

EXPLORATION OF ADOLESCENT RESILIENCE IN THE SLOPES OF MOUNT MERAPI

Purwadi, Arif Budi Prasetya*, Hardi Prasetiawan, Oktolita Elsanadia

***Correspondent Author**

Purwadi

Universitas Ahmad Dahlan
Jl. Ringroad Selatan, Kragilan, Tamanan,
Banguntapan, Bantul, Daerah Istimewa
Yogyakarta 55191
Indonesia

Email: purwadi@psy.uad.ac.id

Arif Budi Prasetya

Universitas Ahmad Dahlan

Jl. Ringroad Selatan, Kragilan, Tamanan,
Banguntapan, Bantul, Daerah Istimewa
Yogyakarta 55191

Indonesia

Email: arif.prasetya@bk.uad.ac.id

Hardi Prasetiawan

Universitas Ahmad Dahlan

Jl. Ringroad Selatan, Kragilan, Tamanan,
Banguntapan, Bantul, Daerah Istimewa
Yogyakarta 55191

Indonesia

Email: hardi.prasetiawan@bk.uad.ac.id

Oktolita Elsanadia

The University of Queensland

St Lucia, Brisbane, Queensland, 4072

Australia

Email: o.elsanadia@uqconnect.edu.au

Page

27-32

ABSTRACT

This study aims to determine the level of resilience based on ethnicity and family conditions. The respondents were students from various levels of education from vocational high school, high school and junior high school education levels in the Mount Merapi slope area. The instrument used is the Connor-Davidson Resilience Scale (CD-RISC) Short version-10 items that have been adapted with a reliability value of 0.801. The data analysis used was Kruskal Wallis non-parametric statistics as a test of tribal differences and family conditions. The results showed that there were no significant differences based on ethnicity and family conditions. The results of this study can be considered in designing guidance and counseling programs and services.

Keywords: resilience, ethnicity, family condition, inclusion

INTRODUCTION

The slopes of Mount Merapi are one of the areas that are vulnerable to natural disasters, especially volcanic eruptions. This area has a history of frequent eruptions (Voight et al., 2000). The impact of the eruption was devastating, including claiming human lives and damaging infrastructure and the surrounding environment.

In 2010, it was recorded that the victims caused by the eruption of Mount Merapi reached more than 300 casualties and losses due to damage reached 3.62 trillion in the Yogyakarta and Central Java regions (Ivanova, 2014; Nugraha et al., 2019; Wilson et al., 2007). In another source, it is explained that the number of victims who experience psychological disorders reaches 4874 people

(Marfai et al., 2012). This further indicates that the natural disaster of Mount Merapi does not only have an impact on physical and material conditions but also psychological conditions.

METHODOLOGY

The research was conducted using a cross-sectional survey method. This study aims to explore the dynamics of correlation between causal and causal factors (Farozi et al., 2022). Data collection used the Connor-Davidson Resilience Scale (CD-RISC) Short version-10 items that have been adapted with a reliability value of 0.801 (Oktaviani & Cahyawulan, 2022). The choice of answers uses a scale of 1-4 from inappropriate to very appropriate. Samples were taken randomly using simple random sampling. Data

collection was carried out using the Google Form platform involving 3 schools consisting of Vocational High School, Senior High School, and Junior High School.

The study involved a group of 97 sample participants, with 44 males and 53 females. Among them, 70 are junior high school students, 16 are senior high school students, and 11 vocational high school students. The analysis of research data used a non-parametric test because the data was not distributed normally. Data analysis used Kruskal Wallis with the help of IBM SPSS Statistics 21 software to see the differences in resilience of each tribe and family condition. The tribes gathered were Javanese, Madura, Minang, Batak, and Untrimmed. Untrimmed is information provided by respondents who do not know the origin of the tribe. In addition, family conditions are categorized into 4, namely complete for families that are still intact, divorce for families who experience divorce, broken homes for families who experience household rifts without divorce, and single parents for families who are cared for by one person due to the death of another parent (OYAFUNKE-OMONIYI, 2022).

RESULT AND DISCUSSION

The results of this study presented the results of the analysis of adolescent resilience in the Merapi mountainside area based on tribe and family conditions. In table 1, the difference in average scores between Javanese, Madura, Minang, Batak, and Untrimmed tribes can be seen. The Javanese have the highest average, while the Batak have the lowest average.

Table 1. Resilience reviewed from Tribes

Ethnic	N	Mean	Mr
Javanese	85	50.10	0.304
Grow up	1	49.00	
Minang	1	7.00	
One of the gowns	1	5.00	
Untrimmed	9	48.17	
Total	97		

This is influenced by research sampling. The number of research samples has an effect on the average score (Ridwan & Aji,

2022). Taking a proportional number of samples allows researchers to get diverse variants of respondents so that it affects the average score (Islam, 2018). However, in the context of the Kruskal-Wallis test, significant differences between groups are not determined by the mean value, but by the significance value (da Costa et al., 2020). The significance value in the Kruskal-Wallis test is stated to be different if the significance value is not more than 0.05, on the other hand, if the significance value exceeds the provision, there is no significant difference (Rashidi et al., 2023).

Based on the results of the Kruskal-Wallis resilience test reviewed from the tribal background, it got a significance value of 0.304. The significance value exceeded the value of 0.05. Thus, it can be said that there is no significant difference in the resilience of adolescents in the Merapi mountainside area between respondents from Javanese, Madura, Minang, Batak, and Untrimmed tribes. Previous research has stated that tribal background does not affect the level of resilience, such as differences in skin color in some countries do not affect the level of resilience of individuals (Caqueo-Urizar et al., 2021; Karairmak & Figley, 2017). Precisely with ethnic or ethnic differences and the same level of resilience, it can have the potential to develop inclusive services that are useful for mental health (Leroy et al., 2022; Masik & Grabkowska, 2020; Turner et al., 2022). Several research results state that tribal background and resilience level can prevent racism, stress, and depression (Barrita & Wong-Padoongpatt, 2023; Neblett, 2023; Prasetya et al., 2020, 2023; Schäfer et al., 2023). So that the provision of intervention to adolescents in the Merapi mountainside area can basically focus on strength or potential without ethnic grouping so that the concept of diversity and inclusivity is well implemented and the potential for problems is reduced.

In line with the previous description, the results of the resilience analysis reviewed from family conditions are as follows.

Table 2. Resilience reviewed from Families

Family	N	Mean	Mr
Complete	80	49.53	0.256
Divorce	9	52.56	
Broken Home	3	17.50	
Single Parent	5	53.00	
Total	97		

Based on the results of the analysis, the condition of single-parent families has the highest average score. The condition of broken home families has the lowest average value. The significance value obtained is 0.256 which means more than the value of 0.05 so that it can be interpreted that there is no significant difference between the condition of complete families, divorce, broken homes, and single parents.

Although the results showed that there was no difference in resilience reviewed from the condition of complete families, divorce, broken homes, and single parents. However, some research results show that the condition of divorced families has a high resilience that is no less high than that of individuals in general, characterized by fulfilled autonomy, adequate competence, and interconnectedness with the social environment (Thomas & Woodside, 2011). Furthermore, Thomas and Woodside explained that environmental factors are important in building resilience in individuals with divorced family conditions.

Resilience is a complex construction influenced by many factors, including calmness, perseverance, confidence, sense of life, and independence (Aidoo et al., 2021; Alenda-Demoutiez, 2023; Cigrand et al., 2022; Ertekin Pinar et al., 2018; Kaltenbrunner et al., 2022; Li et al., 2022; Novara et al., 2023; Prasetya et al., 2022; Prasetyo et al., 2020; Tsai & Morissette, 2022). Therefore, it is important to consider various factors in understanding the influence of resilience on the development of adolescent mental health in the Mount Merapi slope area. The results of this study show that there is no significant difference in tribal background and family conditions, therefore the provision of interventions for adolescent

resilience in the Merapi mountainside area can be carried out in an inclusive manner regardless of tribal background and family conditions.

CONCLUSION

Based on the results of the analysis, it can be concluded that the resilience of adolescents in the slopes of Mount Merapi reviewed from the tribal background does not have significant differences. In addition, the same results were shown in the analysis of resilience data reviewed from family conditions which explained that there was no significant difference. The results of this study can be considered in designing inclusive guidance and counseling services.

REFERENCES

- Dawes, M. E., Horan, J. J., & Hackett, G. (2000). Experimental evaluation of self-efficacy treatment on technical/ scientific career outcomes. *British Journal of Guidance & Counselling*, 28(2), 87–99.
- Aidoo, S. O., Agyapong, A., Acquah, M., & Akomea, S. Y. (2021). The performance implications of strategic responses of SMEs to the covid-19 pandemic: Evidence from an African economy. *Africa Journal of Management*, 7(1). <https://doi.org/10.1080/23322373.2021.1878810>
- Alenda-Demoutiez, J. (2023). Climate adaptation, accounts of resilience, self-sufficiency and systems change. *International Journal of Environmental Studies*, 80(1). <https://doi.org/10.1080/00207233.2022.2037321>
- Bakic, H., & Ajdukovic, D. (2021). Resilience after natural disasters: the process of harnessing resources in communities differentially exposed to a flood. *European Journal of Psychotraumatology*, 12(1). <https://doi.org/10.1080/20008198.2021.1891733>
- Barrita, A. M., & Wong-Padoongpatt, G. (2023). Ethnic identity and resilience: a moderated mediation analysis of protective factors for self-blame and racial microaggressions. *Frontiers in*

- Psychology*, 14.
<https://doi.org/10.3389/fpsyg.2023.1198375>
- Bronfenbrenner, U. (1993). Bronfenbrenner, U. (1994) Ecological models of human development. In International Encyclopedia of Education, Vol. 3 (2nd Edition). pp. 1643-1647 Oxford: Elsevier. In *Readings on the development of children (2nd edition)*.
- Bryant, R. A., Gallagher, H. C., Gibbs, L., Pattison, P., MacDougall, C., Harms, L., Block, K., Baker, E., Sinnott, V., Ireton, G., Richardson, J., Forbes, D., & Lusher, D. (2017). Mental health and social networks after disaster. *American Journal of Psychiatry*, 174(3).
<https://doi.org/10.1176/appi.ajp.2016.15111403>
- Caqueo-Urizar, A., Flores, J., Mena-Chamorro, P., Urzúa, A., & Irrarázaval, M. (2021). Ethnic identity and life satisfaction in indigenous adolescents: The mediating role of resilience. *Children and Youth Services Review*, 120.
<https://doi.org/10.1016/j.childyouth.2020.105812>
- Cigrand, D. L., Fawcett, M., Miyakuni, R., Arredondo, P., & Onderak, G. (2022). A phenomenological study of perseverance and resilience through the migration journey. *Journal of Counseling and Development*, 100(2).
<https://doi.org/10.1002/jcad.12413>
- da Costa, M. I. F., Rodrigues, R. R., Teixeira, R. M., de Paula, P. H. A., Luna, I. T., & Pinheiro, P. N. da C. (2020). Adolescents in situations of poverty: resilience and vulnerabilities to sexually transmitted infections. *Revista Brasileira de Enfermagem*, 73.
<https://doi.org/10.1590/0034-7167-2019-0242>
- Delano, V., Daharnis, D., & Karneli, Y. (2018). Resilience of Student Viewed from Gender, Culture Background and Attachment of parents and Implication in Guidance and Counseling. *Journal of Educational and Learning Studies*, 1(1).
<https://doi.org/10.32698/0522>
- Ertekin Pinar, S., Yildirim, G., & Sayin, N. (2018). Investigating the psychological resilience, self-confidence and problem-solving skills of midwife candidates. *Nurse Education Today*, 64.
<https://doi.org/10.1016/j.nedt.2018.02.014>
- Farozin, M., Purnama, D. S., Astuti, B., Prasetya, A. B., & Nurbaiti, A. T. (2022). College Students' Psychological Well-Being during the Covid-19 Pandemic: An Investigation Based on Students' Gender and Education Level. *Jurnal Kajian Bimbingan Dan Konseling*, 7(1), 20–28.
<https://doi.org/10.17977/um001v7i12022p20-28>
- Islam, M. R. (2018). Sample size and its role in Central Limit Theorem (CLT). *International Journal of Physics and Mathematics*.
<https://doi.org/10.31295/pm.v1n1.42>
- Ivanova, G. M. (2014). IOP Conference Series: Earth and Environmental Science: Preface. In *IOP Conference Series: Earth and Environmental Science* (Vol. 21, Issue 1).
<https://doi.org/10.1088/1755-1315/21/1/011001>
- Kaltenbrunner, K. A., Stötzer, S., Grüb, B., & Martin, S. (2022). Individual-based and interactional resilience mechanisms in social and healthcare service NPOs during the COVID-19 pandemic: Handling a disruptive extreme context in Austria. *Frontiers in Psychology*, 13.
<https://doi.org/10.3389/fpsyg.2022.897790>
- Karairmak, Ö., & Figley, C. (2017). Resiliency in the Face of Adversity: A Short Longitudinal Test of the Trait Hypothesis. *Journal of General Psychology*, 144(2).
<https://doi.org/10.1080/00221309.2016.1276043>
- Kobayashi, T., Maeda, M., Nakayama, C., Takebayashi, Y., Sato, H., Setou, N., Momoi, M., Horikoshi, N., Yasumura, S., & Ohto, H. (2022). Disaster Resilience Reduces Radiation-Related Anxiety Among Affected People 10 Years After the Fukushima Daiichi Nuclear Power Plant Accident. *Frontiers in Public Health*, 10.

- <https://doi.org/10.3389/fpubh.2022.839442>
- Kousky, C. (2016). Impacts of natural disasters on children. *Future of Children*, 26(1).
<https://doi.org/10.1353/foc.2016.0004>
- Lee, J. E., Kwon, S. A., Song, E., & Ryu, S. II. (2022). Disaster Resilience Differs between Survivors and Victims' Families: A Semantic Network Analysis. *Social Sciences*, 11(3).
<https://doi.org/10.3390/socsci11030117>
- Leroy, H., Buengeler, C., Veestraeten, M., Shemla, M., & Hoever, I. J. (2022). Fostering Team Creativity Through Team-Focused Inclusion: The Role of Leader Harvesting the Benefits of Diversity and Cultivating Value-In-Diversity Beliefs. *Group and Organization Management*, 47(4).
<https://doi.org/10.1177/10596011211009683>
- Li, H.-Y., Shen, B., Yan, J., Chen, A.-G., & Zhang, T. (2022). Effect of Physical Exercise on Life Satisfaction of Chinese Primary Students: The Chain Mediating Role of Self-Confidence and Resilience. *International Journal of Physical Activity and Health*.
<https://doi.org/10.18122/ijpah.020119.boisestate>
- Marfai, M. A., Cahyadi, A., Hadmoko, D. S., & Sekaranom, A. B. (2012). SEJARAH LETUSAN GUNUNG MERAPI BERDASARKAN FASIES GUNUNGAPI DI DAERAH ALIRAN SUNGAI BEDOG, DAERAH ISTIMEWA YOGYAKARTA. *Jurnal Riset Geologi Dan Pertambangan*, 22(2).
<https://doi.org/10.14203/risetgeotam2012.v22.59>
- Masik, G., & Grabkowska, M. (2020). Practical dimension of urban and regional resilience concepts: A proposal of resilience strategy model. *Miscellanea Geographica*, 24(1).
<https://doi.org/10.2478/mgrsd-2019-0028>
- Neblett, E. W. (2023). Racial, Ethnic, and Cultural Resilience Factors in African American Youth Mental Health. In *Annual Review of Clinical Psychology* (Vol. 19).
<https://doi.org/10.1146/annurev-clinpsy-072720-015146>
- Novara, C., Martos-Méndez, M. J., Gómez-Jacinto, L., Hombrados-Mendieta, I., Varveri, L., & Polizzi, C. (2023). The influence of social support on the wellbeing of immigrants residing in Italy: Sources and functions as predictive factors for life satisfaction levels, sense of community and resilience. *International Journal of Intercultural Relations*, 92.
<https://doi.org/10.1016/j.ijintrel.2022.101743>
- Nugraha, A. L., Hani'Ah, Firdaus, H. S., & Haeriah, S. (2019). Analysis of Risk Assessment of Mount Merapi Eruption in Settlement Area of Sleman Regency. *IOP Conference Series: Earth and Environmental Science*, 313(1).
<https://doi.org/10.1088/1755-1315/313/1/012003>
- Oktaviani, M., & Cahyawulan, W. (2022). Hubungan antara Self Compassion dengan Resiliensi pada Mahasiswa Tingkat Akhir. *INSIGHT: Jurnal Bimbingan Konseling*, 10(2).
<https://doi.org/10.21009/insight.102.06>
- OYAFUNKE-OMONIYI, C. O. (2022). Rethinking the Role of Family in Combating Juvenile Delinquency in Nigeria. *American Journal of Arts and Educational Administration Research*.
<https://doi.org/10.58314/4hht378>
- Prasetya, A. B., Farozin, M., Astuti, B., & Izzaty, R. E. (2022). POST-COVID-19 PANDEMIC COURSE INTEREST AND LEARNING: A GENDER AND GRADE-BASED INVESTIGATION. 11(2).
<https://doi.org/10.12928/psikopedagogia.v11i2.25583>
- Prasetya, A. B., Naini, R., Rosada, U. D., Muyana, S., & Widyastuti, D. A. (2023). Kecemasan Ujian pada Peserta Didik Sekolah Menengah Pertama di Kabupaten Bantul. *JUPE2*, 1(2), 263–270.
<https://doi.org/https://doi.org/10.54832/jupe2.v1i2.159>
- Prasetya, A. B., Purnama, D. S., & Prasetyo, F. W. (2020). Validity and Reliability of The Perceived Stress Scale with RASCH Model. *PSIKOPELOGIA Jurnal*

- Bimbingan Dan Konseling*, 8(2), 2–5. <https://doi.org/10.12928/psikopedagogia.v8i2.17903>
- Prasetyo, F. W., Purnama, D. S., & Prasetya, A. B. (2020). The Influence of Self-Esteem toward Self-Adjustment. *PSIKOPEDAGOGIA Jurnal Bimbingan Dan Konseling*, 9(1), 37. <https://doi.org/10.12928/psikopedagogia.v9i1.19223>
- Rashidi, M., Karaman, F., Yildirim, G., Kiskaç, N., Ünsal jafarov, G., & Saygin şahin, B. (2023). Examination of the relationship between thanatophobia and resilience levels of nurses working in intensive care and palliative care units. *BMC Nursing*, 22(1). <https://doi.org/10.1186/s12912-023-01405-7>
- Ridwan, Y., & Aji, R. H. S. (2022). Determine Sample Size for Precision Results on Quick Count. *Proceedings of The International Conference on Data Science and Official Statistics*, 2021(1). <https://doi.org/10.34123/icdsos.v2021i1.121>
- Schäfer, S. K., Fritz, J., Sopp, M. R., Kunzler, A. M., von Boros, L., Tüscher, O., Göritz, A. S., Lieb, K., & Michael, T. (2023). Interrelations of resilience factors and their incremental impact for mental health: insights from network modeling using a prospective study across seven timepoints. *Translational Psychiatry*, 13(1), 328. <https://doi.org/10.1038/s41398-023-02603-2>
- Sönmez, D., & Hocoğlu, Ç. (2023). Post-Traumatic Stress Disorder After Natural Disasters: A Review. In *Duzce Medical Journal* (Vol. 25, Issue 2). <https://doi.org/10.18678/dtfd.1277673>
- Thomas, D. A., & Woodside, M. (2011). Resilience in adult children of divorce: A multiple case study. *Marriage and Family Review*, 47(4). <https://doi.org/10.1080/01494929.2011.586300>
- Tsai, J., & Morissette, S. B. (2022). Introduction to the Special Issue: Resilience and Perseverance for Human Flourishing. *Psychological Trauma: Theory, Research, Practice, and Policy*, 14(S1). <https://doi.org/10.1037/tra0001215>
- Turner, B., Devisscher, T., Chabaneix, N., Woroniecki, S., Messier, C., & Seddon, N. (2022). The Role of Nature-Based Solutions in Supporting Social-Ecological Resilience for Climate Change Adaptation. In *Annual Review of Environment and Resources* (Vol. 47). <https://doi.org/10.1146/annurev-environ-012220-010017>
- Voight, B., Constantine, E. K., Siswawidjyo, S., & Torley, R. (2000). Historical eruptions of Merapi Volcano, Central Java, Indonesia, 1768-1998. *Journal of Volcanology and Geothermal Research*, 100(1–4). [https://doi.org/10.1016/S0377-0273\(00\)00134-7](https://doi.org/10.1016/S0377-0273(00)00134-7)
- Wickrama, K. A. S., & Kaspar, V. (2007). Family context of mental health risk in Tsunami-exposed adolescents: Findings from a pilot study in Sri Lanka. *Social Science and Medicine*, 64(3). <https://doi.org/10.1016/j.socscimed.2006.09.031>
- Wilson, T., Kaye, G., Stewart, C., & Cole, J. (2007). Impacts of the 2006 eruption of Merapi volcano, Indonesia, on agriculture and infrastructure. In *GNS Science Report 2007/07* (Issue March).