

Resilience of families surviving the Cianjur earthquake disaster: relation to economic pressure, religiosity and coping strategies



Eko Yuliarti Siroj^a✉ | Euis Sunarti^b | Diah Krisnatuti^b | Istiqlaliyah Muflikhati^b | Irni Rahmayani Johan^b

^aDoctoral Program of Family Science, Faculty of Human Ecology, IPB University, Jl. Kamper, IPB Dramaga Bogor Campus, Bogor, West Java 16880, Indonesia.

^bDepartment of Family and Consumer Sciences, Faculty of Human Ecology, IPB University, Jl. Kamper, IPB Dramaga Campus, Bogor, West Java 16880, Indonesia.

Abstract Family resilience is essential in dealing with the impact of disasters so that families can function normally again. Families are expected to have resilience, namely, the ability to survive and bounce back from crisis conditions. This study aims to analyze the influence of economic pressure, coping strategies, and religiosity on the resilience of families of Cianjur earthquake survivors. This study uses an explanatory research design. The population of this study is the families of earthquake survivors in Cianjur Regency. The sample was selected using a stratified nonproportional random sampling technique based on the criteria of the lightly and heavily damaged house. Respondents in this study were the wives of 200 earthquake survivors in Cianjur Regency. Data analysis used structural equation modeling least squares (SEM-PLS) to test the effect. The results showed that the resilience of disaster survivor families was directly influenced by religiosity and indirectly influenced by economic pressure through religiosity. The results also show that the influence between variables, namely, economic pressure, has a significant negative effect on religiosity, and religiosity has a significant positive effect on coping strategies. This research implies that internalizing religious teachings in families can be essential to resilience and the basis for better coping strategies. The central government is advised to provide regular family resilience education to communities in potential disaster areas as an asset for resilience in facing disasters.

Keywords: disaster, coping, religiosity, resilience, economic pressure

1. Introduction

Indonesia is located on the so-called "Pacific Ring of Fire," an area that often experiences natural disasters such as earthquakes and volcanic eruptions. This makes Indonesia a disaster-prone country. The results of disaster risk analysis by the National Disaster Management Agency (BNPB) in the Indonesian Disaster Risk Index (IRBI, 2022) state that all regions of Indonesia have moderate to high disaster risk. On the basis of data from the National Disaster Management Agency (BNPB) in 2022, there were 3,544 disaster events. The natural disasters that dominate are floods, extreme weather, and landslides. Another disaster event that occurred frequently was the earthquake, which resulted in 28 events. One of the most significant earthquake disasters in 2022 was the earthquake in Cianjur Regency (BNPB, 2022). Disasters disrupt the lives of individuals, families, and communities. Disruptions that occur in families include loss of the main job, trauma to children and families, decreased health, delayed education, and light and heavy damage to housing (Sunarti et al., 2011). Family resilience is essential in dealing with the impact of disasters so that families can function normally again. However, family resilience during crises is not an ability that can be obtained instantly; instead, it results from accumulated long-term investments built into everyday life (Walsh, 2006).

Research on the economic pressure on victims of the Sunda Strait tsunami revealed that even 27 months after the Sunda Strait tsunami, families still experienced economic pressure that hurt the welfare of families affected by the disaster (Sunarti et al., 2022). Another study reported that family economic pressure during one month of the COVID-19 pandemic disaster was significantly positively related to stress symptoms, food coping strategies, and family problems and strategies. Economic pressure is a family condition where economic resources and family economic management not only limit the fulfillment of family needs but also cause family stress (Sunarti, 2021). Unstable family economic conditions during disaster events can increase stress and anxiety, but this can be reduced if the family has a high level of religiosity (Dani et al., 2021). Religiosity refers to the knowledge and understanding of the religion to which a person has adhered. The five dimensions of religiosity are religious beliefs, religious practices, worship rituals, experiences, and consequences (Glock & Stark, 1970). Religion is a



protective factor for family resilience, interactions, coping strategies, and economic stress (Syafitri & Hadjam, 2017). Religiosity is often used to cope with unexpected events, such as catastrophes (Bentzen, 2019).

Subjective economic pressure is often associated with greater stress and anxiety, which decreases conflict between family members and decreases the quality of relationships. Families with good communication, strong social support, and high adaptability tend to be more resilient to economic stress. They can use various strategies to cope with pressure, such as better budgeting and seeking external support (Conger & Elder, 1994; Dew, 2008; Walsh, 2016). Coping strategies are necessary for dealing with the challenges that occur continuously in their lives. Coping strategies are considered conscious, intentional, and adaptive (Cramer, 2008). Unavailable coping resources make individuals vulnerable to stress. Conversely, if coping resources are available, individuals are more resistant to adverse stress (Sunarti & Syahrini, 2011). According to Irzalinda and Sofia (2020), a study conducted on disaster-prone families also revealed that coping strategies influence family resilience.

Resilience allows couples and families to deal with disruptive crises or constant pressure to establish stronger bonds, and family functions can run properly and move forward with their lives (Walsh, 2016). Family resilience is related to the ability to believe and be motivated to be more empowered in the future. The length of recovery needed by the victim's family, the ease of recovery, and the empowerment obtained after the crisis are the outputs of family resilience (Sunarti et al., 2021). As the smallest unit of society, the family is important for studying its life after a disaster. The family is essential in determining the community's ability to recover from disasters (Botey & Culig, 2014). Previous studies have shown that resilience is influenced by family social conditions (Sunarti et al., 2021), economic level (Tasri et al., 2022), power relations, and social status (Khattri, 2021); coping strategies (Irzalinda & Sofia, 2020); social support and emotional intelligence (Anwaruddin, 2017); emotion regulation, optimism, and self-efficacy (Sasmita & Afriyenti, 2019); per capita income, stressors, and resilience processes (Sunarti et al., 2022); and food coping strategies, social well-being, and stress symptoms (Sunarti et al., 2022). Resilience is also influenced by parent-adolescent interactions; adolescent interactions with peers (Rachman et al., 2020); empathy; self-awareness (Maesaroh et al., 2019); and cooperation, communication, problem solving, and empathy (Sunarti et al., 2018).

Gap analysis in research on family resilience in disaster contexts includes several aspects that are still lacking or not fully explored in the academic literature. Most of the literature comes from Western countries, which may have different cultural values, social systems and support mechanisms than communities in Asia or other developing countries. This suggests the need for further research on family resilience in different cultural contexts and social environments, such as Indonesia, where community values and religion could play a large role in building resilience. Although religion is often considered an important factor in family resilience, comprehensive empirical research on how religiosity interacts with family resilience factors in the context of disasters is limited. There is a need for further exploration of the role of religious beliefs, religious practices and spiritual support in helping families recover from crisis. The development of consistent and comprehensive measurement tools to measure family resilience in disaster contexts remains a challenge and requires further attention (Masten, 2014; Walsh, 2016; Houston, 2018). The diversity of problems victims face and the characteristics of victims' families make resilience unique and dynamic. Family resilience needs to be measured to obtain a pattern of the victim's recovery process to achieve empowerment. Therefore, research on the resilience of disaster survivor families in terms of economic pressure, coping strategies, and religiosity is novel and essential. This study aims to analyze the influence of economic pressure, coping strategies, and religiosity on the resilience of families of Cianjur earthquake survivors.

2. Materials and methods

2.1. Research Design, Location, and Time

This study used an explanatory research design that aims to analyze the relationships between one variable and another or how one variable affects another by testing a hypothesis (Umar, 1999). The research was conducted in Nagrak Village, Gasol Village, Limbangsari Village, Mekarsari Village, and Cianjur Regency, West Java Province. Data were collected in October 2023, eleven months after the disaster. The study population included families of earthquake survivors in Cianjur Regency. The study sample was selected via a stratified nonproportional random sampling technique on the basis of the lightly and severely damaged house criteria. The respondents in the study were the wives of earthquake survivors in Cianjur Regency, with 200 respondents.

2.2. Variable measurement

Data collection was conducted through an interview (face-to-face) via a structured questionnaire. The variable measurement tools used are as follows: (a) Economic pressure was measured via the TEKEN-GA (family pressure) questionnaire developed by Sunarti (2021). The TEKEN-GA questionnaire has two dimensions, namely, objective economic pressure and subjective economic pressure, and it has 19 question items. The Cronbach's alpha values are 0.876 and 0.591. Family economic pressure is the condition and management of the family economy that not only limits the fulfillment of family needs but also places pressure (stress) on the family. (b) Religiosity is measured via a questionnaire developed from the concept of Glock and Stark (1968), with several modifications. The religiosity questionnaire has five dimensions—religious beliefs, religious practices,

religious experiences, consequences, and religious knowledge—with 28 questions. The Cronbach's alpha value is 0.963. Religiosity is a condition of attachment to religious values that are adhered to, including beliefs, appreciation, and understanding, and manifested in daily life. (c) Coping strategies are measured via a questionnaire developed using the concept of Folkman et al. (1986). The coping strategy questionnaire has two dimensions, problem-focused coping and emotion-focused coping, with 20 questions. The Cronbach's alpha value is 0.780. Coping strategies are individuals' efforts to respond to sources of stress and problems. (d) Family resilience is measured via the RESILIENSI-GA (family resilience) questionnaire developed by Sunarti (2021), which includes three components, namely, 1) values, beliefs, and rules; 2) family organizational capacity; and 3) the family atmosphere, with 30 questions—a Cronbach alpha value of 0.929. Family resilience is the family's ability to rise from adversity and nationality caused by loss, damage, and loss experienced by the family.

2.3. Data processing and analysis

Data processing and analysis began with editing, coding, entry, and scoring. Microsoft Excel, the Statistical Package for Social Science (SPSS) 25.0 were used for descriptive analysis, and structural equation modeling partial least squares (SEM-PLS) was used for influence test analysis. The selection of structural equation modeling (SEM) for influence test analysis is based on several considerations: SEM allows the analysis of complex relationships between variables, both direct and indirect relationships, including mediation and moderation effects in one analysis model. SEM combines factor analysis and regression, making it possible to test latent variables (which cannot be measured directly) through several indicators and, at the same time, observing the effects of latent variables on other variables. SEM is suitable for testing a theory thoroughly, not only in terms of the relationships between variables but also in terms of the structure of the hypothesized theory. SEM can also be used for various types of data, both cross-sectional and longitudinal, and is suitable for models with many variables and large samples (Hair et al., 2021; Byrne, 2016).

3. Results

3.1. Family Characteristics

The family characteristics in Table 1 show that the average age of the husbands was 46 years. As many as 56.0 percent of the husbands in this study were in the middle adult category, in the age range of 41--60 years, and as many as 35.0 percent were in early adulthood (18--40 years). A total of 9.0% of the husbands were in the late adult category (>60 years). In this study, the average age of the wives was 40 years. A total of 50.5 percent of wives were in early adulthood (18--40 years), and 49.5 percent were in middle adulthood (41--60 years). The husbands' years of education ranged from 4--16 years, with an average length of education of 9.1 years. More than half of the total respondents, 52.5 percent, were elementary school graduates, 27.5 percent were high school graduates, and only 5.0 percent were college graduates. The study revealed that the length of education of the wife ranged from 4--18 years, with an average length of education of 8.7 years; more than half of the total respondents, namely, 56.0 percent, were elementary school graduates, as many as 20.0 percent were junior high school graduates, and only 2.0 percent were college graduates.

3.2. Economic pressure

The objective economic pressure in this study showed that 62.5 percent of families were in the low category, and 37.5 percent of families experienced moderate--high objective economic pressure (Figure 1). The objective economic pressures most felt by families were monthly per capita income less than the poverty line, no savings, irregular employment status of the primary breadwinner, less income than expenses, and less debt.

The subjective economic pressure in this study showed that 53.5 percent of the families were in the low category, and 46.5 percent of the families experienced subjective economic pressure in the medium--high category (Figure 2). The subjective economic pressure in this study shows that the average subjective economic pressure index is 39.0%, meaning that the subjective economic pressure of disaster survivors is low. Indicators of subjective economic pressure in the high category were seen in terms of difficulties in purchasing family food needs, home maintenance costs, and access to information and knowledge.

3.3. Family Resilience

In this study, family resilience has three dimensions: values, beliefs and rules, organizational capacity, and the family atmosphere. The results revealed that 57.0 percent of the respondents had family resilience in the high category, 42.0 percent in the medium category, and 1.0 percent in the low category. The mean value of the family resilience index is 80.0%, meaning that the resilience of disaster survivor families is high (Figure 2).

Values, beliefs, and rules dimension. The mean value of the values, beliefs, and rules index is 86.0%, meaning that disaster survivors' values, beliefs, and rules are in the high category. Values, beliefs, and rules in the high category can be seen in the indicators: obedience and adherence to religious values and teachings; regularity in carrying out worship; commitment

to making religion the basis for decisions; patience in experiencing things that are not liked; the ability to find the positive side of an event; acceptance of calamities as provisions; discipline in applying values and principles; obedience; and compliance with agreed-upon rules.

Table 1 Distribution of families by age of husband and wife in lightly and severely damaged houses.

Family characteristics	Percentage (%)
Husband's Age (Years)	
Early adulthood (18-40 years)	35.0
Middle adulthood (41-60 years)	56.0
Late adulthood (>60 years)	9.0
Min–Max	25-82
Average ± Standard Deviation	46±11.5
Wife's age (Years)	
Early adulthood (18-40 years)	50.5
Middle adulthood (41-60 years)	49.5
Late adulthood (>60 years)	0
Min–Max	20-60
Average ± Standard Deviation	40±10,2
Husband's Education	
Elementary school	44.0
Junior high school	15.0
High school	33.0
Higher education	8.0
Min–Max	4-16
Average ± Standard Deviation	9.1±3.2
Wife's Education	
Elementary school	46.0
Junior high school	23.0
High school	27.0
Higher education	4.0
Min–Max	4-18
Average ± Standard Deviation	8.7±3.0

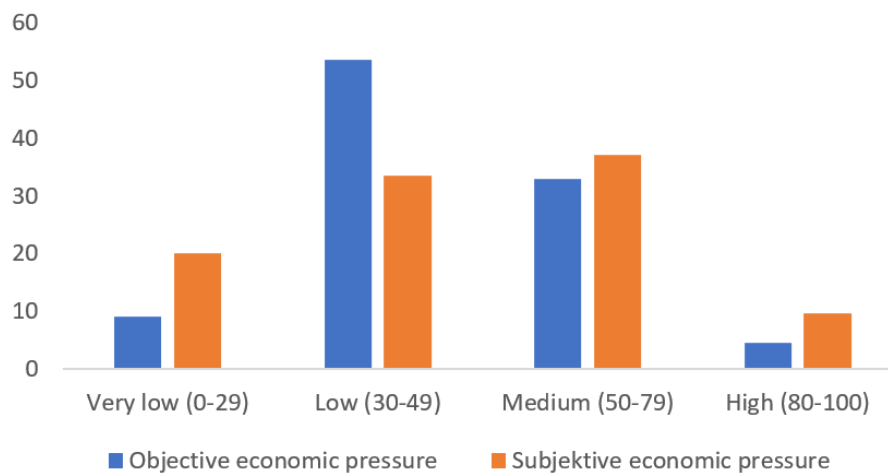


Figure 1 Family categories (%) objective and subjective economic pressure.

The dimension of family organizational capacity. The average value of the organizational capacity index is 79.0%, meaning that the organizational capacity of disaster survivor families is in the moderate category. Organizational capacity in the moderate category can be seen in the indicators: the family's ease of adapting to change, the ease of relieving pressure and tension, reliability and efficiency at work, persistence in finding solutions to problems faced, perseverance in striving to obtain the desired goals/results, accuracy in making important family decisions, and accuracy and thoroughness in using family resources.

Family atmosphere dimension. The average value of the family atmosphere index is 84.0%, meaning that the family atmosphere of disaster survivor families is in the high category. The high category of family atmosphere can be seen in the indicators: acceptance of the diversity of the nature of family members, closeness and openness between family members, the closeness of the inner bonds between family members, the generosity of sharing and caring for others, the ease of the family having fun, the joy and ease of humor in the family, and the willingness to sacrifice for the family.

3.4. Religiosity

This study's religiosity has five dimensions: religious beliefs, practices, experiences, social consequences, and knowledge. The results revealed that 59.0 percent of the respondents had religiosity in the high category, 37.0 percent in the medium category, and 4.0 percent in the low category. The mean value of the religiosity index is 83.0 percent, meaning that the religiosity of disaster survivors is in the high category (Figure 2).

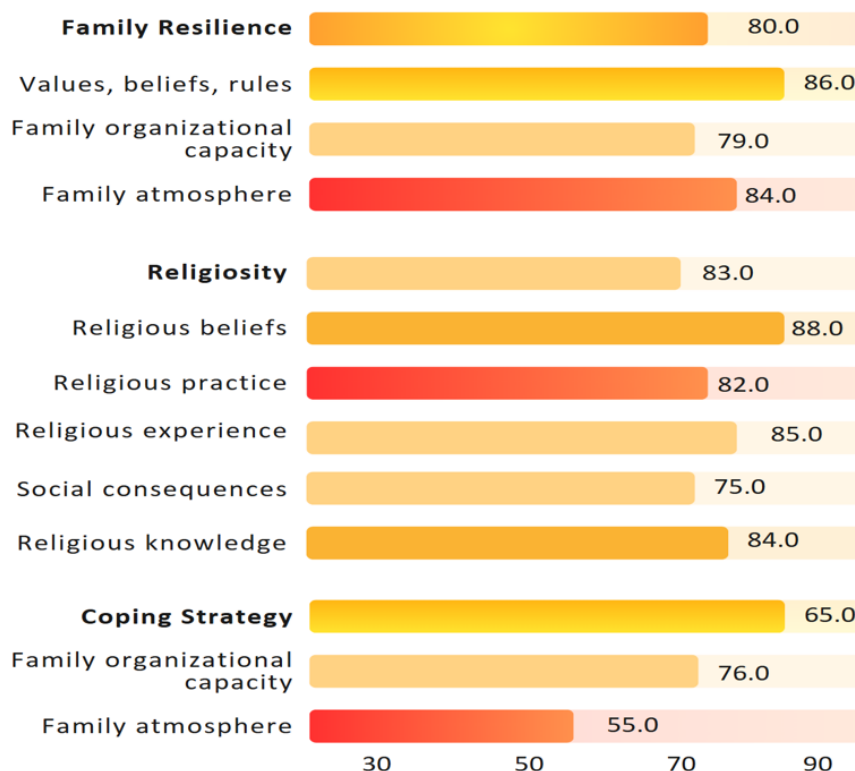


Figure 2 Mean index values of the family resilience, religiosity and coping strategy.

Dimension of religious belief. The mean value of the religious belief index is 88.0 percent, meaning that the religious beliefs of disaster survivor families are in the high category. The high category of religious belief can be seen in the indicators: believing that Allah always knows the contents of the heart, believing that reading the Qur'an will provide peace in life, believing in heaven and hell as an eternal place afterlife in the world, and controlling every behavior because they believe that the angels who record deeds are always watching.

Dimension of religious practice. The average value of the religious practice index is 82.0%, meaning that the religious practices of disaster survivor families are in the high category. The high category of religious practice can be seen in the indicators: if you are going to do something, always pray first, thank God after doing something, perform five daily prayers, and pray that you are given the ability to perform the pilgrimage in Mecca.

Dimension of religious experience. The average value of the religious experience index is 85.0%, meaning that the religious experience of disaster survivor families is in the high category. The high category of religious experience can be seen in the indicators: when experiencing difficulties as well as when facing disasters, God provides help; when praying, God feels like truly dealing with God; when leaving bad habits (repenting), it feels more blessings than God gives in life, wherever you are remembering God.

The dimension of social consequences. The average value of the social consequences index is 75.0 percent, meaning that the social consequences of disaster survivor families are in the moderate category. Social consequences in the moderate category can be seen in the indicators: treating well neighbors or relatives with different beliefs, forgiving other people's mistakes happily, and feeling prejudiced against others is natural.

Dimension of religious knowledge. The mean value of the religious knowledge index is 84.0%, meaning that the religious knowledge of disaster survivor families is in the high category. The high category of religious knowledge can be seen in the indicators: knowing angels were created from light, knowing the first pillar of Islam is shahada, knowing the 99 good names of Allah called asmaul husna, knowing the revelation of God conveyed through Muhammad is the Al-Qur'an, knowing the wife of the prophet Adam named Eve, and knowing that humanity will be resurrected from the grave on the Day of Judgment.



3.5. Coping strategy

The coping strategies in this study have two dimensions: emotional focus and problem focus. The results revealed that 11.0 percent of the respondents had coping strategies in the high category, 44.5 percent in the medium category, and 27.5 percent in the low category. The average value of the coping strategy index is 65.0%, meaning that the coping strategies of disaster survivors are in the moderate category (Figure 2).

Emotional-focused coping strategy dimension. The mean value of the emotion-focused coping strategy index is 76.0%, meaning that the emotion-focused coping strategies of disaster survivor families are in the moderate category. Emotion-focused coping strategies in the moderate category can be seen in the indicators of getting closer to Allah SWT; this disaster/disaster changes me into a better person, hoping that a miracle will happen, forgetting the problems faced by sleeping longer than usual, hoping that the situation that occurs soon ends.

Problem-focused coping strategy dimension. The mean value of the coping strategy index is 55.0%, meaning that the problem-focused coping strategies of disaster survivor families are in the low category. The low category of problem-focused coping strategies can be seen in the indicators of not seeking information about the rehabilitation of the earthquake area, government, and private aid posts; not selling assets/goods owned; not seeking loans from neighbors/relatives who still have them; not doing something because they are not sure it will work; not asking relatives or neighbors for advice on what to do; and not talking to someone to find information and help.

3.6 Factors that influence family resilience

In structural equation modeling-partial least squares (SEM-PLS) analysis, before conducting an influence analysis, it is necessary to test the fit of the model via the PLS test through two stages: the fulfillment of outer model requirements (outer loading, AVE, composite reliability) and the inner model (R-square). The results of the measurement model fit test and structural model fit test can be seen in Table 2.

Table 2 Summary of the measurement model fit test and structural model fit test.

Size type	A measure of the degree of match	Results	Information
Convergent validity	AVE dan Communalilty	AVE > 0,5	Good fit
Dicriminant validity	Cross Loading	Cross Loading > 0,5	Good fit
Reliability	Composite Reability (CR)	CR > 0,7	Good fit
Fit measures	Cronbach Alpha	Cronbach Alpha > 0,6	Good fit
	Goodness of Fit (GoF)	0,234	Medium fit
	Standardized Root Mean Square Residual (SRMR)	0,071	Good fit
	Exact Fit Criteria d_ ULS and d_ G	0,229; 0,395	Good fit
	Normed Fit Index (NFI)	0,786	Medium fit

The latent variables of economic pressure, religiosity, coping strategies, and family resilience met the requirements, with an AVE value > 0.5, composite reliability > 0.7, and Cronbach’s alpha > 0.6. However, economic pressure has a Cronbach’s alpha value of 0.361 < 0.6. Lam (2012) stated that a Cronbach’s alpha value of < 0.6 is acceptable if the composite reliability value is > 0.6. The outer loading value for the empirical model of economic pressure, religiosity, and coping strategies on family resilience is > 0.5. This means that the dimensions in the study have validly described the characteristics of the variables and are consistent, as presented in Table 3. This table also shows the R-square value, namely, the magnitude of the effect of economic pressure on religiosity is 0.072 (weak influence). Economic pressure and religiosity affect coping strategies by 0.413 (moderate influence). Economic pressure, religiosity, and coping strategies affect family resilience by 0.269 (weak influence).

Table 3 Summary of the measurement model fit test and structural model fit test.

Variabel	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	R Square
Economic Pressure	0.361	0.741	0.598	-
Religiosity	0.918	0.938	0.753	0.072
Coping Strategy	0.729	0.881	0.787	0.413
Family Resilience	0.858	0.913	0.779	0.269

The results in Figure 3 and Table 4 show that the resilience of disaster survivors' families, as seen from the direct effect, is influenced by religiosity, with the most significant dimension contributing to religious experience. Religiosity has a significant positive effect on family resilience ($\beta=0.436^{**}$), meaning that the greater the religiosity is, the greater the level of family resilience. The results also show that family resilience, as seen from the indirect effect, is influenced by economic pressure, with the largest dimensional contribution being subjective economic pressure. Economic pressure ($\beta=-0.127^*$) has a significant negative effect on religiosity. It reduces family resilience through religiosity, meaning that the greater the economic pressure is, the lower the religiosity and the lower the level of family resilience. The results of the direct effect between variables indicate that religiosity significantly positively affects coping strategies ($\beta=0.642^{**}$). Economic pressure significantly negatively affects



religiosity ($\beta = 0.269^{**}$). The results of the indirect effects indicate that economic pressure has a significant negative effect on coping strategies ($\beta = 0.173^*$) through religiosity. Economic pressure has a significant negative effect on religiosity, reducing the number of coping strategies through religiosity, meaning that the greater the degree of economic pressure is, the lower the religiosity and the lower the number of coping strategies.

Table 4 Effect Results.

Direction of influence	Direct effect	Indirect effect	Total effect
Economic Pressure -> Religiosity	-0.269**		-0.269**
Economic Pressure -> Coping Strategy	-0.004	-0,173*	-0.177*
Religiosity -> Coping Strategy	0.642**		0.642**
Economic Pressure -> Family Resilience	-0.120	-0.127*	-0.247*
Coping Strategy -> Family Resilience	0.055		0.055
Religiosity -> Family Resilience	0.436**	0.035	0.471**

Description: There is a significant effect with a p value **) sig. ≤ 0.01

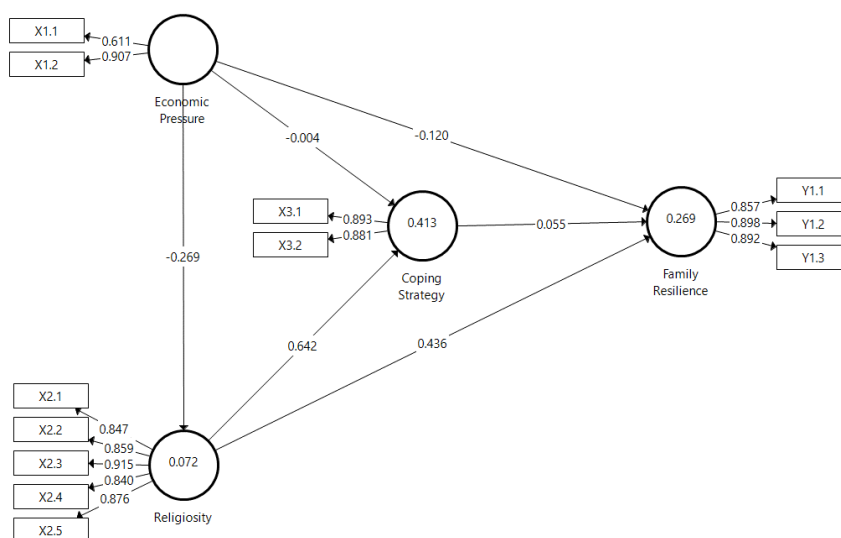


Figure 3 Test the influence of the SEM-PLS Model.

Keterangan:

- X1.1: Objective economic pressure
- X1.2: Subjective economic pressure
- X2.1: Religious beliefs
- X2.2: Religious practices
- X2.3: Religious experience
- X2.4: Social consequences
- X2.5: Religious knowledge
- X3.1: Emotion focus
- X3.2: Problem focus
- Y1.1: Values, beliefs, rules
- Y1.2: Family organizational capacity
- Y1.3: Family atmosphere

4. Discussion

This research uses a functional structural theory approach based on systems, social structure, function and balance. This is the basis on which individuals and systems influence each other and family members have functions, interact and are interconnected, especially in natural disaster conditions. The earthquake that occurred in Cianjur changed the balance of family structure and function, which made families unable to perform their duties, roles and functions properly. Families that cannot fulfill their roles become vulnerable to conflict. Various problems that accompany the occurrence of natural disasters include serious disruptions and large losses for the community in economic, social and environmental aspects. After a disaster, victims experience physical and psychological (Sunarti & Syahrini, 2011), social (Amallia et al., 2024) and economic problems (Linuwih, 2024). Disasters can disrupt family activities so that family resilience is needed. Family resilience is the family's ability to rise from adversity and nationality and regain the resources to pursue their life goals (Sunarti et al., 2018).



SEM analysis revealed that family resilience is directly influenced by religiosity and indirectly influenced by economic pressure through religiosity. Religiosity has a positive effect on family resilience. In this study, religious experience and knowledge contributed more to family religiosity. Religiosity has a positive effect on resilience; the greater the religiosity is, the greater the ability of a person to become resilient so that he or she is able to survive, adapt, and return to the situation as before (Warohmah, 2015). Research conducted in the Bojonegoro community shows that families have a good level of resilience, are able to be friendly with floods and turn difficulties into challenges because they have an unyielding spirit and religiosity values (Hartini, 2017). Furthermore, religious families have a greater tendency to provide support that helps their family members survive in the face of disasters (Bengston, 2017; Smith, 2021; Kasielska-Trojan, Szierszak & Antoszewski, 2022).

Economic pressure has a significant negative effect on religiosity and reduces family resilience through religiosity. The greater the economic pressure is, the lower the religiosity and the lower the family resilience. In this study, subjective economic pressure contributed more to family economic pressure. Subjective economic stress can increase stress and anxiety among family members, which can interfere with their mental and physical health. Chronic stress can decrease a family's ability to cope with crisis situations and reduce family resilience (Mistry et al. 2009; Conger et al., 2010). Disasters have disrupted economic stability, increased stress levels and altered family routines (Carroll et al., 2020). Economic crises often occur alongside disasters, the consequences of which are very complex for families (Fonseca et al., 2023). Job insecurity due to COVID-19 and concerns about financial conditions are closely related to symptoms of depression and great anxiety (Wilson et al., 2020), and the high economic pressure felt by families can reduce family resilience (Sukmawati & Puspitawati, 2021).

The effect between variables directly shows that economic pressure has a significant negative effect on religiosity, meaning that greater economic pressure reduces religiosity. Religiosity acts as a factor that can calm families experiencing economic pressure. The mechanism works as a cognitive stress buffer (Lencer & Thomas, 2015). The relationship between religiosity and economic distress reduction is more prevalent among people with low household income. This suggests that religiosity is less effective at increasing economic satisfaction among people whose financial situation is objectively more secure. Religion functions as a stress buffer, potentially explaining why religiosity levels are higher in contexts of adversity and insecurity (Storm, 2017). Religiosity can bind well when uncertainty and conflict situations occur (Voas & Chaves, 2016).

Religiosity has a significant positive effect on coping strategies, meaning that the greater the religiosity is, the greater the degree of coping strategy. Religiosity functions as a coping strategy that helps people manage their sources of stress through worship and pray to God to gain emotional peace. Religious coping strategies can work more effectively when stressful events cannot be controlled by individuals (Achour & Boerhannoeddin, 2011). In people experiencing high levels of distress, religiosity predicts the effectiveness of coping (Arbinaga et al., 2021). Religious beliefs and practices help individuals better cope with difficult situations (Aflakseir & Mahdiyar 2016). According to Syafitri & Hadjam (2017) and Bentzen (2019), under disaster conditions, high religiosity can help individuals cope with being open to everything and able to adapt to the conditions experienced. Coping strategy is a concept that is understood as a way that a person does in dealing with stressful situations, making individuals more resistant to adverse stress (Sunarti & Syahrini, 2011; Mayordomo et al., 2016). The results of Ilhamy's research (2019) show that problem-focused coping strategies are more often used by families of disaster victims.

The effect between variables indirectly shows that economic pressure has a significant negative effect on religiosity so that it reduces coping strategies through religiosity, meaning that the greater the degree of economic pressure is, the lower the religiosity and the lower the number of coping strategies. Sarmany-Schuller and Grezo (2015) reported that the greater the degree of economic pressure is, the lower the degree of coping strategy. People with this low coping strategy tend to be pessimistic in improving their economic conditions, which are not good. In the event of a disaster, the damage and losses experienced by the family and the loss of family assets will cause significant changes in the family. In particular, if the livelihood of a family is lost due to a disaster, the family needs to have a livelihood strategy to survive due to changes in their work. Under these conditions, the family experiences economic pressure (Masarik et al., 2016). According to Raharjo et al. (2015), the more assets the family has, the lower the economic pressure experienced by the family.

5. Conclusions and suggestions

This study shows that family resilience is directly influenced by religiosity. Religiosity has a significant positive effect on family resilience, meaning that an increase in religiosity increases family resilience. The results also show that there is an influence between variables, namely, economic pressure has a significant negative effect on religiosity, meaning that an increase in economic pressure will reduce religiosity. The results of the influence test also show that religiosity has a significant positive effect on coping strategies, meaning that the greater the religiosity is, the greater the degree of coping strategy.

On the basis of the results of the study, families are advised to understand the crisis in the family and instill good values, rules and beliefs so that the family has a strong condition and atmosphere in facing the crisis. Families are also advised to increase their religiosity by continuing to enrich religious knowledge and practicing religious teachings properly. The internalization of religious teachings in families can be an important part of resilience and the basis for better coping strategies. The central government is advised to provide regular family resilience education to communities in potential disaster areas as an asset for resilience in facing disasters. The government is also expected to increase the supervision of disaster victims not only in terms of physical aspects but also in terms of social-psychological aspects and family functioning. Local governments

whose areas are categorized as disaster prone are advised to carry out disaster mitigation by providing adequate preventive education to the community.

The government can also provide entrepreneurial knowledge and skills based on local potential or assistance to access business capital so that disaster survivor families can reduce the economic pressure they face. The government also needs to prepare counselors who handle the psychology of victims in the early stages of the disaster so that victims' concerns about psychological, social and economic pressures do not develop. Religious leaders and institutions are advised to be actively involved in strengthening family religiosity and increasing family resilience during disasters. Future research should choose other variables that can enrich the study of factors that affect family resilience for disaster survivors.

Ethical considerations

This research has passed a human ethics review at Bogor Agricultural University with the number 1074/IT3.KEPMSM-IPB/SK/2023.

Conflict of interest

There are no conflicts of interest associated with this research.

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