JOURNAL OF INTERDISCIPLINARY PERSPECTIVES
PRINT ISSN: 2984-8288 | ONLINE ISSN: 2984-8385
https://doi.org/10.69569/jip

TWR Publishing

Research Article

Role of Disaster Readiness on Disaster Risk Reduction Awareness and Community Resilience: A Mediation Analysis

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Article History:

Date received: July 30, 2026
Date revised: October 12, 2026
Date accepted: October 22, 2026

Recommended citation:

Turoganan, J. & Revisa, W. (2026). Role of disaster readiness on disaster risk reduction awareness and community resilience: A mediation analysis. *Journal of Interdisciplinary Perspectives*, *4*(11), 226-235. https://doi.org/10.69569/jip.2026.426x

Abstract. This study examined the mediating role of disaster readiness on the relationship between disaster risk reduction (DRR) awareness and community resilience among residents of the Municipality of Parang, Maguindanao del Norte. Specifically, it determined the levels of DRR awareness, disaster readiness, and community resilience; examined the relationships among these variables; and tested whether disaster readiness significantly mediates the relationship between DRR awareness and community resilience. A quantitative correlational research design was employed using a stratified random sampling technique involving 450 community members and local stakeholders. Data were collected through adapted and validated survey instruments and analyzed using descriptive statistics, Pearson Product-Moment Correlation, regression analysis, and mediation analysis with bootstrapping through Jamovi. The findings revealed that respondents demonstrated a very high level of disaster risk reduction awareness (M = 4.41) and disaster readiness (M = 4.43), while community resilience was found to be high (M = 3.89). Significant positive relationships were found between disaster risk reduction awareness and community resilience ($r = .686$, $p < .001$), disaster risk reduction awareness and disaster readiness ($r = .723$, $p < .001$), and disaster readiness and community resilience ($r = .523$, $p < .001$). However, mediation analysis indicated that disaster readiness did not significantly mediate the relationship between disaster risk reduction awareness and community resilience (indirect effect = 0.0475, $p = .267$). The study concludes that disaster risk reduction awareness directly enhances community resilience without requiring disaster readiness as a mediating mechanism. It recommends strengthening community-based disaster education, hazard communication, and sustained awareness programs to further enhance resilience among disaster-prone communities.

Keywords: *Community resilience; Disaster readiness; Disaster risk reduction awareness; Mediation analysis; Preparedness.*

Disasters have become one of the most pressing challenges confronting communities worldwide due to their devastating impacts on human lives, infrastructure, the environment, and economic development. In the Philippines, frequent exposure to earthquakes, floods, typhoons, and landslides has underscored the urgency of comprehensive disaster risk reduction (DRR) strategies. The Municipality of Parang, Maguindanao del Norte, is particularly vulnerable given its coastal location, socio-economic conditions, and recurring exposure to hazards, making localized disaster preparedness and resilience-building initiatives essential.

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Marchezini (2020) emphasized that disaster risk reduction has shifted from a hazard-centered approach to a people-centered strategy that strengthens communities' capacity to anticipate, prepare for, respond to, and recover from disasters. Likewise, Crow & Albright (2021) argued that resilient communities are developed through continuous investment in disaster preparedness, social learning, and community participation rather than relying solely on post-disaster recovery efforts. These perspectives highlight that effective disaster management requires empowering communities to actively reduce disaster risks, a principle highly relevant to disaster-prone Philippine municipalities.

Disaster Risk Reduction (DRR) awareness is one of the most important components of disaster management because it enables individuals and communities to understand potential hazards, recognize existing vulnerabilities, and implement appropriate preparedness measures before disasters occur. According to Bonfanti et al. (2023), disaster awareness significantly influences individuals' willingness to participate in preparedness activities and comply with early warning systems, thereby reducing disaster-related risks. Similarly, Que et al. (2022) explained that communities with higher levels of disaster awareness demonstrate greater participation in evacuation planning, hazard mapping, and disaster education programs. These studies suggest that increasing public awareness strengthens communities' ability to make informed decisions that support disaster risk reduction and sustainable development.

While disaster awareness provides the necessary knowledge about hazards and risks, disaster readiness reflects the practical application of that knowledge in preparedness actions. Disaster readiness includes emergency planning, evacuation procedures, participation in disaster drills, emergency resource management, communication systems, and coordination among government agencies and local communities. Addiarto et al. (2025) emphasized that disaster education programs significantly improve disaster readiness by encouraging individuals to adopt preparedness behaviors before disasters occur. Likewise, Abid and ul Haq (2025) found that regular community-based preparedness activities strengthen emergency response capabilities and reduce community vulnerability during disaster events. These findings indicate that disaster readiness is a critical factor that enables communities to turn disaster knowledge into effective preparedness practices.

Community resilience has become a major objective of contemporary disaster management because it reflects communities' capacity to anticipate, withstand, adapt to, recover from, and continuously improve after disasters. According to Dushkova and Ivlieva (2024), community resilience extends beyond recovery by emphasizing adaptive governance, collective learning, social cohesion, and long-term sustainability. Similarly, Bonfanti et al. (2023) reported that resilient communities are characterized by strong disaster preparedness, effective communication, collaborative leadership, and active stakeholder participation. These characteristics enable communities not only to minimize disaster impacts but also to recover more rapidly while maintaining essential social and economic functions.

Previous studies have consistently reported significant relationships among disaster risk reduction awareness, disaster readiness, and community resilience. Appleby-Arnold et al. (2021) found that disaster awareness positively influences preparedness behaviors by encouraging individuals to engage in disaster planning and mitigation activities. Likewise, Sim et al. (2021) concluded that communities with higher preparedness also show stronger adaptive capacity and greater resilience during disasters. In contrast, Delilah Roque et al. (2020) argued that resilience is influenced not only by preparedness but also by governance, collaboration, and social capital. These findings indicate that although disaster awareness and disaster readiness are both associated with community resilience, their specific roles in influencing resilience remain an important area for empirical investigation.

Despite the growing body of literature on disaster management, several gaps remain. Existing studies have largely examined the direct relationship between disaster awareness and preparedness or between preparedness and community resilience. However, relatively few studies have examined whether disaster readiness mediates the relationship between disaster risk reduction awareness and community resilience. Clarifying this mediation is theoretically important because it explains whether awareness alone directly enhances resilience or whether awareness must first translate into readiness behaviors before resilient outcomes can be achieved. Furthermore, empirical evidence regarding this mediating relationship remains limited within disaster-prone local communities in the Philippines.

Anchored in these considerations, the present study examines the mediating role of disaster readiness in the relationship between disaster risk reduction awareness and community resilience. Specifically, it seeks to determine the levels of disaster risk reduction awareness, disaster readiness, and community resilience; examine the relationships among these variables; and determine whether disaster readiness significantly mediates the relationship between disaster risk reduction awareness and community resilience. The findings are expected to contribute to the growing body of knowledge on disaster risk reduction by providing empirical evidence to guide local government units, disaster risk reduction and management offices, policymakers, and community leaders in designing evidence-based awareness campaigns and preparedness programs that promote resilient communities.

Methodology

Research Design

This study employed a quantitative, non-experimental correlational research design utilizing mediation analysis. This approach was appropriate because it involved collecting numerical data to determine levels of disaster risk reduction awareness, disaster readiness, and community resilience, and to examine the statistical relationships among these variables. Following Baron and Kenny (1986), mediation analysis was conducted to test whether disaster readiness statistically mediated the relationship between disaster risk reduction awareness and community resilience.

Research Participants

The study respondents were community residents and local officials of the Municipality of Parang, Maguindanao del Norte. The sample size of 450 respondents was determined using Slovin's formula with a 5% margin of error, based on the reported 102,914 households in Parang (Philippine Statistics Authority, 2020). Stratified random sampling was employed to ensure proportional representation across barangays and respondent categories. Each barangay was allocated respondents in proportion to its household population, and categories included community members, barangay officials, Municipal Disaster Risk Reduction and Management Office (MDRRMO) personnel, local government employees, and private stakeholders.

Of the 450 respondents, the majority were adult residents aged 18 years and above, complemented by barangay officials and MDRRMO staff who directly participate in disaster preparedness and resilience programs. This distribution ensured that both grassroots community perspectives and institutional disaster management roles were represented. Inclusion criteria required residency in Parang, familiarity with disaster preparedness, and voluntary participation. Individuals outside the municipality or unwilling to provide consent were excluded.

Research Instrument

Data were collected using a structured survey questionnaire composed of three standardized instruments adapted from previously published studies. The first section measured Disaster Readiness using an instrument adapted from Ismail et al. (2015), consisting of 35 items. The second section measured Disaster Risk Reduction Awareness, adapted from Pasion (2020), consisting of 31 items covering earthquake, typhoon, flood, and landslide awareness. The third section measured Community Resilience, adapted from Matsukawa et al. (2024), consisting of 82 items assessing knowledge, readiness, and action. Before data collection, subject-matter experts validated the questionnaire's content, and the research adviser reviewed it. A pilot test involving 30 respondents was conducted to determine the instrument's internal consistency using Cronbach's Alpha, ensuring reliability before the actual administration. All items were measured using a five-point Likert scale, where higher scores indicated higher levels of disaster readiness, disaster risk reduction awareness, and community resilience.

Data Gathering Procedure

Prior to data collection, the researcher secured approval from the appropriate university authorities and obtained permission from the concerned local government officials and barangay authorities of the Municipality of Parang, Maguindanao del Norte. After obtaining the necessary approvals, informed consent was secured from all participants. The researchers personally administered the questionnaires through face-to-face distribution while observing appropriate health and safety protocols. Respondents were informed of the study objectives, the voluntary nature of participation, and the confidentiality of their responses. Completed questionnaires were retrieved, checked for completeness, coded, and organized for statistical analysis. The encoded data were subsequently submitted to a statistician for processing and interpretation.

Data Analysis

The collected data were analyzed using appropriate descriptive and inferential statistical techniques. Descriptive statistics, specifically mean and standard deviation, were utilized to determine the levels of disaster risk reduction awareness, disaster readiness, and community resilience among the respondents. The Pearson Product-Moment Correlation Coefficient (Pearson r) was employed to determine the significant relationships among the study variables. To determine whether disaster readiness mediated the relationship between disaster risk reduction awareness and community resilience, mediation analysis using bootstrapping procedures was conducted in Jamovi. The mediation effect was considered significant when the bootstrapped 95% confidence interval of the indirect effect did not include zero. Regression analysis was also used to estimate the direct, indirect, and total effects among the variables in the mediation model. All statistical tests were conducted using a 0.05 level of significance.

Ethical Considerations

The study adhered to the ethical principles governing research involving human participants. Prior to the conduct of the study, ethical clearance was obtained from the University's Institutional Ethics Review Committee, and the corresponding ethics approval number was secured before data collection. Participation in the study was entirely voluntary. All respondents received an informed consent form explaining the study's purpose, procedures, expected duration, potential benefits, possible risks, confidentiality measures, and their right to withdraw at any time without penalty. The researcher kept participants' identities strictly confidential. No personally identifiable information was disclosed, and all collected data were used solely for academic and research purposes. The completed questionnaires and electronic datasets were stored securely and were accessible only to the researcher. Throughout the study, the principles of respect for persons, beneficence, non-maleficence, justice, privacy, and confidentiality were strictly observed.

Results and Discussion

Level of Disaster Risk Reduction Awareness

Table 1 presents the level of Disaster Risk Reduction (DRR) awareness among the respondents in terms of earthquake, typhoon, flood, and landslide awareness.

Table 1. *Level of Disaster Risk Reduction Awareness*

	Mean	SD	Interpretation
Earthquake	4.44	0.476	Very High
Typhoon	4.44	0.506	Very High
Flood	4.41	0.513	Very High
Landslide	4.36	0.573	Very High
Overall Mean	**4.41**	**0.456**	**Very High**

The findings reveal that the respondents demonstrated a very high level of Disaster Risk Reduction (DRR) awareness, with an overall mean of 4.41 (SD = 0.456). Among the indicators, Earthquake and Typhoon awareness obtained the highest mean score (M = 4.44, SD = 0.476 and M = 4.44, SD = 0.506, respectively), while Landslide awareness recorded the lowest mean (M = 4.36, SD = 0.573), although it remained within the very high descriptive level. These findings indicate that respondents have a strong understanding of disaster hazards and are highly aware of disaster preparedness measures implemented in their community.

The results suggest that continuous disaster preparedness programs, public awareness campaigns, and community-based disaster risk reduction initiatives implemented by the local government have contributed to the respondents' high level of awareness. Frequent exposure to disasters in the Philippines may also have enhanced their understanding of disaster risks and appropriate preparedness practices. This finding is consistent with Addiarto et al. (2025), who reported that sustained disaster education, regular drills, and localized awareness campaigns significantly improve disaster preparedness awareness among vulnerable communities. Likewise, Ma et al. (2023) emphasized that hazard education, effective risk communication, and active community participation are fundamental in strengthening disaster awareness and reducing community vulnerability. These studies support the present findings that increasing disaster awareness remains a critical foundation for developing resilient and disaster-ready communities.

Level of Community Resilience

Table 2 presents respondents' level of community resilience in terms of knowledge, practice, and confidence.

Table 2. *Level of Community Resilience*

Indicators	Mean	SD	Interpretation
Knowledge	3.90	0.65	High
Practice	3.96	0.61	High
Confidence	4.00	0.59	High
Overall Mean	**3.89**	**0.56**	**High**

The findings reveal that the respondents demonstrated a high level of community resilience, with an overall mean of 3.89 (SD = 0.56). Among the dimensions, Confidence had the highest mean score (M = 4.00, SD = 0.59), followed by Practice (M = 3.96, SD = 0.61), while Knowledge had the lowest mean (M = 3.90, SD = 0.65), though it remained within the high descriptive level. These findings indicate that respondents have the knowledge, adaptive practices, and confidence to prepare for, respond to, and recover from disaster situations.

The results imply that the respondents have developed strong adaptive capacities through continuous participation in disaster preparedness programs, community engagement, and local government initiatives that promote resilience. Communities that regularly participate in disaster-related activities are better able to respond effectively during emergencies and recover from disaster impacts. This finding is consistent with Bernados Jr. and Ocampo (2024), who reported that social capital, disaster preparedness, collective action, and effective information dissemination significantly enhance community resilience. Likewise, Kangana et al. (2024) emphasized that resilient communities are characterized by strong preparedness practices, community participation, and adaptive strategies that improve their ability to cope with disasters.

Level of Disaster Readiness

Table 3 presents the level of disaster readiness among the respondents.

Table 3. *Level of Disaster Readiness*

	Item Statements	Mean	SD	Interpretation
1.	That an earthquake can cause a tsunami.	4.53	0.73	Very High
2.	That heavy rain can cause flooding.	4.02	1.10	High
3.	That deforestation, illegal logging, and poor sewerage systems can cause flooding.	4.57	0.70	Very High
4.	That volcanic eruptions can cause earthquakes.	4.55	0.68	Very High
5.	That I should store enough water, fresh vegetables, meat, and non-perishable items to last at least three days during a disaster.	4.48	0.72	Very High
6.	That I should keep a ready-to-use flashlight with extra batteries.	4.47	0.74	Very High
7.	That I should have blankets prepared in case I need warmth during a disaster.	4.49	0.79	Very High
8.	That I should keep some cash available for emergency situations.	4.49	0.77	Very High
9.	That I should have a first aid kit at home that is ready to use when needed.	4.55	0.74	Very High
10.	That I should keep emergency contacts updated and my phone charged.	4.53	0.76	Very High
11.	That I should have a battery-operated radio to stay informed when there is no electricity or signal.	4.52	0.68	Very High
12.	That I should know where the designated community shelter is located in case of a disaster.	4.46	0.67	Very High
13.	That I should know where the emergency warning system is located in my community.	4.53	0.69	Very High
14.	That I should turn off water, gas, and electricity before evacuation.	4.43	0.75	Very High
15.	I have participated in disaster preparedness training before.	4.49	0.77	Very High
16.	I have taken part in a disaster drill before.	4.28	0.81	Very High
17.	I make sure my family is informed about disaster-related information.	4.35	0.74	Very High
18.	I have an emergency evacuation plan prepared for my family.	4.38	0.73	Very High
19.	My family and I have a designated meeting place and a plan for disasters.	4.38	0.73	Very High
20.	I listen to the radio and watch TV for weather updates after earthquakes or during rains.	4.36	0.80	Very High
21.	I immediately inform my family of any unusual or suspicious conditions.	4.47	0.77	Very High
22.	I keep a disaster supply kit or vehicle ready at home for emergency use.	4.36	0.82	Very High
23.	I store important documents in a sealed plastic bag for protection during disasters.	4.31	0.79	Very High
24.	A vehicle is available for me to use during emergencies.	4.41	0.79	Very High
25.	I am confident that I can respond properly during disaster situations.	4.32	0.82	Very High
Overall Mean		**4.43**	**0.49**	**Very High**

The findings show that respondents exhibited a very high level of disaster readiness, with an overall mean of 4.43 (SD = 0.49). Respondents demonstrated high awareness of disaster causes, emergency preparedness, evacuation

planning, emergency communication, and maintaining disaster supplies. The consistently high ratings across the readiness statements indicate that disaster preparedness practices have become well established within the community. The findings suggest that the ongoing implementation of disaster preparedness programs, regular emergency drills, and public awareness campaigns has significantly improved disaster readiness among respondents. Frequent exposure to disaster-related activities appears to have strengthened their preparedness behaviors and emergency response capabilities. This finding supports Bogdan et al. (2021), who found that communities participating in regular emergency preparedness training and simulation exercises demonstrated significantly higher disaster readiness and response efficiency. Similarly, Addiarto et al. (2025) reported that sustained disaster education and preparedness initiatives in disaster-prone communities substantially improve public readiness and emergency preparedness behaviors.

Relationship between Disaster Risk Reduction Awareness and Community Resilience

Table 4 presents the relationship between Disaster Risk Reduction Awareness and Community Resilience.

Table 4. *Correlation Analysis between Disaster Risk Reduction Awareness and Community Resilience*

Community Resilience	Disaster Risk Reduction Awareness				
	Earthquake	**Typhoon**	**Flood**	**Landslide**	**Overall**
Knowledge	0.579	0.613	0.564	0.667	0.689
	< .001	< .001	< .001	< .001	< .001
Practice	0.603	0.617	0.566	0.647	0.691
	< .001	< .001	< .001	< .001	< .001
Confidence	0.582	0.594	0.581	0.606	0.671
	< .001	< .001	< .001	< .001	< .001
Overall	0.581	0.598	0.581	0.653	0.686
	< .001	< .001	< .001	< .001	< .001

The findings show a strong, positive, and statistically significant relationship between disaster risk reduction awareness and community resilience ($r = 0.686$, $p < .001$). This indicates that respondents with higher levels of disaster risk reduction awareness also tend to exhibit higher levels of community resilience. The positive correlation suggests that greater awareness of disaster hazards, preparedness measures, and risk reduction strategies helps strengthen community members' adaptive capacities.

The results imply that disaster awareness equips individuals with the knowledge and skills necessary to anticipate hazards, respond effectively during emergencies, and recover more efficiently following disasters. As awareness increases, individuals become better able to make informed decisions and participate in disaster preparedness activities that ultimately strengthen community resilience. This finding is consistent with Lin and Lee (2025), who concluded that disaster awareness significantly enhances community resilience by improving adaptive capacities and encouraging proactive preparedness behaviors. Similarly, Rosales et al. (2023) emphasized that disaster risk reduction awareness promotes informed decision-making, preparedness planning, and community participation, all of which contribute to building resilient communities.

Relationship between Disaster Readiness and Disaster Risk Reduction Awareness

Table 5 presents the relationship between disaster readiness and disaster risk reduction awareness.

Table 5. *Correlation Analysis between Disaster Readiness and Disaster Risk Reduction Awareness*

	Disaster Readiness	**Earthquake**	**Typhoon**	**Landslide**	**Flood**
Earthquake	0.669	—			
	< .001	—			
Typhoon	0.645	0.676	—		
	< .001	< .001	—		
Landslide	0.6	0.699	0.669	—	
	< .001	< .001	< .001	—	
Flood	0.645	0.736	0.71	0.734	—
	< .001	< .001	< .001	< .001	—
Disaster Risk	**0.723**	0.875	0.864	0.889	0.901
Reduction Awareness	**< .001**	< .001	< .001	< .001	< .001

The findings show a strong, positive, and statistically significant relationship between disaster readiness and disaster risk reduction awareness ($r = 0.723$, $p < .001$). The results indicate that respondents with higher awareness of disaster risks, hazard mitigation, and preparedness measures are more likely to demonstrate greater disaster readiness. This suggests that disaster awareness underpins preparedness behaviors and emergency response capabilities. The findings imply that increasing public awareness through disaster education, early warning systems, and information dissemination encourages individuals to participate in preparedness activities such as evacuation planning, emergency drills, and emergency supply preparation. This finding supports Hargono et al. (2023), who emphasized that disaster awareness significantly predicts preparedness behaviors among disaster-prone communities. Likewise, Guo et al. (2025) reported that disaster education and community awareness programs positively influence disaster readiness by improving public knowledge and emergency response capabilities.

Relationship between Community Resilience and Disaster Readiness

Table 6 presents the relationship between community resilience and disaster readiness among the respondents.

Table 6. *Correlation Analysis between Community Resilience and Disaster Readiness*

	Disaster Readiness	Knowledge	Practice	Confidence
Knowledge	0.49	—		
	< .001	—		
Practice	0.533	0.725	—	
	< .001	< .001	—	
Confidence	0.526	0.661	0.716	—
	< .001	< .001	< .001	—
Community Resilience	**0.523**	0.807	0.814	0.743
	< .001	< .001	< .001	< .001

The findings show a moderate, statistically significant positive relationship between community resilience and disaster readiness ($r = 0.523$, $p < .001$). This indicates that respondents with higher levels of disaster readiness also tend to show higher levels of community resilience. This positive association suggests that preparedness behaviors, emergency planning, and disaster response capabilities strengthen the community's capacity to adapt, respond, and recover from disaster events.

The results imply that disaster readiness is an important component of resilience, enabling individuals and communities to anticipate hazards, minimize vulnerabilities, and recover more effectively from disasters. Prepared communities are more likely to have the confidence, practical skills, and adaptive capacities needed to withstand emergencies. This finding is consistent with Addiarto et al. (2025), who emphasized that disaster preparedness practices such as emergency planning, simulation exercises, and resource readiness significantly improve community resilience and recovery capacities. Similarly, Imperiale and Hargono et al. (2023) explained that communities with well-established preparedness systems and active public participation demonstrate greater resilience during and after disaster events.

Mediating Role of Disaster Readiness on the Relationship between Disaster Risk Reduction Awareness and Community Resilience

Table 7 presents the mediation analysis examining whether disaster readiness significantly mediates the relationship between disaster risk reduction awareness and community resilience.

Table 7. *Mediation Analysis of Disaster Readiness on Disaster Risk Reduction Awareness and Community Resilience*

Effect	Label	Estimate	SE	95% Confidence Interval		Z	p
				Lower	Upper		
Indirect	a × b	0.0475	0.0428	-0.0364	0.131	1.11	0.267
Direct	c	0.7583	0.0591	0.6424	0.874	12.83	< .001
Total	c + a × b	0.8058	0.0409	0.7257	0.886	19.71	< .001

Table 7 presents the mediation analysis examining whether disaster readiness statistically mediated the relationship between disaster risk reduction awareness and community resilience. The results show that the indirect effect ($a \times b = 0.0475$, $p = 0.267$) was not statistically significant, while the direct effect ($c = 0.7583$, $p < .001$) remained strong and significant. The total effect ($c + a \times b = 0.8058$, $p < .001$) confirmed that disaster risk reduction

awareness was positively associated with community resilience. This outcome highlights an important distinction between bivariate correlations and mediation pathways. Earlier analyses (Tables 4–6) demonstrated significant positive correlations among awareness, readiness, and resilience. However, in the mediation model, Path b (readiness → resilience) did not contribute enough explanatory power to produce a significant indirect effect. In practical terms, while readiness and resilience are positively related, readiness did not statistically account for how awareness is linked to resilience in this sample.

The non-significant mediation suggests that awareness may operate more directly in resilience. Awareness equips individuals with hazard knowledge, preparedness strategies, and risk reduction practices that appear sufficient to strengthen resilience without necessarily passing through readiness as an intermediary. This interpretation aligns with Appleby-Arnold et al. (2021), who noted that awareness can independently encourage preparedness behaviors, and with Sim et al. (2021), who observed that preparedness contributes to resilience but does not fully explain adaptive capacity. Conversely, Delilah Roque et al. (2020) emphasized that resilience is shaped by broader elements such as governance and social capital, which may explain why readiness alone did not mediate the awareness–resilience link.

By clarifying this distinction, the findings contribute to the literature by showing that in the Philippine local context, particularly in Parang, disaster risk reduction awareness directly strengthens resilience. Readiness remains an important correlated factor, but it did not statistically serve as the pathway through which awareness influenced resilience. This underscores the value of sustained awareness campaigns and hazard education programs, which may provide immediate, direct benefits for community resilience.

Path Estimates of the Mediating Role of Disaster Readiness

Table 8 presents the path estimates of the mediation model examining the mediating role of disaster readiness on the relationship between disaster risk reduction awareness and community resilience.

Table 8. *Path Estimates of the Mediating Role of Disaster Readiness*

						95% CI			
			Label	**Estimate**	**SE**	**Lower**	**Upper**	**Z**	**p**
DRA	→	DR	a	0.7751	0.0354	0.7057	0.844	21.9	< .001
DR	→	CR	b	0.0613	0.0552	-0.0468	0.169	1.11	0.266
DRA	→	CR	c	0.7583	0.0591	0.6424	0.874	12.83	< .001

Table 8 presents the regression estimates for the mediation model, showing the direct, indirect, and total effects of disaster risk reduction awareness on community resilience when disaster readiness was included as a potential mediator. The results indicate that the direct path from awareness to resilience remained strong and statistically significant ($\beta = 0.7583$, $p < .001$), while the indirect path through readiness was weak and non-significant ($\beta = 0.0475$, $p = 0.267$). The total effect ($\beta = 0.8058$, $p < .001$) confirmed the overall positive association between awareness and resilience.

These findings clarify why the mediation effect was not supported. Although disaster readiness was positively correlated with both awareness and resilience in earlier analyses, it did not contribute enough in the regression model to explain the awareness–resilience link. In other words, readiness did not statistically carry the effect of awareness onto resilience once both variables were modeled together. This distinction highlights that bivariate correlations can suggest associations, but mediation requires stronger explanatory power along Path b (readiness → resilience) than was observed here.

The persistence of the direct effect suggests that awareness itself — encompassing hazard knowledge, preparedness strategies, and risk reduction practices — is already a robust factor associated with resilience outcomes. This interpretation is consistent with Appleby-Arnold et al. (2021), who found that awareness independently encourages preparedness behaviors, and with Sim et al. (2021), who noted that preparedness contributes to resilience but does not fully account for adaptive capacity. In contrast, Delilah Roque et al. (2020) emphasized that resilience is shaped by broader social and governance factors, which may explain why readiness alone did not mediate the awareness–resilience relationship in this study.

By situating these findings in the Philippine local context, particularly in Parang, the results suggest that resilience is more directly strengthened by sustained awareness campaigns, hazard education, and risk communication initiatives. Readiness remains an important correlated dimension of resilience, but it did not statistically function as the pathway through which awareness influenced resilience in this sample. This reinforces the need for disaster risk reduction programs to prioritize awareness-building as a direct strategy for enhancing community resilience.

Conclusion

This study examined whether disaster readiness mediated the relationship between disaster risk reduction (DRR) awareness and community resilience in Parang, Maguindanao del Norte. The findings demonstrated that while disaster readiness was positively correlated with both awareness and resilience, it did not statistically function as a mediating mechanism. The non-significant indirect effect indicates that readiness did not carry the association between awareness and resilience once both variables were modeled together. At the same time, DRR awareness remained significantly associated with community resilience, underscoring the importance of hazard knowledge, preparedness strategies, and risk communication as direct factors linked to resilience outcomes. This suggests that awareness campaigns and education programs may benefit resilience directly, without necessarily requiring readiness to act as an intermediary.

From a practical standpoint, the results highlight the need to sustain and strengthen community-based DRR education, hazard communication, and awareness initiatives. These efforts remain critical in disaster-prone communities such as Parang, where resilience is closely tied to informed decision-making and collective preparedness. Future research should investigate other mechanisms that may shape resilience, including governance, social capital, and community collaboration, as suggested in prior studies. Longitudinal or mixed-methods approaches would provide deeper insights into how resilience develops over time and how different factors interact beyond the scope of correlational analysis.

Overall, the study contributes to the growing body of disaster risk reduction literature by clarifying that awareness is directly linked to resilience, while readiness, though important, did not statistically mediate this relationship in the present sample.

Contributions of Authors

Not indicated

Funding

Not indicated

Conflict of Interests

Not indicated

Acknowledgment

Not indicated

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