 (Hair Jr, et.al., 2021), so the discriminant validity between the two reflective constructs is satisfied.

According to R-Square, a value of 0.75 indicates that something is good or strong, a value of 0.50 indicates that something is moderate, and a value of 0.25 indicates that something is weak (Kaluara et.al, 2022)

Table 3. R-Square

	R-square	R-square adjusted
Self-esteem (X2)	0.529	0.525
Academic Stress (Y)	0.726	0.722

Based on the results shown in Table 3, the following can be described:

1. R-Square model path I = 0.529 indicates that the construct of social support variables with academic stress in explaining the self-esteem variable is moderate.
2. R-Square model path II = 0.726 indicates that the construct of social support and self-esteem is strong.

According to Ghazali in (Arifin et al., 2023), an F-Square a modest effect is indicated by a value of 0.02; a moderate effect is shown by a value of 0.15; and a strong influence is indicated by a value of 0.35. The subsequent are the calculated F-Square results:

Table 4. F-Square

	Social Support (X1)	Self-esteem (X2)	Academic Stress (Y)
Social Support (X1)		1.121	0.197
Self-esteem (X2)			0.567
Academic Stress (Y)			

Based on the results shown in Table 4., it can be seen that:

1. The influence between the social support variable construct and the self-esteem construct of $1.121 > 0.35$ means that both have a strong influence.
2. The influence between the social support construct and the academic stress construct of $0.197 < 0.35$
3. The influence between the construct of self-esteem and the construct of academic stress is $0.567 > 0.35$, indicating that both have a strong influence.

Variance Inflation Factor (VIF) is a statistical measure used to estimate the significant correlation between one variable and another. The following is the VIF calculation:

Table 5. VIF

	Social Support (X1)	Self-esteem (X2)	Academic Stress (Y)
Social Support (X1)		1.000	2.121
Self-esteem (X2)			2.121
Academic Stress (Y)			

Table 5. shows that the variable of social support for self-esteem obtained a value of 1.000. The variable of social support for academic stress obtained a value of 2.121. The variable of self-esteem for academic stress obtained a value of 2.121. Therefore, it can be concluded that each variable has a VIF value of more than 5.00, indicating that there is no multicollinearity problem in the regression model used in this study.

Direct Effect Analysis

Hypothesis testing of the direct influence between independent and dependent variables was conducted by analyzing the path coefficient. The significance of this influence was determined based on the T-statistic value. If the T-statistic value exceeded the T-table value, or if the P-value was less than 0.05, it could be concluded that there was a positive and significant influence between the independent and dependent variables.

Table 6. Direct Effect

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Social Support (X1) -> Academic Stress (Y)	0.338	0.337	0.096	3.524	0.000
Social Support (X1) -> Self-esteem (X2)	0.727	0.732	0.054	13.587	0.000
Self-esteem (X2) -> Academic Stress (Y)	0.574	0.579	0.083	6.933	0.000

H1: Social support has a negative and significant effect on the academic stress of 12th grade students at State Vocational School 40 Jakarta.

Table 6. indicates that the variable of social support on academic stress has an original sample value of 0.338. Additionally, the T-statistic obtained is 3.524, which exceeds 1.96, and the P-value is 0.000, which is less than 0.05. Therefore, it is concluded that social support has a negative and significant effect on academic stress.

H2: Social support has a positive and significant effect on the self-esteem of 12th grade students at State Vocational School 40 Jakarta.

The social support variable for self-esteem has an original sample value of 0.727. The t-statistic obtained is 13.587, with a value greater than 1.96, and the p-value is recorded as 0.000, which is less than 0.05. It can be concluded that social support has a positive and significant effect on self-esteem.

H3: Self-esteem has a negative and significant effect on the academic stress of 12th grade students at State Vocational School 40 Jakarta.

Based on Table 6., the variable of self-esteem on academic stress produced an original sample of 0.574, while the T-statistic was $6.933 > 1.96$ and the P-value was $0.000 < 0.05$. It is stated that self-esteem has a negative and significant effect on academic stress.

Indirect Effect

The indirect effect is the extent to which variable X1 influences variable Y through a mediator, namely variable X2. In this case, the mediator variable is self-esteem. Self-esteem mediates the effect of social support on academic stress.

Table 7. Indirect Effect

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Social Support (X1) -> Self-esteem (X2) -> Academic Stress (Y)	0.417	0.424	0.070	5.995	0.000

The variable of social support for academic stress, with self-esteem as the mediating variable, produced an original sample value of 0.417. The t-statistic obtained was 5.995, which is greater than 1.96, and the P-value was recorded as 0.000, which is less than 0.05. Therefore, it can be concluded that social support has a negative and significant effect on academic stress mediated by self-esteem

DISCUSSIONS**H1: Social support has a negative and significant effect on the academic stress of 12th grade students at State Vocational School 40 Jakarta.**

Based on the findings of the study described above, which state that social support has a negative and significant effect on academic stress, H1 in this study is accepted. This proves that high social support can reduce the academic stress experienced by students at State Vocational School 40 Jakarta. Research by (Annisa et al., 2025) shows that social support has a negative effect on the academic stress of boarding school students at Athirah Bone Islamic High School. This negative correlation coefficient indicates an inverse relationship between social support and academic stress among students engaged in online learning due to the COVID-19 pandemic. In addition, (Indriani, 2021) research also revealed a negative and significant influence of social support and academic stress among high school students in Surabaya, with a p-value of 0.018 ($p < 0.05$) and a coefficient of $R = 0.157$.

H2: Social support has a positive and significant effect on the self-esteem of 12th grade students at State Vocational School 40 Jakarta.

According to the analysis described above, if social support has a positive and significant effect on self-esteem, then H2 in this study is accepted. This can be seen from the fact that high social support can increase the self-esteem of students at State Vocational School 40 Jakarta. Research by Inggit, A., & Husnul (2021) social support from family members influences the self-esteem of victims. The variable of family social support contributes 8.2% to the self-esteem of women who experience violence in dating relationships. On the other hand, Shari (2022) found that although there is no correlation between self-esteem and relationships with parents, perceived social support has a significant relationship with self-esteem. This study also shows that self-esteem in young adults varies depending on employment status, without being influenced by gender or marital status. Meanwhile, a previous study by Sanchaya, A.A.G.A, & Susilawati, (2020) found a correlation coefficient (r) of 0.518 between social support and self-esteem, with a probability value of 0.000 ($p < 0.01$). These findings indicate that there is a positive relationship between family social support and self-esteem among late adolescents in Denpasar City.

H3: Self-esteem has a negative and significant effect on the academic stress of grade XII students at State Vocational School 40 Jakarta.

This shows that self-esteem has a negative and significant effect on academic stress, so H3 in this study is accepted. This proves that high self-esteem can reduce the level of academic stress felt by grade XII students at State Vocational School 40 Jakarta. Additionally, Fawares (2022) study also revealed a significant negative relationship between self-esteem and educational stress, with a correlation coefficient of -0.157 and a p-value of 0.01. On the other hand, research by Herliana, & Gunardi (2024) showed that for the variables of stress and self-esteem, a t-value of -2.216 and a significance level of 0.0027 were obtained, indicating a negative and significant relationship between self-esteem and academic stress. Sarma, H., & Bordoloi (2020) found a significant relationship between academic stress levels and self-esteem among students. Meanwhile, Simbolon, S. V. & Huwae (2024) showed a negative and significant relationship between self-esteem and academic stress in students. On the other hand, research conducted by Raj & Sabita, (2021) revealed that there is a significant negative relationship between academic stress and self-esteem in adolescents.

H4: There is an indirect effect of social support on academic stress through the self-esteem of grade XII students at State Vocational School 40 Jakarta.

Based on the results of the study described above, it can be said that social support has a negative and significant effect on academic stress mediated by self-esteem, so H4 in this study is accepted. The results of the study indicate that social support has a negative and significant effect on the academic stress of students, mediated by the self-esteem of 12th grade students at State Vocational School 40 Jakarta. Research by Poudel et.al (2020) also shows that self-esteem functions as a mediator in the relationship between perceived social support among young people and well-being, which is consistent with the assumptions in this study. On the other, Yildirim (2024) states that social support has a significant positive influence on self-esteem, explaining 9% of the total variance in self-esteem. Additionally, social support and self-esteem significantly predict positive experiences, accounting for 31% of the total variance in positive experiences. Furthermore, Kong (in Yildirim, 2024) found that self-esteem acts as a mediator and moderator in the relationship between social support and academic stress among Chinese university students.

CONCLUSION AND RECOMMENDATION**Conclusion**

Based on the results of calculations and data analysis that have been carried out and described in the previous chapter to determine the Influence of Social Support and Self-Esteem on Academic Stress among Students at SMK Negeri 40 Jakarta, the following conclusions can be drawn:

1. There is a direct negative and significant influence between Social Support and Academic Stress among students at SMK Negeri 40 Jakarta, thus H1 is accepted. This means that the higher the level of social support received by students, the lower their academic stress levels.
2. There is a direct positive and significant influence between Social Support and Self-Esteem among students at SMK Negeri 40 Jakarta, thus H2 is accepted. This can be interpreted as the higher the social support received by students, the higher their self-esteem.

3. There is a direct and significant negative influence between self-esteem and academic stress among students at SMK Negeri 40 Jakarta, thus confirming H3. This can be explained by the fact that the higher the self-esteem of students, the lower the level of academic stress they experience.

Recommendation

The researcher provides several suggestions that can improve future research: (1) Need to hold activities that encourage students to build social support networks among classmates. (2) Based on this, the author can recommend students to communicate openly with their families about the difficulties they face in learning and families or parents of students also need to teach how to listen and provide appropriate support. (3) Schools can implement project-based learning programs that make students think critically and creatively.

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