

BIOETHICS AS MENTAL HEALTH? THE CORE RESPONSE ON TYPHOON RAI IN SOUTHERN LEYTE, PHILIPPINES

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ABSTRACT

Super Typhoon Rai recently devastated the Philippines in December of 2021 and consequently disrupted its public and mental health interventions. With glocality standing at the interface between the global and the local, the objective of the study is to gather the core mental health response of those affected by the Typhoon in the province of Southern Leyte. As a methodology, the paper utilized face-to-face and online qualitative investigation from selected key informants in the province's towns and islands. The paper is significant since it aims to add to the existing discussion from a province not reported in recent literature from disasters. This study preliminarily enables the emergence of glocal emergency bioethics as a link to disaster mental health.

Keywords: Glocality; emergency; bioethics; Typhoon Rai (Odette); mental health

INTRODUCTION

How do emergencies inform bioethics as a disaster mental health response? During the pandemic, a more fundamental case of emergency bioethics also emerged as a form of disaster mental health response. Climate change comes with an accompanying social disruption (Binns et al. 2021). Starting from the afternoon of December 16, 2021, the very destructive Signal No. 4 force winds of Typhoon Odette (International Name: Rai) – comparable to hurricane category 5 in the US having 270 kilometers (168 miles per hour) – started to be felt through 2 landfalls in Central Philippines, with Southern Leyte topping the list. Typhoon Ambo (International Name: Vongfong), said to be the Yolanda Jr. in reference to Typhoon Haiyan last 2013 with 315 kilometers per hour (195 mph), fared less at only 155 kilometers per hour (96 mph) (Gutierrez 2021). The local importance of this has a global resonance that it can be called a 'glocal emergency bioethics.' We look at the case of Southern Leyte province, which topped the list of being the most damaged (Arceo 2021), and where the authors, who experienced the typhoon, have permanent residence. Typhoon Rai is now recorded as one of the costliest typhoons in the Philippines capping a total of 794\$ million worth of damage and Southern Leyte reported 364\$ million of that from destroyed marine resources, public structures, and school facilities. Houses near coastal areas were completely washed out by the storm surges and there was a shutdown of electricity, water systems, and communication network. Coinciding with the pandemic, COVID-19 cases were still monitored but travel restrictions were eased to allow relief operations to proceed efficiently.

It is the ultimate goal of the study to gather the core disaster mental health response of those who experienced the Typhoon in a specific province of concern. This is significant since doing so unpacks unique forms of experiences and establishes concrete local instances of specific types of vulnerabilities. There is a sense in which global climate change discussions

need local backing, but the glocal settings had to trace a core response instantiated by life situations forming existential normative utterances. Mental health risks in the form of existential risks vary and are crucial (Egargo & Kahambing 2021). Such a case incites a bioethical response where discourses about life and its connection to mental health pose an interesting object of study.

Significance of The Study:
Climate Change, Southern Leyte, and Coastal Vulnerability

There is a scarcity of studies on climate change and disasters done in Southern Leyte. Some (Garcia 2013; Luzon et al. 2015) have been conducted mostly from the relatively recent landslide in St. Bernard. The novelty is that this local case is the first time that damage this huge has been incurred in the province, thinking that, as usual, climate and disaster preparedness statements describe it as an area of “less frequent tropical cyclones” (Southernleytegov.ph). The glocality stems from the fact that hazards *as* natural vulnerability are global in nature, supporting the universal verifiability of climate change (Kahambing 2021c). Other natural hazards include earthquakes and an active volcano in one town, specifically in San Juan (Cabali-an) (Loreto et al. 2021). Climate change precisely disrupts prior disaster statistics. Because the Philippines is top-listed as one of the countries affected by extreme weather events and included in the long-term index for Climate Risk Index (Kahambing 2021d), disaster and risk reduction management in the province needs to be further improved, especially in coastal and low-lying areas prone to storm surges.

With the Typhoon Rai disaster, one can already properly name the specific natural vulnerability as ‘coastal vulnerability’, according to which coastal regions are threatened by global climate change and human activities that “exacerbate the shoreline erosion, frequent catastrophic events, rising sea levels, and saltwater intrusion” (Noor & Abdul Maulud 2022). Guillard-Conçalves and Zêzere (2018) describe vulnerable coastlines as having a higher likelihood of experiencing storms like cyclones and coastal erosion due to the low coastal elevation, abrasive silt, and high tide energy. What Typhoon Rai showed is that coastlines that are not perceived as vulnerable before need to be evaluated now in terms of hazard and resiliency. One coastal road in the town of San Juan (Cabali-an) fits this description perfectly (see Figure 1).



Figure 1 Example of coastal vulnerability in Brgy. Bobon-A, San Juan (Cabali-an), Southern Leyte (Personal photos of Jan Kahambing taken on December 30, 2021).

Figure 1 is not an isolated case. These illustrate a similar picture with other towns albeit there are specific differences. Although the interior is home to rough mountains, the population

concentrations are located along relatively flat coastal regions of Southern Leyte (as shown in Figure 2.). The governor of the province reported that “the total damage in Southern Leyte stands at P19 billion” which sums up “destroyed public structures at P1.5 billion, housing at P10.5 billion, while the Department of Education recorded P1.2 billion in destroyed school facilities [...] For agriculture, the damage was placed at P1 billion” and finally, “the biggest damage ” are tallied at the “coconut farm at P6.5 million” since the “province's main product is coconut” (Southernleytegov.ph). These are needed for sustainable local food production and livelihood (Kahambing 2022b).

With this in mind, there are significant impacts of disaster on mental health such as “emotional instability, stress reactions, anxiety, trauma and other psychological symptoms” where such impacts can be massive on both the personal and communal levels (Makwana 2019). These are experienced more by developing countries that lack many opportunities e.g. lack of educational opportunities, lack of resources, poor infrastructure, lack of awareness and knowledge of disaster mental health, and lack of trained manpower. The main concern is that “mental health issues caused by disasters are even more neglected area” (Makwana 2019).

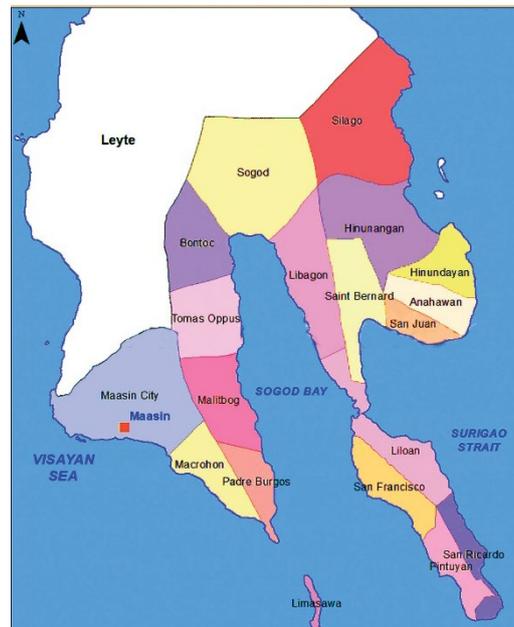


Figure 2 Map of Southern Leyte. (mapsofworld.com ©2013-2014)

This is true in Southern Leyte studies where only recently had the issues of mental health (Kahambing & Edilo 2020; Kahambing 2021a; 2021b) been scholarly available. There are so many to identify in terms of various protective factors like coping strategies or resilience mechanisms that amplify the individual or community’s encounter with disasters. Hence, the study hinges on its significance in the general and nuanced ways in which vulnerable populations respond to life threatening situations as a form of mental health.

Review of Related Literature

In making a narrative literature review of Super Typhoon Rai, the disaster can be situated along the climate change impact on human health, which, under the ambit of the 2021 26th United Nations Climate Change Conference (COP26) in Glasgow, reminds a crucial caveat to coastal populations (Lim et al. 2022). Recent reports on climate change, therefore, affirm coastal vulnerability and that Southern Leyte should pay more attention to this global information.

Perceived severity and vulnerability became vital in donating to Typhoon Rai victims (Kurata et al. 2022) so owning this precarity can plan strategies for disaster preparedness. Although it may serve as a consolation that the level of occurrence of natural destruction in Eastern Visayas, where Southern Leyte belongs, for the year 2021 is 'seldom' compared to the frequency of the previous years in 2017-2019 as 'sometimes,' and last 2020 as 'often' (having 5 typhoons, namely: Ambo, Leon, Quinta, Rolly, and Vicky), the areas affected in 2021 by Rai alone are 1,077.48 hectares, which is interpreted as 'very highly damaged' (Onal et al. 2022). Provisions for immediate recovery are recommended but systematic strategies had to be employed as well. There is an increasing trend in severe wind hazards that typhoons cause to regional wind fields in the Philippines. Typhoon Rai easily became the 2nd costliest typhoon in Philippine history, which "underwent rapid intensification, identified as the 95th percentile increase of maximum winds within a 24-hr period", prompting sustainability in wind design. Moreover, the sustainability of livelihoods and lives "of hundreds of thousands every year" is imperiled because climate change is not just about extreme weather or rising sea levels: it is also an impact on population health (Lim et al. 2022). Risk factors for morbidity and mortality can be further contextualized in humanitarian emergencies. Aside from food and waterborne disease outbreaks, the emphasis on resilience and *bayanihan* became a conspicuous prescription for collaboration as seen for instance through healthcare professionals who addressed not just physical but also mental health needs (Rocha et al. 2022). This connects to the objective of the study, which is to find out the mental health core response of populations under a state of emergency.

METHODOLOGY

For the methodology of the paper, we utilized a qualitative study to gather responses from key informants ($N = 14$) in different towns and islands within the province. This allowed us to explore in-depth (Kranke et al. 2017) the participants' mental health core response to the disaster. The inclusion criteria of the study are as follows: the participant 1) must be a resident of Southern Leyte, 2) must have experienced the typhoon, 3) must be at least age 18 years, psychologically sound or capable of making judgments despite not undergoing psychological debriefing services, and 4) must be available during the conduct of the study. As stated, four of the authors in this study are from Southern Leyte so they are familiar with the lifeworld of the participants. With COVID-19 protocols, most of the interviews are done face-to-face while others are through online communication, particularly via Facebook Messenger. In cases where the participant is only willing to talk in person but is not reachable by any of the authors, they are reached through our research data gatherer. In order not to hasten the results, the data gathering was conducted from March 2022 to September 2022. Because the research is sensitive to vulnerable populations, we made sure that the participants are autonomous and amenable to the study. In this study, the authors followed the principles of the Belmont Report, which sought respect and nonmaleficence for the participants (identifying information is not shown), thought of their welfare (the research recommends multisectoral ties for the province's population), and treated them with justice (the inclusion criteria do not discriminate participants in any occupation and recognizes the importance of their voices). We adhered to ethical research through broad consent and only extracted the main response of the participants who lost properties and who experienced the Typhoon Rai disaster. Four of the authors in this paper experienced the typhoon as well while the other co-author who currently lives in the UK had family members who were in the province during the event. The participants are asked an open-ended question on their thoughts about the typhoon experience, about which a central lesson can be learned. One of the co-authors translated the responses from Cebuano and/or Boholano

to English. The data analysis extracts the mental health core response of the participants but most particularly the nuances or the varied ways through which they are expressed.

RESULTS

This section presents the core response of the participants affected by the disaster. In general, one key informant in Limasawa Island tells us that the common linguistic expression of the people there, whenever there is a tragedy or accident in the place, is that life is more important. It was more explicitly expressed during the Typhoon. The participants from the towns of Libagon, Sogod, Bontoc, Tomas Oppus, Malitbog, Padre Burgos, Macrohon, and Maasin share the same response to heavy rains and damage. The Pacific side towns – St. Bernard, San Juan, Anahawan, Hinundayan, Hinunangan, and Silago – and towns in Panaon island – Liloan, San Francisco, Pintuyan, and San Ricardo – are more prone to storm surges. Typhoon Rai made 2 landfalls in Southern Leyte, one in Liloan at 4:50 PM on December 16, 2021, and one in Padre Burgos at 5: 40 PM. The damages respectively can be seen in Figure 3.



Figure 3 (Left) Storm surge at Brgy. Pinut-an, San Ricardo (Screenshot from Ed Gerbolingo's repost on Facebook) and (Right) Landfall aftermath at Padre Burgos (from Keisha Batalon's Facebook post)

In San Juan, the storm surge reportedly went up that, according to one informant, its height goes above some medium-sized coconut trees. The photo at Brgy. Pinut-an, San Ricardo can be intuitively said to be taken uphill, a familiar scene for one of the authors who was assigned to the place sometime in the summer of 2011. Yet the residents of the area, for example, near Figure 1. above said that even though there was some sort of stampede, people still looked out for one another. Properties were left behind and life is more prized. Thus, the discourse “bahalag guba amo bay basta buhi” [“*It doesn't matter if our house is destroyed as long as we are alive*”] forms the core response to disaster mental health and, while hinting at global vulnerabilities and fundamental bioethical responses, can be understood both for the mental health during and after the disaster emergency. Some informants add nuances to the discourse.

The house can be built again but the important thing is that the family is complete (Fisherman, 44).

We live on the mountainside so the damage is not that huge. Roof damages are common, both from homes and pig houses. Some farmlands and coconut trees cannot be put to use. The important thing is that the pigs and the people in our place are safe (Hog raiser, 33)

Our house was damaged. My laptop too. It is hard to find water sources, food, etc. So far, we are slowly recovering. I am still thankful that even if [Typhoon] Odette left many damages; our families are safe. (Teacher, 25)

It is okay that our house was damaged as long as my family is safe. (Government Internship Program employee, Local Government Unit of Saint Bernard, 30).

During Odette, our house was damaged and the roofs were blown away. We were literally swimming inside the house at the moment. This is intensified by the difficult economic crisis. The important thing is we are totally alive. (Baker, 30)

We are still blessed because we are safe. But we felt our world ending with the amount of damage. (Food vendor, 29).

We lost our properties and riches. The important thing is that family members are alive. (Teacher, 29).

It is pitiable to see people with destroyed houses. Many vehicles were damaged too. We are still thankful that not that many lives were lost. (Housewife, 29).

For us who have no budget, months pass and we still haven't repaired substantially because the materials are getting expensive. All goods became expensive, especially electricity. We were relatively safe, but with natural disasters, I am not certain because earthquakes are now frequent, heavy rains too, and the temperature is hotter. But, you know, above all else, life is more important. (Instructor, 30)

There is little damage in our house, with God's mercy, but we are alive so it is fine. Material things can be replaced, unlike life. (Microsoft 365 Cloud Consultant, 29)

Disasters can be anticipated, and houses can be rebuilt, but life can never be replaced (Accountant, 31)

While basing on damaged properties and while the responses hinted at lessons of climate change, animal considerations, and the economic situation, at the core is safety or being alive: 'life is more important.' This serves a lesson: "*this is a wake-up call to each of us. We need to be kind; we need to help each other*" (Student, 18). Other responses bear a similar albeit non-verbatim situational discourse. The disaster mental health core response at this point showcases natural vulnerability but also its relational and economical character. One key informant reports: "before we can hardly find food to eat but because of the disaster, we have more than enough food" (Laundry helper, 38). Preliminary links can be deduced from the part of the relational nature of the discourse towards existential mental health variances, which are heterogenous and non-hierarchical. The crucial insight is not that life is at the top of the considerations for mental health, followed by concern for the family and food, but life forms the center of their mental health responses.

DISCUSSION

Glocal Emergency Bioethics as Disaster Mental Health

Glocality, from the Japanese agricultural term *dochakuka* or ‘living in one’s own land’ – of a farmer utilizing techniques to local conditions – describes the ‘interface between the local and the global’ (Gabsi 2022). Glocality emphasizes ‘particularities and details of a global idea’ (Grigorescu & Zaif 2017), focusing on heterogeneous forms of dynamicity between global and local relationships. For instance, the coastal vulnerability in Southern Leyte might be a particular case, but specific differences can be found in each town and in Limasawa Island that informs of the damage by Typhoon Rai. This is to say that glocality is not homogeneous but diverse.

In emergency and disaster scenarios, there are heterogeneous critical problems in implementing “an effective disaster response” that must take into account key elements, namely, 1) mass casualty care challenges and procedures, 2) infrastructure preservation, 3) communication barriers/breakdowns, 4) incident command system and integration, 5) personal and scene safety issues, 6) contamination, containment, and security issues, 7) decontamination indications and sites, 8) maintenance of regular healthcare services, 9) personal protection and equipment issues, 10) personal behaviors and beliefs, 11) psychological impact, 12) secondary threats, and 13) ethical issues (Kayman et al. 2008). Kayman et al. (2008) in *The Cambridge Textbook of Bioethics* further enumerates the “important ethical issues” such as 1) triage, 2) access to care and other justice issues, 3) privacy and confidentiality, 4) the professional duty to treat, 5) quarantine and its effect on patient autonomy, 6) individual liberty and the right to refuse medical treatment; and 7) transparency in public health planning. The heterogeneity stems from the fact that additional moral perspectives can address specific dilemmas during emergencies – and this has to take in the form of accountable action: “even coercive action” when “there is a serious threat to the public welfare” (Kayman et al. 2008) – like distributive justice (Rawls 1971), consequentialism (Solomon 2000), rights (Uzgalis 2022), and universal ideals (Koterski 2000). There is, however, a caveat to this coercive action-based ethical decision-making in the face of serious risks or at the interface of mandatory protocols because rights-based problems in bioethics must also weigh in (Yu & Kahambing 2022).

With individual rights and psychological handling of disaster, disaster mental health can be defined as a matter of one’s own tragedy plus one’s cognitive and affective coping mechanism. However, this is not necessarily curative and happens after a disastrous event. Math et al. (2015) situates disaster mental health in preventive medicine, a management perspective that looks at its basis 6 ‘R’s, namely, Readiness, Response, Relief, Rehabilitation, Recovery, and Resilience, each corresponding respectively to preparedness, immediate action, sustained rescue work, long term remedial measures using community resources, returning to normalcy, and fostering. This is a paradigm shift since it anticipates disaster management from the mental health perspective. Because of the inevitability of disaster, preventive mental health disaster management can be precautionary, shifting the hierarchy of psychological management impact from rehabilitation to readiness. That being said, “the impact of disaster may be lessened by the anticipation and implementation of mitigation and protective strategies” (Norris 2006). In times of emergencies, however, when the disaster overwhelms preparations, normative solutions can be different and so curative ways of coping can be assessed. Wind et al. (2011) says that:

Taken together, the individual oriented stress reducing interventions that use appraisal processes, social support, and coping as starting points could be more effective by taking into account the subjective experience of the social context in terms of trust and feelings of mutual support and reciprocity in a community.

What does a glocal emergency bioethics as a form of disaster mental health mean? On the one hand, a local emergency ethics (Kahambing 2020) has non-taxonomic normative resolutions like disaster infrastructure improvements. On the other hand, a glocal emergency bioethics –

from *bioethics as the love of life* (Macer 1998) – suggests more weight to life than damaged properties. For instance, the remedial measures that make use of community resources can take again in the form of *bayanihan* or in rural healthcare ethics, a kind of indigenous solidarities specific to a local place but inform global or cosmopolitan solidarities e.g. *pintakasi* (Bautista et al. 2017). *Pintakasi* “empowers communitarian support and proves to be more crucial in the face of specific circumstances [...] because it complements the need not only of self-sustaining facilities but also with a self-sustaining population” (Kahambing 2021f). This should be understood with caution of universality: “the idea of absolute unity is again counterproductive under the impulse of emergency” (Abiera et al. 2022). Natural disasters might be relegated to inevitable events, without meaningful interpretation (Kahambing 2022) due to the absence of an intentional function: Typhoons, earthquakes, and tsunamis do not choose to intensify either as metaphors of an avenging mother earth (Kahambing 2021e) or as traceable interventions that come and go after their purpose, whatever they might perceptively be (Kahambing 2019). This naturalistic interpretation does not adhere to a universal temporal path where things necessarily lead to a rehabilitative state, which is why the notion of living as a bioethical principle should be weighed as an ontology that continually struggles, similar to how an indigenous group copes with transient problems and problems of transiency (Molabola et al. 2020; Kahambing 2022a). Hence, through the centrality of responses to life by the participants, it can be deemed plausible to surmise that glocal emergency bioethics provides disaster mental health a strong case of coping since it hinges on the important cause that is life.

CONCLUSION

There seems to be a core bioethical response in glocal emergencies that forms a disaster mental health. This is seen during and after the disaster. *Thinking* about life and *feeling* the lives of others centralizes the tenet of bioethics. However, this form of disaster mental health, while exhibiting stronger ways of coping, should not be enough in itself. With natural disasters, a glocal emergency bioethics should help local emergency ethics focus on preventing life-threatening calamities. The structural and relational support that will be crucial and urgent to have a comprehensive assessment and improvement on the ground for this disaster mental health issue still calls for proper management.

We are aware, for instance, of the “many complexities in conducting disaster mental health research” that “have limited the understanding and interpretation of available knowledge needed to inform efforts to plan and carry out effective mental health responses to disasters” (Math 2015). That being said, there has been a short delay in the data gathering, which for one respondent is too late – “why is this research conducted only now?” – stressing the need for an early assessment or *any assessment* at all on the part of agencies or institutions. Surveys might be there but researchers doing qualitative work need to listen to their stories which takes time.

In this paper, the authors considered the glocal nature of local disaster ethics through the glocality of mental health responses. Albeit the presentation on bioethics reflects the disaster ethics guidelines by the World Health Organization, the paper shows that specific variances and discourses can add to the comprehensive report of existential mental health and discussions in bioethics. We recommend further studies on loss and trauma that more closely looks at the psychological nature of the discourse, examining their convergences and divergences to better structure other emotional state responses like grief and its stages. On the structural level, simulations as preparations that can form tropical cyclone anticipatory actions can help for preventative medicine and infrastructure improvements.

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