The Contribution of Emotion Regulation and Family Resilience Among Earthquake Survivors

Veronica Kristiyani, Charli Sitinjak, Srifianti
Universitas Esa Ungggul, Indonesia
v.kristiyani999@gmail.com*

ABSTRACT: Natural disasters, such as the Cianjur, Indonesia earthquake, impose severe psychological, economic, and social pressures that leave families vulnerable, making family resilience (the capacity to adapt and recover) critical to their wellbeing. Because emotion regulation strategies shape coping and adaptation, identifying which strategies most effectively build family resilience after disasters is essential, yet evidence from Indonesian populations remains limited. This quantitative, non-experimental study investigates the role of two emotion regulation strategies cognitive reappraisal and expressive suppression in predicting family resilience among 100 survivors. Participants completed standardized measures of emotional regulation and family resilience. Data was analysed using multiple linear regression. Results showed that both cognitive reappraisal and expressive suppression significantly and independently predicted family resilience, with expressive suppression contributing more strongly to the model. These findings challenge the conventional view that suppression is universally maladaptive and suggest that, in high-stress contexts such as post-disaster recovery, suppression may serve as a short-term stabilizing mechanism. The study contributes to disaster psychology literature by highlighting the contextual function of emotion regulation strategies in fostering family adaptation. Implications include the need for culturally sensitive resilience interventions that integrate flexible emotion regulation training for affected families.

INTRODUCTION

In 2022, a 5.6 magnitude earthquake struck Cianjur Regency, West Java, Indonesia. According to Badan Nasional Penanggulangan Bencana (2022), the disaster claimed 602 lives, caused severe injuries to hundreds more, and displaced approximately 114,000 individuals. This large-scale natural disaster imposed profound hardship on families, many of whom lost loved ones, homes, and their sense of security in an instant. These circumstances triggered traumatic experiences and severely disrupted family well-being, thrusting many households into intense emotional crisis. Families were forced to adapt to a new reality, relying on social and governmental support to survive the crisis.

By examining how families recover and rebuild in the wake of such adversity, this study seeks to explore the role of emotional regulation as a factor in shaping their capacity to foster resilience within the family system. However, despite growing attention to family resilience in contexts such as chronic illness, poverty, and divorce, there remains a lack of empirical research on how specific emotion regulation strategies contribute to family resilience in acute, community-wide disasters—

particularly in Southeast Asia. This gap is especially critical in the Indonesian context, where collectivist cultural norms and family-centered values may shape how emotions are managed and expressed during crisis. Understanding how emotion regulation functions within disaster-affected families in Indonesia offers a unique opportunity to contribute to global theory while grounding findings in local realities. To provide a foundation for this exploration, the following section reviews the theoretical and empirical literature on family resilience.

Family Resilience

Family resilience is defined as the capacity of a family, as a functional system, to withstand and recover from adversity or crisis (Walsh, 2015). It is a dynamic process through which families adapt and maintain competent functioning after facing significant risks or challenges (Patterson, 2002). Family resilience is observed when families encounter major adversities, such as chronic illness, natural disasters, or poverty, and are able to respond positively, demonstrating effective family functioning (Patterson, 2002). According to Patterson (2002), competent family functioning includes the ability to perform core roles such as family formation, economic support, caregiving and socialization, as well as protection of vulnerable members. These competencies are evident when a family continues to fulfill these roles despite experiencing serious crises. While families do not need to perform all functions perfectly, the successful execution of key functions is a strong indicator of resilience. Family functioning, as emphasized by Walsh (2002), must be assessed in context, relative to the values, structures, resources, and life challenges specific to each family. This underscores that family competence should be understood within the unique background of each family, rather than through the lens of an idealized family model. In other words, family resilience is inherently relative and contextual.

The dynamic process of developing family resilience reflects the interaction between risk factors and protective factors (Walsh, 2015). Family resilience is not achieved by avoiding risks but rather through the successful activation of protective factors in the face of adversity (Benzies & Mychasiuk, 2009; De Haan, Hawley, & Deal, 2002). These protective factors serve to maintain core family functioning during crises. According to Benzies and Mychasiuk (2009), protective factors that contribute to family resilience can be categorized into three primary levels: individual, familial, and community. At the individual level, factors such as emotional regulation, self-efficacy, and coping skills play a critical role. At the family level, cohesion, positive parent-child interactions, and couple relationship stability are key components. At the community level, social support, civic engagement, and access to social services serve as important protective resources. The resilience process represents a unique adaptive pathway for each family. To accurately capture and understand this process, longitudinal research designs that are sensitive to context and time are essential (De Haan, Hawley, & Deal, 2002). This is because optimal family functioning and individual well-being evolve over time, influenced by emerging challenges and developmental transitions across the family life cycle (Walsh, 2002).

The development of family resilience does not emerge solely from the adaptive capacities of individual members, but rather arises through the reciprocal interactions among family members (Walsh, 2015). Unlike individual resilience, which refers to a person's personal ability to cope with stress, family resilience is a collective process embedded within the family system that involves relational dynamics between members (De Haan, Hawley, & Deal, 2002). Family resilience cannot be reduced to the sum of individual resilience levels, as it encompasses shared meaning-making, relational dynamics, and systemic patterns of adaptation. Therefore, family resilience must be studied as an integrated systemic construct, rather than merely as the aggregation of individual perceptions. Nonetheless, individual resilience and family resilience are closely interrelated in a dynamic, bidirectional manner. As Walsh (2015) noted, individuals do not develop resilience in isolation. It is shaped and strengthened through ongoing interaction with family members. A

resilient family system can bolster the resilience of each of its members, and conversely, when one family member exhibits resilience, it can serve as a source of strength and inspiration for others, fostering a shared process of adaptation and recovery.

In the context of recovering from disaster-induced crises, Walsh (2015) emphasizes that family resilience during such events is not solely about physical survival, but also concerns how families function, support one another, and collectively rebuild their lives in coordination with the community and available internal and external resources. This is particularly relevant because natural disasters often generate widespread collective trauma, affecting not only individuals and family systems but also entire communities. A study by Wang et al. (2021) found that in the aftermath of disasters, families significantly increased their physical colocation. That is the physical presence or proximity of family members in the same location and spending more time together. This behavior reflects the family's role in providing emotional support, coordination, and stability during crises. Similarly, in the context of protecting children following natural disasters, interpersonal factors, particularly close parent-child relationships, emotional warmth, and stable family environments, have consistently been associated with greater child resilience, highlighting the critical role of healthy family functioning in fostering resilience among family members (Cadamuro et al., 2021; Arshad et al., 2020). In humanitarian crises such as the COVID-19 pandemic, family resilience, through strong belief systems, adaptive organizational patterns, and effective communication, helped families manage emotional and logistical challenges (Zhu et al., 2023). Structured and supportive interventions can further strengthen family functioning and resilience during such widespread crises (Marceau et al., 2022). Collectively, these studies underscore that well-functioning families are better equipped to adapt and recover in post-disaster conditions.

Emotional Regulation

Emotional regulation is defined as both extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, and it plays a critical role in emotional development across the lifespan (Thompson, 1991). It refers to an individual's efforts to control which emotions they have, when they have them, and how they experience and express these emotions (Gross & John, 2003). As individuals age, their emotional regulation capacities tend to become more flexible and refined (Fernandez, Morrison, & Gross, 2018). This definition emphasizes that emotional regulation involves both internal (intrinsic) and external (extrinsic) influences that help individuals manage their emotional experiences. The process includes the ability to be aware of, assess, and adjust emotional responses to meet the demands of social situations and developmental stages throughout life. Emotional regulation is essential for adaptive functioning (Fernandez, Morrison, & Gross, 2018), highlighting its importance for healthy and effective day-to-day functioning. It enables individuals to align their emotional responses with situational demands, thereby facilitating sound decision-making, effective social interactions, and constructive coping with stress and crisis. Through the ability to regulate emotions, individuals are more likely to respond proportionally and less impulsively, which supports their psychological well-being and social competence. Efforts to influence emotions occur both consciously and unconsciously (McRae & Gross, 2020), indicating that emotional regulation encompasses all attempts, intentional or automatic, to alter how emotions are experienced and expressed.

In applying emotional regulation, individuals employ regulatory strategies that refer to the processes used to influence which emotions they have, as well as when and how they experience and express these emotions (Gross & John, 2003). According to Gross and John (2003), there are two primary regulation strategies: Cognitive Reappraisal and Expressive Suppression. Cognitive Reappraisal is an antecedent-focused strategy that is employed before an emotional response is fully generated, whereas Expressive Suppression is a response-focused strategy that is enacted after the emotion has already emerged. Cognitive Reappraisal involves altering one's interpretation of an

emotional situation to change its emotional impact (McRae & Gross, 2020; Gross & John, 2003). It entails changing one's perspective on an emotionally triggering situation in order to generate a more controlled emotional response. Through reframing, negative emotions are diminished. Reappraisal allows individuals to regulate emotions by adjusting their mental interpretation of events rather than by avoiding or suppressing those emotions. In contrast, Expressive Suppression involves inhibiting or restraining the outward display of emotional expressions (McRae & Gross, 2020; Gross & John, 2003).

Numerous studies have highlighted the critical role of emotional regulation in family functioning. Qiao et al. (2024) reported the significant contribution of emotional regulation to maintaining healthy family dynamics. Research has also shown that emotional regulation programs are effective in enhancing family resilience (Zadhasan, 2023; Gholamkia, 2023), with the improvements sustained over time (Zadhasan, 2023). Emotional flexibility has been identified as a mediator in the relationship between family resilience and anxiety levels (Ao et al., 2024). Similarly, Brites et al. (2023) found that emotional regulation strategies were positively associated with lower levels of mental health, with family cohesion serving as a mediator in this relationship (Brites et al., 2023). In the application of emotional regulation strategies, cognitive reappraisal used by adolescents, mothers, and fathers was positively and significantly correlated with adolescent resilience, whereas expressive suppression by any of these family members was not positively correlated with resilience (Mehta & Gupta, 2024). This underscores the important modeling role parents, particularly mothers, play for their children. In line with this, cognitive reappraisal training has been shown to significantly reduce individual stress and parenting-related stress, indirectly enhancing family functioning (Preuss et al., 2021). Cognitive reappraisal also improves emotional recognition and reduces negative emotional bias, thereby supporting healthier family interactions (Du et al., 2024). Furthermore, cognitive reappraisal can serve as an emotional regulation strategy to buffer the effects of depression on work fatigue, thereby mitigating work-family conflict that may interfere with family functioning (Li et al., 2024). Conversely, some researches have found that expressive suppression is associated with poor family cohesion, which in turn leads to psychological problems (Van Eickels et al., 2022; Yun et al., 2021), whereas emotional closeness within the family has been shown to reduce overall use of expressive suppression (Wylie, De France, & Hollenstein, 2022). Expressive suppression by one partner in a relationship also correlates with lower satisfaction and impaired conflict resolution ability, negatively affecting the quality of family relationships (Sasaki et al., 2021).

Study Aim and Hypothesis

Most researches on family resilience has focused on family-specific crises such as divorce, chronic illness or the death of a family member, however, more studies are needed that examine family crises occurring in the context of widespread community adversity, such as community-wide disasters, war, and displacement (Walsh, 2021). In the present study, families experienced crises following a natural disaster that involved complex individual and social challenges, such as displacement and significant material and non-material losses, that affected not only individual families but also the surrounding community as a whole. These conditions significantly influenced the families' ability to access community support, cope, and recover. Exploring the factors that enable families to overcome such multifaceted crises is of great importance to educators, policymakers, and practitioners. A comprehensive understanding of the protective factors that promote family resilience can inform the development of more holistic policies and programs aimed at achieving optimal outcomes for families (Benzies & Mychasiuk, 2009). Through examining the influence of emotional regulation, specifically its two strategies (cognitive reappraisal and expressive suppression) on family resilience, stakeholders can better tailor their approaches to support families by developing more targeted interventions that enhance successful family

adaptation. The hypotheses proposed in this study are: (a) Emotional regulation, through its two strategies (cognitive reappraisal and expressive suppression) jointly influences the development of family resilience; and (2) Emotional regulation through cognitive reappraisal and expressive suppression also independently contributes to the development of family resilience.

METHODS
Research Design
This study employed a quantitative, non-experimental design using a survey method to examine the influence of emotional regulation on family resilience. Data were collected using standardized questionnaires that had been previously validated to measure the two main variables. Emotional regulation served as the independent variable, while family resilience was the dependent variable. Sampling was conducted using a non-probability sampling method, specifically convenience sampling. This technique was selected to facilitate access to participants in a particular location, based on their availability and willingness to participate (Gravetter & Forzano, 2012).This approach was chosen due to limited access to the population affected by the post-earthquake disaster and minimized pressure on participants, as participation was based on voluntary.

Participants
Participants in this study were individuals who experienced the 2022 earthquake in Cianjur, including both males and females. Their ages ranged from 15 to 70 years (M = 22.88, SD = 9.80), and their educational backgrounds ranged from elementary school to undergraduate level.

Table 1. The Distribution of Participants

Demographics	Category	Frequency	Percentage
Gender	Male	28	28
	Female	72	72
Education	Elementary School	1	1
	Junior High School	56	56
	Senior High School	31	31
	Diploma (D3)	3	3
	Undergraduate (S1)	9	9

Instruments
This study employed two research instruments, both of which were administered directly to the participants. The first instrument used was the Walsh Family Resilience Questionnaire (WFRQ), developed by Walsh (2015) to assess family resilience, and adapted into Indonesian by Pudjiati (2016). This instrument consists of 36 items representing three core components of family resilience, each of which includes three subcomponents: family belief systems, organizational processes, and communication patterns and problem solving. The items are rated on a 4-point Likert scale ranging from 1 (strongly inappropriate) to 4 (strongly appropriate). The scale demonstrated good internal consistency ($\alpha = 0.97$). To measure emotional regulation, the study used the Emotion Regulation Questionnaire (ERQ) developed by Gross and John (2003) and adapted into Indonesian by Ratnasari and Suleeman (2017). This questionnaire consists of 10 items, with 6 items measuring cognitive reappraisal and 4 items measuring expressive suppression. The items are rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The subscales demonstrated good internal consistency, with $\alpha = 0.75$ for cognitive reappraisal and $\alpha = 0.71$ for expressive suppression.

Data Collection Procedures
Data collection was conducted one month after the natural disaster to ensure that participants were in a sufficiently stable condition to provide informed and meaningful responses.

The survey was administered on-site using printed questionnaires that were distributed directly to participants residing in temporary shelters. To ensure accessibility and comfort, data were collected personally, with researchers explaining the purpose of the study prior to participation. After obtaining consent from both the participants and the shelter coordinators, each participant required approximately 20 minutes to complete the questionnaire. The data collection process was carried out gradually over a one-month period, allowing for flexibility in participant engagement and minimizing disruption to ongoing recovery activities. Participants were selected based on their availability and willingness to participate voluntarily and were informed of their right to withdraw at any time. The data obtained from participants were reviewed for completeness and accuracy prior to being stored. The researchers followed a systematic procedure to ensure the reliability of the collected data while maintaining respect for participants' post-disaster conditions and adhering to the guidelines established by the temporary shelter coordinators.

Data Analysis

The data in this study were analyzed using the multiple linear regression technique to examine the influence of emotional regulation variables on family resilience. Prior to the analysis, preliminary assumption testing was conducted, including tests for normality, linearity, and multicollinearity. The normality test was performed to ensure that the distribution of scores in the sample followed a normal pattern and that the data met the necessary assumptions for regression analysis. The linearity test was conducted to verify that the relationship between emotional regulation and family resilience variables was linear, allowing for valid estimation using linear regression modeling. Subsequently, a multicollinearity test was carried out to detect any high correlations between the emotional regulation strategies (cognitive reappraisal and expressive suppression) within the multiple linear regression model, as such correlations could compromise the stability of coefficient estimates. All preliminary tests were conducted to ensure that the statistical analysis results in this study were valid and could be interpreted accurately. The analysis was conducted using IBM SPSS Statistics version 26, a statistical software package commonly used in social science research.

RESULTS AND DISCUSSION
Results

The normality test indicated that the Kolmogorov-Smirnov values for the variables were as follows: family resilience, $p = 0.115$ ($p > 0.05$); cognitive reappraisal, $p = 0.074$ ($p > 0.05$); and expressive suppression, $p = 0.196$ ($p > 0.05$). These results indicate that all variables met the assumption of normal distribution. The family resilience variable and the two emotional regulation strategies (cognitive reappraisal and expressive suppression) all yielded p-values exceeding the 0.05 threshold. As a result, the null hypothesis of normal distribution could not be rejected. This suggests that the data for each variable are normally distributed, thereby satisfying one of the key assumptions for conducting parametric tests using multiple linear regression. Accordingly, the dataset was deemed appropriate for further inferential analysis using regression modeling.

Meanwhile, the results of the linearity test showed that the relationship between family resilience and the emotional regulation strategy cognitive reappraisal had a deviation from linearity value of 0.463 (> 0.05) and a linearity significance value of 0.00 (< 0.05). Similarly, the relationship between family resilience and the emotional regulation strategy expressive suppression showed a deviation from linearity value of 0.069 (> 0.05) and a linearity significance value of 0.00 (< 0.05). These deviation from linearity values indicate that both relationships are linear, thus fulfilling the linearity assumption. All linearity values met standard interpretation criteria, in which a model is considered linear when the significance of linearity is below 0.05 and the deviation from linearity exceeds 0.05. The fulfillment of the linearity assumption between family resilience and both emotional regulation strategies (cognitive reappraisal and expressive suppression) validates the use

of multiple linear regression in this study. These findings suggest that increases in cognitive reappraisal or expressive suppression are associated with systematic changes in family resilience, in a manner consistent with a linear trend.

In addition, the results of the multicollinearity test showed that the independent variables (emotional regulation strategies of cognitive reappraisal and expressive suppression) had tolerance values of 0.472 (> 0.10), indicating that multicollinearity was not present. Furthermore, the Variance Inflation Factor (VIF) was 2.129 (< 10), confirming that no multicollinearity existed between the cognitive reappraisal and expressive suppression variables. These findings indicate that each independent variable (cognitive reappraisal and expressive suppression) contributed uniquely to the model, with no significant overlap in the information they provided. The fulfillment of the no-multicollinearity assumption enhances the stability and reliability of the regression coefficients in this study. It also ensures that the estimated effects of each predictor on family resilience were not distorted by inter-variable correlations. Based on the results of the assumption tests for normality, linearity, and multicollinearity, the data analysis proceeded with hypothesis testing.

Table 2. Multiple Linier Regression

Model	R	R2	Adj. R2	F	p
1	0.761	0.579	0.570	66.679	<.001

The results of the hypothesis testing using multiple linear regression (Table 2) indicated that the emotional regulation strategies (cognitive reappraisal and expressive suppression) jointly contributed significantly to the prediction of family resilience. The coefficient of determination (R^2) was 0.579, indicating that the two emotional regulation variables explained 57.9% of the variance in family resilience. The adjusted R^2 value of 0.570 confirmed that the model remained stable after adjusting for the number of predictors included. The F-test yielded a value of 66.679 with a significance level of $p < 0.001$, demonstrating that the regression model was statistically significant overall. This means that the model including both emotional regulation strategies provides a better explanation of family resilience than a model without predictors. The correlation coefficient (R) of 0.761 also indicated a strong relationship between emotional regulation (via cognitive reappraisal and expressive suppression) and family resilience. Thus, it can be concluded that emotional regulation plays a significant role in shaping family resilience. Both emotional regulation strategies make a significant contribution when used together in the model. The more frequently individuals employ emotional regulation, the more likely it is that family resilience increases. Therefore, the first hypothesis of this study is supported: emotional regulation through the strategies of cognitive reappraisal and expressive suppression jointly predicts family resilience.

Table 3. Coefficient Regression

Predictors	b	Std.Error	β	t	p
(Constant)	38.030	5.303		7.171	<.001
ER (Cognitive Reappraisal)	1.301	0.326	0.383***	3.996	<.001
ER (Expressive Suppresion)	1.830	0.403	0.435***	4.541	<.001

Notes: *** $p < 0.001$

The results of the regression analysis (Table 3) indicated that both emotional regulation strategies (cognitive reappraisal and expressive suppression) also had significant independent effects on family resilience. The cognitive reappraisal strategy had a standardized beta coefficient of $\beta = 0.383$, with $t(97) = 3.996$ and $p < 0.001$, contributing approximately 6.9% unique variance to the family resilience variable. This indicates that the contribution of cognitive reappraisal to the prediction of family resilience was statistically significant. Similarly, the expressive suppression

strategy showed a standardized beta coefficient of $\beta = 0.435$, with $t(97) = 4.541$ and $p < 0.001$, and a unique contribution of approximately 8.9% to the family resilience variable, also indicating a statistically significant predictive effect. Based on these findings, it can be concluded that higher use of the cognitive reappraisal strategy is associated with higher levels of family resilience. Likewise, increased use of expressive suppression is also associated with increased family resilience. The analysis further revealed that expressive suppression had a greater predictive contribution (8.9%) compared to cognitive reappraisal (6.9%) in this model. Therefore, the hypothesis that emotional regulation, through its two strategies (cognitive reappraisal and expressive suppression) independently contributes to the development of family resilience is supported.

Discussion

The findings of this study indicate that emotional regulation plays a crucial role in shaping family resilience among earthquake survivors in Cianjur Regency. Theoretically, this result aligns with the concept of family resilience, which emphasizes that the ability of family members to manage emotions, through emotional openness, empathy, conflict management skills, and the co-construction of meaning in the face of crisis, contributes significantly to the resilience process (Walsh, 2012). Emotional regulation functions as an individual protective factor within the broader process of family resilience, helping families to emerge from crises with greater strength (Benzies & Mychasiuk, 2009). As a protective factor, emotional regulation is closely associated with better individual mental health (Ao et al., 2024; Brites et al., 2023; Colomeischi & Ursu, 2023; Ye et al., 2022; Polizzi & Lynn, 2021), which, in turn, supports other family members and facilitates the development of family-level resilience (Herbell et al., 2020).

Similarly, the finding that both emotional regulation strategies (cognitive reappraisal and expressive suppression) independently have a positive and significant influence on family resilience provides important insights into the psychological understanding of families in the process of building their resilience. Cognitive reappraisal, as an adaptive strategy involving positive reinterpretation of situations, can foster shared meaning, increase hope, and strengthen constructive communication patterns within the family. According to McRae and Gross (2020), consistent use of cognitive reappraisal is associated with higher psychological well-being, including reduced symptoms of depression and anxiety, greater life satisfaction, and improved social relationships. Cognitive reappraisal has been found to have a more favorable impact on well-being compared to expressive suppression. From a theoretical perspective on family resilience processes, constructing positive meaning from adversity is considered a core process in family resilience (Patterson, 2002). In alignment with this, Walsh (2015) emphasized that the ability of families to interpret crisis situations in a positive light is essential to resilience, as it allows them to revise their narratives of adversity in ways that restore coherence and narrative integrity. The use of cognitive reappraisal by family members enhances individual resilience (Mehta & Gupta, 2024), which in turn contributes to the formation of overall family resilience.

An interesting finding in this study is that expressive suppression was shown to have a greater predictive contribution to family resilience than cognitive reappraisal. Expressive suppression accounted for 8.9% of the variance in family resilience, compared to 6.9% for cognitive reappraisal. According to Walsh (2003; 2015), parents may suppress strong emotional reactions to keep the family functioning effectively, and similarly, children may try to support the family by holding back their emotions in order not to burden their parents. This finding can be interpreted through a contextual lens, where suppressing emotional expression within certain family environments, particularly in the aftermath of a major disaster, may function as a relationship-stabilizing mechanism, preventing open conflict and maintaining collective emotional balance. However, existing literature generally classifies expressive suppression as a less adaptive strategy. McRae and Gross (2020) noted that expressive suppression is often associated with negative outcomes, such as

increased psychopathological symptoms, lower well-being, and diminished quality of social relationships, due to its suppression of emotional authenticity in interactions. From the perspective of family resilience, expressive suppression is also considered less adaptive in the long term. Walsh (2015) argued that families who attempt to suppress or deny negative feelings and behaviors, while highlighting only positive ones, may create a superficial sense of unity, which hinders the development of authentic emotional closeness. Instead, open emotional expression is viewed as a more effective path for fostering family resilience over the long term (Walsh, 1998; 2003).

In the context of the post-disaster situation in Cianjur, individuals may experience highly intense emotions and face considerable situational pressures. As a result, suppression tends to be more frequently used as a means of restraining emotional expression in order to maintain calm and uphold social functioning, such as preserving family harmony and cooperation among members. Although suppression may contribute to short-term family stability, such as preventing panic among family members or enabling parents to fulfill emergency response roles, continued use without emotional processing may lead to negative mental health consequences for family members. Therefore, post-disaster interventions should include safe spaces for emotional expression and processing, enabling individuals to shift toward more adaptive strategies like cognitive reappraisal once the peak of the crisis has passed. This aligns with the analysis by McRae and Gross (2020), which suggests that the selection of emotion regulation strategies, such as reappraisal and suppression, is influenced by emotional intensity, social context, and individual factors such as personality or cultural norms. Reappraisal is more likely to be employed when emotional intensity is moderate and there is time to reflect, while suppression is more commonly used in highly intense emotional states or social situations requiring emotional control. Moreover, expressive suppression may serve as an important mediator in individual resilience, particularly by reducing stress levels more effectively than cognitive reappraisal in certain contexts (Colomeischi & Ursu, 2023).

While expressive suppression may serve adaptive functions in specific contexts, its prolonged use is frequently linked to adverse psychological consequences. These findings underscore the necessity for psychosocial intervention programs designed to enhance family resilience to account for the contextual flexibility of emotion regulation strategies. Such programs should prioritize the cultivation of emotional literacy within families and support a progressive shift from reliance on suppression toward the adoption of more adaptive regulatory strategies, particularly following the acute phase of crisis. Rather than focusing exclusively on cognitive reappraisal, interventions should critically assess and appropriately manage the use of expressive suppression in ways that are both psychologically beneficial and culturally responsive.

Moreover, future conceptual frameworks of family resilience should conceptualize emotion regulation as a dynamic and culturally situated process that interacts synergistically with family belief systems, organizational structures, and communication patterns. The present study advances the literature by highlighting the nuanced role of emotion regulation in fostering family resilience and advocates for a more integrative and context-sensitive approach to the development of family-centered interventions.

Implication

This study carries both theoretical and practical implications. From a theoretical perspective, the findings broaden our understanding of family resilience by demonstrating that emotion regulation is not merely an individual coping mechanism but also serves as a systemic protective factor that can help families endure and recover from collective trauma. Emotion regulation strategies, including both cognitive reappraisal and expressive suppression, play an important role in the adaptive processes that enable families to overcome adversity. The results also challenge the traditional view that expressive suppression is predominantly associated with negative outcomes at the individual level. Instead, the study shows that in acute crisis situations, suppression can function

adaptively to maintain family stability and cohesion. Thus, this research enriches the literature on family psychology in disaster contexts, highlighting the need for a more flexible and contextual perspective on emotion regulation strategies.

From a practical standpoint, the findings provide valuable insights for developing more effective and contextually relevant interventions for families affected by disasters. Post-disaster family support programs should incorporate emotion regulation training that not only emphasizes the importance of cognitive reappraisal as an adaptive strategy, but also helps families understand when expressive suppression can be functionally used to maintain calm and harmony, particularly during the initial phase of a crisis. It is also essential to design interventions that are sensitive to local cultural norms, in order to facilitate a healthy transition from suppression to more open and reflective emotional expression as the family's condition stabilizes. Family-based emotion regulation training should be further developed to strengthen collective resilience, enhance family's coping capacities, and reduce the risk of long-term psychological problems. Accordingly, these findings may serve as a reference for policymakers, psychologists, social workers, and healthcare professionals in designing family-based recovery programs that are more responsive to the emotional needs and adaptive dynamics of families affected by disaster.

Limitations and Future Research

This study has several limitations that may affect the results and conclusions. First, the use of convenience sampling may limit the generalizability of the findings, as participants were selected based on their availability and accessibility in post-disaster shelters. This may have excluded individuals with different family dynamics and emotional conditions. Second, future research should employ longitudinal designs to explore how emotional regulation strategies influence the trajectory of family resilience over time. Third, although this study identified significant effects, it did not investigate the underlying reasons why individuals choose particular emotional regulation strategies. The use of a mixed-method approach, involving in-depth interviews, may offer richer insights into the contextual and cultural factors that influence the use of emotional regulation strategies. Despite these limitations, this study provides valuable empirical evidence on the role of emotional regulation in family resilience in the context of crisis and post-disaster adaptation. It is hoped that this research will encourage further studies aimed at developing context-sensitive and culturally grounded interventions.

CONCLUSION

This study demonstrates that emotion regulation, through both of its strategies, cognitive reappraisal and expressive suppression plays a significant role in shaping family resilience among survivors of natural disasters in Cianjur. Notably, expressive suppression provided a greater predictive contribution to family resilience than cognitive reappraisal. This finding suggests that the function of suppression can be more contextual and adaptive, particularly in the acute aftermath of a disaster. These results challenge the assumption that suppression is always maladaptive and instead highlight the importance of flexibility in employing both emotion regulation strategies when adapting to crises. In post-disaster contexts, expressive suppression can serve as a mechanism to maintain family stability and harmony. On the other hand, the cognitive reappraisal strategy may foster the development of positive meaning in response to crisis and cultivate hope within the family.

REFERENCES

Ao, L., Cheng, X., An, D., An, Y., & Yuan, G. (2024). Relationship between Perceived Family Resilience, Emotional Flexibility, and Anxiety Symptoms: a Parent-Adolescent Dyadic Perspective. *Journal of youth and adolescence*. https://doi.org/10.1007/s10964-024-02083-7.

Arshad, M., Mughal, M., Giallo, R., & Kingston, D. (2020). Predictors of child resilience in a community-based cohort facing flood as natural disaster. *BMC Psychiatry*, 20. https://doi.org/10.1186/s12888-020-02944-y.

Badan Nasional Penanggulangan Bencana. (2022). *Gempabumi Cianjur 2022* [Dataset]. BNPB Data Hub. https://data.bnpb.go.id/dataset/gempabumi-cianjur-2022

Benzies, K., & Mychasiuk, R. (2009). Fostering family resiliency: A review of the key protective factors. *Child & Family Social Work*, *14*(1), 103-114.

Brites, R., Brandão, T., Hipólito, J., Ros, A., & Nunes, O. (2023). Emotion regulation, resilience, and mental health: A mediation study with university students in the pandemic context. *Psychology in the Schools*. https://doi.org/10.1002/pits.23055.

Cadamuro, A., Birtel, M., Di Bernardo, G., Crapolicchio, E., Vezzali, L., & Drury, J. (2021). Resilience in children in the aftermath of disasters: A systematic review and a new perspective on individual, interpersonal, group, and intergroup level factors. *Journal of Community and Applied Social Psychology*. https://doi.org/10.1002/CASP.2500.

Colomeischi, A., & Ursu, A. (2023). Exploring the mediating role of emotion regulation on the relationship between teachers' resilience and their perceived stress. *Social Psychology of Education*. https://doi.org/10.1007/s11218-023-09874-z.

Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.

De Haan, L., Hawley, D. R., & Deal, J. E. (2002). Operationalizing family resilience: A methodological strategy. *The American Journal of Family Therapy, 30*(4), 275–291. https://doi.org/10.1080/01926180290033439

Du, X., Gao, S., Zhao, X., & Chen, X. (2024). The effect of cognitive reappraisal on emotion recognition in mothers of children with special needs.. *Acta psychologica*, 248, 104401 . https://doi.org/10.1016/j.actpsy.2024.104401.

Fernandez, K., Morrison, A., & Gross, J. (2018). Emotion Regulation. *The Cambridge Handbook of Anxiety and Related Disorders*. https://doi.org/10.1017/9781108140416.011.

Gholamkia, M. (2023). The effectiveness of emotion regulation protocol on family functioning and marital commitment in couples with low resilience. *Applied Family Therapy Journal*. https://doi.org/10.61838/kman.aftj.4.4.33.

Gravetter, F.J. and Forzano, L.B. (2012) Research Methods for the Behavioral Sciences, 4th edn, Wadsworth, Cengage Learning, Belmont, CA.

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85*(2), 348–362. https://doi.org/10.1037/0022-3514.85.2.348

Herbell, K., Breitenstein, S., Melnyk, B., & Guo, J. (2020). Family resilience and flourishment: Well-being among children with mental, emotional, and behavioral disorders.. *Research in nursing & health*. https://doi.org/10.1002/nur.22066.

Marceau, K., Kimiecik, C., Ruiz, Y., McCormick, C., Toombs, A., Elias, C., Lalani, N., & Wadsworth, S. (2022). Emerging Ideas. Families Together: Supporting family resilience during the COVID -19 pandemic. *Family Relations*. https://doi.org/10.1111/fare.12781.

McRae, K., & Gross, J. J. (2020). Emotion Regulation. *Emotion, 20*(1), 1–9. https://doi.org/10.1037/emo0000703

Mehta, A., & Gupta, G. (2024). Resilience in Adolescents: The Role of Parental and Adolescent Emotion Regulation. *Mind and Society*. https://doi.org/10.56011/mind-mri-131-20246.

Patterson, J. M. (2002). Integrating family resilience and family stress theory. *Journal of Marriage and Family, 64*(2), 349–360. https://doi.org/10.1111/j.1741-3737.2002.00349.x

Polizzi, C., & Lynn, S. (2021). Regulating Emotionality to Manage Adversity: A Systematic Review of the Relation Between Emotion Regulation and Psychological Resilience. *Cognitive Therapy and Research*, 1-21. https://doi.org/10.1007/s10608-020-10186-1.

Preuss, H., Capito, K., Van Eickels, R., Zemp, M., & Kolar, D. (2021). Cognitive reappraisal and self-compassion as emotion regulation strategies for parents during COVID-19: An online randomized controlled trial. *Internet Interventions*. https://doi.org/10.1016/j.invent.2021.100388.

Pudjiati, S. R. R. (2016). Model resiliensi keluarga: pengaruh identitas budaya, coping, family strain, status sosial ekonomi dan dukungan komunitas dalam pembentukan resiliensi keluarga pada suku batak batak toba. Disertasi. Tidak dipublikasikan. Universitas Indonesia.

Qiao, T., Sun, Y., Ye, P., Yan, J., Wang, X., & Song, Z. (2024). The association between family functioning and problem behaviors among Chinese preschool left-behind children: the chain mediating effect of emotion regulation and psychological resilience. *Frontiers in Psychology*, 15. https://doi.org/10.3389/fpsyg.2024.1343908.

Ratnasari, S., & Suleeman, J. (2017). Perbedaan regulasi emosi perempuan dan laki-lakidi perguruan tinggi. Jurnal Psikologi Sosial, 15(1), 35–46.

Sasaki, E., Overall, N., Chang, V., & Low, R. (2021). A dyadic perspective of expressive suppression: Own or partner suppression weakens relationships.. *Emotion*. https://doi.org/10.1037/emo0000978.

Thompson, R. (1991). Emotional regulation and emotional development. *Educational Psychology Review*, 3, 269-307. https://doi.org/10.1007/BF01319934.

Van Eickels, R., Tsarpalis-Fragkoulidis, A., & Zemp, M. (2022). Family cohesion, shame-proneness, expressive suppression, and adolescent mental health—A path model approach. *Frontiers in Psychology*, 13. https://doi.org/10.3389/fpsyg.2022.921250.

Walsh, F. (2002). A family resilience framework: Innovative practice applications. *Family Relations, 51*(2), 130–137. https://doi.org/10.1111/j.1741-3729.2002.00130.x

Walsh, F. (2003). Family resilience: A framework for clinical practice. *Family process*, 42(1), 1-18.

Walsh, F. (2012). Normal Family Processes (4th ed. pp. 399-427). New York: Guilford

Walsh, F. (2015). *Strengthening family resilience*. Guilford publications.

Wang, W., Foutz, N., & Gao, G. (2021). Huddling with families after disaster: Human resilience and social disparity. *PLoS ONE*, 17. https://doi.org/10.2139/ssrn.3892399.

Wylie, M., De France, K., & Hollenstein, T. (2022). Adolescents suppress emotional expression more with peers compared to parents and less when they feel close to others. *International Journal of Behavioral Development*, 47, 1 - 8. https://doi.org/10.1177/01650254221132777.

Ye, B., Zhao, S., Zeng, Y., Chen, C., & Zhang, Y. (2022). Perceived parental support and college students' depressive symptoms during the COVID-19 pandemic: The mediating roles of emotion regulation strategies and resilience. *Current Psychology (New Brunswick, N.j.)*, 1 - 12. https://doi.org/10.1007/s12144-022-03049-3.

Yun, P., Xiaohong, H., Zhongping, Y., & Zhujun, Z. (2021). Family Function, Loneliness, Emotion Regulation, and Hope in Secondary Vocational School Students: A Moderated Mediation Model. *Frontiers in Public Health*, 9. https://doi.org/10.3389/fpubh.2021.722276.

Zadhasan, Z. (2023). Evaluating the Emotion Regulation Program on Enhancing Family Resilience. *KMAN Counseling and Psychology Nexus*. https://doi.org/10.61838/kman.psychnexus.1.2.9.

Zhu, P., Wu, Q., Waidley, E., Ji, Q., & Qian, M. (2023). Family resilience in a crisis: A qualitative study of family resilience in multimember infected families in the context of COVID-19. *Psychological trauma: theory, research, practice and policy*. https://doi.org/10.1037/tra0001547.