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Stress Adaptation To The Mental Resilience Of Urban And Rural Adolescents In The Jember Regency

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ABSTRACT

Background: *The resilience paradigm is based on contemporary views emerging from the fields of psychiatry, psychology, and sociology on how youth can bounce back and survive stressful conditions, trauma and risks in their lives. The stress experienced by adolescents makes it difficult for them to carry out academic activities at school. The purpose of this research is to develop a stress adaptation model for adolescent mental resilience. The research design used an explanatory survey research design.****Methods:*** *The sample size in this study was 250 respondents with a perpusive sampling technique. This research uses stratified random sampling. The test used is Partial Least Square (PLS), which is a Structural Equation Modeling (SEM) technique that is able to analyze latent variables, indicator variables and measurement errors directly.****Results:*** *The results of this study indicate that the resilience factor consisting of social competence, problem-solving skills, autonomy and a sense of purpose and future has a significant effect on adaptation stress. Adaptation stress has a significant effect on coping mechanisms.* ***Conclusion:*** *The discovery of stress adaptation models for adolescent mental resilience is associated with resilience to help adolescents bounce back from adversity and successfully adapt to the demands of stressful situations. Adolescents who have resilience perceive adversity as a challenge, not as a threat.*

Keywords: *Adolescents, Mental Health, Resilience*

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INTRODUCTION

Adolescents who live in today's modern era increasingly need resilience to face the conditions of 21st century life which are full of very rapid changes (Anderson and Priebe 2021). Advances in technology and the flow of globalization make teenagers smarter, more critical, more desires, but on the other hand their mentality is weak. This could also be because the facilities, conveniences, and even the enjoyment of life are offered everywhere, so that children lack the fighting power to achieve something. These very fast changes often cause unpleasant impacts for adolescents, especially on the mental health aspect (1). To deal with these unpleasant conditions, a number of researchers and practitioners in the social and behavioral fields consider it necessary to build resilience. Resilience is considered a basic strength that is the foundation of all positive characters in building the emotional and mental strength of adolescents (2).

Mental health is very important to support the productivity and quality of physical health. Anyone can experience mental or psychiatric disorders. Riskesdas data (basic health research) 2018 shows the prevalence of emotional mental disorders as indicated by symptoms of depression and anxiety for ages 15 years and over reaching around 6.1% of the total population of Indonesia, equivalent to 11 million people (3). In adolescents (15-24 years) have a depression percentage of 6.2%. Severe depression will experience a tendency to self-harm to suicide 80 – 90% of suicides are the result of depression and anxiety (4). Cases of suicide in Indonesia can reach 10,000 or the equivalent of every one hour there is a case of suicide. According to a saintodologist, 4.2% of students in Indonesia have had thoughts of suicide. Among students, 6.9%

had the intention to commit suicide, while another 3% had attempted suicide (5). Depression in adolescents can be caused by several things such as pressure in the academic field, bullying (bullying), family factors, and economic problems (6). The results of the preliminary study on students found that 50% of all students whose mental health was measured experienced moderate mental disorders.

In general, resilience is very important for adolescents because the social, biological, and psychological changes experienced by adolescents require them to be adaptive in dealing with problems (7). Without resilience, there will be no courage, perseverance, no rationality, no insight. It is even recognized that resilience determines one's thinking style and success in life, including success in studying at school. For this reason, schools as educational institutions need to make efforts to help develop resilience among adolescents, so that they are able to become resilient adolescents in the midst of situations and an environment full of temptations and stressful school life (2).

Based on the theory and research results that support the researcher interested in conducting research on the development of a stress adaptation model for adolescent mental resilience in Jember Regency. The purpose of this study was to determine the adaptation stress model for adolescent mental resilience.

METHOD

The research design used an explanatory survey research design. Explanation is a way of exploring something new and how to report a causal relationship between the independent variable and the dependent variable (8). In this case, to develop knowledge about a topic and explain research findings, it is necessary to continue with descriptive research. The time approach used in this study is cross sectional. This research will observe or measure the independent variable and the dependent variable at the same time or at one time (9).

The minimum sample size that must be met in modeling is 100 respondents (10). The number of samples in this study was determined based on the type of formula used. The determination of the sample in this study used calculations using the Taro Yaname and Slovin formulas. The sample size of 250 DM clients was recruited by simple random sampling technique.

The test used uses Partial Least Square (PLS), which is a Structural Equation Modeling (SEM) technique that is able to analyze latent variables, indicator variables and measurement errors directly. Partial Least Square (PLS) is a powerful analytical method because it can be applied to all data scale (nominal, ordinal), does not require many assumptions and the sample size does not have to be large. Besides being able to be used to confirm theories, Partial Least Square (PLS) can also be used to build relationships for which there is no theoretical basis or to test propositions.

Evaluation of the inner model aims to determine the magnitude of the influence or causality relationship between the variables in the study, namely by obtaining the R square or coefficient of determination which is a value that describes the size of the goodness of the model or the magnitude of the effects of the independent variables on the dependent variable and the value of Q2 or predictive relevance. If the Q2 value is more than 2 and close to 1, this provides evidence that the model has predictive relevance, but if Q2 is below zero, it is proven that the model has no predictive relevance. This research will be carried out on all research variables by making a frequency distribution based on the categories of each variable and category descriptions with a row, column, cross-tabulation analysis approach. In general, univariate analysis will produce the distribution and percentage of each variable. The research variables are as follows.

Table 1 Adaptation Stress Variables on Adolescent Mental Resilience

Variable	Sub Variable
X1 *Social competence*	X1.1 Social Support
	X1.2 Peer Support
X2 *Problem-solving Skills*	X2.1 Social problem solving
	X2.2 Communic
X3 *Autonomy*;	X3.1 *Self Esteem*
	X3.2 *Self Efikasi*
	X3.3 *Self Confident*
X4 *sense of purpose and future*:	X4.1 Self Awareness
	X4.2 Hope
Y1 Adaptation stress	Y1.1 Stress
	Y1.2Adaptation
Y2 Coping Mechanisms	Y2.1 Problem Focus
	Y2.2 Cognitive focus
	Y2.3 Emotion focus

RESULTS AND DISCUSSION

1. Construct Evaluation Results

Evaluation of the observe variable is carried out by calculating convergent validity and discriminant validity. The results of testing the construct variable observe are presented in the following table:

Table 2 Results of Testing the Adaptation Stress Variable Construct on Adolescent Mental Resilience

Variable	Indicator	Loading Factor	*P. Value*	*Cut Off*	Description
Social competence:	X1.1	0,844	0.000	0,500	Valid
	X1.2	0,918	0.000	0,500	Valid
Problem-solving Skills;	X2.1	0,814	0.000	0,500	Valid
	X2.2	0,762	0.000	0,500	Valid
	X2.3	0,780	0.000	0,500	Valid
Autonomy;	X3.1	0,726	0.000	0,500	Valid
	X3.2	0,886	0.000	0,500	Valid
	X3.3	0,762	0.000	0,500	Valid
sense of purpose and future:	X4.1	0,894	0.000	0,500	Valid
	X4.2	0,918	0.000	0,500	Valid
Adaptation stress	Y1.1	0,898	0.000	0,500	Valid
	Y1.2	0,883	0.000	0,500	Valid
Coping Mechanisms	Y2.1	0,840	0.000	0,500	Valid
	Y2.2	0,861	0.000	0,500	Valid
	Y2.3	0,682	0.000	0,500	Valid

Table 2 can be seen that all indicators produce a loading factor value greater than 0.5. Thus these indicators can be said to be able to form latent variables2. Evaluation of the Structural Model (Inner Model).

Hypothesis testing is used to test whether there is an effect of exogenous variables on endogenous variables. The test criteria state that if the T-statistics value ≥ T-table (1.96) or the P-Value <significant alpha 5% or 0.05, then it is stated that there is a significant influence of the independent variables on the dependent variable. The following is an image that explains the path diagram for testing the hypothesis.

Table 3 Results of Hypothesis Testing of the Adaptation Stress Variable Model on Adolescent Mental Resilience

Influence	Original Sample (O)	T Statistics (|O/STDEV|)	P Values
Sosial competence(X1) → Adaptation stress (Y1)	0,163	2,911	0,004
Problem-solving Skills; (X2) → Adaptation stress (Y1)	0,143	2,173	0,030
Autonomy: (X3) → Adaptation stress (Y1)	0,188	3,327	0,001
sense of purpose and future (X4) → Adaptation stress (Y1)	0,187	3,357	0,001
Adaptation stress (Y1)) → Coping Mechanisms (Y2)	0,375	6,448	0,000

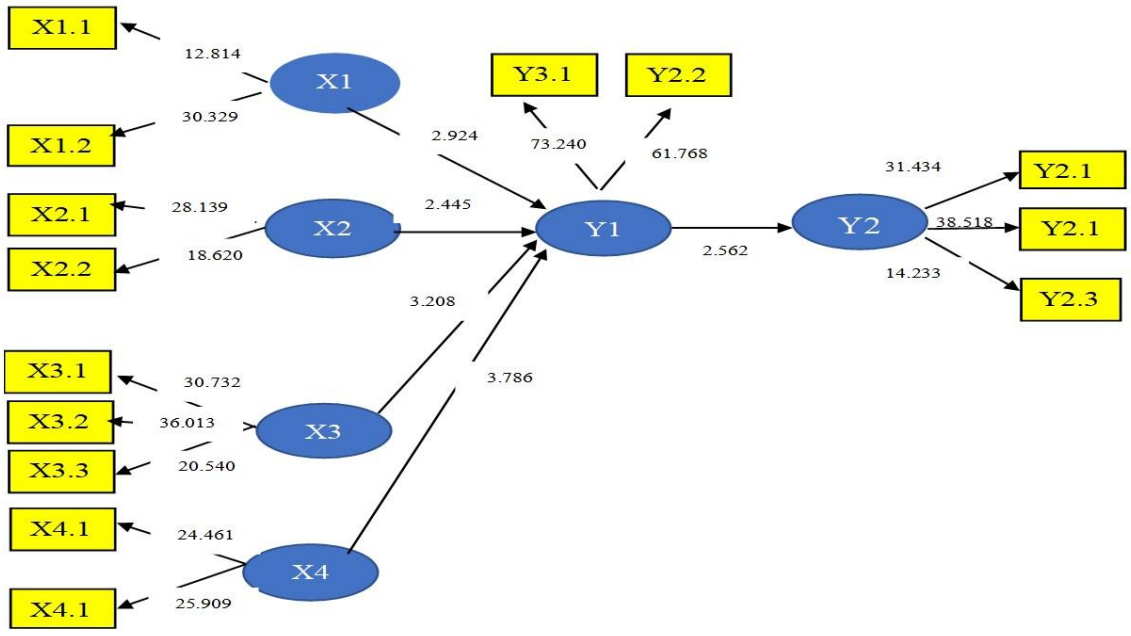

Figure 1 Results of the Inner Path Model Significant Stress Stress Model Adaptation to Adolescent Mental Resilience

The results of the inner model analysis on the development of the adaptation stress model to the uncertainty of the DM disease process were bootstrapped 500 times using the default smart partial least square. The results of the inner test show that the value of T-statistics ≥ T-table (1.96) for variables X1, X2, X4, Y2 and Y1.

Adolescence as an important stage of neurobehavioral maturation is growing, as is concern about how stress can interfere with this critical period of development. While it is well recognized that stress-related vulnerability increases during adolescence, not all adolescent individuals are affected by stress and the experience of stress inevitably leads to negative outcomes. Indeed, many adolescents display resilience to stress-induced dysfunction. However, relatively little is known about the mechanisms that can mediate resilience to stress in adolescence.

Recent studies have shown an increase in the number of mental health problems among adolescents (11). Anxiety, depression, eating disorders, addictive disorders, suicide attempts, and self-harm are the most common mental health problems (12). Recent studies estimate that most such cases remain undetected and only a third of these young people receive the necessary psychological support (13). During the COVID-19 period, adolescents were particularly negatively affected by the lockdown measures namely social distancing and school closures (14). Feelings of stress, anxiety, worry, helplessness, depression, and lack of motivation are frequently reported among adolescents due to the pandemic (15).

The stress experienced by adolescents makes it difficult for them to do anything (16). They have difficulty eating, often cry, and are often alone which makes it difficult for them to adapt. Adjustment is intellectual, emotional, moral and social maturity. Adolescents who can adapt to the school environment will be able to carry out their activities and activities well (17). Adolescents who have good adaptability are individuals who easily mingle with the people around them while in the school environment and experience no obstacles in adapting to situations (18). According to Calista Roy's Adaptation theory where a person's behavior is related to the adaptation method. Ineffective coping will have an impact on responses that are not good (maladaptive).

Resilience is an important thing and has various benefits in life, marked by various research developments related to resilience. Resilience is defined as a dynamic capacity, process, or outcome of successful adaptation in the context of significant threats to function or development (19). Research has identified resilience as a complex construct resulting from the dynamic relationship between risk and protection factors in which individuals can using personal and contextual resources to overcome difficulties (20). Thus, resilience functions to protect and enhance individual psychological well-being, reduce the negative effects of stressful events, accelerate recovery, and reduce the risk of developing mental health problems (21). Resistance can vary according to age due to changes that occur over time (19).

In adolescence, key assets for resilience include coping skills, stress management, and self-efficacy (22), which can help deal with adversity and setbacks, rejection, family conflict, loss, bullying and peer conflict, life changes and life transitions while protecting young people from the negative consequences associated with exposure to risky situations (23). Recent work underscores the link between resilience and mental health, suggesting that more resilient adolescents are less susceptible to mental health problems, including depression and anxiety problems (24).

Resilience also has an important role in the academic field. Motivation is very important for academic success, but this can be lost if students cannot stand the challenges, learning pressures, and pressures that exist at school (25). Therefore it is very important that students have motivation and resilience to

academic pressures. Students who do not have academic resilience can be at risk for setbacks, stress, or pressure at school. This research is used to help students who need help in maintaining the strength of motivation and resilience in the academic field (25).

In line with what was stated (26) states that no matter how great the level of difficulty experienced by a tough individual will not have a major effect on the life he lives. In contrast to individuals who have low resilience, based on research conducted by Suwarjo (2008) that individuals with low levels of resilience cannot assess, overcome, and improve themselves or change themselves from adversity or adversity in life. In addition (27) revealed that without resilience there would be no courage, persistence, no rationality, and no insight. Resilience is needed so that individuals can respond to the problems they experience more positively so that individuals can survive the difficult conditions they live in, get back up, and have a positive attitude.

The disappointment experienced can be crippling if the individual allows himself to be emotionally overcome by defeat. There is a need for resilience assistance to help individuals bounce back from adversity and successfully adapt to the demands of stressful situations (28). Individuals who have resilience perceive difficulties as a challenge, not as a threat (28).

LIMITATIONS

The limitations in this study are related to the scope which is quite broad, which includes rural and urban areas where researchers do not all reach adolescents as a whole in that area.

RESEARCH ETHICS

This research has received ethical approval from the ethics commission university dr. Soebandi No. 228/KEPK/UDS/V/2022.. Furthermore, this research was considered ethically feasible according to seven WHO 2011 standards, namely 1) social value, 2) scientific value, 3) distribution of costs and benefits, 4) potential risks and benefits, 5) exploitation, 6) confidentiality, and privacy , and 7) approval after explanation. The standards refer to the 2016 CIOMS guidelines and are demonstrated by compliance with each standard

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This research has no conflicts or other interests outside the research.

CONFLICTS OF INTEREST

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CONCLUSION

Adolescents with the most levels of stress experience levels of severe stress, and adolescents with the most adaptability are unable to adapt. There is a significant influence between adolescent resilience and the adaptability of adolescents at school. Adolescents who have resilience perceive adversity as a challenge, not as a threat.

REFERENCES

1. Desmita D. Mengembangkan Resiliensi Remaja Dalam Upaya Mengatasi Stres Sekolah. Ta'dib. 2009;11(2).
2. Mesman E, Vreeker A, Hillegers M. Resilience and mental health in children and adolescents: an update of the recent literature and future directions. Curr Opin Psychiatry. 2021;34(6):586–92.
3. Kementerian Kesehatan. Hasil Utama Riset Kesehatan Dasar 2018. Kementrian Kesehat Republik Indones. 2018;1–100.
4. Konaszewski K, Niesiobędzka M, Surzykiewicz J. Resilience and mental health among juveniles: role of

strategies for coping with stress. Health Qual Life Outcomes [Internet]. 2021;19(1):1–12. Available from: https://doi.org/10.1186/s12955-021-01701-3

5. Dray J, Bowman J, Freund M, Campbell E, Wolfenden L, Hodder RK, et al. Improving adolescent mental health and resilience through a resilience-based intervention in schools: Study protocol for a randomised controlled trial. Trials. 2014;15(1):1–9.
6. Anderson K, Priebe S. Concepts of Resilience in Adolescent Mental Health Research. J Adolesc Heal [Internet]. 2021;69(5):689–95. Available from: https://doi.org/10.1016/j.jadohealth.2021.03.035
7. Atighi E, Atighi A, Atighi I. Predicting Psychological Resilience Based on Parenting Styles in Girl Adolescence. Int Res J Appl Basic Sci [Internet]. 2015;9(8):1340–4. Available from: www.irjabs.com
8. Sugiyono. Metode Penelitian Kuantitatif, Kualitatif, Dan R&D. Bandung: Alfabeta. 2017.
9. Sugiyono. Metode Penelitian Kuantitatif Kualitatif dan R&D. Bandung: Alfabeta.; 2019.
10. Nursalam. Metodelogi Penelitian Ilmu Keperawatan. 4th ed. Jakarta: Salemba Medika; 2015.
11. Erskine HE, Moffitt TE, Copeland WE, Costello EJ, Ferrari AJ, Patton G, et al. A heavy burden on young minds: The global burden of mental and substance use disorders in children and youth. Psychol Med. 2015;45(7):1561–3.
12. Burstein HJ, Curigliano G, Loibl S, Dubsky P, Gnant M, Poortmans P, et al. Estimating the benefits of therapy for early-stage breast cancer: The St. Gallen International Consensus Guidelines for the primary therapy of early breast cancer 2019. Ann Oncol [Internet]. 2019;30(10):1541–57. Available from: https://doi.org/10.1093/annonc/mdz235
13. Twenge JM, Joiner TE. Mental distress among U.S. adults during the COVID-19 pandemic. J Clin Psychol. 2020;76(12):2170–82.
14. Viner RM, Russell SJ, Croker H, Packer J, Ward J, Stansfield C, et al. School closure and management practices during coronavirus outbreaks including COVID-19: a rapid systematic review. Lancet Child Adolesc Heal [Internet]. 2020;4(5):397–404. Available from: http://dx.doi.org/10.1016/S2352-4642(20)30095-X
15. Fegert JM, Vitiello B, Plener PL, Clemens V. Challenges and burden of the Coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: A narrative review to highlight clinical and research needs in the acute phase and the long return to normality. Child Adolesc Psychiatry Ment Health [Internet]. 2020;14(1):1–11. Available from: https://doi.org/10.1186/s13034-020-00329-3
16. Phillips SP, Reipas K, Zelek B. Stresses, Strengths and Resilience in Adolescents: A Qualitative Study. J Prim Prev. 2019;40(6):631–42.
17. Kuftyak E. Resilience and adaptation of adolescents. 2015;59–63.
18. Rumburg TM. Pepperdine Digital Commons Adaptation of a resilience-oriented stress management intervention for youth with type 1 diabetes. 2019;
19. Masten AS, Barnes AJ. Resilience in children: Developmental perspectives. Children. 2018;5(7):1–16.
20. Höltge J, Theron L, Cowden RG, Govender K, Maximo SI, Carranza JS, et al. A Cross-Country Network Analysis of Adolescent Resilience. J Adolesc Heal [Internet]. 2021;68(3):580–8. Available from: https://doi.org/10.1016/j.jadohealth.2020.07.010
21. Davydov DM, Stewart R, Ritchie K,

Chaudieu I. Resilience and mental health. Clin Psychol Rev [Internet]. 2010;30(5):479–95. Available from: http://dx.doi.org/10.1016/j.cpr.2010.03.003

22. Connor KM, Davidson JRT. Development of a new Resilience scale: The Connor-Davidson Resilience scale (CD-RISC). Depress Anxiety. 2003;18(2):76–82.
23. Grazzani I, Agliati A, Cavioni V, Conte E, Gandellini S, Lupica Spagnolo M, et al. Adolescents' Resilience During COVID-19 Pandemic and Its Mediating Role in the Association Between SEL Skills and Mental Health. Front Psychol. 2022;13(February).
24. Ollmann TM, Voss C, Venz J, Seidl E, Hoyer J, Kische H, et al. The interaction of 5-HTT variation, recent stress, and resilience on current anxiety levels in adolescents and young adults from the general population. Depress Anxiety. 2021;38(3):318–27.
25. Martin A. Motivation and academic resilience. Aust J Educ. 2002;46(I):34–49.
26. Hersberger J. Resilience Theory, Information Behaviour and Social Support in Everyday Life. Proc Annu Conf CAIS / Actes du congrès Annu l'ACSI. 2013;
27. Desmita D. Psikologi Perkembangan Peserta Didik. Bandung: PT Remaja Rosdakarya.; 2013.
28. Fuster V. The power of resilience. J Am Coll Cardiol. 2014;64(8):840–2.