

## IN FIRE WE STRONG: THE ROLE OF RESILIENCE IN EXAMINING HELP ATTITUDE TO ADOLESCENCE POST TRAUMATIC GROWTH

<sup>1</sup>Naurah Nadzifah, <sup>2</sup>Devie Yundianto, <sup>3</sup>Muhammad Khatami

<sup>1,3</sup>Universitas Negeri Jakarta

Jl. Rawamangun Muka Raya No.11, RT.11/RW.14, Jakarta Timur 13220, DKI Jakarta

<sup>1</sup>naurahnadzifah93@gmail.com

<sup>2</sup>Universitas Islam Negeri Syarif Hidayatullah Jakarta

<sup>2</sup>Jl. Ir H. Juanda No.95, Tangerang Selatan 15412, Banten

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### Abstrak

Bencana kebakaran di Tambora, Jakarta Barat merupakan salah satu bencana yang disebabkan oleh manusia. Hal ini yang menyebabkan bencana terjadi secara berulang. Keunikan dari penelitian ini adalah melihat bagaimana sikap para remaja saling membantu di saat terjadinya bencana serta bagaimana efeknya terhadap post traumatic growth (PTG) yang dimoderatori oleh resiliensi. Metode penelitian yang digunakan adalah metode kuantitatif dengan teknik analisis moderated regression. Hasil yang didapat bahwa PTG akan semakin bertumbuh di saat remaja memiliki sikap menolong dan didukung oleh resiliensi yang baik.

**Kata Kunci:** *post traumatic growth, helping attitude, resilience, fire, disaster*

### Abstract

The fire in Tambora, West Jakarta, is a man-made disaster. It occasionally happened because of its type of disaster. The uniqueness of this study is to see how the attitude of Adolescence to help each other during a disaster can affect post-traumatic growth (PTG), which is moderated by resilience. The research method used is a quantitative method with moderated regression analysis technique. The results show that PTG will grow even more when teenagers have a helpful attitude and are supported by good resilience.

**Keywords:** *post traumatic growth, helping attitude, resilience, fire, disaster*

### INTRODUCTION

Research on fires in the rural region has little literature on it. Research that writes about specific phenomena for fires usually focuses and occurs in forest areas (wildfire/forest fire), bush fires, and fires in urban areas (city fires) (Kumar, Jana, &

Ramamritham, 2020; Penman et al., 2017; de Vet & Eriksen, 2016). Fire is one of the disasters that fall into the category of man-made disasters and impacts economic, social, and ecological damage (Muhammad, Ahmad, & Baik, 2018). Because it is categorized as a disaster, fires also impact individuals who

experience them. Among these impacts, the most challenging thing that individuals will experience is post-traumatic stress disorder (PTSD) (Palgi, Dicker-Oren, & Greene, 2020).

Fire disasters can be seen from two perspectives, namely natural disasters, and man-made disasters. In the context of natural disasters, research from Israel in 2020 said that extreme weather conditions caused repeated fire disasters in the community as a result of global warming (Palgi et al., 2020). Meanwhile, for conditions in Indonesia, the fires in this study were located in Jakarta's Tambora area, where the fires occurred due to poor residential environmental conditions such as short circuits, burning garbage, and man-made houses (Sutanti, Tjahjono, & Syaufina, 2020).

PTSD is a consequence of exposure to traumatic stressors that come suddenly and unexpectedly, the stressors that occur are usually obtained from violent personal assault, kidnapped, confinement as a prisoner, terrorist attack, severe car accidents, and disaster (Bisson, 2007; Javidi & Yadollahie, 2012; Yehuda et al., 2015). Repeated fires cause PTSD in fire disasters at the same place, which in turn will shock the victim due to frequent material detriment (houses, home appliances, and clothes) (van Loey, van de Schoot, & Faber, 2012).

Contrary to PTSD, there is a phenomenon where traumatic things can cause positive changes called Post Traumatic

Growth (PTG). Positive changes include five domains such as a feeling of strength, becoming closer to family and friends, a greater appreciation of life, recognition of new possibilities, and spiritual development (Palgi et al., 2020; Ying, Wang, Lin, & Chen, 2016). In addition, the study of PTG occurs not only in adulthood but also in childhood and adolescence. PTG is one of the things that contribute to adolescent self-development. Several factors, a cause PTG in adolescents namely (1) environmental factors, (2) response factors to distress, (3) social factors (social support and religious involvement), (4) psychological factors (coping stress), (5) negative outcome factors (psychological symptoms and positive mental health resources), and (6) demographic variables (ethnicity, age, gender, and socioeconomic status) (Meyerson, Grant, Carter, & Kilmer, 2011).

Adolescent samples were chosen for this study because they are a fragile population and post-disaster PTSD develops mainly at that age. The reason is that teenagers still have unstable emotions and still depend on social support around them (Purnamasari, 2016). PTG in adolescents, especially in fire areas, is assumed intuitively in this study due to resilience and helpfulness. It is supported by other research, which states that teenagers in disaster areas indirectly form empathy, sympathy and offer assistance (Bokszczanin, 2013). The influence of social support usually dominates PTG in

adolescents, and adolescents get meaningful experiences about disasters and know the appropriate response to follow (Cryder, Kilmer, Tedeschi, & Calhoun, 2006).

In explaining PTG, resilience is one of the supporting variables, so adolescents do not fall depressed; PTG becomes a protective factor from negative psychological impacts after the disaster (Harmon & Venta, 2020). Resilience plays an essential role in reducing PTSD and has a high probability of making adolescents high PTG scores (Yuan, Xu, Liu, & An, 2018). Resilience also changes one's perspective to mitigate the impact of a disaster, which will intuitively relate directly to PTG (Levine, Laufer, Stein, Hamama-Raz, & Solomon, 2009). Individuals can become resilient if influenced by the three most significant factors, namely (1) repeated experiences, (2) social support from family and friends, and (3) coping style (Brooks et al., 2018; Greeff & Lawrence, 2012). Therefore, resilience can also link to PTG variables; several studies state that when the resilience becomes a moderating variable, it will increase PTG, and resilience also fully mediates the relationship between other factors and increased PTG (Lee, Yu, & Kim, 2020; Meng, Wu, & Han, 2018).

Then for those that affect the PTG variable, we choose helping attitude as the independent variable. Intuitively, someone who experiences a disaster will surely fall after the disaster, but according to another phenomenon, some people help others even

though the individual's burden is already heavy. This phenomenon has an impact on the positive influence received by others who are helped to grow. PTG was born from this phenomenon (Vollhardt & Staub, 2011). Research from Chorzela in 2013 and research from Cohen and Numa in 2011 proved that someone who experienced a traumatic phenomenon in their life reported positive changes to help others (Trzmielewska, Zięba, Boczkowska, Rak, & Wrześniowski, 2019). Helping can also provide opportunities for disaster victims to experience social contact and share emotions with others (Trzmielewska et al., 2019). Helping others is also a sign that someone has been psychologically healed or has repeatedly experienced disasters to gain experience and empathy to share with people who have experienced the same disaster (Stidham, Draucker, Martsof, & Mullen, 2012).

This study aims to see the PTG in the population of people affected by disasters, especially fire disasters. Research that is quite rare on the phenomenon of fires, especially in rural communities, is one of the backgrounds of this research. PTG in disaster areas wants to be seen through the attitude of helping, which is an independent variable, and resilience as a moderating variable to see improvements in adolescent PTG. The questions focus on the question in this study is focused on how the adolescents' PTG affects by the attitude of helping and the role of resiliency as the moderator.

## METHOD

A total of 62 fire survivors in the village area of Tambora District in 2020 with an age range of 17-24 years participated as respondents in this study. They were selected based on the following criteria: residents of fire-affected areas who suffered complete house damage and those whose houses were affected by the fire. Both criteria were determined before data collection, which confirmed the participant as a survivor.

In measuring post-traumatic growth from respondents, the PTGI (Post Traumatic Growth Inventory) instrument containing 21 questions was used in this study (Tedeschi & Calhoun, 1996). Internal consistency in this measurement is in the very high category (Cronbach's = 0.94). The instrument uses a Likert scale of 5 scale options that measure changes in behavior after a fire disaster.

The measurement of the helping attitude scale uses the HAS (Helping Attitude Scale) instrument, which consists of 20 items (Nickell, 1998). The score of each item, when added up as a whole, then the total score obtained ranges from 20 to 100. The total score of 60 is a neutral category. This instrument uses a Likert scale with five answer options (1, 'strongly disagree, to 5, 'strongly agree'). BRS (Brief Resilience

Scale) is an instrument used to measure resilience with a total of 6 items. Response responses have a 5-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). The results of the high average score on the BRS indicate that the higher the level of individual resilience. Half of all items are reverse scores to avoid social desirability. This instrument has an internal consistency value between 0.80-0.91 (Smith et al., 2008). This study uses SPSS Statistics version 16.0 software to perform data analysis. The simple regression method is used to see the effect of helping attitude scores with PTG and resilience on PTG. Then, to estimate the moderating effect, we use moderation regression based on Process by Hayess 4.0.

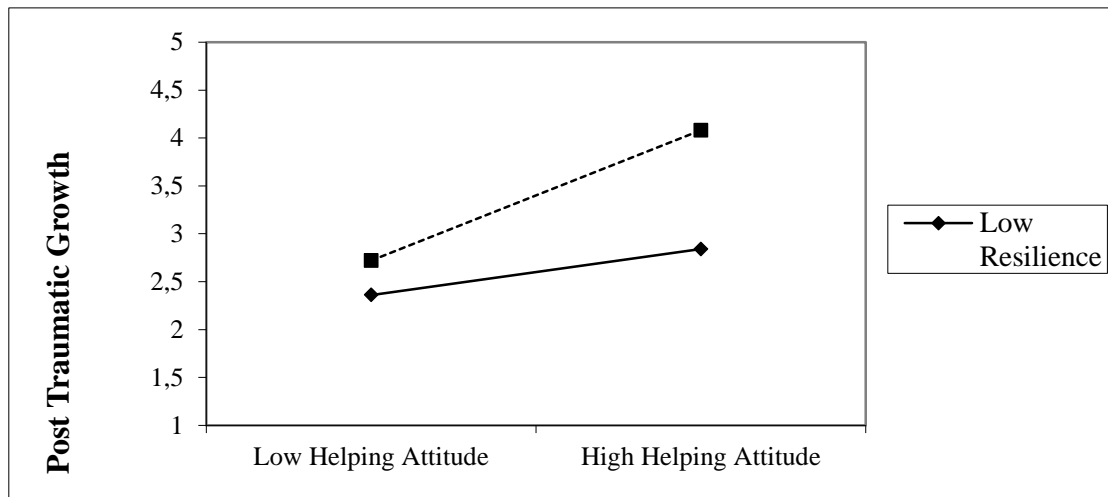
## RESULT AND DISCUSSION

Based on the results of the analysis using Rasch modeling using logit values obtained HAS (M = 1.22; SD = 0.56), BRI (M = 0.00; SD = 1.02), PTGI (M = 0.78; SD = 0, 64). Then, the results of the regression analysis in table 1 show that in the context of regression helping attitude has an influence on PTG ( $\beta = 0.46$ ) with an effective contribution of 19%. Meanwhile, resilience as the moderator variable has no effect on PTG ( $\beta = 0.4$ ).

**Table 1. Regression Variable to PTG**

No	Model	PTG B
1	Helping attitude Resilience	0.46** 0.40
2	Helping attitude x resilience	0.22*

\*p<0.05; \*\*p<0.01



**Figure 1. Regression Line Moderating Variable**

Based on Figure 1. From further findings, when tested with 2 interactions model between helping attitude and PTG moderated by resilience, the helping attitude variable has a significant influence on PTG ( $\beta = 0.22, p < a$ ) in addition that resilience can moderate helping attitude with PTG and provide an effective contribution of 28.2%. This model indicates that resilience as a moderator variable can increase the effect of the helping attitude scale on PTG.

## DISCUSSION

This study aims to see the PTG that occurs in the population of people affected by disasters, especially fire disasters. PTG in disaster areas will be explained through the attitude of helping, which is an independent variable, and resilience as a moderating variable to see improvements in adolescent PTG. The results showed that there was a positive influence between helping attitude and PTG by 19% ( $0.01 < 0.05$ ), there was no

effect between resilience and PTG ( $1.13 > 0.05$ ), and resilience was proven to moderate helping attitude and PTG with the effective contribution of 28.2%. This result means that a helping attitude can predict PTG in individuals (19%), and this effect is strengthened by resilience to 28.2%. However, in this study, resilience did not predict PTG.

The results of this study are in line with the results of research by Trzmielewska et al., (2019), El-Gabawaly, Mackenzie, Starzyk, and Sommer (2020), and Finstead et al. (2021) regarding the effect of helping attitude on PTG. Furthermore, this study also strengthens previous studies on the role of resilience as a moderating variable with PTG as the dependent variable (Bockszczanin, 2013; El-Gabawaly et al., 2020; Harmon & Venta, 2020; Lee et al., 2020; Meng et al., 2018Any). However, this study has different results from previous studies regarding the effect of resilience on PTG.

Every human being tends to help others; however, the degree of this tendency varies from individual to individual. One of the things that makes someone have a high helping attitude is because the individual has experienced a traumatic event. The more often individuals experience these events, the greater their tendency to help others (Trzmielewska et al., 2019).

A person's traumatic experience can trigger post-traumatic stress. This condition makes individuals feel various kinds of negative emotions that can interfere with daily activities. On the other hand, humans have various reasons to move on in life. This trauma encourages individuals to adapt and cope to reduce the negative emotions they feel and heal themselves. The self-recovery efforts are carried out in various ways, such as seeking social support, finding solutions, choosing to face the problem, to assist others.

In addition, recovering these efforts can increase one's empathy. Empathy helps individuals to be able to understand the point of view and feelings of others. Individuals who have high empathy find it easier to worry about the welfare of others so that attitudes change in a more positive direction, including increasing helping attitudes (Wan & Tzeng, 2020; Vollhardt & Staub, 2011). A helping attitude, which is defined as a person's degree of concern for the welfare of others regardless of the presence or absence of appreciation, if it has a high level, can encourage prosocial behavior. Prosocial behavior, besides helping

to reduce negative feelings after a traumatic event, the individual also finds meaning in life by doing this. When helping others, individuals gain insight that in this world, there is still goodness or ease behind every bad or difficulty, even if it comes from oneself (Bockszczanin, 2013; Trzmielewska et al., 2019; Volhardt & Staub, 2011).

Several things can cause the absence of influence between resilience and PTG. The study results by Vieselmeyer, Holguin, and Mezulis (2016) show that PTG appears due to post-traumatic stress, but if the individual has high resilience, then stress will be reduced and even cannot experience stress, which ultimately causes PTG not to do so to appear. This PTG is caused by the impact of resilience that seeks to prevent and inhibit the adverse effects of a traumatic event. Similar opinions were also expressed in several other studies. Individuals with high resilience are more likely to develop very few psychological scars. Thus, they have fewer opportunities to engage in the meaning-making behaviors associated with PTG because they are less likely to struggle with trauma implications (Ying et al., 2016).

Apart from this, the effect of helping attitude towards PTG is strengthened by resilience. Bockszczanin (2013) says that by helping others, individuals find strength and resilience and act for the betterment of the community. Repeated traumatic events will 'force' the individual to adjust using all internal and external resources to achieve

suitable conditions to continue life (Harmon & Venta, 2020). One of them is by doing proactive coping, which is trying to control the situation, engaging in proactive behavior, accepting situations, and dealing with traumatic thoughts, which will increase resilience and strengthen PTG (Lee et al., 2020; Meng et al., 2018). Furthermore, Ying et al. (2016) said that individuals with high resilience tend to evaluate events positively to encourage individuals to develop. Adolescence is a period of transition to adulthood is a period that is vulnerable to psychological disorders or mental health problems because of their developmental conditions. Adolescents tend to be controlled by emotions, so they need social support from adults in dealing with crises. Cognitively, adolescents begin to develop abstract thinking skills that allow the emergence of PTG in adolescents. This study proves that teenagers can also develop PTG just like adults.

## CONCLUSION

This study indicates a positive influence between helping attitude and PTG, with a contribution of 19% in late adolescent fire survivors in Tambora District. This effect is reinforced by the resilience of up to 28.2%. However, no effect was found between resilience and PTG. The results of this study are expected to contribute to the development of science and mental health prevention and intervention programs for fire survivors. For example, mental health professionals may

consider post-traumatic interventions to increase resilience and enhance a helping attitude, thereby helping individuals adopt new, more adaptive perspectives on the experience. This research also has some limitations. First, the small and limited number of samples. Then, there are very few references to fires in rural communities. In addition, not much has been discussed helping attitudes and PTG for man-made disasters.

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