

Resilience and Adversity Quotient with Coping with Trauma in Children in Flood-Prone Areas

I Gusti Ayu A. Noviekayati¹, Ricky Alejandro Martin^{*1}, Anrilia Ema Mustikawati Ningdyah¹, Camelia Aditya Maharani¹, Ariska Fauzia Amalia¹, Juan Charlie Leonardo Tjindra¹

¹Department of Psychology, Universitas 17 Agustus 1945 Surabaya, Surabaya

Corresponding author:

Ricky Alejandro Martin
rickymartin@untag-sby.ac.id

Article History

Submitted :
July 29th, 2025

Final Revised :
October 27th, 2025

Accepted :
October 28th, 2025



This is an open access article under the
[CC-BY](#) license
Copyright ©2025 by Author,
Published by Jurnal Psikologi Teori dan
Terapan

Abstract

Background: Flooding is one of the natural disasters frequently experienced by Indonesian people. Flood disasters inevitably cause various negative impacts on the community, particularly on children who are in a critical stage of development. **Objective:** This study aims to determine the extent to which resilience and adversity quotient (AQ) play a role in shaping trauma coping mechanisms in children living in flood-prone areas. **Method:** This study used a quantitative approach with a correlational design. The study involved 313 subjects consisting of fourth, fifth, and sixth grade elementary school students. Data collection was conducted through the distribution of a scale based on the theoretical constructions of the three main variables and tested on 30 subjects with similar characteristics. Data analysis used multiple regression techniques. **Results:** The study found no significant influence between resilience and trauma coping. However, a significant influence was found between AQ and trauma coping. **Conclusion:** The effective contribution of the resilience variable was very small, only 0.05%, while the AQ variable contributed 2.23%, resulting in a Total Effective Contribution of 2.28%.

Keywords: Coping trauma; resilience; adversity quotient; children; flooding.

Abstrak

Latar Belakang: Banjir merupakan salah satu bentuk bencana alam yang kerap dialami oleh masyarakat Indonesia. Bencana banjir, tentunya mengakibatkan berbagai dampak negatif bagi masyarakat, terutama bagi anak-anak yang sedang dalam masa perkembangan krusial. **Tujuan:** Penelitian ini bertujuan untuk mengetahui sejauh mana resiliensi dan adversity quotient (AQ) berperan dalam membentuk mekanisme coping trauma pada anak yang tinggal di daerah rawan banjir. **Metode:** Penelitian menggunakan pendekatan kuantitatif dengan desain korelasional. Penelitian melibatkan 313 subjek yang terdiri dari siswa SD kelas 4, 5, dan 6. Pengumpulan data dilakukan melalui penyebaran skala yang disusun berdasarkan konstruk teoritis dari ketiga variabel utama dan diuji coba pada 30 subjek dengan karakteristik serupa. Analisis data menggunakan teknik regresi berganda. **Hasil:** Hasil penelitian diperoleh bahwa tidak ada pengaruh yang signifikan antara resiliensi dengan coping trauma. Namun ditemukan pengaruh yang signifikan antara AQ dengan coping trauma. **Simpulan:** Sumbangan efektif yang diberikan variabel resiliensi juga sangat kecil yaitu hanya sebesar 0,05%. Sedangkan variabel AQ memiliki sumbangan efektif sebesar 2,23%. Sehingga kedua variabel memiliki sumbangan total efektif sebesar 2,28 %.

Kata Kunci: Coping trauma; resiliensi; adversity quotient; anak; banjir.

Introduction

Indonesia is one of the countries prone to natural disasters (Pangaribuan et al., 2019). Floods are one of the most frequent natural disasters in Indonesia (Hariyanto & Kurniawati, 2019). The city of Surabaya is one of the areas in Indonesia that is frequently affected by floods (Fadlilah et al., 2024). The intensity of flood disasters in Surabaya continues to increase every year (Suhartono, 2024). In fact, severe floods hit several areas in the city of Surabaya at the end of 2024 (Widiyana, 2024). Considering that Surabaya is the second most densely populated city in Indonesia (Kusuma et al., 2020). There are 3,009,286 residents in Surabaya, with an annual population growth rate of approximately 0.42% (Central Statistics Agency, 2024). The frequent flooding in Surabaya will undoubtedly cause significant losses and negative impacts, given the city's high population density. Notably, 21.47% of Surabaya's population consists of children (Central Statistics Agency, 2024).

Childhood is a crucial period in human development. Several experts refer to childhood as the “golden age” (Sukatin et al., 2019; Afdhilla & Mahendra, 2020; Pratiwi Wiwik, 2017). The developmental stage of children encompasses various aspects and attributes, including psychological, physiological, cognitive, moral, language, motor, sensory, social, and other critical areas that experience rapid development. Child victims of flood disasters are more severely affected than other age groups (M. P. Dewi et al., 2023). Furthermore, child victims of flood disasters are more vulnerable to trauma (Rahmat, 2018). Trauma itself can have negative effects on child development (Azizah, 2024). Therefore, children living in flood-prone areas require coping with trauma.

Trauma coping is presented as a response to the traumatic situation experienced by child victims of flood disasters. Trauma coping is an effort to stop or avoid exposure to the traumatic events they have experienced (Kleber, 2019). Furthermore, coping is a mechanism or strategy for dealing with stress, pressure, or challenges related to physical or mental health (Gati et al., 2024). Coping mechanisms are used to resolve problems and adapt to changes. Therefore, coping with trauma is important for victims to help them overcome the trauma they have experienced (Carmenita et al., 2024). However, it is difficult to heal the long-term effects (Putri & Chandra, 2025).

Although coping with trauma is only about overcoming trauma (Hikmah et al., 2022), it remains important for children, considering that their psychological, physiological, cognitive, moral, linguistic, motor, sensory, social, and other crucial aspects of development are still vulnerable at this age. Through coping with trauma, individuals can become resilient in facing stress (Hikmah et al., 2022). Additionally, the timely implementation of effective coping strategies can help victims prevent mental health issues arising from stress and reduce their impact (Kar, 2024). Therefore, coping with trauma is particularly important for children living in flood-prone areas to reduce the psychological consequences of disasters and other consequences related to grief and secondary stressors (Kar, 2024). In the process of coping with trauma, one of the key factors determining how well an individual can overcome the psychological impact of traumatic experiences is resilience. Resilience serves as a frontline defense when individuals face traumatic events. Children with higher levels of resilience can develop more effective coping with trauma, as well as influence how they respond to stress and trauma (Ogunbode et al., 2019; McDonald-Harker C., 2021). Therefore, coping with trauma in children in flood-prone areas is greatly influenced by their resilience in facing complex psychological pressures.

Wagnild & Young (1993) define resilience as the ability and courage to adapt in the face of challenges, difficult situations, pressure, or unfavorable conditions in life. Resilience plays a role in mediating symptoms of depression, anxiety, stress, and childhood trauma, ultimately improving emotional regulation and problem-solving skills (Ghoniyy et al., 2022). With improved emotional regulation and problem-solving skills, children with high resilience are more likely to develop more effective coping mechanisms for trauma. Research by (Konaszewski et al., 2021). Konaszewski et al (2021) shows that resilience significantly predicts coping with trauma, particularly in the form of active coping and seeking support from others. In line with these findings, other studies indicate that resilience has a significant positive correlation with emotion-based coping strategies and problem-based coping strategies, where individuals with high resilience are more likely to use better problem-solving and emotional regulation strategies in dealing with stress and psychological pressure (Ruhabadi et al., 2022). This confirms that individuals with high resilience tend to be more adaptive in coping with trauma.

Every individual face various challenges in life, and for some individuals, traumatic experiences can become significant barriers to their development. Unresolved trauma reduces an individual's resilience, making them more vulnerable (Martin et al., 2021; Wagnild & Young, 1993). Adversity Quotient (AQ) is one of the factors that play a role in determining how an individual responds to difficult conditions they experience (Stoltz, 2000; Sriati, 2008). Individuals who experience trauma due to disasters, such as children affected by floods, have varying levels of resilience. In this context, Adversity Quotient (AQ) reflects the extent to which an individual can control difficult conditions, take responsibility, limit negative impacts, and persevere in the face of challenges by turning difficult experiences into opportunities for growth (Martin et al., 2021; Dewi et al., 2016).

The Adversity Quotient (AQ) consists of three categories: Climbers, Campers, and Quitters, which reflect three levels of resilience in facing challenges (Martin et al., 2021; Stoltz P., 2000). Children affected by floods with AQ Climbers have high resilience, enabling them to control emotional responses, limit the impact of trauma, have strong endurance, and view floods as challenges that can be overcome (Martin et al., 2021; Hendrickson et al., 2018). Meanwhile, AQ Campers have moderate resilience. In this category, flood-affected children can survive but find it difficult to fully recover. Individuals in this category are aware of the situation they are facing but still feel burdened and require more support from their surroundings to enhance their psychological resilience (Martin et al., 2021; Wagnild., & Young, 1993). Conversely, AQ Quitters have low resilience. Individuals in this category are prone to giving up easily and getting stuck in trauma, so flood-affected children view the flood as an ongoing trauma and are at risk of developing social disorders (Martin et al., 2021; Sriati, 2008).

Previous studies have widely examined coping strategies in various contexts, such as earthquake victims in Cianjur (Miranti & Triana, 2024), children and adolescents in disaster situations (Kar, 2024), coping and resilience among youth (McDonald-Harker, 2021), coping in children with behavioral issues (Konaszewski, 2021), and resilience in specific populations, such as nursing staff during the COVID-19 pandemic (Ruhadi et al., 2022), adolescents with divorced parents (Martin et al., 2021), and cancer patients (Dewi et al., 2016). However, studies that specifically investigate *coping with trauma among child victims of flood disasters* remain limited, particularly within the Indonesian context where flooding is a recurrent and socially disruptive phenomenon. Moreover, prior research has predominantly examined *resilience* or *Adversity Quotient (AQ)* as separate constructs, without exploring their *combined role* in predicting coping with trauma among children. This leaves a critical gap in understanding how both resilience and AQ interact in shaping children's adaptive responses to traumatic experiences in flood-prone areas. Therefore, this study aims to fill this empirical and contextual gap by examining the relationship between resilience and Adversity Quotient with coping with trauma in children living in flood-prone areas of Surabaya. The novelty of this study lies in integrating these two psychological constructs resilience and AQ within the specific population of *child flood victims*, thereby offering a comprehensive model of trauma coping that has not been empirically tested in previous disaster psychology research in Indonesia.

Method

This study uses a quantitative approach because it aims to measure and test the relationship between variables such as resilience, adversity quotient (AQ), and traumas coping objectively through numerical data that can be analyzed statistically. This approach was chosen so that the process of collecting, processing, and interpreting data can be carried out in a standardized manner and provide results that can be generalized. The type of research used is correlational research, which is a research design that aims to determine whether there is a relationship between two or more variables without manipulation. This design is in line with the focus of the research, which is to identify the extent to which resilience and adversity quotient are related to trauma coping in children who are victims of flooding. The relationship between these variables is analyzed based on data obtained from the field. All research procedures followed ethical standards for studies involving children. Written informed consent was obtained from the participants' guardians, and written assent was also obtained from the child participants to ensure that their participation was voluntary and based on clear understanding. Participants were informed about the purpose of the study, confidentiality of their responses, and their right to withdraw at any time without penalty.

Sample or Population

This study was conducted during June in the western part of Surabaya, particularly in flood-prone areas such as Kandangan and Benowo. This area was chosen because it has a high history of flooding, making it relevant to the context of the study. The research subjects were children living in flood-prone areas, with a total of 313 elementary school students in grades 4, 5, and 6 as the sample. The sampling technique used was accidental sampling, which is the random selection of participants as long as they meet the research criteria. This technique was chosen because it is time-efficient and easy to access participants.

Data Measurement

The research instrument consists of three main scales: the Resilience Scale based on the theory of (Wagnild & Young, 1993), the Adversity Quotient Scale based on the concept of Stoltz (2000), and the Trauma Coping Scale based on the theory of (Kleber, 2019). All three scales use a 5-point Likert scale format, ranging from “Strongly Agree” to “Strongly Disagree.” The instrument was developed by researchers and underwent content validation by experts using the expert judgment method. The assessment was conducted to ensure that each item reflects the theoretical indicators and aligns with the characteristics of the participants. After revisions, the instruments were pilot tested on a small scale to assess reliability and statistical validity before being used in the main data collection.

The relationship between these variables was analyzed based on data obtained from the field. Additionally, in the instrument validity testing stage, the validity threshold values used were 0.3 and 0.2. The value of 0.3 was chosen because it indicates an adequate level of correlation between item scores and total scores, in accordance with Azwar's (2012) guideline that items with a correlation coefficient ≥ 0.30 are considered to have good discriminatory power. Meanwhile, a value of 0.2 was used in the initial exploration stage to retain items that were still conceptually valid before further analysis was conducted (Azwar, 2012; Sugiyono, 2019).

Data Analysis

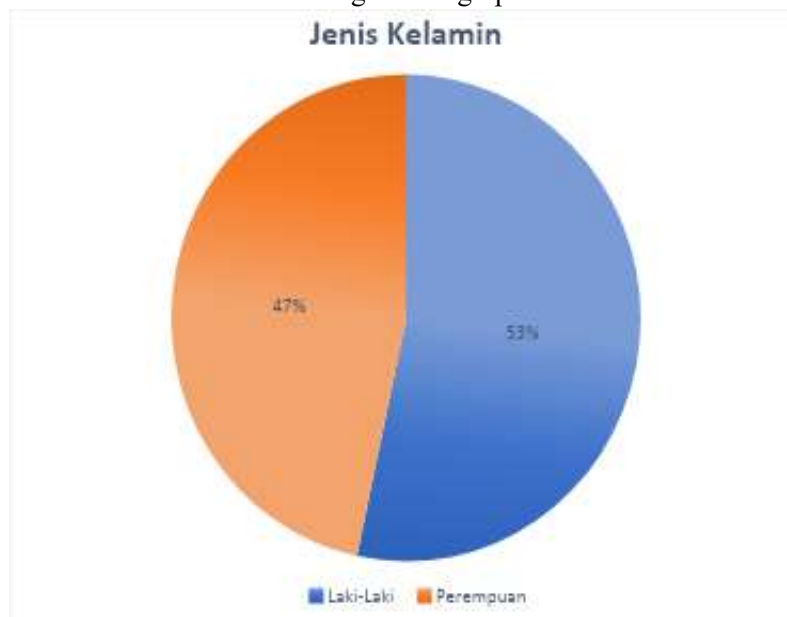
The data were analyzed using SPSS version 20. The main analysis used was multiple linear regression to determine the contribution of resilience and adversity quotient variables to trauma coping. In addition, descriptive statistical analysis was also performed to provide an overview of the characteristics of the participant data. All analyses were performed quantitatively to ensure the objectivity and measurability of the results.

Result

Demographic Data Results

Gender

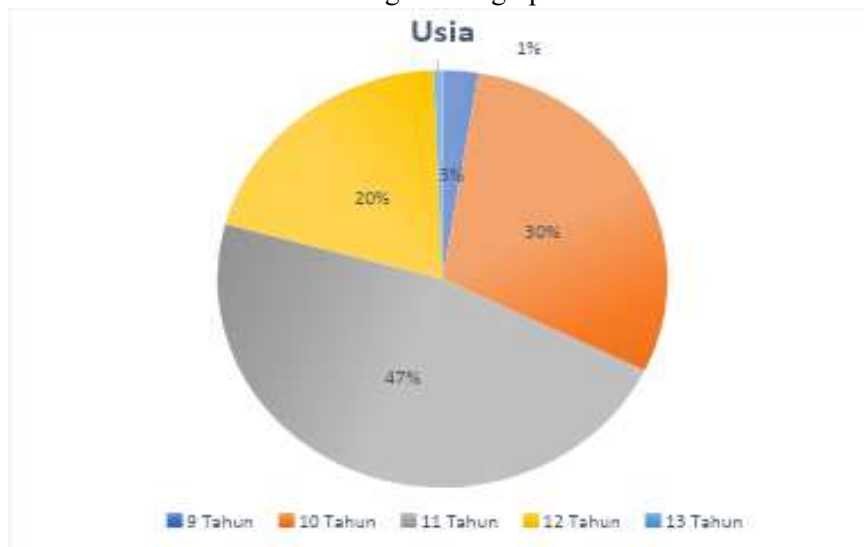
Chart 1. Age Demographic



This study involved 313 subjects who were elementary school students with a gender distribution of 47% female and 53% male.

Age

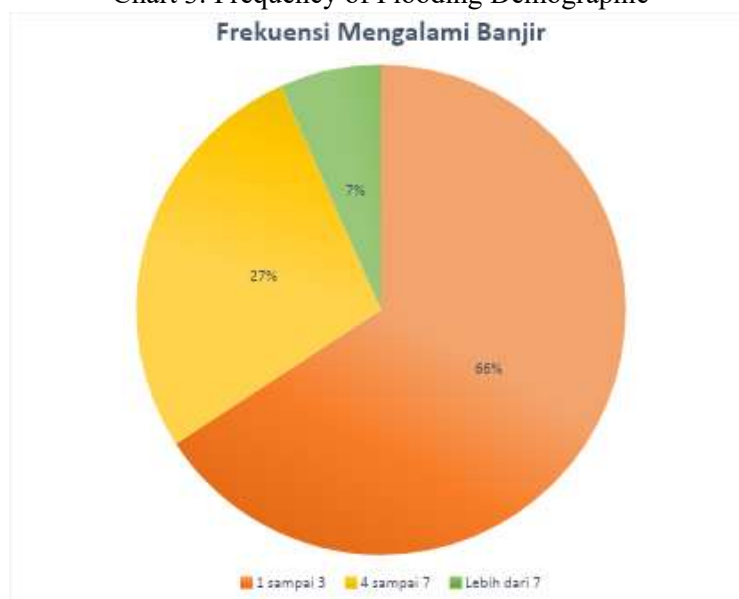
Chart 2. Age Demographic



The age distribution of the subjects was as follows: 1% were 13 years old, 2% were 9 years old, 20% were 12 years old, 30% were 10 years old, and 47% were 11 years old.

Frequency of Flooding

Chart 3. Frequency of Flooding Demographic



Based on the available data, the majority of subjects experienced flooding 1 to 3 times (66%), 27% experienced flooding 4 to 7 times, and 7% experienced flooding more than 7 times.

Validity and Reliability Test Results

Table 1. Validity and Reliability Test

Variable	Validity	Reliability
Coping Trauma	0,315 - 0,854	0,952
Resilience	0,329 - 0,681	0,845
Adversity Quotient	0,208 - 0,776	0,883

The validity test results for trauma coping and resilience used a significance level of 0.3, while for AQ, a significance level of 0.2 was used. The validity scores for the trauma coping scale ranged from 0.315 to 0.854, with a reliability score of 0.952. The resilience scale yielded validity scores ranging from 0.329 to 0.681, with a reliability score of 0.845. For the AQ scale, validity scores ranged from 0.208 to 0.776, with a reliability score of 0.883.

Normality Test Results

Table 2. Normality Test	
Normality	Skor
	0,038

Based on the results of the normality test using residual data, the Kolmogorov-Smirnov statistic coefficient = 0.038 at $p = 0.200$ ($p > 0.05$), which means that the data distribution is normal.

Results of Linearity Test for Trauma Coping & Resilience

Table 3. Linearity Test for Trauma Coping & Resilience		
Normality	Score F	Sig.
	1,287	0,190

The results of the linearity test show that the F value for Deviation from Linearity = 1.287 at $p = 0.190$ ($p > 0.05$). Thus, the variables of resilience and trauma coping have a linear relationship.

Results of the Linearity Test for Trauma Coping & Adversity Quotient

Table 4. Linearity Test for Trauma Coping & Adversity Quotient		
Normality	Score F	Sig.
	1,306	0,144

The results of the linearity test show that the F Deviation from Linearity value is 1.306 at $p = 0.144$ ($p > 0.05$). Thus, the Adversity Quotient variable has a linear relationship with trauma coping.

Multicollinearity Test Results

Table 5. Multicollinearity Test		
Variabel	Tolerance	VIF
Resiliensi	0,881	1,135
AQ	0,881	1,135

The results of the multicollinearity test between variables X1 (Resilience) and X2 (Adversity Quotient) yielded a tolerance value of $0.881 > 0.10$ and a VIF value of $1.135 < 10.00$. This indicates that there is no multicollinearity between variables X1 and X2.

Simultaneous Test Results

Table 6. Simultaneous Test		
ANOVA	Skor F	Sig.
	3,617	.028

The results of the simultaneous analysis of the effects of Resilience (X1) and Adversity Quotient (X2) on Trauma Coping (Y) were $F = 3.617$ with $\text{sig.} = 0.028$. This means that simultaneously (together), Resilience (X1) and Adversity Quotient (X2) are associated with Trauma Coping (Y).

Hypothesis Test Results

Table 7. Hypothesis Test Result		
Variabel	t	Sig.
Resiliensi	-1,067	0,287
AQ	2,685	0,008

The partial effect test results obtained a t-score of -1.067 with a significance of 0.287 ($p > 0.05$). This means there is no significant effect of resilience on trauma coping. The partial effect test yielded a t-score of

2.685 with a significance level of 0.008 ($p < 0.05$). This means there is a significant effect of Adversity Questionnaire on trauma coping.

Effective Contribution Results

Based on the Effective Contribution calculation, it was found that the Resilience variable contributed 0.05% to the Effective Contribution. The Adversity Questionnaire variable contributed 2.23% to the Effective Contribution. Thus, both variables had a Total Effective Contribution of 2.28%. Therefore, 97.72% was influenced by other variables.

Discussion

The results of the study found that AQ has a significant correlation with trauma coping, while resilience has a weak correlation with trauma coping in children living in flood-prone areas. This means that the higher the subject's AQ level, the higher their trauma coping ability. The higher the AQ in children, the greater their ability to face and overcome trauma caused by flooding. AQ reflects an individual's ability to persevere, control difficult situations, and view difficulties as challenges (Stoltz, 2000). Meanwhile, trauma coping is an individual's ability to manage and overcome the psychological impact of traumatic experiences. Given that traumatic experiences have various impacts, both physically and psychologically, these impacts must be managed and overcome properly so that they do not spread to other aspects of life. Trauma coping ability is also influenced by an individual's AQ level, as Adversity Quotient (AQ) plays a role in determining how a person responds to the difficult conditions they experience (Stoltz, 2000; Sriati, 2008; Gou et al., 2024; Dewi et al., 2019).

Individuals with high AQ, often referred to as climbers, are those who enjoy challenges, are persistent, never give up, and have high achievement motivation, even able to view problems as steppingstones to success (11; 26). This is in line with research (Gou et al., 2024) which states that AQ can improve an individual's coping skills (30). Similar research by Dewi et al. (2019) also states that AQ improves an individual's ability to respond to and cope with stress, thereby facilitating the resolution of trauma experienced (31). High AQ levels in children living in flood-prone areas tend to give them control over their decisions and actions, making it easier for them to respond positively to stressors or traumatic experiences. In addition, good self-control prevents children from feeling lost and disoriented. In line with research conducted by Saxena & Rathore (2025), it has been proven to have a positive correlation with trauma coping. This condition enables AQ to suppress the reactions and symptoms of trauma experienced by individuals. High AQ also helps children analyze the causes of problems and prevents them from easily blaming others when facing difficulties. This allows them to focus on finding solutions rather than blaming others. Furthermore, high AQ can prevent the spread of trauma, while low AQ causes children to experience an expansion of problems. For example, when experiencing a flood disaster, children may also experience conflicts with the people around them, such as teachers, parents, siblings, or friends. In addition, children with high AQ tend to view problems or stressful situations as challenges or fun things to overcome. Individuals with high AQ tend to be more adaptive in using Trauma Coping (Luo et al., 2025).

On the other hand, based on the results of this study, it was also found that resilience did not have a significant effect on the handling of trauma in children living in flood-prone areas. Most of the children who were the subjects of the study did not view flooding as a stressful problem but tended to have a positive perception of it. Some subjects viewed flooding as a preventable disaster, while the majority viewed it as a fun event and a means of play. This is supported by the findings of Niman et al. (2024), who stated that for most children living in flood-prone areas, flooding is no longer considered a threat but rather a normal event. As a result, this study found that many children engage in fun activities during floods, such as swimming, playing in the water, boating, or other games. This condition is in line with the research conducted by Niman et al. (2024). Another study conducted by Shorer et al. (2024) found that AQ has no significant relationship with Coping Trauma, especially in the emotional aspect.

Other studies have also stated the same thing, that resilience does not directly affect a person's coping with trauma (Thompson et al., 2018; Macía et al., 2021). When children do not perceive flooding as a frightening threat, the aspect of resilience does not emerge in this phenomenon, because resilience is an individual's ability to accept and endure problems or threatening situations (Wagnild & Young, 1993). Therefore, when individuals do not perceive flooding as a threatening situation, their resilience will not surface.

Resilience is like a mother who will be called when a child is afraid of something; if the child is not afraid of something, they will not call their mother. Therefore, AQ has a greater influence on trauma management than resilience. Children with high AQ tend to view problems as something positive (Stoltz, 2000). The results of this study can be used as updated data in studies of children in disaster settings, especially floods. Through this study, it was found that the majority of research subjects tended to be more adaptive and did not experience trauma when experiencing a flood disaster. Therefore, future researchers who wish to study or conduct experiments on child subjects who are flood victims need to conduct screening to ascertain the mental condition of the subjects first, considering that not all child flood victims experience trauma. The researchers also feel that similar studies are needed to examine in more depth the scale of flooding experienced by child victims, in order to obtain a more complex picture of children in flood disaster settings.

Conclusion

This study aims to examine the correlation and significant influence between resilience and AQ with trauma coping in children living in flood-prone areas. This study is a quantitative correlational study involving 313 subjects consisting of 4th, 5th, and 6th grade students from schools located in flood-prone areas. Data analysis was conducted using multiple regression techniques. Based on the research findings, it can be concluded that there is an influence between AQ and coping trauma, such that children with high AQ tend to be more capable of coping with the impacts of traumatic experiences they have undergone, while children with low AQ tend to be less capable of coping with the impacts of traumatic experiences they have undergone. On the other hand, this study also found that resilience does not influence trauma coping in children in flood-prone areas. This indicates that the level of resilience does not have a significant correlation with children's ability to cope with trauma. Additionally, the effective contribution of the resilience variable is very small, at only 0.05%. Meanwhile, the AQ variable has an effective contribution of 2.23%. Thus, the two variables have a Total Effective Contribution of 2.28%. Therefore, 97.72% is influenced by other variables. These results underscore the importance of designing psychological intervention programs and school-based resilience training that emphasize the development of children's adversity quotient through activities that enhance adaptive problem-solving, emotional regulation, and cognitive flexibility, thereby strengthening their capacity to cope with traumatic experiences in disaster-prone contexts.

Suggestion

The subject and his family are advised to develop a positive mindset, learn from every problem they face, take various flood prevention measures such as disposing of trash properly and regularly participating in community service, and focus on solving problems rather than dwelling on their impact. The government is advised to ensure and implement equitable development across various regions, particularly in terms of flood prevention, conduct extensive outreach programs with accurate evaluation tools related to flood prevention efforts, and collaborate with various community elements to collectively address and prevent floods. For future researchers, it is recommended to conduct similar studies with a larger sample size and broader geographical scope, examine the relationship between adversity quotient and resilience with trauma coping in parents, analyze the connection between adversity quotient and trauma coping based on its levels, and conduct experimental research to anticipate the long-term psychological impacts on flood disaster victims.

Acknowledgment

With sincere appreciation, we extend our gratitude to the Rector of the University of 17 August 1945 Surabaya, along with the leadership team and organizing committee, for their support and guidance in implementing the 2025 Research and Community Service Grant Program. This program provides valuable opportunities for academic staff to produce meaningful scientific work and strengthen collaboration for community benefit. The institution's support serves as an important motivation to conduct high-quality, impactful research. We hope this program will continue to advance knowledge and community service in the future.

References

- Afdhilla, A. B., & Mahendra, S. A. (2020). Care jurnal care mengembangkan multiple intelligences dengan bermain pada anak usia dini. *Children Advisory Research and Education Jurnal Care*, 8(1), 1–10. [Http://E-Journal.Unipma.Ac.Id/Index.Php/Jpauld](http://E-Journal.Unipma.Ac.Id/Index.Php/Jpauld)
- Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif, dan R&D* (2nd ed.). Alfabeta.
- Azizah Nur. (2024). Peran lsm dalam mendukung anak-anak korban kekerasan. *Harakat An-Nisa: Jurnal Studi Gender Dan Anak*, 9(1), 1–10. <https://doi.org/10.30631/91.1-10>
- Azwar, S. (2012). *Reliabilitas dan validitas* (4th ed.). Pustaka Pelajar.
- Badan Pusat Statistik. (2024). Surabaya dalam Angka. Diakses melalui : https://web-api.bps.go.id/download.php?f=aBu61yj3dwxNF2gE89mh32p1Y0JjeEM4bGRDcHMwNER1NnFVbHA2SGJkNDJWOUkxY3BING04MjB2VW5RVnVIUC8vOFd2UHYxQmRyU01CR0JsZINxWmVkWZGLUllzOGRrYIITcjBjeFRaYmIrT2FrQXlhTi9yTHdUWXJ3R0JzWjVvVUItNkZVclE0M3hiNIYzb2dQUHZrSFY3QU1xY0xvREw5S3Rnc3dGWkNydTlCbXFTZlVwQnFheFFnMnYzbkMrSW0wTEsrbE83aUhqc2FKbWpTdJY2WXB5cDh0WHJ5dExjcTRNRkR2NnYzN28yaVNZcHZ0RTZxMDIPcGdRMllzS216ZDIk2pRMjVjNFpLK1M=&_gl=1*12h81mh*_ga*MjAzNzcyMDg3LjE3NDA2MjU3Njg.*_ga_XXTTVXWHDB*MTc0MDYyNTc2Ny4xLjEuMTc0MDYyNTkwMy4wLjAuMA
- Barker, D. H., Quittner, A. L., Fink, N. E., Eisenberg, L. S., Tobey, E. A., & Niparko, J. K. (2009). Predicting behavior problems in deaf and hearing children: The influences of language, attention, and parent-child communication. *Development and Psychopathology*, 21(2), 373–392. <https://dx.doi.org/10.1017%2FS0954579409000212>
- Brett-MacLean, P., & Agyapong, V. I. O. (2021). Social-ecological factors associated with higher levels of resilience in children and youth after disaster: the importance of caregiver and peer support. *Frontiers in Public Health*, 9.
- Dewi, M. P., Rinakit Adhe, K., Maulidiyah, E. C., Simatupang, N. D., Guru, P., Anak, P., & Dini, U. (2023). Pengembangan media pop up book mitigasi bencana banjir terhadap kemampuan berfikir logis anak usia 5-6 tahun. *Jurnal Inovasi Ilmu Pendidikan*, 1(2). www.suarasurabaya.net
- Dewi, Y. S., Nursalam, N., Hargono, R., & Tristiana, R. D. (2019). Recovery self-efficacy, coping strategy, adversity quotient and resilience among intensive care unit nurses in Indonesia. *Indian Journal of Public Health Research and Development*, 10(10), 2087–2092. <https://doi.org/10.5958/0976-5506.2019.03158.9>
- Dewi Eka Yulianti Septia Sukma, Mayangsari, M. D., & Fauzia, R. (2016). Hubungan antara adversity quotient dengan resiliensi pada penderita kanker stadium lanjut correlation between adversity quotient and resilience in patients with advanced-stage cancer.
- Fadlilah, I. N., Puspitasari, D., & Barmin, A. M. (2024). *Prosiding seminar nasional teknologi dan sistem informasi (sitasi) 2024 surabaya*.
- Ghoni, Z. A., Insiyah, I., & Khadijah, S. (2022). Peran resiliensi sebagai strategi pencegahan depresi, kecemasan, dan stres pada mahasiswa: Kajian literatur. *bimiki (berkala ilmiah mahasiswa ilmu keperawatan indonesia)*, 10(2), 93–101. <https://doi.org/10.53345/Bimiki.V10i2.318>
- Gou, X., Chen, L., Yang, S., Li, Y., & Wu, J. (2024). Relationships of the adversity quotient subtypes of nursing interns with depression, coping styles, positive psychological capital, and professional adaptability: a cross-sectional study. *Bmc Medical Education*, 24(1). <https://doi.org/10.1186/S12909-024-05853-W>
- Hariyanto, S., & Kurniawati. (2019). Pengaruh metode simulasi bencana banjir terhadap tingkat kesiapsiagaan mahasiswa program studi ilmu keperawatan fakultas kesehatan unipdu jombang (the effect of simulation method for flood disaster preparedness towards nursing students faculty of health sciences unipdu, jombang).

- Hendrickson, Z. M., et al. (2018). Resilience among Nepali widows after the death of a spouse: "That was my past and now I have to see my present". *Qualitative Health Research*, 28(3), 446-478
- Hikmah, N., Fauziyah, N. K., Septiani, M., & Lasari, D. M. (2022). Healing sebagai strategi coping stress melalui pariwisata. *Indonesian Journal of Tourism And Leisure*, 3(2), 113-124. <https://doi.org/10.36256/Ijtl.V3i2.308>
- Kar, N. (2024). Coping strategies used by children and adolescents following disaster trauma: a review of associated factors and intervention options. *Odisha Journal Of Psychiatry*, 20(2), 43-51. https://doi.org/10.4103/Ojp.Ojp_21_24
- Kleber, R. J. (2019). Trauma and public mental health: A focused review. In *Frontiers In Psychiatry* (Vol. 10, Issue Jun). Frontiers Media S.A. <https://doi.org/10.3389/fpsy.2019.00451>
- Konaszewski, K., Niesiobędzka, M., & Surzykiewicz, J. (2021). Resilience and mental health among juveniles: role of strategies for coping with stress. *Health And Quality of Life Outcomes*, 19(1). <https://doi.org/10.1186/S12955-021-01701-3>
- Kusuma Rizky Dwi, Purnomo Eko Priyo, & Kasiwi Aulia Nur. (2020). *Analisis upaya kota surabaya untuk mewujudkan kota hijau (Green City)*. <https://www.researchgate.net/publication/346647707>
- Luo, Z., Liu, T., Wang, D., Qi, N., Zhang, J., & Tian, L. (2025). The impact of nurses' adversity quotient on their work stress: the mediating role of professional identity. *BMC nursing*, 24(1), 231.
- Macía, P., Barranco, M., Gorbeña, S., Álvarez-Fuentes, E., & Iraurgi, I. (2021). Resilience and coping strategies in relation to mental health outcomes in people with cancer. *Plos One*, 16(5 May). <https://doi.org/10.1371/Journal.Pone.0252075>
- Martin, R. A., Noviekayati, I. G. A. A., & Rina, A. P. (2021). Hubungan antara adversity quotient dan resiliensi pada remaja dengan orangtua yang bercerai di Surabaya (Doctoral dissertation, Universitas 17 Agustus 1945 Surabaya).
- Miranti, A., & Triana Aprilia. (2024). *Strategi coping korban bencana gempa bumi di cianjur*. <https://www.researchgate.net/publication/381226570>
- Niman, S., Mustikasari, Daulima, N. H., Gayatri, D., & Rothhaar, T. (2024). Children and their experiences about seasonal flood disasters in Indonesia: Qualitative study. *Vulnerable Children and Youth Studies*, 19(1), 140-157. <https://doi.org/10.1080/17450128.2023.2277169>
- Ogunbode, C. A., Böhm, G., Capstick, S. B., Demski, C., Spence, A., & Tausch, N. (2019). The resilience paradox: Flooding experience, coping and climate change mitigation intentions. *Climate Policy*, 19(6), 703-715. <https://doi.org/10.1080/14693062.2018.1560242>
- Pangaribuan, J., Sabri, L. M., & Amarrohman, J. (2019). Analisis daerah rawan bencana tanah longsor di Kabupaten Magelang menggunakan sistem informasi geografis dengan metode standar nasional Indonesia dan analytical hierarchy process. In *Jurnal Geodesi Undip Januari* (Vol. 8).
- Pratiwi Wiwik. (2017). *Konsep bermain pada anak usia dini*.
- Putri Besti Nora Dwi, & Chandra Yasrial. (2025). Mereduksi dampak psikologis korban bencana banjir bandang melalui kegiatan trauma healing di kabupaten tanah datar. *Pema : Journal Home Pager*, 146-150.
- Rahmat, H. K. (2018). *Implementasi konseling krisis terintegrasi sufi healing untuk menangani trauma anak usia dini pada situasi krisis pasca bencana*. https://www.researchgate.net/publication/325298612_IMPLEMENTASI_KONSELING_KRISIS_TERINTEGRASI_SUFI_HEALING_UNTUK_MENANGANI_TRAUMA_ANAK_USIA_DINI_PADA_SITUASI_KRISIS_PASCA_BENCANA
- Ruhabadi, F., Assarroudi, A., MahdaviFar, N., & Rad, M. (2022). Correlations of resilience with coping strategies, and the underlying factors in the nurses working in covid-19 hospitals. *Journal Of Education And Health Promotion*, 11(1). https://doi.org/10.4103/Jehp.Jehp_1634_21

- Saxena, S., & Rathore, B. (2025). Adversity quotient as determining factor of mental health and professional quality of life among healthcare professionals: a systematic review. *Annals of neurosciences*, 32(1), 58-65.
- Sriati, A. (2008). Adversity quotient. *Jatinangor : Fakultas Ilmu Keperawatan Universitas Padjadjaran*.
- Stoltz, P. (2000). Adversity quotient : Mengubah hambatan menjadi peluang. *Terjemahan: T. Hermaya. Jakarta: PT. Grasindo*.
- Suhartono. (2024). Tanggapan walhi Jatim terhadap banjir di Kota Surabaya Sepanjang 2024. Diakses melalui: <https://www.tempo.co/lingkungan/tanggapan-walhi-jatim-terhadap-banjir-di-kota-surabaya-sepanjang-2024-64499>
- Sukatin, Qomariyyah, Horin, Y., Afrilianti Alda, Alivia, & Bella, R. (2019). *Analisis psikologi perkembangan sosial emosional anak usia dini*.
- Shorer, S., Weinberg, M., Cohen, L., Marom, D., & Cohen, M. (2024). Emotional processing is not enough: Relations among resilience, emotional approach coping, and posttraumatic stress symptoms among combat veterans. *Frontiers in Psychology*, 15, 1354669.
- Thompson, N. J., Fiorillo, D., Rothbaum, B. O., Ressler, K. J., & Michopoulos, V. (2018). Coping strategies as mediators in relation to resilience and posttraumatic stress disorder. *Journal Of Affective Disorders*, 225, 153–159. <https://doi.org/10.1016/j.jad.2017.08.049>
- Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the resilience scale. In *Journal Of Nursing Measurement* (Vol. 1, Issue 2).
- Widiyana. (2024). Saat Surabaya dikado banjir terparah di penghujung 2024. Diakses melalui: <https://www.detik.com/jatim/berita/d-7711513/saat-surabaya-dikado-banjir-terparah-di-penghujung-2024>.