# Exploring the Invisibility of Women's Resilience in Facing Anthropogenic Disasters

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## Abstract

The intensity of anthropogenic disasters increases with the pace of climate change, but on the other hand, the invisibility of women's experiences has negated women's capacity to build disaster resilience. This study aims to determine the factors that support women's participation in anthropogenic disaster management. The Publish or Perish (PoP) application is used to review and retrieve articles on the Google Scholar database and find 15 relevant articles on women's resilience. Based on the results of the article review, it was found that there were two important factors related to one another, namely, community support for women and access to resources, which provide space, opportunities, and appreciation for women as important agents in disaster management. In addition, there are also individual factors and their influence on women's resilience, namely the level of spirituality, optimism, and hope that women bring to their domestic experiences. Thus, this paper has shown that women's participation in public space is an important part of disaster management schemes.

***Keywords:*** *Resilience; Women; Anthropogenic Disasters; Scoping Review*

## Introduction

Disasters do not occur in a vacuum, but they are aided by anthropogenic activities. This anthropogenic activity also induces the climate crisis. Both the catastrophe and the climate crisis were driven by the massive co-optation of resources. Resources that should be managed in a fair and sustainable manner are spent on the process of capital accumulation for a handful of groups. Instead of providing equal and fair benefits, the human activities that prompted the disaster actually escalated the level of danger in living spaces (Jameelah, 2021). Furthermore, this anthropogenic activity also goes hand in hand with eliminating the experience of vulnerable groups. Vulnerable groups were excluded from the preparation of the development agenda, resulting in a development agenda that was not only misdirected but also exacerbated the vulnerability of the community in a disaster response situation.

## Anthropogenic Disaster, Climate Crisis, and Patriarchy

The presence of patriarchal ideology in societal conversations and values that portray women as subordinate and always dependent on men. Basically, the values of patriarchal culture are the roots of the oppression that has been happening to women. As is well known, the family is the smallest institution that represents the entire culture, so it is very possible that the family becomes a place where patriarchal values are socialized to the family members in it. These patriarchal values specifically segregate parenting roles as well as domestic duties. This is often the justification for men to domesticate women, because it is considered that women only work for domestic needs (Syawitri, 2020). Despite the fact that women are often associated with negative stereotypes, several studies have shown that women have high resilience abilities in dealing with disaster situations that threaten their survival. Accusations of women as weak, dependent and not having proper competence in the public space are continuously confronted through critical studies in various scientific disciplines. This academic dialectic exists to dismantle women's invisibility. Narratives that obscure women and often ignore the role of women actually become crucial actors who cannot be underestimated when they are in a dangerous situation and threaten the survival of their families. At the same time, she shows that a woman is not a weak figure who can only depend on others, but she can also be a strong figure who can be a hope for her family to rise from difficulties in a crisis situation.

Women are present as actors who play an important role in critical situations and have coping mechanisms and capacities that are different from men (Ferrer & Lagos, 2016). Women are catalysts for change for communities, families, and the people around them (Fluri & Tagarev, 2020). Women are actors driving social capital and financial recovery and have the capacity to mitigate disasters (McNamara, Clissold, & Westoby, 2020). Women bear a more complex burden on family members than men. This makes women often the only family members tasked with taking care of domestic needs, caring for and fulfilling sanitation needs, and fulfilling nutrition, compassion, and care. Therefore, women always put their children and family members first by putting themselves aside and having their own way of recovering the psychological condition of the family (Hasanah, Boriboon, Jubaedah, & Wulandari, 2021). This woman's way of life has continued to grow in society until now. Women mature in their understanding of their roles in maintaining the home balance and homeostasis of their children. Issues of sanitation, food, livestock, and the stability of children's sleep hours are entirely borne by women. Women ensure that the resources in the house are distributed evenly among family members. Even though this situation was initiated by a patriarchal society, the distribution of resources within the house is synergistic and orderly.

On the other hand, patriarchal society continues to escalate market power through policies that marginalize women. The long burden of women makes domestication present everywhere. This domestication also develops into hierarchical interactions supported by a capitalist-patriarchal society. (Jameelah, 2017). At the level of government as policy makers, women's experience in maintaining lasting household balance is removed and replaced with that of oligarchic female actors. A few groups have co-opted resource management because they are unfamiliar with women's behavior in managing resources at the micro level. As a result, both the state and the capital continue to develop resource management policies that are not only misguided but also irrelevant. From this non-ideal situation, the climate crisis emerges and supports repeated disasters. These disasters are later referred to as "anthropogenic" disasters. Disasters and crises induced by human political and economic activities

## Women's Experiences and Disaster Mitigation

Even though existing segregation negates the fact that gender partnerships are important in overcoming disaster situations, they can also improve mental health despite economic losses (Kasdi & Saifuin, 2020). This shows that cooperation between husband and wife has a positive impact on psychological management during difficult times. This is also supported by the findings in Khurshed Alam's (2018) The invisibility of women's roles and disaster reconciliation has ignored the fact that women's skills in adapting to changes in the social and natural environment, organizing to solve problems collectively, utilizing knowledge of indigenous peoples' traditions, and improvisational skills to encounter difficulties have been overlooked. (Nature, 2018). The way indigenous peoples work in disaster management is in line with Françoise d'Eaubonne's presentation that there are many

traditions in which women view the universe as an inherent and interconnected unit. As a result, if the environment is threatened, it will create new threats for other vulnerable subjects, such as women, children, and other marginalized groups.Therefore, in fact, the management of hazards and disasters caused by anthropogenic activities is also present in the customs of the people (Jameelah, 2017).

Furthermore, adult women have a high level of resilience, as explained by Kwan (2020), and there are several factors that affect the resilience of adult women in a pre-disaster context, namely work or livelihood, land ownership, housing, kinship relations, health disparities, spirituality, gender roles, norms, and stereotypes about older women, as well as their independence and dignity. On the other hand, the factors of spirituality and optimism, as well as individual interaction in community activities in the security, social, and religious fields (Hasanah, Boriboon, Jubaedah, & Wulandari, 2021), also influence the level of individual and community resilience.

This study aims to explore the resilience of women in overcoming disaster situations, especially those related to human activities and the climate crisis. This study also wants to uncover the facts about women's resilience and the importance of supporting women as crucial actors in post-disaster recovery. In achieving this goal, the authors conducted a search for research articles on women's resilience in order to describe forms of women's resilience in facing various kinds of disasters that occur around them. Adult women, as the subject of this study, are an attempt made by the author to dismantle myths against women that have been understood by society as a weakness of being a woman by looking at how adult women can maintain family security in crisis situations.

## Research Methods

A scooping review has been carried out using the Publish or Perish (PoP) application. The author reviewed and retrieved articles written in English on the Google Scholar database in 2019–2021 (n = 990). After obtaining comprehensive literature data, the authors stored the data as Research Information Systems (RIS) data, which were further processed using the VOS Viewer application. From a total of 990 articles collected, VOS Viewer was used to remove duplicate words and keywords from the abstracts of all irrelevant articles. After deleting the duplicate words, five keywords remained with a high degree of accuracy and relevance, namely women, resilience, community, and disaster.

After knowing the existence of these keywords, 15 articles were collected that contained women's resilience in disaster situations. The article criteria used in detail are as follows:

1. Focusing on resilience or survival strategies in disaster (crisis) situations
2. Focusing on adult women, married or previously married, as well as those who already have a child,
3. Women who have experience in disaster conditions (natural disasters, social disasters, technological disasters, and other crisis conditions caused by disasters),
4. Focus on the efforts made by women for themselves, their families, and the surrounding community to survive in disaster situations.
5. What impacts can be overcome by women as a form of self- and group-based (community-based)resilience?

# Table 1. Journal Article Synthesis Matrix

| Author, Title and Year | Variable | Indicator | Methods and Data Sources | Formulation of the problem | Findings | Uniqueness |
|---|---|---|---|---|---|---|
| Ferrer dan Lagos. (2016). Women's Capacities In Adversities: Categorizing Women's Disaster Resilience Through Exploratory Factor Analysis. *Journal of Human Ecology*, 63-77 | **Women's Disaster Resilience:** the role of women in critical resilience to disaster response | 1. Community engagement 2. Accesing resources 3. Authority over one's self 4. Reflecting and having faith 5. Inner strength and determination 6. Hope and a sense of humor | Kuantitatif  Exploratory Factor Analysis (EFA) Focus Group Discussions (FGD's) | classify the variables that affect women's resilience in disasters into simpler categories | In the midst of a disaster, women act as catalysts for change and play an important role in critical situations. Women have different coping mechanisms and capacities than men. | Women are not vulnerable and weak creatures, but they play a role as a rescue valve during a disaster |
| Budirahayu, Farida dan Amala S. (2019). Women's Resilience in Preserving Family Life Following an Earthquake in North Lombok Regency, West Nusa Tenggara, Indonesia. *Journal of International Women's Studies*, 106-120 | **Women's Resilience:** post-disaster women's abilities and their efforts to overcome economic and social problems and trauma in the family. | 1. The power of women 2. The role of women 3. Women's awareness 4. Collective action of women | Qualitative-Descriptive  Observation  deep interview | How did the women victims of the earthquake try to survive? | The ability of women in joint business activities as a lifeline for recovering economic, social and psychological conditions after a disaster | Seeing women in an economic business community as a form of resilience |
| McNamara, Clissold dan Westoby. (2020). Women's Capabilities in Disaster Recovery and Resilience must be Acknowledged, Utilized and Supported. *Journal of Gender Studies*, 1-7 | **Women's Capabilities in Disaster Recovery and Resilience:** women's capacity in disaster response and post-disaster recovery | 1. Women's role 2. Women's Capabilities | Qualitative  FGD | Explore women's capacities in disaster recovery and how women can be better supported to increase resilience | Women as drivers of social capital, financial recovery, and have the capacity for disaster mitigation | Looking at the capabilities of women in disaster response, disaster mitigation and post-disaster recovery and the efforts that must be made to support women |
| Fluri dan Tagarev. (2020). The Concept of Resilience: Security Implications and Implementation Challenges. *Connections: The Quarterly Journal*, 5-12 | **The Concept of Resilience:** a way to improve the safety and security of organizations, communities, industry, infrastructure, and society in the face of new, unexpected threats and challenges. | 1. the evolution of the concept of resilience 2. investing in resilience vs. investing in prevention and preparedness 3. measures of effectiveness and measures of performance 4. lessons learned and good practices in the implementation of the concept of resilience | Study of literature  Related literature  Policy document | Examining how to effectively and efficiently deal with various and multidimensional threats within the organization | Presents the evolution of the concept of resilience and its implementation in organizations, defense, law enforcement and its contribution to cybersecurity, disaster mitigation, post-conflict recovery | Seeing the evolution of the concept of resilience and its benefits in anticipating and solving problems |
| Hasanah, Boriboon, Jubaedah dan Wulandari. (2021). Analysis of The Resilience Conditions of Individual, Family, and Community during The Covid-19 Pandemic. *Journal of Nonformal Education*, 94-102 | **Resilience Condition:** conditions of individual resilience that affect the resilience of families and communities | 1. Individual resilience 2. Family resilience 3. Community resilience | Quantitative  Survey via questionnaire (n = 200 people) with 40 question items | The condition of the resilience of the poor in the city of Bandung in the face of the Covid-19 pandemic | The most dominant factors in individual and family resilience are spirituality and optimism, while the factors that influence community resilience are individual interactions in community activities in the security, social and religious fields. | Seeing the influence between individual resilience in the family and society |

| Author, Title and Year | Variable | Indicator | Methods and Data Sources | Formulation of the problem | Findings | Uniqueness |
|---|---|---|---|---|---|---|
| Castro and Zermeno. (2021). Being an entrepreneur post-COVID-19 – resilience in times of crisis: a systematic literature review. *Journal of Entrepreneurship in Emerging Economies,* 721-746 | **Resilience:** skills that enable individuals and groups to adapt and grow stronger in the face of challenges | entrepreneurship, resilience and crises | Study of literature Related literature: 30 empirical studies | factors that shape resilience to strengthen skills training programs for post-Covid-19 entrepreneurs and skills in overcoming crises | Factors that affect resilience: 1). The attitude taken towards the crisis, 2). Business characteristics, 3). Entrepreneur, 4). Relations with institutions, 5). Social capital and human resources, 6). Strategic management | Seeing resilience as a skill that can be learned and trained to overcome challenges or crises |
| Dohaney, Roiste, Salmon and Sutherland. (2020). Benefits, barriers, and incentives for improved resilience to disruption in university teaching. *International Journal of Disaster Risk Reduction,* 1-9 | **Resilience-building strategies:** a strategy used to increase resilience | 1. attributes 2. capabilities 3. knowledge | Study site Interview | investigated academics' perceptions of building resilience to major Learning & Teaching disruptions in the New Zealand context | Discovering flexible online learning is a key opportunity to build resilience but one should not underestimate the importance of face-to-face interactions between instructors and students | Using online media and the internet as a form of resilience or adaptation of learning on campus |
| Jewett, M. Mah, Howell and Larsen. (2021). Social Cohesion and Community Resilience During COVID-19 and Pandemics: A Rapid Scoping Review to Inform the United Nations Research Roadmap for COVID-19 Recovery. *International Journal of Health Services,* 325–336 | **Social Cohesion and Community Resilience:** social connectedness and solidarity between community groups, as well as the level of trust and connectedness between individuals and between community groups can influence the level of community adaptability to changing circumstances and challenges | 1. social capital 2. community resilience 3. Community Engagement: understanding the community, providing relevant information across communities, feedback engagement, understanding changing needs, and centering communities to lead and codevelop programs | Scoping Review Related literature | Mapping related to Covid-19 recovery | Increasing social cohesion before a pandemic or disaster occurs is very important to strengthen community resilience during times of crisis | There is a relationship between social solidarity and increased resilience of groups or communities |
| Harini, S., Suhita, D., & Itasari, A. A. (2020). The Role of Women in Improving Family Resilience in The Middle of The Covid-19 Pandemic. *Salasika,* 3(2), 91-102. | **The Role of Women's Resilience:** influence the level of community adaptability to changing circumstances and challenges | 1. Women's in Technology 2. Women's in Development 3. Women's in Building Family Communication | Feminist Method Research informant interview | explaining the new role of a mother as a teacher and building a more effective pattern of family communication in dealing with Covid-19 | The Covid-19 pandemic is an opportunity for women to make social changes. 1). Women use technology more to teach online school children, 2). Opportunity for women to instill moral values, 3). Opportunity to improve self-esteem | Seeing the Covid-19 pandemic and online learning as opportunities for women to improve the quality of themselves and their children |
| Kwan, C. (2020). Factors and processes in the pre-disaster context that shape the resilience of older women in poverty. *International Journal of Disaster Risk Reduction,* 1-13 | **Women's Resilience in Poverty:** looking at the factors and processes in the pre-disaster context that shape the resilience of elderly women in poverty | 1. the role of gender, 2. age, 3. marital status, 4. income/financial capacity | Qualitative-Case Study photography/videography, semi-structured interviews, observation, and document review | How do the key factors and processes in the pre-disaster context (particularly the disaster mitigation phase) shape the resilience of older women who are widows, heads of households and living in poverty? | The main finding in this study is that work/livelihood plays a major role. In addition, there are 8 factors that affect the resilience of old women in the pre-disaster context: Occupation or livelihood, land ownership, housing, kinship relations, health inequalities, spirituality, gender roles, norms and stereotypes about older women, and their independence and dignity | Focusing on old women as "forgotten workers" who actually have high resilience in the disaster mitigation phase |

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| Author, Title and Year | Variable | Indicator | Methods and Data Sources | Formulation of the problem | Findings | Uniqueness |
|---|---|---|---|---|---|---|
| Wardani, A.P dan Kusumasari, B. (2019). Socio-Cultural Dynamics of Resilience Building: Lesson Learned from Sleman, Indonesia. *Jurnal Kebijakan dan Administrasi Publik*, 63-76 | **Community Based Resilience:** the ability of a community to resist external disturbances to community infrastructure and social environment | 1. Scope: geographical location, 2. sentiment: psychological, symbolic, and 3. community cultural: emotional bonds, trust, and a sense of attachment between community members. 4. Social structure: social relations based on affection, coercion, or functional interdependence. | Qualitative-Case Study<br><br>In-depth interviews, observations, government documents and past research<br><br>Data triangulation | analyze and understand the formation of a resilient community by examining shifts in community dynamics, particularly socio-cultural changes in community-based interventions | After the eruption, the community experienced a change in the degree of harmony and mutual respect between members. The study results form the basis for drawing policy implications for public awareness of disaster risk and post-disaster recovery in general | This study identifies the economic dynamics of the community after the eruption of Mount Merapi |
| Januarista, Hasnidar dan Rahayu. (2020). Spiritual Analysis of the Ability of Community Resilience to Post-earthquake Trauma in the ATC Temporary Shelter At Mpanau Village Sigi District. *Jurnal Ilmiah Sosial dan Humaniora*, 343-351 | **Spiritualy as Community Resilience:** there is a relationship between the level of community spirituality with increased resilience | Spiritual Transcendence Scale (STS) and Resilience Scale: 1. the dimensions of the meaning of life, 2. the dimensions of positive emotions, 3. spiritual experiences and rituals. | Quantitative<br><br>Fisher's Exact Test<br><br>Questionnaire | spiritual analysis with the ability of community resilience after the earthquake trauma | there is a relationship between spirituality and the resilience capabilities of the community after the earthquake trauma in the ATC Shelter in Mpanau Village | Looking at the level of spirituality in disaster resilience |
| Kasdi dan Saifuin. (2020). Resilience of Muslim Families in the Pandemic Era: Indonesian Millennial Muslim Community's Response Against COVID-19. *Jurnal Penelitian,* 81-94 | **Resilience of Muslim Families:** Family resilience, especially Muslims in responding to the Covid-19 pandemic | 1. Resilience in gender partnerships, 2. health and security, 3. economic conditions, 4. social-psychological resilience, and 5. social-cultural resilience. | Quantitative-Descriptive<br><br>Questionnaire<br><br>SPSS Tool | What is the ability of Indonesian millennial Muslim families to face difficulties during the Covid19 pandemic? | The gender partnership (husband and wife) and health indicators are quite good, but economically not good, but the weakening of the economy does not weaken the psychology of the family. | Focusing on millennial Muslim families |
| Moreyra, M.J. (2020). The Importance of Resilience in the Women, Peace and Security Agenda Particularly during the Covid19 Pandemic. *Connections: The Quarterly Journal*, 87-96 | **Women and Resilience:** resilience is the interaction between risk factors (vulnerabilities) and protective resources (protection) and women are important actors in change and resilience | 1. experiences, reactions, advantage, and adversity 2. sense of hope, 3. Optimism, independence, and the ability to overcome obstacles | Literature Review<br><br>Related literature | How resilience is developed by women and how they prioritize their community | self-efficacy, coping, and sense of belonging contribute to the formation of women's resilience. Women as actors often experience trauma in life so that it forms their resilience | Looking at women's self-management in coping with difficult and traumatic situations |
| Hastuti and Mawanti Widyastuti. (2018). Happiness Behind The Threat of Disaster: Women in The South Merapi Slope. *Karsa: Jurnal Sosial Dan Budaya Keislaman* 26 (1), 129-49. | **The Happiness of Women in Disaster:** women's positive response in seeing disaster | 1. socio-economic 2. Demographics 3. happiness index: occupation, household income, housing and assets conditions, education, health, family harmony, social relations, leisure time availability, environmental conditions, and security conditions. | Mix Method<br><br>Questionnaires and interviews | The level of happiness of women living on the slopes of Merapi and the threat of disaster | Women who live beside the slopes are aware of the threat of disasters and vulnerable areas, but they believe that Merapi is friendly to them. They consider the eruption of Merapi as a blessing and a source of income for their increasingly fertile agriculture so that they live in harmony and happiness | There is a belief that the eruption of Mount Merapi is a blessing and not a disaster. Thus increasing the happiness and resilience of the individuals who live around it. |

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*Discussion*

Based on the synthesis matrix above, as a whole, the researchers affirmed the concept of women's resilience in disaster as the ability of women to survive difficult situations both economically, socially, and psychologically before, during, and after disasters (Ferrer and Lagos, 2016; Budirahayu, Farida, and Amala S., 2019; McNamara and Westoby, 2020; Nyabeze, Jakaza, Chikoko, Mwapaura, and Zvokuomba, 2021). The concept of resilience can generally be used to improve safety and security in the face of new, unexpected threats and challenges (Fluri & Tagarev, 2020). Statistically high resilience is found in married couples, and resilience increases with age, experience, and skills (Rahmani, Salmasi, & Zarei, 2021).

According to the results of the theme analysis carried out on the literature obtained, resilience can emerge when women can build satisfaction with "himself" by feeling useful and empowered. Feelings are valuable and should be considered when making decisions. As shown in the following code map,
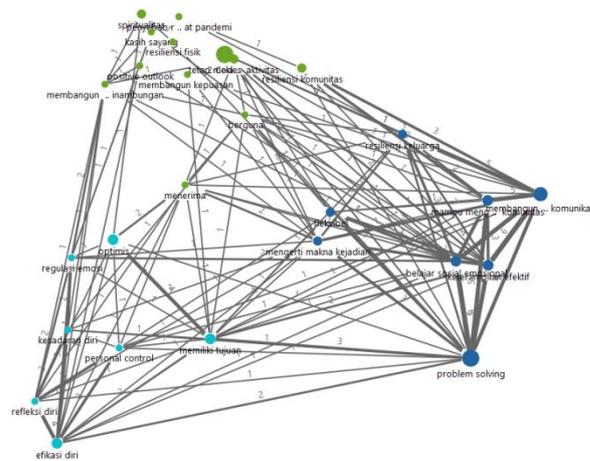


In the inter-code map, it shows that problem-solving ability is one of the crucial factors that needs to be possessed to create good psychological resilience. Problem-solving abilities are aligned with good communication skills and self-efficacy. Self-efficacy is an individual's belief in his ability to master situations and also produce an advantage (Nyabeze, Jakaza, Chikoko, Mwapaura, and Zvokuomba, 2021). The concept of "self-efficacy" with the main character Bandura clearly outlines a form of belief or belief regarding one's own ability to organize, do something to achieve a goal, produce something, and also implement actions in order to achieve a certain form of skill.

The interesting thing that can be seen in the codes that have been collected from the literature is the relationship between the codes, as follows:
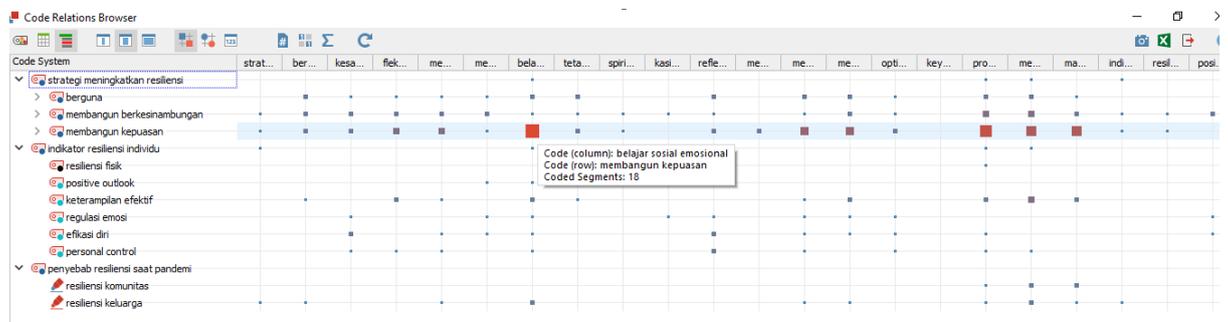
The findings of the analysis of the relationships between the codes indicate that in order to increase self-satisfaction, women must also learn to manage their emotions in their social environment when they are in a disaster situation. This is directly proportional to the ability to solve problems as a basic skill to stabilize psychological conditions. The relationship code is described below:
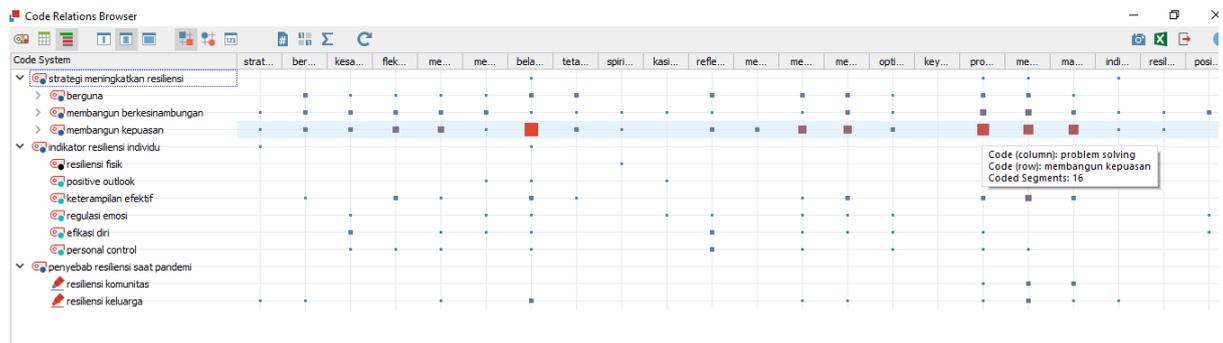


Coding problem-solving skills also appear to be related to connection-building and communication skills. This demonstrates communication skills, and strengthening connections will allow women to feel the satisfaction of being useful, resulting in good psychic resilience.
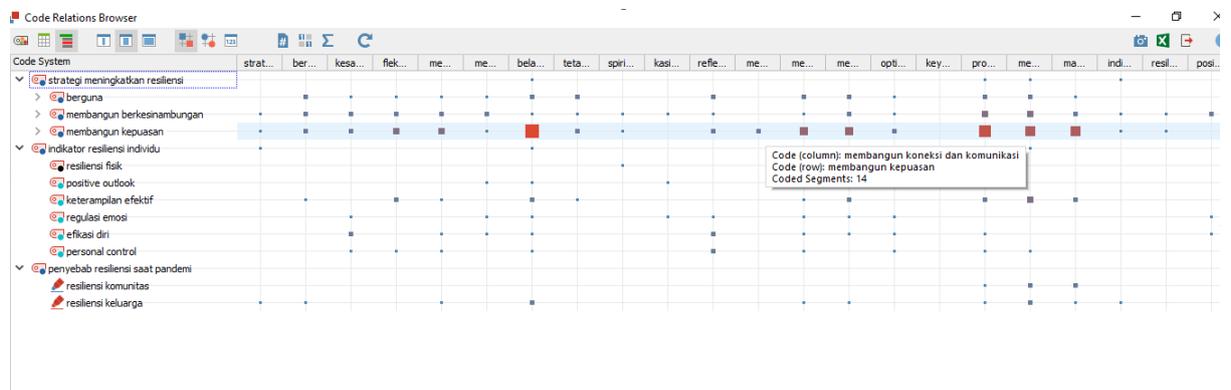


Ferrer and Lagos (2016) classify women's resilience in disaster contexts based on community involvement with several indicators, namely women's leadership in community activities, joining new groups or communities, providing advice within the community, approaching organizations and authorities, and participating in community activities. This shows that the support and involvement of the local community and society are very important for women in the context of a disaster. By joining women in a community, leading a community activity, and working together with other organizations and communities, a synergistic social network will be formed to overcome the impacts of disasters. Therefore, in order to increase women's resilience, community participation is needed, either through organizations or local government units.

These findings also show various obstacles to women's resilience. The factors that impede women's resilience are the lack of recognition and utilization of women's roles and participation in society. Therefore, a base or community is needed where women can then take on an important role and be involved in the process of building their resilience (McNamara, Clissold, & Westoby, 2020). If this were not the case, then women would not have the opportunity to show their true abilities. Aside from that, the community must create a safe space for women, particularly those who are victims of gender-based violence. McNamara (2020) shows that there is still gender violence that comes from poor market security and is experienced by female traders, and on the other hand, he also says that the source of vulnerability for women is based on factors of poverty and inequality. Poverty is related to family economic conditions, while inequality is related to the different treatment received by men and women in a society that still has a patriarchal ideology (Syawitri, 2020).

Jewett, Mah, Howell, and Larsen (2021) present their recent findings regarding the linkage of social cohesion and community resilience as important resources in recovery after any disaster. If

social cohesion and community resilience at the time before the disaster occurred were good enough, it would affect people's welfare during the crisis. This includes equality between men and women, which must be considered part of social cohesion, namely providing equal access and being properly recognized in disaster management (McNamara, Clissold, & Westoby, 2020). In certain cases, disasters actually encourage social cohesion, as a study conducted by Wardani and Kusumasari (2019) stated that during the post-eruption period, the community experienced a change in the degree of harmony and mutual respect between members as a form of mutual cooperation in solving disaster problems together. This shows that disasters can be a social glue to reduce conflict by helping each other and becoming stronger by facing difficult situations together (Ferrer & Lagos, 2016). The results of this study can be used as a basis for describing the importance of public awareness of disaster risk and post-disaster recovery in general, including the important role of women. Thus, women can also participate in increasing their own resilience and the resilience of their community.

The availability of resources is related to women's access to and governance of existing resources. This is an important aspect of women's resilience in a disaster context. Basically, we agree that women have their own ways of dealing with problems, different from men. Women who are attached to a domestic role are not bad, even though women have aspects that are far above all that and are able to develop if they get proper opportunities. However, Ferrer and Lagos (2016) show that most women use their skills in the domestic sphere to survive by collecting recyclables, selling vegetables, receiving laundry, catering orders, sewing, raising dogs, raising ducks, and collecting shells. This shows that the socialization of patriarchal culture towards women places women in a position where they have the ability to take care of the family even at the community level (Budirahayu, Farida, & Amala, 2019). Women occupy various forms of work to help support their families in areas they are good at.

In several urban community groups, most married women choose not to work and only depend on their husband's work. Women are preoccupied with domestic affairs and taking care of their children and husband as a mother and wife. However, disaster conditions can present a completely different situation for women, namely that they have to work to help support their family's living needs. This is because the husband's job is no longer able to support the needs of the family, especially in disaster situations where there are material losses and economic impacts that they feel. On the other hand, cooperation between husband and wife is a positive synergy that must be fulfilled as part of the way to overcome the impacts of disasters. A good relationship between husband and wife influences fairly good health, especially family psychology (Kasdi & Saifuin, 2020). Therefore, even though a family experiences economic weakness, they can still survive psychologically because they have good gender relations (husband and wife).

In the case of the earthquake in Gondang Village, for example, women started working by participating in harvesting long beans, the process of peeling peanuts, and planting in the fields (Budirahayu, Farida, & Amala, 2019). However, no less important is that authority over women is an aspect that can be understood as the empowerment of a woman. Women with high levels of resilience can automatically decide for themselves what actions to take; women have the right and power to determine actions in emergency situations and disasters (Ferrer & Lagos, 2016). In addition, women also have a high reflective level and regard belief as a crucial resource; they are still able to think positively even though they are in a situation that is unfavorable for their survival (Hastuti & Mawanti, 2018). They have the power to contemplate all kinds of experiences and events in life as a form of learning that can increase their resilience.

Furthermore, there are several opportunities for women, particularly during the COVID-19 pandemic as a catalyst for social change, such as women using technology more to teach online school children, which increases women's expertise in technology, as well as opportunities for women to access public spaces virtually, which allows them to participate in public spaces and improve their quality with technology in the midst of the pandemic. This shows that opportunities have been opened for women to work in the public sector as men do in their traditional roles.

## Individual Factors and the Role of Women in Disaster Studies

Women's strength has been manifested through their resilience; facts demonstrate women's ability to live subsistence lives and sustainably, as well as their high optimism to overcome all difficulties, which can be passed on to others. In several cases, it was stated that women were able to brave floods to get to evacuation sites, they were able to endure hunger for a long time for their children, and they were also very prepared for disasters by paying attention to the weather forecast and packing clothes early to anticipate flooding during the rainy season. Rain comes (Ferrer & Lagos, 2016). In addition, the role of women is also proven by their ability to provide assistance in post-earthquake situations, namely by providing services to families and communities. (Budirahayu, Farida, & Amala, 2019). Women have important contributions to disaster preparedness and recovery processes (McNamara, Clissold, & Westoby, 2020). The fact that they are also involved in the community shows that there is a role for women in the public sphere, and it has expanded by spearheading post-disaster community recovery efforts. Therefore, the role of women is very, very crucial in the context of disaster.

## Women's Resilience against Anthropogenic Disasters

Kwan (2020) provides his main findings in a study on women's resilience that there are eight factors that affect resilience, especially for old women in a pre-disaster context: work or livelihood, land ownership, housing, kinship relations, health inequalities, spirituality, gender roles, norms, and stereotypes about older women, and their independence and dignity. Women are also rich in "hopen findings in a study on women's resilience that there are eight factors that affect resilience, especially for old women in a pre-disaster context: work or livelihood, land ownership, housing, kinship relations, health inequalities, spirituality, gender roles, norms, and stereotypes about older women, and their independence and dignity. Women are also rich in "hope," as it is known that "hope" is an important aspect in overcoming disaster problems; with this hope, it is possible to move forward, never give up, and use humor as a strategy to deal with self-stress (Ferrer & Lagos, 2016). In other cases, women who live on the edges of the slopes are aware of the threat of disasters and the vulnerability of the area they live in, but they believe that Merapi is friendly to them, namely that they should view Merapi eruptions as a blessing and a source of income for their increasingly fertile agriculture so that they can live in harmony and happiness. Hastuti & Mawanti, 2018). Moreyra (2020) also refers to her as a woman who has self-efficacy, coping skills, and a sense of belonging, which contribute to the formation of women's resilience.

In addition, spiritual factors and strong optimism that arise from individuals also influence the increase in resilience, especially during the COVID-19 pandemic. It is known that these factors make the community able to carry out family functions well even in deteriorating conditions (Hasanah, Boriboon, Jubaedah, & Wulandari, 2021). Januarista (2020) states that there is a relationship between spirituality and post-traumatic earthquake resilience in Mpanau Village. This shows that a high level of spirituality can affect the resilience of individuals and village communities. Thus, disasters will be able to be overcome by minimizing the impacts, such as psychological impacts; although that does not mean there are no psychological impacts, at least with optimism and high spirituality, there can be hope for individuals for a better future life.

The individual factors described above are the social capital and capacities possessed by women and can be utilized to promote post-disaster preparedness and recovery. Castro (2021) said that quality social capital and human resources can increase disaster resilience because social capital as a network can be used by women as market segmentation to increase income or the post-disaster economy. How women have become responsible for consumption also shows women's attachment to the market, which is the root of anthropogenic activity. This provides space for women to make decisions regarding aspects of consumption as well as consumption in situations of danger and disaster. Thus, their resilience can increase as the benefits of resilience are useful in controlling threatening situations that get out of control. as well as how women are resilient in situations of psychological stress and are emotionally ready to overcome existing disturbances (Dohaney, Roiste,

Salmon, & Sutherland, 2020), namely by maximizing their social capital and capacity, including power over consumption decision-making at home.

*Conclusion*

This paper has affirmed the role and competence of women in disaster management, so it is necessary to get support, especially from their community (society). Thus, women's agency to be able to participate in public spaces is one aspect of women's empowerment, whose roles and capacities in the domestic sphere have often been considered less important in disaster management schemes. The resilience possessed by adult women is proven to be a significant saving factor for families and communities during disaster situations. Even so, this is inseparable from the role and support of society for women, namely by providing space, opportunities, and respect for women as important agents in disaster management. Access to resources must also be given to women, who are not limited to the domestic family but can also participate in the community. In addition, individual factors also influence women's participation in overcoming the impacts of disasters, namely the level of spirituality, optimism, and reflective power that women bring to their domestic experiences, which are useful in continuing the sustainability of their families in the midst of a situation or threat of disaster. Women's experience of living with domestic burdens has helped women develop natural resource planning and disaster mitigation intuition. The experience of domestication that is present as evidence of this oppression actually provides relevant strengths and capabilities for resolving crises when communities are dealing with anthropogenic disasters.

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