Community resilience of the Ayta Magbukon during the Covid-19 pandemic: Towars an indigenous resilience framework

Jayvie Villazor[1*], John Albert Dela Rosa[1]
[1]Bataan Peninsula State University, Philippines
[*]Corresponding author: jvillazor@bpsu.edu.ph

ARTICLE INFO

DOI:10.46223/HCMCOUJS.soci.en.16.11.4873.2026

Received: October 08th, 2025
Revised: December 16th, 2025
Accepted: January 17th, 2026

Keywords:
Ayta Magbukon; Covid-19 pandemic; ethnic group; ethnic minorities; indigenous community resiliency framework

ABSTRACT

This study explores community resilience among the Ayta Magbukon of Sitio Matalangao, Barangay Banawang, Bagac, Bataan, during the Covid-19 pandemic, highlighting the critical role of collective resilience in indigenous communities. Employing a phenomenological research design, the study captured the lived experiences of community members through in-depth household interviews, with 20 households represented by one to three adult members (typically the head of the household), and focus group discussions involving 20 community members. The analysis revealed five core dimensions of community resilience: cultural values and identity, community participation, cohesion outside the community, coping in education, and community-based leadership. These findings illustrate how the Ayta Magbukon leveraged their cultural heritage, communal bonds, and shared practices to adapt to adversity and sustain well-being amid the pandemic. Based on these insights, the study proposes an indigenous community resilience framework aimed at preserving cultural identity while strengthening adaptive capacities against future challenges. The framework emphasizes the integration of indigenous knowledge, promotion of collective action, and fostering of sustainable practices, providing practical guidance for enhancing resilience in similar indigenous contexts. This study contributes to the growing literature on community resilience by offering a nuanced understanding of how indigenous communities navigate uncertainty, and it informs strategies for culturally grounded interventions and policy development.

1. Introduction

The Covid-19 pandemic, a defining global crisis of the 21st century, functioned as a profound stress test for societies worldwide. Its repercussions, however, were not felt uniformly. Indigenous communities, with their distinct socio-cultural fabrics, deep-rooted connection to land, and often pre-existing marginalization, faced a constellation of unique and formidable challenges that amplified their vulnerability (Sansome et al., 2025). Their resilience was tested not merely by the virus itself, but by the collateral damage of public health measures and the disruption of the very social and economic systems that underpinned their survival and cultural continuity.

For the Ayta Magbukon of the Philippines, the pandemic's impact was acute and multifaceted. Movement restrictions and lockdowns, while implemented to curb viral spread, severed critical lifelines. Indigenous migrants were forced to return from urban centers to their home villages, leading to a sudden loss of income and the destabilization of fragile household economies (Franca et al., 2024; Pickering et al., 2023). This economic shock directly threatened

food security, disrupting access to markets and compromising traditional yet dynamic subsistence practices. Furthermore, the necessity for social distancing posed a profound paradox for a culture built on close-knit kinship, collective decision-making, and communal ceremonies, placing immense strain on the social cohesion that is a cornerstone of their identity and resilience (Ghosh-Jerath et al., 2022; Umanailo et al., 2024).

The academic response to the pandemic, while vast, has often been channeled through a particular lens. A significant body of research has diligently documented the detrimental psychological sequelae of Covid-19, focusing predominantly on the rise in anxiety, depression, and stress disorders at the individual and family levels across general populations (Ashmore & Sherwood, 2023; Xiong et al., 2020). While this focus is undeniably crucial, it has inadvertently created a significant gap in the literature. There remains a scarcity of studies that turn from a deficit-based model to explore the agentive and positive responses of communities, particularly indigenous ones. The narrative has been disproportionately centered on pathology and loss, often overlooking the stories of adaptation, ingenuity, and collective fortitude that emerged in the face of adversity. This oversight is especially critical for a group like the Ayta Magbukon, whose experiences are filtered through a unique cultural worldview and a history of resilience that remains largely absent from the broader scholarly conversation.

It is within this identified gap that the present study firmly positions its contribution. This research aims to recalibrate the narrative by embarking on a dedicated exploration of community resilience as it was manifested and perceived by the Ayta Magbukon during the pandemic. Moving beyond a sole focus on individual psychological impacts, this study adopts a holistic, community-centric lens. It seeks to provide a balanced and comprehensive representation of their journey, acknowledging the hardships while deliberately illuminating the strategies, strengths, and positive adaptations that were mobilized.

Specifically, this study is guided by two interconnected research questions designed to probe both the lived experience and the theoretical contribution:

1. How did the Ayta Magbukon community perceive, experience, and enact collective resilience in response to the challenges posed by the Covid-19 pandemic?

2. Based on their lived experiences, what actionable framework for indigenous community resilience can be developed to serve as a model for future preparedness?

By addressing these questions, this research seeks to achieve several key objectives. Firstly, it will enrich the academic discourse on disaster response and indigenous studies by providing nuanced, empirically-grounded data on resilience from the community's own perspective. Secondly, and more pragmatically, it aims to develop a culturally-informed resilience framework. This framework is envisioned not as a prescriptive tool, but as a guiding pattern-a source of insight and strategy that can empower the Ayta Magbukon and other indigenous communities globally. By distilling the lessons of their experience, this study contributes to fostering greater preparedness, adaptability, and agency, equipping these communities to navigate future crises with strengthened collective resolve.

2. Theoretical basis

Resilience is activated during difficult situations. This trait is not only common among the non-indigenous population but is also extensively observed among indigenous communities. Numerous studies have established that community resilience is particularly evident among indigenous populations facing various challenges. Indigenous people demonstrate resilience in terms of environmental change, which includes dislocation due to land dispossession, resettlement, and landscape fragmentation, issues compounded by rapid environmental changes (Ford et al., 2020). Additionally, indigenous communities are able to

showcase resilience during hydrometeorological disasters, as well as the risks posed by climate change, especially in coastal and small island communities (Hiwasaki et al., 2014). Moreover, resilience was also evident during the Covid-19 pandemic. For example, elders from the Peruvian Amazon elders from the Shawi and Ashaninka Peoples living in the forest protected their communities by building new houses and relying on forest foods. They gained access to fish farms and homegrown foods, which helped them survive during the pandemic. Similarly, other indigenous communities such as the Nilgiris district in Tamil Nadu, India, moved further into the forest to avoid the impacts of the pandemic (Zavaleta-Cortijo et al., 2023). These specific mechanisms, such as traditional farming, food preservation, and medicinal practices, demonstrate the resilience of indigenous peoples worldwide in confronting and adapting to the challenges posed by the Covid-19 pandemic.

3. Methodology

3.1. Research design

This study employed a qualitative phenomenological design to explore the lived experiences of the Ayta Magbukon community and their perceptions of resilience during the Covid-19 pandemic. By focusing on their firsthand accounts, the research aimed to uncover how the community navigated the challenges brought by the global health crisis.

3.2. Participants and sampling

The study focused on the Ayta Magbukon community from Sitio Matalangao, Bagac, Bataan, selecting participants who represented each household, including the chieftain, council members, and adult family members. The researchers utilized purposive sampling to identify the qualified participants for the study. The participants had to be residing in Sitio Matalangao during the pandemic and actively involved in community resilience efforts. The study excluded underage individuals, as it aimed to capture the holistic experiences of elders and adults who directly engaged with and contributed to the community's resilience during the Covid-19 crisis.

3.3. Research instrument

The study utilized two instruments: the Robofoto and a semi-structured questionnaire. The Robofoto was designed by the researchers to gather the socio-demographic profiles of the participants, providing essential background information, while the semi-structured questionnaire was developed to explore the participants' experiences related to community resilience. Both instruments were validated by experts, one in positive psychology and another in indigenous studies. Their comments, suggestions, and recommendations were directly applied to enhance both instruments.

3.4. Ethical consideration

Before conducting the study, the researcher obtained permission from the National Commission on Indigenous Peoples (NCIP) to ensure compliance with ethical and legal standards dated June 27, 2024. After approval, the researcher sought final authorization from the chieftain of the Ayta Magbukon tribe, respecting their autonomy and cultural protocols. The study adhered to the ethical principles outlined in Section 10 of the Psychological Association of the Philippines' Code of Ethics, ensuring the protection of participants' rights and well-being. Additionally, the research complied with the Data Privacy Act of the Philippines, safeguarding the confidentiality and privacy of all collected information.

3.5. Data gathering

The initial step involved the researchers seeking permission from the National Commission on Indigenous Peoples (NCIP) and having the approval document formally

notarized. After this, the researchers visited Sitio Matalangao, Barangay Banawang, Bagac, Bataan, to meet with the chieftain of the Ayta Magbukon community, along with other key members. This initial meeting helped the researchers build rapport, but its primary purpose was to obtain permission and gain early insights into the community's experiences during the pandemic. Following this, the researchers returned to the community and conducted in-depth household interviews across 20 households for four days, with each household represented by one to three adult family members (accounting for 28 participants). The number of family members present during each interview depended on their availability at the time. The interviews lasted between 45 minutes and one hour and were recorded using an audio recorder to ensure accuracy during transcription. The researchers also took written notes to capture important information and document participants' nonverbal behaviors. After completing the household interviews, a focus group discussion was conducted, involving 20 adult community members from different households. The inclusion of the 20 participants was contingent upon their availability during the scheduled focus group discussion. This final data-gathering activity aimed to deepen the understanding of community resilience, ensuring a comprehensive and collective perspective on how the Ayta Magbukon experienced resilience during the challenges of the Covid-19 pandemic. To ensure the study's trustworthiness, the analysis structure was shared with the participants for validation to confirm its accuracy in representing their experiences of collective resilience during the Covid-19 pandemic.

3.6. Data analysis

The study employed Colaizzi's (1978) 7-step descriptive phenomenology for data analysis. First, the researchers familiarized themselves with the transcribed field texts by thoroughly rereading them. Next, they extracted significant statements directly relevant to community resilience, the core experience under investigation. From these statements, the researchers identified meanings tied to community resilience. These meanings were then clustered into common themes across all participants. Following this, an exhaustive description of community resilience was developed, which was later condensed to produce the fundamental structure of the study. Finally, the findings were returned to the Ayta Magbukon community for verification, ensuring the results accurately reflected their lived experiences and perspectives.

4. Results

The study identified five "C" themes that convey the experiences of the Ayta Magbukon regarding community resilience during the Covid-19 pandemic.

4.1. Community resilience

4.1.1. Cultural values and identity

Indigenous cultural values and identity are deeply rooted in the traditional beliefs, practices, customs, and heritage of a particular indigenous community or group. These values encompass the collective wisdom, knowledge systems, spirituality, and social norms that have been passed down through generations, shaping the cultural identity of the community (Usher et al., 2021). In times of crisis, such as the Covid-19 pandemic, indigenous communities often turn to their cultural roots and traditional way of life as a form of resilience and strength.

The Ayta Magbukon demonstrated resilience during the pandemic by embracing their indigenous cultural values. They returned to traditional practices like planting crops, ensuring food security, and reconnecting with their heritage, which reaffirmed their identity and honored their ancestors. Additionally, they utilized ancestral knowledge of traditional medicine, using herbal remedies from their environment to treat illnesses. This highlighted their resourcefulness, self-sufficiency, and deep bond with nature, showcasing their ability to thrive in adversity.

4.1.2. Community participation

Community participation in Indigenous contexts involves the active involvement and collaboration of community members in decision-making processes, activities, and initiatives that affect their collective well-being (Usher et al., 2021). It encompasses a shared sense of responsibility, cooperation, and contribution to achieving common goals within the community. Indigenous community participation is based on cultural values, traditions, and interconnectedness, where individuals work together to address challenges and enhance resilience as a unified group.

The Ayta Magbukon demonstrated resilience during the Covid-19 pandemic through collective action. They established checkpoints to monitor outsiders, ensuring safety, and organized a community pantry system for fair resource distribution. These efforts showcased their unity, shared responsibility, and commitment to protecting and supporting one another.

4.1.3. Cohesion outside the community

Cohesion outside the community refers to the collaborative relationships and support networks established by a community with external entities, such as organizations, government agencies, and religious groups, to enhance resilience during challenging times (Hufnajel et al., 2020). This form of cohesion involves building partnerships and maintaining connections with outside stakeholders to access resources, guidance, and assistance that can help the community navigate crises and overcome adversities. By fostering cooperation and solidarity beyond their immediate community, individuals can leverage external support to strengthen their resilience and collectively address challenges.

The Ayta Magbukon bolstered their resilience during the Covid-19 pandemic through support from external entities like the religious sector and local government. This collaboration provided resources, guidance, and moral support, emphasizing the importance of solidarity and mutual aid in overcoming crisis challenges.

4.1.4. Coping in education

Coping in education refers to the strategies and mechanisms individuals or communities use to address challenges affecting learning and educational outcomes. For the Ayta Magbukon tribe in Matalangao, Bagac, Bataan, coping during the Covid-19 pandemic involved innovative approaches to mitigate the impact of school closures on children's education. The tribe appointed college graduates from within the community to serve as mentors and tutors for younger students, ensuring learning continuity. This approach exemplified an indigenous coping strategy that leveraged internal resources to address educational disruptions. According to Cresswell (2007), coping strategies in education can include peer tutoring, mentoring, and collaborative learning, which enhance academic performance, motivation, and well-being in challenging circumstances. The Ayta Magbukon's use of college graduates as mentors aligns with this framework, demonstrating their adaptability and resourcefulness. By creating a system of peer support, the tribe not only bridged the educational gap but also fostered resilience and empowerment among its members. This strategy also reinforced a sense of responsibility and solidarity within the community, as mentors took an active role in supporting younger learners. The initiative highlighted the tribe's commitment to education and its ability to adapt traditional practices to modern challenges. Ultimately, Ayta Magbukon's approach showcased the importance of community-based solutions in sustaining education during crises. Their efforts underscored the value of indigenous knowledge and internal collaboration in overcoming adversity, as noted by Cresswell (2007).

4.1.5. Community-based leadership

Community-based leadership refers to a form of governance and decision-making that prioritizes the collective welfare and participation of community members in shaping and implementing initiatives to address challenges, foster resilience, and promote well-being. In indigenous communities, community-based leadership often centers on traditional structures, values, and practices that emphasize collaboration, consensus-building, and shared responsibility (Cajete, 1994). It recognizes the importance of local knowledge, cultural values, and interconnectedness in guiding sustainable and holistic approaches to governance and problem-solving.

In the Ayta Magbukon tribe in Matalangao, Bagac, Bataan, the strong leadership of the chieftain played a vital role in steering the community through the complexities of the Covid-19 pandemic. The chieftain's guidance, decision-making, and ability to mobilize collective action were critical in ensuring the tribe's resilience and well-being during the crisis. By providing clear direction, fostering unity, and facilitating coordinated efforts, the chieftain enabled the community to plan, strategize, and respond effectively to the challenges brought about by the pandemic.

The chieftain's leadership style, exemplified in the Ayta Magbukon tribe, reflects the principles of community-based leadership, wherein the focus is on inclusivity, collaboration, and empowerment of community members. Through the chieftain's leadership, the community was able to organize itself, identify and address its needs, allocate resources efficiently, and implement measures to safeguard its health and safety. This participatory approach not only enhanced the tribe's resilience but also underscored the value of trusted leaders in guiding communities through periods of uncertainty and adversity (Hota & Gope, 2025).

4.2. Indigenous community resiliency framework

Plants sustain themselves through photosynthesis, with leaves capturing light, roots absorbing water, and stems transporting nutrients, demonstrating how interdependent parts create a whole. Similarly, the land, though not physically attached to the plant, is vital for its survival, providing nutrients and anchoring roots. This mirrors indigenous peoples, who thrive on collectivity and deep connections to their land, which sustains their existence. Just as plants depend on the land, indigenous communities rely on their territory for survival, especially during crises like the Covid-19 pandemic. The framework of land and plant parts-roots, stem, and leaves-illustrates how indigenous communities, deeply rooted in their land, withstand adversity and thrive.

4.2.1. Roots

The roots, deeply attached to the land, absorb nutrients essential for a plant's survival, ensuring its firmness and stability. Similarly, indigenous peoples rely on ancestral knowledge, symbolized by roots-to maintain their community's resilience and unity. This knowledge, a legacy of their ancestors, serves as a strong foundation for future generations (Mistry et al., 2021; Laing, 2023). Just as roots sustain plants, indigenous knowledge enables communities to face challenges collectively. If this knowledge is not shared or valued, the community's stability, like a plant's, would weaken. Thus, preserving and passing on indigenous knowledge is vital for the community's enduring strength.

4.2.2. Stem

The stem, working alongside the roots, provides structural support, transports nutrients, and ensures the plant's growth and stability. Similarly, indigenous peoples embody unity, which strengthens their community and fosters collective resilience (Absolor et al., 2023; Miller,

2017). This unity, rooted in shared traditions and principles, enables them to face challenges like the Covid-19 pandemic with solidarity. Unlike mainstream societies, indigenous communities often achieve consensus more easily due to their shared practices and domains (Durie & United Nations, 2016; Satyawan et al., 2022). Their unity is sustained through participatory governance and individual commitment, ensuring stability and cohesion. Just as the stem supports the plant, unity fortifies the indigenous community, enabling them to thrive amidst adversity.

4.2.2.1. Participatory governance

Effective administration refers to the undisputed capability of the indigenous leaders. The community in Matalangao, Bagac, Bataan, is fortunate enough to have such an effective leader. Her role is to keep the domain and the people protected by rigorously upholding both health and community safety protocols. Her initiatives were supported by various community members, which immediately brought positive and promising repercussions - little to no anomalies and notable unrestricted activities within the ancestral land. Unity is indeed substantial in keeping the community solid, but effective leadership is what facilitates the attainment of unity.

4.2.2.2. Individual commitment

Another key ingredient to solidarity is individual responsibility. It refers to the roles or functions to be partaken by the native communities to uphold the principle that everything, including responsibility, is shared (O'Faircheallaigh, 2023). This represents the passage from a Filipino song entitled "Pananagutan". The line goes "*Walang sinuman ang nabubuhay, para sa sarili lamang*" [no one lives solely for oneself], suggesting that one person has responsibility to the other. For indigenous peoples, individual responsibility is the cornerstone of solidarity. Every responsibility, when done and executed with purpose, shall compound and eventually turn into "unity".

4.2.3. Leaves

The roots and stem maintain the plant's stability, while leaves capture sunlight to produce food, essential for its survival. Similarly, indigenous communities rely on their inherent dispositions-individual qualities that form a strong foundation for collective responsibility and land protection (Gilbert, 2006; Korsmo, 2007). These dispositions ensure predictability and unity, creating a solid connection among community members (Bamba et al., 2021). The indigenous qualities, such as resilience, respect, and stewardship, act as the base from which the community stands, enabling them to uphold their values and thrive collectively.

4.2.3.1. Commitment

This character, for the Indigenous community in Matalangao, Bagac, Bataan, is synonymous with "grit". Most of the time, the word means a strict adherence to a certain principle. However, in the context of indigenous peoples, the word encompasses both. During the pandemic, the community exemplified grit. They firmly adhered to the idea that everything could be surmounted when the community works in unity. With that, Indigenous peoples strictly adhered to the principle of "togetherness" (Absolor et al., 2023).

4.2.3.2. Accountability and responsibility

Accountability and Responsibility are the words that are often used interchangeably. Accountability is more inclined toward duty, while responsibility emphasizes obligation. For indigenous peoples, both are essential in maintaining a resilient community. Each of the members shares an equal obligation to do tasks that are attributed to the general welfare (Lilley, 2021). On the other hand, it is their duty to accept liability whenever their actions do not align

with the shared principles.

4.2.3.3. Interdependence

The members from native communities, most of the time, work in groups (Absolor et al., 2023; Miller, 2017). This means that a job can certainly be done without much of a burden when they are "together". The indigenous groups in Matalangao, Bagac, Bataan attested to this principle by articulating that work, at least those directed to the community, is not a sole responsibility but an interconnected duty from which each member is obliged to fulfill.

4.2.4. The two-way relationship between the plants and the land

The plant, its parts, and the land share an inseparable relationship, where each element sustains the other. The land provides nutrients and stability for the plant, while the plant prevents soil erosion and maintains fertility (Scavo et al., 2017). This mutual dependence ensures both thrive, even in adverse conditions. Similarly, indigenous peoples have an intimate bond with their land, which serves as a source of resources, protection, and cultural legacy (Balilla et al., 2012; Lacroix, 2021; Sarkowsky, 2020). During the Covid-19 pandemic, the Ayta Magbukon remained resilient, shielded by their land. This connection underscores that collectivity, paired with the land's support, enables communities to overcome challenges. In return, indigenous peoples uphold their duty to preserve and protect their land (Xanthaki, 2007).

Thus, the arrow upward represents the benefits provided by the land to Indigenous peoples, such as resources, medicine, and livelihood.

Resources. Resources, in the context of indigenous peoples in Matalangao, Bagac, Bataan, are anything ranging from food and materials that can be found within their domain. Such resources possess different beneficial functions and utilities, imperative for daily sustenance and survival (Satyawan et al., 2022). The land, despite its ability to provide sufficient resources, the native communities are in charge of regulating its consumption to ensure that everything is balanced (Bansal et al., 2023). While such resources lend huge benefits to the community, it is utmostly recommended that everything should be consumed and used moderately.

4.2.4.1. Medicine

The Covid-19 pandemic's similarity to common respiratory symptoms deterred many, including indigenous communities, from seeking medical help due to fear of misdiagnosis and isolation, which conflicted with their values of collectivity (Hornstein & Eisenberger, 2023; Kopar et al., 2021). However, the Ayta Magbukon tribe in Bagac, Bataan, relied on their land as a "pharmaceutical station," utilizing herbal medicines to address health issues (Patron, 2023; Singh, 2024). This practice, rooted in their ancestral domain, provided natural remedies that protected them from Covid-19-related health challenges, reinforcing their resilience and traditional healing methods.

4.2.4.2. Livelihood

Before the pandemic, people viewed their homes merely as resting places, spending most of their time working to sustain their families. The pandemic's economic fallout, caused by widespread business closures, worsened this struggle (Barrot et al., 2020; Fairlie et al., 2022; Kodama et al., 2024). However, indigenous communities, like the Ayta Magbukon in Bagac, Bataan, relied on their land for livelihood. Despite losing some income sources, their nutrient-rich soils allowed farming to continue uninterrupted, providing daily necessities (Estrada et al., 2021; Mchenry et al., 2012). While mainstream society faced restrictions, indigenous communities thrived within their domains. Limited interaction with outside markets led parents to teach children the value of consuming locally produced foods, reinforcing cultural practices and self-sufficiency (Kuhnlein & Receveur, 1995; Lemon, 2019).

However, the downward arrow shows specific measures to be taken to preserve the land and maintain the benefits it provides by means of balanced consumption, and support from the local government.

4.2.4.3. Balanced consumption

Indigenous peoples in Matalangao, Bagac, Bataan practice balanced consumption, guided by moderation to ensure sustainability (Msangi, 2014). They consume resources sparingly or seek alternatives within their domain, preserving them for future generations (Bansal et al., 2023; Throsby & Petetskaya, 2016). This principle was exemplified through their community pantry, a local initiative where members contributed and shared resources based on the idea of "give what you can, take only what you need" (Abesamis et al., 2023; Cuayzon, 2021; Hernandez et al., 2024). This sustainable approach, rooted in their cultural values, highlights their commitment to collective well-being and resource preservation.

4.2.4.4. Support from the local government

The local government, with its authority, crafts policies to help indigenous peoples preserve their land, which sustains their community (Elers & Dutta, 2023). During the Covid-19 pandemic, it provided "ayudas"-relief goods or financial aid-to support them when resources were scarce (Diaz et al., 2023). The framework highlights the inseparable bond between indigenous peoples and their land as key to their resilience during the crisis. Their dispositions, solidarity, and unity exemplify that resilience is collective, not individual. A solid, unified community is inherently resilient, offering a model for overcoming future challenges.

Figure 1

Community Resilience Framework

Note. Data analysis result of the research

5. Conclusion

The development of the Indigenous Resiliency Framework is rooted in the lived experiences of the Ayta Magbukon during the Covid-19 pandemic. This study encapsulates the "5Cs" of community resilience: cultural values and identity, community participation, cohesion outside the community, coping in education, and community-based leadership. By integrating these dimensions, the framework not only amplifies the voices of the Ayta Magbukon but also aligns with their aspirations for well-being, ensuring its relevance to both past experiences and future challenges.

From a psychological and Indigenous studies perspective, these insights call for a paradigm shift in understanding and supporting resilience. Future policies and research must integrate Indigenous perspectives on crisis management to create culturally sensitive and sustainable interventions. The Ayta Magbukon's experiences, particularly their embodiment of the "5Cs," offer valuable lessons in self-sufficiency, adaptability, and communal strength. Documenting and preserving these experiences is crucial, as they provide a blueprint for building holistic, resilient communities.

SCIENTIFIC CONTRIBUTION

The manuscript clearly identifies a research gap; the manuscript extends or refines existing theories; the manuscript proposes a new theoretical or analytical model; the manuscript introduces or improves research methods; the manuscript provides new datasets or empirical evidence; the manuscript offers policy/managerial/technological implications; the manuscript opens new directions for further research.

AUTHOR CONTRIBUTIONS

CRediT: **Jayvie Villazor**: Conceptualization, Methodology, Software, Validation, Formal Analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Supervision, Project Administration, Funding Acquisition; **John Albert Dela Rosa**: Software, Validation, Formal Analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, Funding Acquisition.

FUNDING

This research received no external funding.

NO CONFLICT OF INTEREST STATEMENT

All authors declare that they have no conflict of interest.

References

Abesamis, E., Suárez, C. A., Rivera, M. L., Montevirgen, N., & Cleofas, J. (2023). COVID-19 community pantries as community health engagement: the case of Maginhawa Community Pantry in the Philippines. *Community Development Journal*, *58*(4), 659-678. https://doi.org/10.1093/cdj/bsac026

Absolor, J., Batara, O., Garcia, M. T., Morla, E., Carino, C., & Orpia, C. (2023). Cultural Practices of the Indigenous Peoples (IPS) of San Emilio, Ilocos Sur: Then and now. *International Journal of Research and Innovation in Social Science (IJRISS)*, *7*(7), 430-448. https://doi.org/10.47772/IJRISS.2023.70732

Ashmore, P., & Sherwood, E. (2023). An overview of COVID-19 global epidemiology and discussion of potential drivers of variable global pandemic impacts. *Journal of Antimicrob Chemother*, *78*(12), Article dkad311. https://doi.org/10.1093/jac/dkad311

Balilla, V. S., Anwar-McHenry, J., McHenry, M. P., Parkinson, R. M., & Banal, D. T. (2012). Aeta Magbukún of Mariveles: Traditional Indigenous forest resource use practices and the Sustainable Economic Development Challenge in remote Philippine regions. *Journal of Sustainable Forestry*, *31*(7), 687-709. https://doi.org/10.1080/10549811.2012.704775

Bamba, J., Candelario, C., Gabuya, R., & Manongdo, L. (2021). Community organizing for

indigenous people in the Philippines: A proposed approach. *Journal of Ergonomics*, *11*(5), 1-8.

Bansal, S., Sarker, T., Yadav, A., Garg, I., Gupta, M., & Sarvaiya, H. (2023). Indigenous communities and sustainable development: A review and research agenda. *Journal of Public Affairs, 23*(4), e2843. https://doi.org/10.1002/joe.22237

Barrot, J., Bonelli, M., Grassi, B., & Sauvagnat, J. (2020). *Causal effects of closing businesses in a pandemic* (HEC Paris Research Paper No. FIN-2020-1377). https://doi.org/10.2139/ssrn.3599482

Cajete, G. (1994). *Look to the mountain: An ecology of Indigenous education*. Kivaki Press.

Colaizzi, P. F. (1978). Psychological research as the phenomenologist views it. In R. S. Valle & M. King (Eds.), *Existential-phenomenological alternatives for psychology* (pp. 48-71). Oxford University Press.

Cresswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Sage Publications.

Cuayzon, M. L. (2021). Community pantry: Revitalizing the "bayanihan spirit" of the Filipinos amidst the COVID-19 pandemic. *Mazedan International Journal of Research in Humanities and Social Sciences, 2*(1), 6-12.

Diaz, M. L., Lipata, A., Tagacay, M. E., Vigonte, F., & Abante, M. (2023). *The effects of ayuda distribution among indigent individuals from the local government unit (A literature review)*. https://doi.org/10.2139/ssrn.4604884

Durie, M., & United Nations (2016). *Indigenous health and well-being: Reflections on the implementation of the United Nations Declaration on the Rights of Indigenous Peoples*. United Nations Permanent Forum on Indigenous Issues.

Elers, C., & Dutta, M. (2023). Local government engagement practices and Indigenous interventions: Learning to listen to Indigenous voices. *Health Communication, 50*(1), 39-52. https://doi.org/10.1093/hcr/hqad027

Estrada, E., Vargas, D., & Lucero, J. N. (2021). *Communication approaches and farming practices of Indigenous peoples in the Philippines*. https://doi.org/10.2139/ssrn.3789896

Fairlie, R., Fossen, F., Johnsen, R., & Droboniku, G. (2022). Were small businesses more likely to permanently close in the pandemic? *Small Business Economics, 60*(3), 1025-1048. https://doi.org/10.1007/s11187-022-00662-1

Ford, J. D., King, N., Galappaththi, E. K., Pearce, T., McDowell, G., & Harper, S. L. (2020). The resilience of Indigenous peoples to environmental change. *One Earth, 2*(6), 532-543 https://doi.org/10.1016/j.oneear.2020.05.01

Franca, G. C., Franca, J. L., & Lumogdang, L. P. (2024). Cultural perspectives on the impact of COVID-19 among the Blaan tribal community of Southern Mindanao in the Philippines: A relativist perceptual analysis. *Asian Journal of Education and Social Studies, 50*(8), 318-332. 10.9734/ajess/2024/v50i81534

Ghosh-Jerath, S., Kapoor, R., Dhasmana, A., Singh, A., Downs, S., & Ahmed, S. (2022). Effect of COVID-19 pandemic on food systems and determinants of resilience in Indigenous communities of Jharkhand State, India: A serial cross-sectional study. *Frontiers in Sustainable Food Systems, 6*, Article 724321. https://doi.org/10.3389/fsufs.2022.724321

Gilbert, J. (2006). *Indigenous peoples' land rights under international law: From victims to actors*. Transnational Publishers.

Hernandez, C. J., Ivan Efreaim, & Delgado, C. A. (2024). Community pantry as a form of Bayanihan in the light of Albert Camus' concept of rebellion. *XLinguae European Scientific Language Journal, 17*(3), 13-23. https://doi.org/10.18355/XL.2024.17.03.02

Hiwasaki, L., Luna, E., Syamsidik, & Shaw, R. (2014). *Local & indigenous knowledge for community resilience: Hydro-meteorological disaster risk reduction and climate change adaptation in coastal and small island communities*. UNESCO.

Hornstein, E., & Eisenberger, N. (2023). Exploring the effect of loneliness on fear: Implications for the effect of COVID-19-induced social disconnection on anxiety. *Behaviour Research and Therapy, 160*, Article 104101. https://doi.org/10.1016/j.brat.2022.104101

Hota, M. S., & Gobe, L. (2025). Roots of resilience: Indigenous leadership styles among tribal communities of Purulia. *Boston Research Journal of Social Sciences & Humanities, 5*(3), 5-20. https://doi.org/10.63942/brjssh.v5.i3.p5.53699

Hufnajel, J., Reckling, M., & Ewert, F. (2020). Diverse approaches to crop diversification in agricultural research. A review. *Agronomy for Sustainable Development, 40*, Article 14. https://doi.org/10.1007/s13593-020-00617-4

Kodama, W., Azhgaliyeva, D., Long, T., & Morgan, P. (2024). Family business during the COVID-19 pandemic in Asia: Role of government financial aid and coping strategies. *World Development, 173*, Article 106653. https://doi.org/10.1016/j.worlddev.2024.106653

Kopar, P., Kramer, J., Brown, D., & Bochicchio, G. (2021). Critical ethics: How to balance patient autonomy with fairness when patients refuse coronavirus disease 2019 testing. *Critical Care Explorations, 3*(1), e0326. https://doi.org/10.1097/CCE.0000000000000326

Korsmo, F. (2007). Nordic security and the Sámi minority: Territorial rights in northern Fennoscandia. *Human Rights Quarterly, 10*(4), 509-524.

Kuhnlein, H., & Receveur, O. (1995). Dietary change and traditional food systems of indigenous peoples. *Annual Review of Nutrition, 16*(1), 417-442. https://doi.org/10.1146/annurev.nu.16.070196.002221

Lacroix, L. (2021). *Indigenous territoriality and political agenda in Bolivia (1970-2010)*. https://shs.hal.science/halshs-00738479

Laing, A. F. (2023). Reproducing territory: Between resource nationalism and Indigenous self-determination in Bolivia. *Geoforum, 108*, 28-38. https://doi.org/10.1016/j.geoforum.2019.11.015

Lemon, J. (2019). Gifts, ancestors, and relations: Notes toward an Indigenous new materialism. *Enculturation: A Journal of Rhetoric, Writing, and Culture, 31.*

Lilley, H. (2021). *Land and life: Indigenous Filipinos' ancestral domain rights*. Pulitzer Center. https://pulitzercenter.org/stories/land-and-life-indigenous-filipinos-ancestral-domain-right

McHenry, M., Balilla, V., Parkinson, R., & McHenry, J. (2012). The indigenous aetas of Bataan, Philippines: Extraordinary genetic origins, modern history and land rights. *Singapore Journal of Tropical Geography, 34*(3), 292-306. https://doi.org/10.1111/sjtg.12038

Miller, K. (2017). Balancing individualism and collectivism in an Australian Aboriginal context.

In *Social and psychological determinants of value priorities* (pp. 123-140). https://doi.org/10.1007/978-3-319-58014-2_10

Mistry, J., Jafferally, D., Xavier, R., Albert, G., Robertson, B., Benjamin, R., Mendonca, S., & Ingwall-King, L. (2021). Assessing the state of traditional knowledge at the national level. *Global Environmental Change, 72*, Article 102409. https://doi.org/10.1016/j.gloenvcha.2021.102409

Msangi, J. (2014). *Food security among small-holder farmers in southern Africa*. Springer. https://doi.org/10.1007/978-3-319-09495-3

O'Faircheallaigh, C. (2023). Indigenous peoples: Diversity and shared experiences. In *Indigenous peoples and mining: A global perspective* (pp. 50-76). Oxford University Press. https://doi.org/10.1093/oso/9780192894564.003.0005

Patron, E. J. (2023). *Traditional Filipino medicine and the quest to cure the incurable.* University of the Philippines Diliman College of Science. https://science.upd.edu.ph/traditional-filipino-medicine-and-the-quest-to-cure-the-incurable/

Pickering, K., Galappaththi, E. K., Ford, J. D., Singh, C., Zavaleta-Cortijo, C., Hyams, K., Miranda, J. J., Arotoma-Rojas, I., Togarepi, C., Kaur, H., Arvind, J., Scanlon, H., Namanya, D. B., & Anza-Ramirez, C. (2023). Indigenous peoples and the COVID-19 pandemic: A systematic scoping review. *Environmental Research Letters, 18*(3), Article 033001. https://doi.org/10.1088/1748-9326/acb804

Sansome, N. M. S., Mello, L. S., Martins, J. P., & Marson, F. A. L. (2025). Impact of coronavirus disease (COVID)-19 on the Indigenous population of Brazil: A systematic review. *Journal of Racial and Ethnic Health Disparities*. Advance online publication. http://dx.doi.org/10.1007/s40615-025-02451-4

Sarkowsky, K. (2020). Cartographies of the self: Indigenous territoriality and literary sovereignty in contemporary native American life writing. *Journal of Transnational American Studies*, *11*(1), 103-125. https://doi.org/10.5070/t8111046994

Satyawan, I. A., Putri, A. K., & Setyanto, A. E. (2022). The resilience of Indigenous peoples in North Kalimantan to corporate investment. *GMPI Conference Series, 1*, 71-82. https://doi.org/10.53889/gmpics.v1.87

Scavo, A. S., Abbate, C., & Mauromicale, G. (2017). Plant allelochemicals: Agronomic, nutritional and ecological relevance in the soil system. *Plant and Soil, 442*(1-2), 23-48. https://doi.org/10.1007/s11104-019-04190-y

Singh, A. K. (2024). Analysing work from home after COVID-19 as the new normal (SWOT Analysis). *DME Journal of Management, 5*(1), 34-50. https://doi.org/10.53361/dmejm.v5i01.05

Throsby, D., & Petetskaya, E. (2016). Sustainability concepts in Indigenous and non-Indigenous cultures. *International Journal of Cultural Property, 23*(2), 119-140. https://doi.org/10.1017/S0940739116000084

Umanailo, M. C. B., Umanailo, A. R., & Umanailo, A. D. S. (2024). *Life of Indigenous communities during the COVID-19 pandemic.* https://doi.org/10.32388/A62SE6.2

Usher, K., Jackson, D., Walker, R., Durkin, J., Smallwood, R., Robinson, M., Sampson, N., Adams, I., Porter, C., & Marriott, R. (2021 Indigenous resilience in Australia: A scoping

review using a reflective decolonizing collective dialogue. *Frontiers in Public Health, 9*, Article 630601. https://doi./10.3389/fpubh.2021.630601

Xanthaki, A. (2007). Indigenous land rights. In *Indigenous rights and united nations standards* (pp. 237-279). Cambridge University Press. https://doi.org/10.1017/CBO9780511494468.007

Xiong, J., Lipsitz, O., Nasri, F., Lui, L. M., Gill, H., Phan, L., Chen-Li, D., Iacobucci, M., Ho, R., Majeed, A., & McIntyre, R. S. (2020). Impact of Covid-19 pandemic on mental health in the general population: A systematic review. *Journal of Affective Disorders, 277*, 55-64. https://doi.org/10.1016/j.jad.2020.08.001

Zavaleta-Cortijo, C., Ford, J. D., Galappaththi, E. K., Namanya, D. B., Nkwinti, N., George, B., Togarepi, C., Akugre, F. A., Arotoma-Rojas, I., Pickering, K., Perera, C. D., Dharmasiri, I. P., Chicmana-Zapata, V., Bezerra, J., Nuwagira, R., Nakwafila, O., Amukugo, H., Hangula, M., Krishnakumar, J., … Miranda, J. (2023). Indigenous knowledge, community resilience, and health emergency preparedness. *The Lancet Planetary Health, 7*(8), e684-e696. https://doi.org/10.1016/S2542-5196(23)00140-7

© 2026 The Author(s). Published by Ho Chi Minh City Open University Journal of Science - Social Sciences. This article is licensed under CC BY-NC 4.0.