

The Role Of Peer Social Support And Hardiness Personality Toward The Academic Stress On Students

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Abstract: Academic stress is the result of a combination of high academic demands with low individual adaptability, social support as a form of caring, support and assistance given to someone for others. In addition, hardiness personality is an arrangement of personality characteristics that makes individuals stronger, resistant, and stable in dealing with stress. This study aimed to empirically examine the role of peer social support and hardiness personality on the academic stress of informatics engineering students. Methods of data collection used an academic stress scale, peer social support and hardiness personality with a Likert scaling model. Also, the number of subjects was Ninety-Nine students. The data analysis applied multiple linear regression analysis, with assumption tests including normality test, linearity test and multicollinearity test. The results of data analysis showed that peer social support and hardiness personality had a very significant effect on academic stress. Partially, there is no influence of peer social support on academic stress. There is a significant influence between personality hardiness on academic stress. The implication of this research is the importance of students having high hardiness, so that students are able to survive in a state of stress. Besides, hardiness plays a role in determining behavior or individual adjustment in dealing with stress.

Keywords: Peer Social Support, Hardiness Personality, Academic Stress.

1. INTRODUCTION

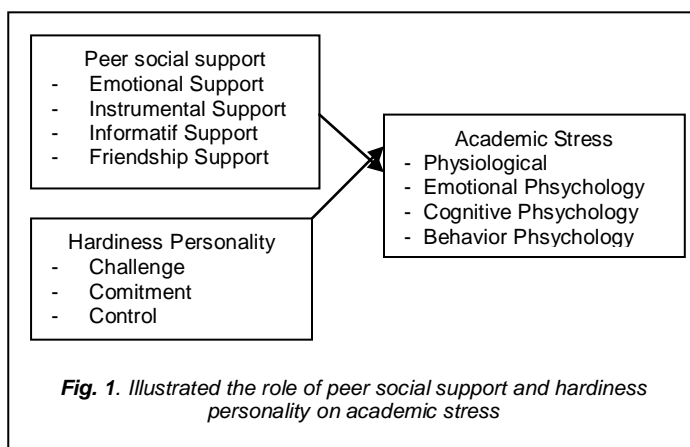
University is educational institution which is normatively responsible for the development of human resource. A qualified education is expected to improve individuals' quality to be greater human being. One of the outputs expected from education in university is the contribution of poverty reduction [1]. High expectation of students emerges negative impact pressure for them, for example, problems of health [2] and defective experiences [3]. This occurs evenly in various countries, cultures and ethnic groups [4]. The study of Ibrahim, Kelly, Adams, and Glazebrook [5] has found the students who experienced defective caused by demands and academic stress. The stress triggers of students are varied, such as academic problems, sociocultural, environment, and psychological [6]. According to Nakalema and Ssenyonga [7], academic stress is caused by high expectation, excessive information, academic pressure, unrealistic ambition, limited opportunity, and high competition. The students need to concern on their academic stress since it impacts on educational process. Physically, academic stress causes sleeping problems which trigger the students consuming sedative substances [8]. The academic stress causes decreasing performance of the students, and this occurs whether it is for men or women [9]. The decreasing performance is also followed by decreasing of academic achievement [10]. Therefore, the academic stress also affects in delaying study process and drop out [11]. Sarafino and Smith [12] defined stress as a condition where the individual unables facing some demands from the environment, and it

makes the individual feels tense and uncomfortable. Academic stress is a stress happening in the school or educational environment [13]. Wilks [14] defined the stress academic as the results of combination between high academic demands and individual's low ability of adjustment. The academic stress is an individual condition which experiences pressure from perception and judgment of students toward academic stressor [15]. Kadapatti and Vijayalaxmi [16] defined the academic stress as combination of demands related to academic which exceed individual adaptive resources.

Sarafino and Smith mentioned four aspects of stress; 1) Physiological, it is a biological reaction which arises due to dangerous or threaten condition for example, trembling, cold sweat, dizziness, heartbeat, difficulty breathing, frequent urination, feeling weak, dry esophagus, and nausea. 2) Emotional Psychological, it is psychological symptoms when the individual feels stress. The symptoms are anxiety, irritability, irritability, anxiety, depression, nervousness, sadness and excessive feelings of guilt. 3) Cognitive psychological, it is a thinking function interference such as difficulty in concentrating, forgetfulness, unabling to make decisions, worrying about something uncertain in the future, in the form of feeling threatened, imagining something scary, difficult to communicate, worrying about things that are not important, and fear of bad judgment. 4) Behavior psychological, it is a behavior interference which reveals when stress comes such as inability to socialize, interruptions in interpersonal relationships and social roles, such as skipping classes, confining themselves in rooms, procrastinating from doing college assignments, and afraid to meet lecturers. One of factors which have contribution to academic stress is social support [17]. The study of Sari and Indrawati [18] maintained that good social support plays a positive role to student academic resilience. Good social support comes from family or peer which has negative correlation to the academic stress [19]. The presence of other individual to support others can be an important predictor to the academic stress of students; they help the students to reduce stress. Sarafino and Smith [12] claimed social support as the action of caring, support and help given by other individual or group. King [20] explained social support is information and feedback from other

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individuals which someone is loved and cared for, valued, respected, and involved in communication networks and reciprocal obligations. According to Feldman [21] social support is reciprocal network consist of people who care each other and love others. One of social supports for the students is peer social support. Papalia, Olds, and Feldman [22] said that peer group is source of compassion, sympathy, understanding, and moral guidance to conduct experiments and facilitation to achieve autonomy and independence from parents. Peer support is a predictor for problems and academic stress for the students [23]. Peer social support seems important since it creates the individual feels comfort, caring, support and help [12]. The factor which has role in academic stress is personality [17] One of important personality is hardiness personality. The study of Spiridon and Evangelia [24] asserted that low hardiness personality students tend to feel higher academic stress. The study of Putri and Sawitri [25] indicated significant negative relations between hardiness personality and the academic stress. Feldman [21] argued that endurance individual can overcome the stress optimistically, take steps to study and handle stressors which make the individual able to change events causing stress to be less threatening. Based on Kobasa [26], hardiness personality is a structure of personality characteristic which makes individual get stronger, stand, and stable in controlling stress and decrease negative effect faced in positive challenge. Maddi [27] argued that hardiness personality is attitude pattern and strategy to help the individual changing ongoing stress condition from disaster into growth. Hardiness personality is a character in the personality with sign of commitment, self-control, instead of alienation and helplessness, strong individuals, and the way of seeing problems is not a threat yet a challenge [20]. Based on the explanation above, it showed an influence of peer social support and hardiness personality to academic stress as follow:



The purpose of the study is to test the influence of peer social support and hardiness personality to the academic stress. The hypothesis is 1) there is an influence of peer social support and hardiness personality to the stress academic of computer science students. 2) there is an influence of peer social support to the academic stress of computer science students. 3) there is an influence of hardiness personality to the stress academic of computer science students.

2 RESEARCH METHOD

2.1 Population and Sample

The population was the students of computer science at University of X. The number of subjects was 99 active students of computer science at University of X. The sampling technique of the study used cluster random sampling technique.

2.2 Measurement Instruments

The academic stress was measured by using the scale of academic stress which referred to some academic stress aspects such as physiological, emotional psychological, cognitive psychological, and behavior psychological [12]. The peer social support was measured by using the scale of peer social support which referred to some aspects such as emotional supports, tangible or instrumental support, informational support, companionship support [12]. Hardiness personality was measured by using the scale hardiness personality which refers to some hardiness aspects such as commitment, control, and challenge [26].

2.3 Instrument Validity and Reliability

Measuring instrument test was done to 50 active students of computer science at University of X. The scale of academic stress consisted of 48 items. After the test, it obtained the result of reliability coefficients (α) .875 and index of corrected item-total correlation between .422 to .681. Based on the result before, the scale of academic stress can be used as a valid and reliable data collection instrument. The model of scale in academic stress scale was the model of Likert scale. The scale of peer social support consisted of 48 items. After the test, it obtained the result of reliability coefficients (α) .942 and index of corrected item-total correlation between .629 to 0.852. Based on the result before, the scale of peer social support can be used as a valid and reliable data collection instrument. The model of scale in peer social support scale was the model of Likert scale. The scale of personality hardiness consisted of 42 items. After the test, it obtained the result of reliability coefficients (α) .870 and index of corrected item-total correlation between .268 to .719. Based on the result before, the scale of hardiness personality can be used as a valid and reliable data collection instrument. The model of scale in hardiness personality scale was the model of Likert scale.

2.4 Data Analysis

The writer used the method of parametric statistics to analyze the research data. The data analysis was measured by IBM SPSS 22 through multiple regression tests, and it was an analysis technique to investigate the influence between two independent variables (peer social support and hardiness personality) with a dependent variable (academic stress). In Addition, assumption test done before hypothesis test was normality test, linearity test, and multicollinearities test.

3 RESULT AND ANALYSIS

3.1 Assumption Test

3.1.1 Normality Test

Normality test aimed at seeing whether the distribution of subject score distribution on variables of academic stress,

peer social support, and hardiness personality is normal or not. Normality test was done by using One Sample Kolmogorov-Smirnov test. The analysis result showed that three variables had normal distribution which described on table below.

TABLE 1
NORMATILY TEST

Variable	K-SZ Score	Sig.	Annotation
Academic Stress	.929	.354	Normal
Peer Social Support	1.347	.053	Normal
Hardiness Personality	1.031	.239	Normal

Source: Research Result, 2019 (processed data)

3.1.2 Linearity Test

The result of linearity test was obtained from dev. From linearity on peer social support to academic stress 1.213 with significant level (p) .265 which was linear or connected line between peer social support and academic stress. The result of linearity test of hardiness personality to academic stress obtained Dev. From linearity 1.460 with significant level (p) .113 was linear or connected line between hardiness personality and academic stress. The result of linearity test is on the table 2 below.

TABLE 2
LINEARITY TEST

Variable	F Linearity	Sig.	Threshold	Annotation
Peer social support	1.213	.265	P>.05	Linear
Hardiness Personality	1.460	.113	P>.05	Linear

Source: Research Result, 2019 (processed data)

3.1.3 Multicollinearity Test

Multicollinearity test aimed to ensure that there is no multicollinear relation between 2 dependent variables. Based on table 3 below, it showed that peer social support and hardiness personality have value VIF = 1.017 (VIF≤10) and tolerance = .984 (Tolerance ≥.1), which means peer social support and hardiness personality are not multicollinearity.

TABLE 3
MULTICOLLINEARITY TEST

Variable	Tolerance	VIF	Annotation
Peer Support	.984	1.017	No multicollinearity
Hardiness personality	.984	1.017	No multicollinearity

Source: Research Result, 2019 (processed data)

3.1.4 Hypotheses Test

Based on table 4, the multiple regression analysis is obtained from F value test as F=.522 with significant p=.000 (p<.01) which emerged that peer social support and hardiness personality simultaneously influence the academic stress to

computer science students at University X. The coefficient of determination value is R Square =.273 showing that peer social support and hardiness personality have a contribution to the academic stress as 27.3% and the remaining of 72.7% is influenced by other variables.

TABLE 4
ANALYSIS RESULT OF MULTIPLE REGRESSION TEST

Variable	t	Sig	Threshold	Annotation
Peer support toward academic stress	.232	.817	p<.01	No Effect
Hardiness personality toward academic stress	5.919	.000	p<.01	Significant Effect

Source: Research Result, 2019 (processed data)

Partially, the results of analysis showed there was no influence between peer social support and academic stress (rxly) t=-.232 with significant p=.817 (p>.05) which there was no significant influence between peer social support to academic stress to computer science students at University X. Whereas, the results of analysis for partial influence between hardiness personality and academic stress (rx2y) was obtained t=-5.919 with level of significant p=.000 (p<.01) which there was significant influence between hardiness personality to academic stress to computer science students at University X.

TABLE 5
ANALYSIS RESULT OF RELATIONSHIP BETWEEN VARIABLE

Variable	T	Sig.	Rule	Information	Variable
Peer social support to academic stress	-.232	.817	p>.05	No influence and no significant	Peer social support to academic stress
Hardiness personality to academic stress	-5,919	.000	P<.01	No influence and no significant	Hardiness personality to academic stress

Source: Research Result, 2019 (processed data)

The results of regression analysis toward two dependent variables were peer social support and hardiness personality to the students resulted that only hardiness personality simultaneously influence the academic stress to the students of computer science at University X. Based on the result before, it revealed the first hypothesis was accepted. Thus, the academic stress can be predicted based on peer social support and hardiness personality. The variable of personality contributed 27.3% to the academic stress and the remaining of 72.7% was influenced by other variables. The second hypothesis showed there was no significant influence between peer social support to academic stress, and it implied that the second hypothesis was rejected. The result of the study had similarities and differences with previous study. This study was different from the study of [28] which indicated that social support became stress predictor to the students. It was also different from another study which explained that social support does not give mediation effect negative of stress, while peer support only moderates the relation of stress and academic resilience [19] Peer supports given to the individual

do not predict the successful of individual's academic [29]. Social supports do not influence stress but play the role for moderating stress [30], [31], [32]. The third hypothesis showed there was a very significant influence between hardiness personalities to the academic stress at University X. It was in line with previous study and the study of Spiridon and Evangelia [24] has showed that the students who have low hardiness personality. Also, they get higher academic stress. Hardiness personality can protect the individual from stress effect [33] and stress symptoms [34]. Hardiness personality makes the individual able overcome stress better because they can control their selves better [35]. The study of Hasel, Abdolhoseini, and Ganji [36] explained that the use of hardiness training program can effectively increase the hardiness and decrease stress level to the students, also have positive impact to the students. The component of hardiness personality is commitment and control correlated significantly with stress, and low commitment makes the individual get stress easily [30]. The study of Azeem [37] showed that commitment, challenge, and control relate negatively with emotional fatigue. The commitment has a role to individual's work [38] when the academic work can be executed well, and it will decrease the stress. The flexibility of individual cognitive is more ready to face the changes [39]. Furthermore, the findings of the study have practically implication. The study has strengthened the opinion that hardiness personality is a way to decrease stress in the academic stress. The leader and lecturer of University need to pay attention the psychologically condition of the students, and they should not give high demands and burdens to avoid stress. When giving difficult assignment, it should be assisted with guidance and relevant time so that the students can do every assignment maximally. When a new assignment comes, the lecturer should give clear instruction and assistance. Those efforts are directed for the students, so that the students can do the assignments and follow lecturing well. Therefore, the students feel satisfied with the results and motivated in doing other assignments which purposed accomplishing the college on time. The students should have high hardiness for standing in stress condition; hardiness also has a role to determine behavior or individual adjustment in handling stress.

Weaknesses of research:

This research was only conducted in one study program, namely the informatics engineering study program as a sample, so it could not be generalized only applicable to informatics engineering students.

Suggestion:

This study is expected to be a reference for future and other researchers, and it can add to the variables studied based on factors that influence academic stress.

4 CONCLUSION

Based on the data analysis, there are some conclusions of the study: 1) there is a very significant influence simultaneously between peer social support and hardiness personality to the academic stress. 2) There is no significant influence of peer social support to the academic stress. 3) there is a very significant influence of hardiness personality to the academic stress. Hardiness personality contributed twenty seven point three percent to academic stress and seventy two point seven percent was influenced by other variables.

REFERENCES

- [1] M. Walker, "A Human Development and Capabilities 'Prospective Analysis' of Global Higher Education Policy," *Journal of Education Policy*, vol. 25, no. 4, pp. 485-501, 2010.
- [2] R.K. Jayasankara, R.K. Menon, and A. Thattil, "Academic Stress and its Sources Among University Students," *Biomedical and Pharmacology Journal*, vol. 11, no. 1, pp. 531-537, 2018.
- [3] E.T. Barker, A.L. Howard, R.V. Kradjen, and N.L. Galambos, "The Rise and Fall of Depressive Symptoms and Academic Stress in Two Samples of University Students," *Journal of Youth and Adolescence*, vol. 47, no. 6, pp. 1252-1266, 2018.
- [4] Wong, P.T., Wong, L.C., and Scott, C. (2006). *Beyond stress and coping: The positive psychology of transformation*. In *handbook of multicultural perspective on stress and coping*. Springer.
- [5] A.K. Ibrahim, S.J. Kelly, C.E. Adams, and C. Glazebrook, "A Systematic Review of Studies of Depression Prevalence in University Students," *Journal of Psychiatric Research*, vol. 47, no. 3, pp. 391-400, 2013.
- [6] H.S. Brand, and S.M. Klein, "Is the OSCE More Stressful Examination Anxiety and Its Consequences in Different Assessment Methods in Dental Education," *European Journal of Dental Education*, vol. 13, no. 3, pp. 147-153, 2019.
- [7] G. Nakalema, and J. Ssenyonga, "Gladys Nakalema Joseph Ssenyonga Mbarara University of Science and Technology, Uganda," *African Journal of Teacher Education*, vol.3, no. 3, pp. 1-21, 2014.
- [8] A. Waqas, S. Khan, W. Sharif, U. Khalid, and A. Ali, "Association of Academic Stress with Sleeping Difficulties in Medical School: A Cross Sectional Survey," *PeerJ* 3e840, 2015.
- [9] M.S. Khan, S. Altaf, and H. Kausar, "Effect of Perceived Academic Stress on Students' Performance," *FWU Journal of Social Sciences*, vol. 7, no. 2, pp. 146-151, 2013.
- [10] N. Sohail, "Stress and Academic Performance Among Medical Students," *Journal of the College of Physicians and Surgeons Pakistan*, vol. 23, no. 1, pp. 67-71, 2013.
- [11] A. Schaefer, H. Matthes, G. Pfitzer, and K. Kohle, "Mental Health and Performance of Medical Students with High and Low Anxiety," *Psychotherapie, Psychosomatik, Medizinische Psychologie*, vol. 57, no. 7, pp. 289-297, 2007.
- [12] E. P. Sarafino, and T.W. Smith, *Health Psychology Biopsychosocial Interactions*. New York: Wiley, 2014.
- [13] M. Barseli, I. Ildil, and N. Nikmarijal, "Concept of Academic Stress (in Indonesia)" *Jurnal Konseling dan Pendidikan*, vol. 5, no. 3, pp. 143-148, 2008.
- [14] S.E. Wilks, "Resilience and Academic Stress: The Moderating Impact of Social Support Among Social Work Students," vol. 9, no. 2, pp. 106-125, 2008.
- [15] S. Govaerts, and J. Grégoire, "Stressful Academic Situations: Study on Appraisal Variables in Adolescence," *Revue Européenne de Psychologie Appliquée*, vol. 54, no. 4, pp. 261-271, 2004.
- [16] M. Kadapatti, and A. Vijayalaxmi, "Stressor of Academic Stress- A Study on Pre-university Students," *Indian J.Sci.Res.*, vol. 1, no. 3, pp. 171-175, 2012.
- [17] S.E. Taylor, *Health Psychology 5th Edition*. Boston: Mc

- Graw- Hill, 2003.
- [18] P.K.P. Sari, and S.E. Indrawati, "The Relations of Peer Social Support and Accademic Ressiliency in Final Year Student in X Major Faculty of Engineering University of Diponegoro (in Indonesia)," *Fakultas Teknik Universitas Diponegoro.*, vol. 5, no. 2, pp. 177-182, 2016.
- [19] S.E. Wilks, and C.A. Spivey, "The Resilience in Undergraduate Social Work Students : Social Support and Adjustment to Academic Stress," *Social Work Education: The International Journal*, vol. 29, no. 3, pp. 37–41, 2010.
- [20] King, L. A. *The Science of Psychology*. London: McGraw-Hill, 2017.
- [21] R.S. Feldman, *Understanding Psychology*. London: McGraw-Hill, 2018.
- [22] D.E. Papalia, S.W. Olds, and R.D. Feldman, *Human development*. London: McGraw-Hill, 2013.
- [23] A.D. Rayle, and K.Y. Chung, "Revisiting First-Year College Students' Mattering: Social Support, Academic Stress, and the Mattering Experience," *Journal of College Student Retention: Research, Theory & Practice*, vol. 9, no. 1, pp. 21–37, 2007.
- [24] K. Spiridon, and K. Evangelia, "Exploring Relationships Between Academic Hardiness, Academic Stressors and Achievement in University Undergraduates," *Journal of Applied Educational and Policy Research*, vol. 1, no. 1, pp. 53–73, 2015.
- [25] S.A. Putri, and D.R. Sawitri, "The Relationship of Hardiness and Accademic Stress in Taruna grade II Politeknik Ilmu Pelayaran Semarang(in Indonesia)," *Jurnal Empati*, vol. 6, no. 4, pp. 319–322, 2017.
- [26] S.C. Kobasa, "Stressful Life Events, Personality, and Health: An Inquiry Into Hardiness," *Journal of Personality and Social Psychology*, vol. 37, no. 1, pp. 1–11, 1979.
- [27] S.R. Maddi, *Hardiness Enhances Effectiveness and Fulfillment: Encyclopedia of Mental Health: Second Edition*. pp. 294–297, 2015.
- [28] C.J. Yeh, and M. Inose, "International Students' Reported English Fluency, Social Support Satisfaction, and Social Connectedness as Predictors of Acculturative Stress," *Counseling Psychology Quarterly*, vol. 16, no. 3, pp. 15-28, 2010.
- [29] H.H. Bahar, "The Effect of Gender, Perceived Social Support and Sociometric Status on Academic Success," *Procedia Social and Behavioral Sciences*, vol. 2, pp. 3801-3805, 2010.
- [30] J.W. Pengilly, and E.T. Dowd, "Hardiness and Social Support as Moderators of Stress," *Journal of Clinical Psychology*, vol. 56, no. 6, pp. 813-820, 2000.
- [31] S.A. Haslam, A. O'Brien, J. Jetten, K. Vormedal, and S. Penna, "Taking The Strain: Social Identity, Social Support, and The Experience of Stress," *British Journal of Social Psychology*, vol. 44, no. 3, pp. 355–370, 2005.
- [32] L.J. Crocket, M.I. Iturbide, T.R.A. Stone, M.M. Ginley, M. Raffaelli, and G. Carlo, "Acculturative Stress, Social Support, and Coping: Relations to Psychological Adjustment Among Mexician American College Students," *Cultural Diversity and Ethnic Minority Psychology*, vol. 13, no. 4, pp. 347-355, 2007.
- [33] K.J. Eschleman, N.A. Bowling, and G.M. Alarcon, "A Meta-Analitic Examination of Hardiness," *International Journal of Stress Management*, vol. 17, no. 4, pp. 277-307, 2010.
- [34] S.M. Escolas, B.L. Pitts, M.A. Safer, and P.T. Bartone, "The Protective Value of Hardiness on Military Posttraumatic Stress Symptoms," *Military Psychology*, vol. 25, no. 2, pp. 116–12, 2013.
- [35] A. Abdollahi, A.M. Talib, S.N. Yaacob, and Z. Ismail, "Hardiness as A Mediator Between Perceived Stress and Happiness in Nurses," *Journal of Psychiatric and Mental Health Nursing*, vol. 21, pp. 789-796, 2014.
- [36] K.M. Hasel, A. Abdolhoseini, and P. Ganji, "Hardiness Training and Perceived Stress Among College Students," *Procedia - Social and Behavioral Sciences*, vol. 30, pp. 1354–1358, 2011.
- [37] S.M. Azem, "Personality Hardiness, Job Involvement and Job Burnout Among Teacher," *International Journal of Vocational and Technical Education*, vol. 2, no. 3, pp. 36-40, 2010.
- [38] M.G. Wiley, "Gender, Work, and Stress: The Potential Impact of Role-Identity Salience And Commitment," *The Sociological Quarterly*, vol. 32, no. 4, pp. 495–510, 2016.
- [39] P.E. Flaxman, and F.W. Bond, "A randomised Worksite Comparison of Acceptance and Commitment Therapy and Stress Inoculation Training," *Behaviour Research and Therapy*, vol. 48, no. 8, pp. 816–820, 2010.