



RESEARCH ARTICLE

Open Access

The Influence of Socio-Economic, Religiosity, and Coping Strategies on Husband and Wife Interaction Cianjur Disaster Survivors

Eko Yuliarti Siroj^{1,*}, Euis Sunarti², Diah Krisnatuti², Istiqlaliyah Muflikhati² and Irni Rahmayani Johan²

¹ Doctoral Program of Family Science, Faculty of Human Ecology, IPB University, Bogor, West Java Province, Indonesia, 16610.

² Department of Family and Consumer Sciences, Faculty of Human Ecology, IPB University, Bogor, West Java Province, Indonesia, 16610.

*Corresponding author: ekoyuliartisiroj@apps.ipb.ac.id

Received 15 August 2024; Received in Revised Form 01 December 2024; Accepted 01 December 2024

Abstract

Family interactions are needed in disasters because they play an important role in strengthening the emotional bonds between family members. In husband-wife interaction, different family roles and functions make couples feel complementary. This study aims to analyze the influence of socio-economics, religiosity, and coping strategies on the interaction of husband and wife families of earthquake survivors in the Cianjur district. The study population was families of earthquake survivors in Cianjur Regency. The research sample was selected using a stratified non-proportional random sampling technique based on lightly damaged and heavily damaged houses. Respondents in the study were the wives of earthquake survivors in Cianjur Regency, with 200 respondents. Data processing and analysis used Microsoft Excel, Statistical Package for Social Science (SPSS) 25.0 for descriptive analysis, and Structural Equation Modeling-Partial Least Square (SEM-PLS) for influence analysis. The results showed high religiosity, spousal interaction involvement, and high satisfaction. Coping strategies, frequency of husband and wife interaction, and potential conflict between husband and wife are in the medium category. This study shows that husband and wife interaction is positively influenced by husband and wife's education, age of marriage, family income-expenses, and religiosity and negatively influenced by husband and wife's age. In addition, religiosity also has a positive effect on coping strategies. This study implies that families of disaster survivors are expected to increase family religiosity to improve husband and wife interactions. Local governments are advised to conduct adequate education for community readiness to face disasters.

Keywords: *disaster, religiosity, coping strategies, husband-wife interaction*

Introduction

The National Disaster Management Agency (BNPB) states that all regions of Indonesia have moderate to high disaster risk (BNPB, 2022). Based on the Indonesian Disaster Risk Index (IRBI) in 2022, West Java Province has a risk index of 131.62 (medium) with disaster threats, namely earthquakes, tsunamis, volcanic eruptions, floods, landslides, droughts, extreme weather, forest and land fires, and extreme waves/abrasion (IRBI 2022). Cianjur Regency occupies the 10th position out of 514 regencies/cities in Indonesia and 1st out of 27 regencies/cities in West Java Province with a high-risk class of disaster-prone. On November 21, 2022, the Cianjur Regency, West Java Province was rocked by a tectonic earthquake. The results of the analysis of the Meteorology, Climatology, and Geophysics Agency (BMKG) showed that this earthquake had a magnitude of $M = 5.6$. The epicenter of the earthquake is located at coordinates 6.84 N and 107.05 E or precisely located on land at a depth of 10 km. BNPB data (2022) as of December 20, 2022, the Cianjur earthquake had an impact on 16 sub-districts and 180 villages; the number of victims killed was 602 people, victims in search of 5 people, seriously injured as many as 593 people



Copyright: © 2024 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

were, the number of refugees was 114,683 people. Houses that were damaged were 56,548 units, with 13,633 categorized as severely damaged. In addition, there have been 428 aftershocks. Furthermore, 171 infrastructures in Cianjur were damaged by the earthquake. The infrastructure included 31 schools, 124 places of worship, 13 office buildings, and three health facilities (BNPB 2022).

Disaster events have continued to increase in the past decade, damaging assets and infrastructure and hampering social growth. The United Nations International Strategy for Disaster Reduction (UNISDR) notes that 1998-2017, disasters caused US\$2.908 trillion in direct economic losses (UNISDR 2018). The National Disaster Management Agency also noted a similar pattern where in 2004-2014, Indonesia was hit by 11,274 disasters that claimed 193,240 lives and resulted in total losses of at least IDR 420 trillion (BNPB 2014). Based on the Cianjur Regent Decree Number 360/KEP.401- BPBD/BPBD/2022, the results of the damage and loss assessment (DaLA) analysis or damage and loss assessment after the Cianjur earthquake disaster show that the total value of damage and losses incurred in the housing sector, infrastructure sector, social sector, economic sector, and cross-sector is Rp. 4,551,780,766,613.31. The housing sector is the sector that suffered the most damage and losses, amounting to Rp. 3,211,404,158,500.00, about 70.55 percent. Winurini's research (2020) showed that the COVID-19 pandemic disaster caused stress in married couples in Indonesia. In this crisis condition, most families still try to maintain marriage by maintaining family harmony, such as supporting each other through difficulties, including overcoming the economic crisis together, giving in to each other to avoid arguments, accepting the current condition of the family as it is, reminding each other to think and behave positively, strengthening each other in terms of religiosity, sharing roles to domestic affairs, maintaining communication or interaction between family members. This means that when families experience crisis due to disasters, husband-wife interaction becomes important.

Healthy interaction between husband and wife and other family members is important in maintaining the harmony of household life; family problems sometimes arise due to the absence of active and intensive interaction between husband and wife. A study showed that the lack of trust and mutual understanding in husband and wife relationships can lead to new problems in the family (Najoan, 2015). Well-established interactions between spouses can positively affect emotional, behavioral, and interpersonal problems (Kim et al., 2019). Good interactions between husband and wife will bring happiness, harmony, satisfaction, a lasting marriage, and a good example for children (Sunarti, 2013). The socioeconomic conditions of the family also influence husband-wife interaction. Research shows that education levels can affect the quality of husband and wife relationships. Higher education is often associated with better communication skills. Educated couples tend to have better communication skills, which can help them resolve conflicts more effectively and understand each other's needs and feelings (Amato, 2005; Teachman, 2002). Older age can affect how a person communicates and socializes (Carr & Springer, 2010). In long marriages, couples often develop more effective ways of communicating and understanding each other. However, there is also a risk that couples will communicate less deeply because they feel they know each other too well (Huston et al., 2001). Family income and expenses have a significant relationship with spousal interactions. Economic aspects of the household can influence relationship dynamics, communication, and marital satisfaction (Papp et al., 2009). Effective interaction between husband and wife is the key to marital harmony. A lack of openness, imbalance in decision-making, and uncommunicated differences in values and expectations can trigger conflict and dissatisfaction. Communication patterns dominated by one partner often lead to feelings of being undervalued. Therefore, communication skills, empathy, and a commitment to working together are essential in strengthening the relationship and enhancing marital satisfaction (Mardlatillah & Saadah 2022).

The positive interaction between husband and wife shows adaptation to the situation in the family. Husband and wife interaction is a reciprocal relationship between husband and wife that influences each other and provides a much longer bond than other association groups (Surijah et al., 2021). According to Sunarti (2021), the interaction of married couples can produce satisfaction, happiness, and harmony or vice versa quarrels, conflicts, and even divorce. Crises and difficulties experienced by families can be better if the family's religiosity level is high. Sunarti's research (2018) states that a family belief system, shown by the persistence of religious values, allows families to

go through times of crisis and difficulty, including the meaning of misfortune, positive outlook, awareness, and spirituality. Religiosity is a comprehensive level of knowledge and understanding of the religion to which he adheres (Koenig 2009). According to research by Setiawan and Pratitis (2016), disaster victims with high religiosity can interpret a problem or disaster positively because of their strong belief that everything that happens is God's will. According to Savitri and Hidayati (2019), religiosity positively relates to husband and wife interactions. Furthermore, according to Abdullah et al. (2015), in disaster conditions, high religiosity can be a coping strategy, as well as being patient with everything and able to adapt to the conditions experienced.

Religiosity and coping strategies are interrelated because religious people believe that God will help solve problems, believing that the coping strategies carried out will be successful (Saffari et al., 2019). *Coping strategy* is the process by which individuals and families as a unit manage, adapt, or face stressful situations. Coping strategies are divided into two, namely problem-focused coping and emotion-focused coping (Sunarti, 2013). Psychological coping strategies focus on solving problems and regulating emotional responses by managing emotions and seeking support from others (Basaria et al. 2024). Family coping strategies affect the intensity of interactions that are built. Events such as natural disasters require families to implement strategies to help them survive. It is under these conditions that family interaction is needed (Fogel et al., 2022).

Previous research often limits the analysis of socioeconomic factors in the context of disasters to aspects such as poverty or family income. However, this study expands the focus by considering other variables, such as age, education level, income and expenditure, and length of marriage. While some studies have shown that religiosity can help reduce post-disaster stress, few have explored how religiosity influences the interaction between husband and wife. Additionally, much of the research focuses on individual coping strategies in dealing with disaster-related stress or trauma, but there is less exploration of how joint coping strategies impact the quality of the marital relationship. Based on previous studies, it is known that in the context of families as disaster survivors, the following topics were carried out: social support (Rahmanishati & Dewi, 2021); social capital (Kasim et al., 2021); stress (Suwarningsih et al., 2019); coping strategies (Novianty, 2022); family resilience (Sunarti & Safitri, 2022); family vulnerability (Sunarti et al., 2009); and family well-being (Laily & Sunarti, 2022). However, no research has examined the influence of religiosity and coping strategies on husband-wife interactions in earthquake survivors' families. It is important to examine husband and wife interactions in post-disaster conditions to portray their relationships after a disaster. This study aims to analyze the influence of socio-economics, religiosity, and coping strategies on the interaction of husband and wife families of earthquake survivors in the Cianjur district.

Methods

Research Design, Location, and Time

This study uses an explanatory research design to analyze the relationships between variables or how one variable affects another by testing a hypothesis (Umar, 1999). This study also used a cross-sectional study design. The research was conducted in Nagrak Village, Gasol Village, Limbangansari Village, Mekarsari Village, and Cianjur Regency, West Java Province. Data collection was carried out in October 2023. The study population was families of earthquake survivors in Cianjur Regency. The study sample was selected using a stratified non-proportional random sampling technique based on the lightly and severely damaged house criteria. Respondents in the study were the wives of earthquake survivors in Cianjur Regency, with 200 respondents. Wives often play a central role in managing the household, including coping with the impact of disasters, making interviews with wives a valuable source of insight into family dynamics and spousal interaction. Practically, wives are also more accessible for interviews due to their role in household activities. This study does not involve husbands because it focuses on understanding the wife's perspective in managing post-disaster challenges, where they often take a dominant role in household management. Additionally, time and resource constraints influenced the sample selection,

making interviews with wives sufficient to represent family relationship dynamics. This research has passed a human ethics review at Bogor Agricultural University with Number 1074/IT3.KEPMSM-IPB/SK/2023.

Variable Measurement Tools

Data collection was done through interviews using a structured questionnaire. The variable measurement tools used are: (1) Religiosity is a condition of attachment to embraced religious values, including religious beliefs, practices, experiences, social consequences, and knowledge. Religiosity is measured using 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 question items. The answer options use a Likert scale, namely 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree. Cronbach alpha value is 0.983; (2) Coping strategies are efforts made by individuals to respond to sources of stress and problems, including emotional-focused and problem-focused strategies. Coping strategies are measured using 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 question items. The answer options use a Likert scale, namely 1 = never, 2 = sometimes, 3 = often, and 4 = always. The Cronbach alpha value was 0.780; (3) Husband-wife interaction is a reciprocal relationship in which both parties influence each other, including the frequency of interaction, interaction satisfaction, interaction involvement, and potential conflict. Husband-wife interaction interaction was measured using the AKSI-GA (quality of family interaction) questionnaire developed by Sunarti (2021). Measuring the quality of husband-wife interaction includes four components: interaction frequency, interaction satisfaction, interaction involvement, and potential conflict (gap), measured by 45 question items. Response options used a Likert scale for the interaction frequency component, while the satisfaction, engagement, and gap components were measured using a semantic scale. The Cronbach alpha value was 0.929.

Data Analysis Method

The data collected was then processed using Microsoft Excel, SPSS, and SmartPLS. SmartPLS allows for the analysis of both direct and indirect effects of independent variables (socioeconomic factors, religiosity, and coping strategies) on the dependent variable (spousal interaction), which is essential for understanding how these factors influence relationship dynamics in disaster-surviving families. With 200 respondents, SmartPLS can provide valid and reliable results, as this method is more flexible in handling smaller sample sizes compared to traditional SEM methods. Therefore, SmartPLS is well-suited for this study, which involves a moderate sample size. According to Chin (2010), 200 respondents are considered sufficient for SEM-PLS analysis, especially when the model is not overly complex (i.e., does not have too many variables or indicators). The score of each dimension was transformed into an index and then categorized. Religiosity and coping strategies were categorized using Sunarti et al.'s (2005) cut-offs of low (<60), medium (60-79), and high (≥80). Husband and wife interaction was categorized using Sunarti's (2021a) cut-offs of very low (0-29), low (30-49), medium (50-79), and high (80-100). Data analysis used descriptive and Structural Equation Model analyses to test the effect.

Results

Family Characteristics

The results showed that the average age of the husband was 46. A total of 56.0 percent of the husbands in this study were in the middle adult category, which is in the age range of 41-60 years, then as many as 35.0 percent were in early adulthood (18-40 years), and there were 9.0 percent of the husband's age who were in the late adult

category (>60 years). In this study, the average age of the wife was 40 years. 50.5 percent of the wives were in early adulthood (18-40 years), and 49.5 percent were in middle adulthood (41-60 years). The results showed that the husband's length of education was in the range of 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 showed that the length of education of the wife was in the range of 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.

The results showed that the length of marriage in this study was 1-47 years; as many as 75.0 percent of married couples have been married for more than ten years. The results showed that per capita income, 44.0 percent were in the per capita income range of IDR500,001-IDR1,000,000, 30.0 percent were in the $\leq$ IDR500,000 range, and 11.5 percent were in the IDR1,000,001-IDR1,500,000 range. The highest per capita income was IDR4,000,000 and the lowest was IDR100,000 monthly, with an average per capita income of IDR760,480. The results showed that per capita expenditure, as many as 48.0 percent were in the per capita expenditure range of 500,001-IDR1,000,000, as many as 25.5 percent were in the $\leq$ IDR500,000 range and 23.5 percent were in the IDR1,000,001-IDR1,500,000 range. The highest per capita expenditure was IDR2,490,000 and the lowest was 98,285 per month, with an average per capita expenditure of IDR792,737.

Religiosity

In this study, religiosity has five dimensions: religious beliefs, religious practices, religious experiences, social consequences, and religious knowledge. The results showed that 59.0 percent of respondents had religiosity in the high category, 37.0 percent in the medium category, and 4.0 percent in the low category. The average value of the religiosity index is 83.0, meaning that the religiosity of disaster survivors is in the high category (Figure 1); the high category refers to an index value of more than equal to ($\geq$) 80.0 percent, meaning that most respondents have a good level of religiosity. The high religiosity category can be seen in the following indicators: believing that reading the Qur'an will provide peace in life (96.5%), controlling every behavior because they believe that the angels who record deeds are always watching (96%), if you are going to do something, always pray first (93%), perform five daily prayers (91.5%), when experiencing difficulties, When experiencing difficulties, as well as when facing disasters, Allah provides help (95%), wherever you are, remember Allah (92%), feel that being prejudiced against others is a natural thing (93.5%), knowing the first pillar of Islam is the shahada (90.5%), knowing the revelation of Allah conveyed through Muhammad is the Qur'an (91%), knowing that humanity will be resurrected from the grave on the Day of Judgment (92.5). Indicators of religiosity that are still low, such as not taking the time every day to pray.

Coping Strategies

Coping strategies in this study have two dimensions: emotional focus and problem focus. The results showed that 11.0 percent of 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 (Figure 1), meaning that the coping strategy of disaster survivors is in the moderate category; the moderate category refers to the index value in the range of 60-79 percent, meaning that some respondents have high coping strategies and others still have low indicators. The moderate category can be seen in the following indicators of getting closer to Allah SWT (94%), this disaster/disaster changes me into a better person (86%), hoping that a miracle will happen (88.5%), forgetting the problems faced by sleeping longer than usual (74%), hoping that the situation that occurs soon ends (94.5%), trying to make the problem can be resolved (71.5%), finding solutions to overcome the problems that occur (75%), taking a great opportunity even though it is very risky (82.5%). Indicators of coping strategies that are still low include not expressing feelings that are happening to others, not talking to someone

who can understand the problems that occur, not looking for information about 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, not talking to someone to find information and can help.

Husband Wife Interaction

Husband wife interaction in this study have two dimensions: frequency, engagement, satisfaction and potential conflict. Frequency of Interaction, refers to how often one interacts with their partner. The average value of the interaction frequency index is 56.0 (Figure 1), meaning that the frequency of interaction of disaster survivor families is in the moderate category; the moderate category refers to the index value in the range of 50-79 percent, meaning that some respondents have a high frequency of interaction and others still have low indicators. The frequency of interaction in the moderate category can be seen in the following indicators: discussing the desired future life (60%), discussing the nature and purpose of life (67%), and discussing the growth and development of children (82.5%).

Interaction engagement, refers to the effort made to interact with one's partner. The average value of the interaction involvement index is 84.0, meaning that the interaction involvement of disaster survivor families is in the high category; the high category refers to an index value of more than equal to ($\geq$) 80.0 percent, meaning that most respondents have good interaction involvement. High category interaction involvement can be seen in the following indicators trying to look after each other's feelings (79%), trying to have time together (70%), trying not to doubt the partner's loyalty (73%), trying to make each other happy (85%), trying to support each other in carrying out their roles (74.5%), trying to have hopes for a better life (79.5%), trying to make important decisions mutually agreed upon (82.5%).

Interaction satisfaction, refers to the satisfaction felt towards the partner in various aspects. The average value of the interaction satisfaction index is 86.0, meaning that the interaction satisfaction of disaster survivor families is in the high category; the high category refers to an index value of more than equal to ($\geq$) 80.0 percent, meaning that most respondents have good interaction satisfaction. High category interaction satisfaction can be seen in the following indicators: satisfaction with the love and affection shown by the spouse (79%), the life skills of the spouse (76%), the loyalty of the spouse (86.5%), the marital commitment of the spouse (85%), the prevention of marital risks carried out by the spouse (84.5%), the kindness of the spouse (85%), the quality of worship performed by the spouse (76%).

Potential conflict/gap, refers to the sources of the gap perceived between partners. The average value of the potential conflict/gap index is 56.0, meaning that the potential conflict/gap of disaster survivor families is in the moderate category; the moderate category refers to the index value in the range of 50-79 percent, meaning that some respondents have high conflict potential and others still have low indicators. The potential for conflict/gap in the moderate category can be seen in the following differences in education and general knowledge (55.5%), lifestyle (consumptive, hedonistic, functionally simple) (61%), expression of faith and religion (61%), form and amount of social assistance (family and social environment) (63.5%), efforts to maintain harmony and achieve it (65.5%), views on associating with the opposite sex (62%), the need for sex (63%). Low potential/conflict indicators include maturity and independence, parenting, choices, and decisions.

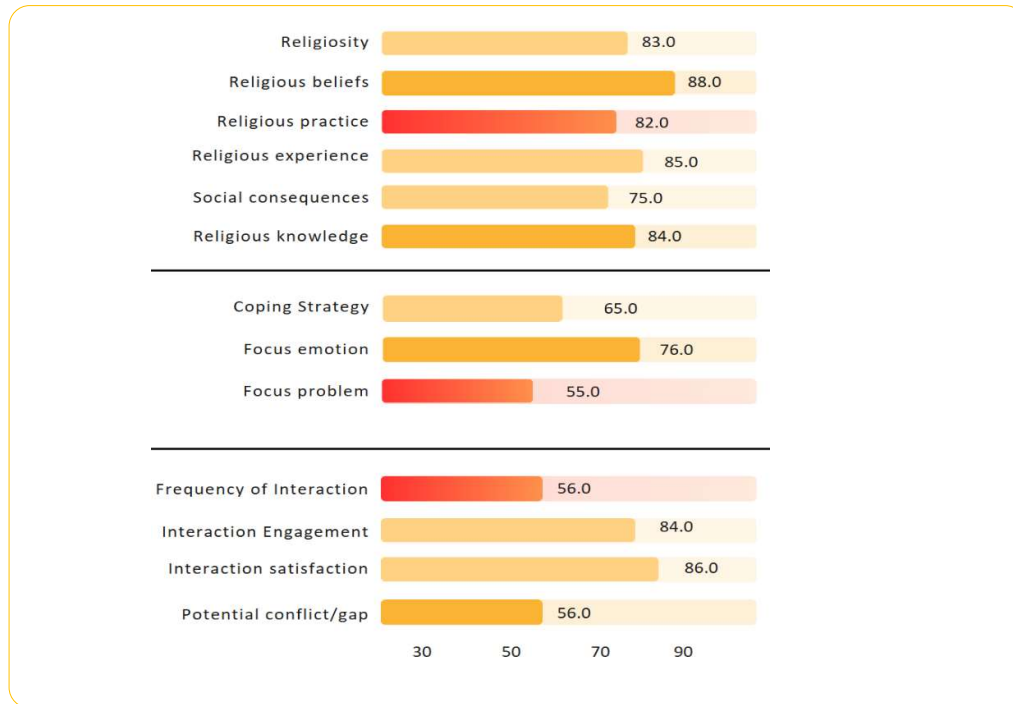


Figure 1 Mean index values of the religiosity, coping strategy, husband-wife interaction

Factors Affecting Husband and Wife Interaction

In structural equation modeling-partial least square (SEM-PLS) analysis, before conducting an influence analysis, it is necessary to test the fit of the model using the PLS test through two stages: fulfillment of outer model requirements (outer loading, AVE, composite reliability) and inner model (R-square). The results of the measurement model fit test and structural model fit test can be seen in Table 1.

Table 1. Summary of measurement model fit test and structural model fit test

Size type	A measure of the degree of match	Results	Information
Convergent validity	AVE dan Communality	AVE > 0,5	Good fit
Dicriminant validity	Cross Loading	Cross Loading > 0,5	Good fit
Reliability	Composite Reability (CR)	CR > 0,7	Good fit
	Cronbach Alpha	Cronbach Alpha > 0,6	Good fit
Fit measures	Goodness of Fit (GoF)	0,234	Medium fit
	Standardized Root Mean Square Residual (SRMR)	SRMR < 0,08	Good fit
	Exact Fit Criteria d_ULS and d_G	0,229; 0,395	Good fit
	Normed Fit Index (NFI)	0,786	Medium fit

Table 2 shows that the latent variables of socio-economics, religiosity, coping strategies, and spousal interaction have met the requirements with AVE values >0.5, composite reliability >0.7, and Cronbach alpha >0.6. However, income and expenses have a Cronbach alpha value of 0.481 <0.6. Lam (2012) states a Cronbach alpha value of <0.6 is acceptable if the composite reliability value is >0.6. The outer loading value for the empirical model of socio-economics, religiosity, and coping strategies for husband and wife interaction is >0.5. This means that the

dimensions in this study validly describe the characteristics of the variables and are consistent. However, income and potential conflict/gap had Cronbach alpha values <0.5 but were not removed from the model because they were part of the variable constructs.

Table 2. Value of Cronbach's Alpha, Composite Reliability, AVE dan R Square

Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	R-square
Age (Husband & Wife)	0.951	0.975	0.952	
Coping Strategy	0.729	0.881	0.787	0.428
Education (Husband & Wife)	0.734	0.882	0.788	
Husband & Wife Interaction	0.682	0.791	0.528	0.235
Income & Expenses (Family)	0.481	0.716	0.590	
Length of Marriage	1.000	1.000	1.000	
Religiosity	0.918	0.938	0.753	0.042

Table 3. Path coefficients

Direction of influence	Direct	Indirect	Total
Age (Husband & Wife) -> Coping Strategy	-0.022	0.011	-0.012
Age (Husband & Wife) -> Husband & Wife Interaction	-0.289*	0.006	-0.284*
Age (Husband & Wife) -> Religiosity	0.017		0.017
Coping Strategy -> Husband & Wife Interaction	0.033		0.033
Education (Husband & Wife) -> Coping Strategy	-0.106	0.032	-0.074
Education (Husband & Wife) -> Husband & Wife Interaction	0.330**	0.015	0.346**
Education (Husband & Wife) -> Religiosity	0.050		0.050
Income & Expenses (Family) -> Coping Strategy	0.094	0.098	0.192*
Income & Expenses (Family) -> Husband & Wife Interaction	-0.103	0.061	-0.042
Income & Expenses (Family) -> Religiosity	0.152		0.152
Length of Marriage-> Coping Strategy	-0.063	0.080	0.018
Length of Marriage -> Husband & Wife Interaction	0.247*	0.045	0.293*
Length of Marriage -> Religiosity	0.125		0.125
Religiosity -> Coping Strategy	0.643**		0.643**
Religiosity -> Husband & Wife Interaction	0.359**	0.021	0.380**

Description: There is a significant effect with a p-value *) sig. ≤0.05 **) sig. ≤0.01

The results of hypothesis testing in Table 3 and Figure 2 show that the direct and significant positive effects on husband and wife interaction are husband and wife's education, age of marriage, and religiosity. Husband and wife's education has a significant positive effect on husband and wife interaction ($\beta=0.330$), meaning that the higher the education of husband and wife will increase husband and wife interaction. Age of marriage has a significant positive effect on husband and wife interaction ($\beta=0.247$), meaning that the higher the age of marriage will increase husband and wife interaction. Religiosity significantly affects husband and wife interaction ($\beta=0.643$), meaning that higher religiosity will increase husband and wife interaction. The variable that has a direct and significant negative effect on husband and wife interaction is the age of husband and wife. The age of husband and wife significantly negatively affects husband and wife interaction ($\beta=-0.289$), meaning that the higher the age of husband and wife will reduce husband and wife interaction. In addition, the total effect decomposition results show that family income and expenditure also positively affect husband and wife interaction ($\beta=0.192$), meaning that higher family income and expenditure will increase husband and wife interaction. Furthermore, the direct

effect between variables is that religiosity significantly positively affects coping strategies ($\beta=0.359$), meaning that higher religiosity will increase coping strategies.

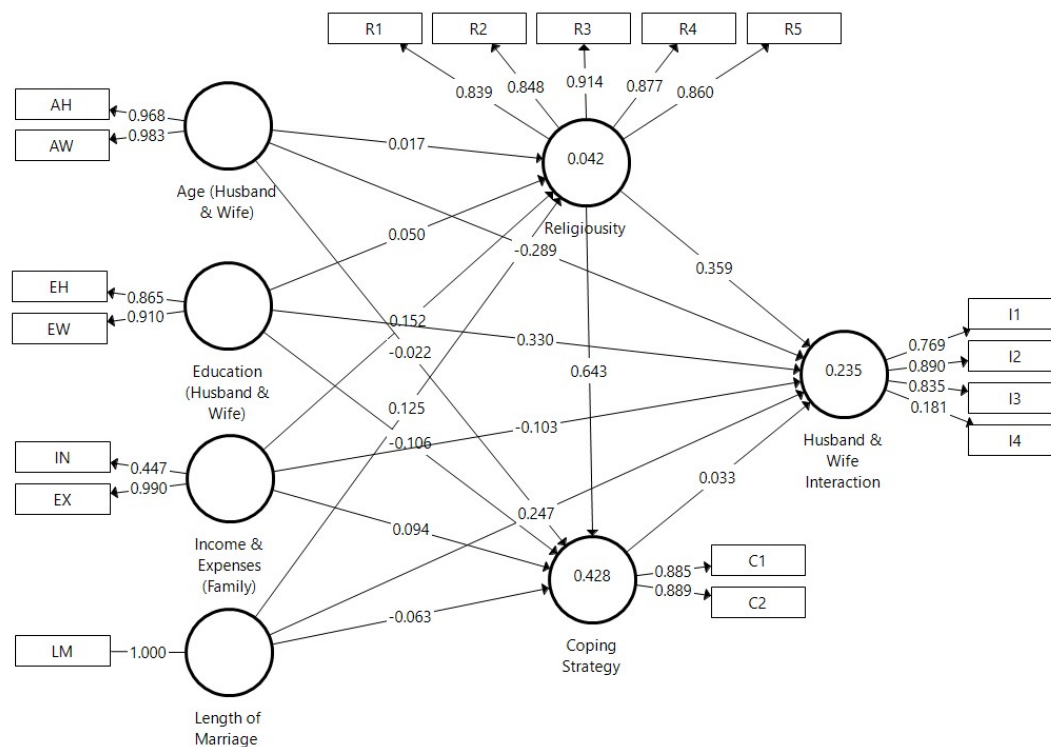


Figure 2. SEM-PLS Model Influence test

Description: AH: Age of husband; AW: Age of wife; EH: Husband's education; EW: Wife's education; IN: Family income; EN: Family expenditure; LM: Length of marriage; R1: Religious beliefs; R2: Religious practice; R3: Religious experience; R4: Social consequences; R5: Religious knowledge; C1: Emotion focus; C2: Problem focus; I1: Frequency of interaction; I2: Interaction engagement; I3: Interaction satisfaction; I4: Potential conflict/gap

Discussion

The earthquake in Cianjur was one of the aspects that changed the balance of family structure and function, which made families unable to perform their duties, roles, and functions. Families that cannot fulfill their roles become vulnerable to conflict within the family. The dysfunction of the family, as it should be, risks the fragility or vulnerability of the family (Sunarti et al., 2009). Various problems accompanying natural disasters include serious disruptions and large economic, social, and environmental losses for the community. After a disaster, victims will experience physical and psychological problems (Sunarti & Syahrini, 2011). Research results also show that disasters cause traumatic problems (Bonanno, 2010), increase problems between husband and wife (Weizman & Beirhman, 2016), and reduce family interactions, both husband and wife interactions and parent-child interactions (Reid & Reczek, 2011).

The interaction between husband and wife in this study shows that in disaster conditions, the interaction is quite good, although there are several indicators that are perceived to be low. Research by Noorafsan et al. (2013) shows that husband and wife interaction is needed in disaster conditions because expressing feelings, being open to each other, and strengthening each other will help solve problems, and families can prepare for other problems that may occur. In the event of a disaster, family religiosity has a different perspective. Yuwanto's research (2015) states that in the 2006 earthquake in Yogyakarta, disaster victims experienced problems in the aspect of religious beliefs, such as reduced faith in their beliefs, blaming God for thinking that God brought disaster as a form of His anger, and feeling that religion had no meaning because many prayers were not answered. This study shows the opposite: earthquake survivors' religiosity increased after the disaster. The results showed that more than half of the respondents, were in the high religiosity category; this can be seen in praying to be given the ability to perform the pilgrimage in Mecca, forgiving other people's mistakes happily, believing that God always knows the contents of the heart, believing in heaven and hell as eternal places after life in this world, taking time every day to read the Qur'an, helping friends/neighbors who are in trouble even though their conditions are not better.

Religiosity is a protective factor for husband-wife interaction and coping with disaster events (Syafitri & Hadjam, 2017; Bentzen, 2019). Coping strategies are important in helping people face challenges that occur continuously in their lives. Coping strategies tend to be viewed as consciousness that is done intentionally and adaptively (Cramer, 2008). Coping strategies help families adapt to difficult situations when many pressures arise, making individuals more resistant to adverse stress (Sunarti & Syahrini, 2011). This study shows that more than half of the respondents are in the category of moderate coping strategies, this can be seen in terms of getting closer to Allah swt, planning actions that must be taken to overcome problems, feeling the disaster/disaster experienced changes the individual for the better, rediscovering what is important in life after a disaster event.

The results show that husband-wife interaction is positively influenced by husband and wife's education. It means that the higher the level of education a person has, the more likely they are to have higher quality interactions with their partner. The relationship between education and husband and wife interactions is often studied in the context of household dynamics, communication, and understanding of each other's roles in the family. Research shows that education can affect the quality of relationships between husband and wife. Higher education is often associated with better communication skills. Educated couples tend to have better communication skills, which can help them resolve conflicts more effectively and understand each other's needs and feelings. Education can influence how couples view the division of roles in the household. Higher levels of education are often associated with more rational and informed decision-making. Educated couples may be more likely to discuss and make joint decisions considering both parties' views (Amato, 2005; Setiawati & Nurhayati, 2020).

The results show that husband-wife interaction is negatively influenced by husband and wife's age. Older age is often associated with declining physical and mental health. This decline may affect a husband's ability to engage actively in daily interactions and activities with his wife. Older age can affect how a person communicates and socializes. Aging can affect the quality of marital interaction, as cognitive decline associated with age may reduce a couple's ability to communicate effectively and enjoy shared activities. However, other studies indicate that some couples develop stronger relationships as they age, particularly if they possess good communication skills and can adapt to life changes (Carr & Springer, 2010).

The results show that husband-wife interaction is positively influenced by length of marriage, the longer a couple is married, the higher the level of interaction that occurs between them. In long-lasting marriages, couples often develop more effective ways of communicating and understanding each other. However, there is also a risk that couples become less communicative in depth because they feel they know each other too well. Over time, roles and responsibilities within the marriage may change due to career, health, or social status changes. Adapting to these changes can affect husband and wife interactions (Huston et al., 2001; Allendorf & Ghimire, 2013). The results show that husband-wife interaction is positively influenced by family income-spending, the higher family income-spending will increase husband and wife interaction. Family income and expenditure have a significant

relationship with husband-wife interaction. Economic aspects of the household can affect relationship dynamics, communication, and marital satisfaction. Financial uncertainty or hardship can be a major stress source in marriage, affecting husband-wife interactions. A sufficient and stable income is often associated with higher levels of marital satisfaction, as couples do not have to worry as much about basic needs and can focus on other aspects of the marital relationship (Papp et al., 2009).

Religious families have a greater tendency to provide support that strengthens their family members to survive in the face of disasters through family interactions, both husband-wife interactions and parent-child interactions (Bengston, 2017; Smith, 2021; Kasielska-Trojan et al., 2022). A wife needs to have religiosity because it helps maintain household harmony and avoid the risk of separation due to domestic problems; with high religiosity, wives will have inner calm, positive thoughts, and peace within themselves so that they will interact well with their spouses (Niswati, 2017; Wibiren, 2020). Religiosity has a significant positive effect on coping strategies, meaning that the higher the religiosity, the higher the coping strategy. Religiosity functions as a coping strategy that facilitates a person to manage their sources of stress through worship and praying to God to gain emotional peace. Religious coping strategies can work more effectively in stressful events that individuals cannot control (Achour & Boerhannoeddin, 2011). In people who experience high levels of adversity, religiosity can predict coping effectiveness (Arbinaga et al., 2021). Religious beliefs and practices create better coping skills for overcoming difficult situations (Aflakseir & Mahdiyar, 2016).

In this study, coping strategies did not affect spousal interactions, but other studies have shown that family coping strategies affect the intensity of interactions. Events such as natural disasters require families to implement strategies to help them survive. It is under these conditions that family interaction is needed (Fogel et al., 2022). When families experience psychological stress, families need dyadic coping strategies such as discussing, giving opinions, and listening with empathy; this can reduce the pressure felt and improve interactions within the family (Zainul et al., 2018; Chen & Shaffer, 2018; Khrisnanda & Shanti, 2022).

Conclusions

The results show that religiosity, husband and wife interaction involvement, and husband and wife interaction satisfaction are high, meaning that religiosity, interaction involvement, and interaction satisfaction are good even in post-disaster conditions. Coping strategies, frequency of husband and wife interactions, and potential conflicts of husband and wife are in the medium category, meaning that coping strategies and frequency of interaction are quite good in disaster conditions, and interaction satisfaction is good even though there is still low indicators, as well as the potential conflicts experienced by survivor families are still quite high. This study shows that husband and wife interaction is positively influenced by husband and wife's education, age of marriage, family income-expenses, and religiosity and negatively influenced by husband and wife's age; the higher the husband and wife's education, age of marriage, family income-expenses and religiosity will increase husband and wife interaction, on the contrary, the higher the age of husband and wife will reduce husband and wife interaction. The results also showed an influence between variables, namely religiosity, which has a significant positive effect on coping strategies, meaning that an increase in religiosity will increase coping strategies.

Recommendation

Based on the study results, families are advised to revive and improve the religious atmosphere, especially for husbands and wives as role models. Families are also advised to often reveal values in the family and apply them in daily life so that it becomes a good coping strategy (emotional focus) when needed. Families are advised to familiarize themselves with critical thinking and build good social relationships with their environment so that it becomes a good coping strategy (problem focus) when needed. Husbands and wives are advised to make a habit of discussing, especially matters that become potential conflicts, such as lifestyle, wisdom, religious expression, caring for appearance, caring for health, how to raise children, managing family finances, the amount of assistance received, efforts to maintain family harmony and sexual needs. Families in disaster-prone areas must build

physical and psychological readiness to face possible disasters. Local governments are advised to conduct adequate education to ensure family and community readiness to face disasters. Family resilience education is an asset for the government in dealing with various crises that occur in families. Future research is suggested to examine other variables that examine family functioning in disaster survivor families.

References

- Abdullah, S., Sipon, S., Nazli, N. N. N., & Puwasa, N. H. (2015). The relationship between stress and social support among flood victims. *Procedia-Social and Behavioral Sciences*, 192, 59-64. <https://doi.org/10.1016/j.sbspro.2015.06.009>
- Achour, M., Boerhannoeddin, A. (2011). The Role of Religiosity as a Coping Strategy in Coping with Work-Family Conflict: The Case of Malaysian Women in Academia. *Int J Soc Sci Humanit*. 1(1):80–85.
- Aflakseir, A., Mahdiyar, M. (2016). The role of religious coping strategies in predicting depression among a sample of women with fertility problems in Shiraz. *J Reprod Infertil*. 17(2):117–122.
- Amato, P. R. (2005). The impact of family formation change on the cognitive, social, and emotional well-being of the next generation. *The future of children*, 75-96.
- Arbinaga, F., Mendoza-Sierra, M.I., Bohórquez, M.R., Verjano-Cuellar, M.I., Torres-Rosado, L., Romero-Pérez, N. (2021). Spirituality, Religiosity and Coping Strategies Among Spanish People Diagnosed with Cancer. *J Relig Health*. 60(4):2830–2848. doi:10.1007/s10943-021-01247-0.
- Badan Nasional Penanggulangan Bencana. (2022). Gempa Cianjur. Diakses pada: <https://www.bnpb.go.id/berita/-update-327-orang-meninggal-dunia-pasca-gempa-cianjur>.
- Basaria, D., Zamralita, Z., & Aryani, F. X. (2024). Peran Strategi Koping terhadap Kesejahteraan Psikologis Mahasiswa dalam Masa Pandemi Covid-19. *Jurnal Muara Ilmu Sosial, Humaniora, dan Seni*, 8(1), 20-25. <https://doi.org/10.24912/jmishumsen.v8i1.27161.2024>
- Bengtson, Vern, L. (2017). *Families and Faith: How Religion Is Passed Down Across Generations*. New York: Oxford University Press.
- Botey, P.A., Kulig, J.C. (2014). Family Functioning Following Wildfires: Recovering from the 2011 Slave Lake Fires. *J Child Fam Stud*. 23(8):1471–1483. doi:10.1007/s10826-013-9802-6.
- Carr, D., & Springer, K. W. (2010). Advances in families and health research in the 21st century. *Journal of marriage and family*, 72(3), 743-761.
- Cramer, P. (2008). Seven Pillars of Defense Mechanism Theory. *Soc Personal Psychol Compass*. 2(5):1963–1981. doi:10.1111/j.1751-9004.2008.00135.x.
- Chen, Y.P., Shaffer, M. (2018). The influence of expatriate spouses' coping strategies on expatriate and spouse adjustment: An interdependence perspective. *J Glob Mobil*. 6(1):20–39. doi:10.1108/JGM-07-2016-0032.
- Christanto, J. (2011). *Gempabumi, Kerusakan Lingkungan, Kebijakan dan Strategi Pengelolaan*. Yogyakarta: Liberty
- Fogel, Y., Sela, Y., Hen-Herbst, L. (2022). Coping strategies of families and their relationships with family quality of life during Covid-19 pandemic. *PLoS One*. 17:1–16. doi:10.1371/journal.pone.0273721.
- Folkman, S., Lazarus, R.S., Dunkel-schetter, C., DeLogis, A., Gruen, R.J. (1986). Dynamics of a Stressful Encounter : Cognitive Appraisal, Coping , and Encounter Outcomes. *J Pers Soc Psychol*. 50(5):992–1003. doi:10.1037/0022-3514.50.5.992.

- Huston, T. L., Caughlin, J. P., Houts, R. M., Smith, S. E., & George, L. J. (2001). The connubial crucible: newlywed years as predictors of marital delight, distress, and divorce. *Journal of personality and social psychology*, 80(2), 237.
- Kasim, F. M., Nurdin, A., & Rizwan, M. (2021). Agama, Modal Sosial dan Ketahanan Masyarakat dalam Menghadapi Bencana di Kota Banda Aceh. *Jurnal Antropologi: Isu-Isu Sosial Budaya*, 23(1), 66-73. <https://doi.org/10.25077/jantro.v23.n1.p66-73.2021>
- Kim, J., Jordan, S. S., Franklin, C., & Froerer, A. (2019). Is Solution-Focused Brief Therapy Evidence-Based? An Update 10 Years Later. *Families in Society*, 100(2), 127-138. <https://doi.org/10.1177/1044389419841688>
- Kasielska-Trojan, A, Dzierzak, J, Antoszewski, B. (2022). The Influence of Faith and Religion on Family Interactions and Interest in Health Issues during the COVID-19 Pandemic—A Study among Polish Adolescents. *Int J Environ Res Public Health*. 19(11):1–12. doi:10.3390/ijerph19116462.
- Koenig, H. G. (2009). Research on religion, spirituality, and mental health: A review. *The Canadian Journal of Psychiatry*, 54(5), 283-291. <https://doi.org/10.1177/070674370905400502>
- Mardlatillah, S. D., & Saadah, N. (2022). Pola relasi suami istri sebagai upaya meningkatkan kelanggengan perkawinan. *Sociocouns: Journal of Islamic Guidance and Counseling*, 2(1), 59-68. DOI: 10.35719/sjigc.v2i1.12.
- Noorafshan, L., Jowkar, B., & Hosseini, F. (2013). Effect of Family Communication Patterns of Resilience among Iranian Adolescents. *Procedia - Social and Behavioral Sciences*, 84, 900-904. <https://doi.org/10.1016/j.sbspro.2013.06.670>.
- Niswati, I. (2017). Hubungan loving, kepuasan seksual dan religiusitas dengan keharmonisan perkawinan. *Psibernetika*, 4(2). DOI: <http://dx.doi.org/10.30813/psibernetika.v4i2.537>
- Najoan, H. J. I. (2015). Pola Komunikasi Suami Istri Dalam Menjaga Keharmonisan Keluarga Di Desa Tondagesan II Kecamatan Kawangkoan Kabupaten Minahasa. *Acta Diurna Komunikasi*, 4(4). Retrieved from <https://ejournal.unsrat.ac.id/v3/index.php/actadiurnakomunikasi/article/view/8504>.
- Papp, L. M., Cummings, E. M., & Goetze-Morey, M. C. (2009). For richer, for poorer: Money as a topic of marital conflict in the home. *Family relations*, 58(1), 91-103. <https://doi.org/10.1111/j.1741-3729.2008.00537.x>
- Rahmanishati, W., Dewi, R., & Indriani Kusumah, R. (2021). Hubungan Dukungan Sosial Dengan Post Traumatic Syndrome Disorder (PTSD) Pada Korban Bencana Tanah Longsor di Desa Sirnaresmi Kecamatan Cisolok Kabupaten Sukabumi. *Jurnal Health Society*, 10(1). Retrieved from <https://ojs.stikesmi.ac.id/index.php/jhs/article/view/21>
- Safitri, N.A, Sunarti, E. (2022). Process and Output of Family Resilience on Lebak Flash Flood Victims in 2020 Who Stay in Temporary Housing. *J Fam Sci*. 07(02):102–118.
- Sunarti, E. (2009). Naskah akademik pengembangan model ecovillage. Bogor: LPPM IPB.
- Sunarti, E. (2013). *Potret Ketahanan Keluarga Indonesia Perspektif Keragaman Pola Nafkah Keluarga*. Jakarta, ID: BKKBN.
- Sunarti, E. (2015). *Ketahanan Keluarga Indonesia: Dari Kebijakan dan Penelitian Menuju Tindakan: Orasi Ilmiah Guru Besar IPB*. Bogor (ID): IPB Press.
- Sunarti, E. (2021). *Inventori Pengukuran Keluarga*. Bogor, ID: IPB Press.
- Sunarti, E., & Syahrini J. S. (2011). Pengelolaan Stres Pada Keluarga Korban Bencana Longsor Di Kabupaten Bogor. *Jurnal Ilmu Keluarga & Konsumen*, 4(2), 111-120. <https://doi.org/10.24156/jikk.2011.4.2.111>

- Surijah, E.A., Prasad, G. H., Saraswati, M.R.A. (2021). Couple resilience predicted marital satisfaction but not well-being and health for married couples in Bali, Indonesia. *Psikohumaniora J Penelit Psikol.* 6(1):13–32. doi:10.21580/pjpp.v6i1.6520.
- Saffari, M., Lin, C.Y., Chen, H., Pakpour, A.H. (2019). The role of religious coping and social support on medication adherence and quality of life among the elderly with type 2 diabetes. *Qual Life Res* 28: 2183-2193. 10.1007/s11136-019-02183-z
- Setiawan, A., & Pratitis, N. T. (2015). Religiusitas, dukungan sosial dan resiliensi korban lumpur lapindo Sidoarjo. *Persona: Jurnal Psikologi Indonesia*, 4(02).
- Savitri, S. I., & Hidayati, A. (2019). Bahagia Karena Allah: Religiusitas sebagai mediator antara komunikasi intim dan kepuasan perkawinan pada wanita yang menikah dengan cara Ta'aruf. *Psikis: Jurnal Psikologi Islami*, 5(2), 91-100. <https://doi.org/10.19109/psikis.v5i2.3737>
- Smith J. 2021. Transmission of faith in families: The influence of religious ideology. *Sociol Relig A Q Rev.* 82(3):332–356. doi: 10.1093/socrel/sraa045.
- Suwarningsih, S., Muhafilah, I., & Herawati, T. M. (2019). Perubahan Kondisi Psikososial Dan Spiritual Pada Korban Ptsd (Post Traumatic Stress Disorder) Pasca Banjir Bandang Di Kota Garut Jawa Barat. *Jurnal Ilmiah Kesehatan*, 11(1), 1–11. <https://doi.org/10.37012/jik.v11i1.62>
- Teachman, J.D. Stability across cohorts in divorce risk factors. *Demography* 39, 331–351 (2002). <https://doi.org/10.1353/dem.2002.0019>
- Winurini, S. (2020). Bencana Covid-19: Stresor bagi Pasangan Suami Istri di Indonesia. *Aspirasi: Jurnal Masalah-Masalah Sosial*, 11(2), 185–198. <https://doi.org/10.46807/aspirasi.v11i2.1755>
- Wibiren, W. (2020). Married satisfaction is reviewed from religiosity to infertiled couples in Sei Sikambing D Village. *Psikologi Prima*, 3(1), 43 - 53. <https://doi.org/10.34012/psychoprima.v3i1.1323>