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“We Thought We Had More Time”

An Examination of Climate and Extreme Weather Framing in Regional Online Newspapers in Aotearoa

A thesis submitted partial fulfilment of the requirements for the degree of

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Abstract

Climate change poses growing risks to health and wellbeing, yet public engagement with these challenges depends heavily on how they are communicated. News publications play a key role in shaping public understanding of climate-related risks and responses, with regional news outlets especially well placed to inform their audiences with locally relevant and contextualised coverage.

While national-level media studies in Aotearoa have examined climate and health coverage, little is known about how regional newspapers frame these issues, especially before and after locally experienced extreme weather events. The underrepresentation of Indigenous perspectives and limited coverage of health-related impacts further highlights the need for research into whose voices are prioritised in regional reporting.

This thesis examines how three regional online newspapers in Aotearoa New Zealand frame climate change, extreme weather, their relationship to health. The Waikato, Bay of Plenty, and Te Tairāwhiti/Gisborne regions were selected for their exposure to Cyclone Gabrielle, their diverse population compositions including significant Māori communities, and the presence of active regional online news publications. Drawing on a constructivist epistemology and community psychology principles of social justice, collective resilience, and ecological systems thinking, this research employs reflexive thematic analysis to inductively code and analyse media coverage spanning one year before and one year after Cyclone Gabrielle. The analysis identified narrative framing and underlying themes in how climate and health risks were communicated to local audiences by the selected regional online newspapers.

Findings reveal patterns in media framing that shaped whether climate change was portrayed as an immediate, localised concern or a distant, abstract issue, as well as disparities in whose voices, experiences, and knowledge systems were included. Themes emerged around political accountability, community resilience, and structural vulnerability, though coverage varied in depth and equity. Indigenous perspectives remained underrepresented, and economic and infrastructure concerns overshadowed impacts on health and wellbeing. However, examples of inclusive and locally grounded reporting demonstrated the potential for regional media to support more equitable climate communication and adaptation.

Findings were interpreted using a holistic analytical lens informed by Bronfenbrenner's ecological systems theory and the Social Determinants of Health framework. This approach illustrated significant implications for community engagement in climate discourse. The dominance of elite and institutional perspectives over grassroots experiences limits the

visibility of community-driven adaptation efforts and obscures structural drivers of vulnerability, such as housing insecurity, economic inequality, and historical injustices rooted in colonialism. By excluding structural and health-related dimensions in climate discourse, regional newspapers risk unintentionally reinforcing inequities and limiting opportunities for collective action by marginalising those most affected. To support collective resilience regional media must move towards more consistent, health-focused, and community-led coverage, amplifying underrepresented voices and addressing the broader structural determinants of vulnerability to climate impacts.

This study contributes to climate communication research by centring regional media and offers practical insights for journalists, policymakers, and community advocates seeking to foster more just, inclusive, and community-responsive climate discourse in Aotearoa.

For my family, in honour of their unwavering support.

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1. Thesis Overview

Climate change is a global challenge that affects not only the environment but also public health, housing stability, food security, and the social systems that communities depend on to thrive (Soutar & Ward, 2022). Because these impacts vary widely across populations, effective and equitable adaptation depends on public education and discourse that reflect the specific needs and risks of different communities. News media, both in print and online, play a crucial role by shaping understanding of climate risks, influencing perceptions of urgency, and driving collective and individual action. How climate change is framed in the media therefore directly influences public engagement and adaptive behaviours (Keller et al., 2022).

This thesis examines how regional online newspapers in Aotearoa frame the relationship between climate change, extreme weather, and health, with a particular focus on coverage published in the year before and after Cyclone Gabrielle, an extreme weather event that struck in February 2023. Grounded in a constructivist epistemology and informed by the values and principles of community psychology (Kagan et al., 2019), the study critically examines the narratives used by regional news outlets and considers whether these framings support or hinder community wellbeing, equity, and climate engagement.

While research in Aotearoa has examined how climate change and health are framed in national-level media (Harrison et al., 2020), regional reporting remains largely underexplored. Yet regional newspapers play a critical role in shaping public understanding, particularly in communities that are more exposed to climate-related hazards. National narratives may fail to capture local experiences and can contribute to disengagement when climate change is portrayed as distant or abstract (Hopkins et al., 2015; Keller et al., 2022). This thesis responds to that gap by examining how regional online newspapers construct climate-health narratives in ways that may either support or limit meaningful public engagement.

The study addresses the following research questions:

Primary research question: How is climate change and its relationship to health framed by regional online newspapers in Aotearoa New Zealand?

Sub-question 1: How do regional newspapers frame climate change and its relationship to health before and after experiencing an extreme weather event as a focusing event, and what themes emerge in their coverage?

Sub-question 2: To what extent do these media narratives align with or challenge community psychology principles of social justice, collective resilience, and ecological systems thinking?

My analysis is informed by the values of community psychology, which emphasise equity, collective wellbeing, and systems thinking (Kagan et al., 2019). Community psychology provides tools for examining how structural conditions shape health and climate vulnerability, and it foregrounds the importance of platforming underrepresented voices. Through this lens, I consider not only what is present in media coverage, but also what is missing or marginalised, and how these patterns influence community-level understanding and response.

To contextualise the present study, the following *Literature Review* chapter examines existing research on climate change, extreme weather, media representation, and public health internationally and within the Aotearoa context. It outlines the research gaps that have shaped this project and introduces the theoretical frameworks used to interpret the findings, including Bronfenbrenner's ecological systems theory (1986), and the Social Determinants of Health framework (World Health Organisation [WHO], 2019).

The review of the literature is followed by the chapter *Research Design*, outlining the design and methodology of the study, including the rationale for selecting three regional newspapers from the Waikato, Bay of Plenty, and Te Tairāwhiti/Gisborne regions. It provides a description of the methods used to establish the sample and conduct the thematic analysis used to examine regional media narratives before and after Cyclone Gabrielle.

The *Findings* chapter then presents the narrative framing and underlying themes identified across the dataset, highlighting variation in how climate and health were represented over time. The *Discussion* then interprets these findings in relation to the research questions and broader literature, with a focus on how media coverage contributes to or challenges equitable, community-focused climate communication. The *Conclusion* offers a summary of the findings and discussion and reiterates the implications of the study for strengthening equitable, community-informed approaches to climate, extreme weather, and health communication within Aotearoa regional media.

2. Literature Review

This literature review critically examines the intersection between climate change, extreme weather events (EWEs), public health, and media representation, with a particular focus on Aotearoa New Zealand. Although the risks associated with climate change are increasingly well-documented, especially in relation to health and wellbeing (WHO, 2023; Ministry for the Environment, 2023b), there remains a need to better understand how media narratives influence public engagement with these issues (Happer & Philo, 2013; Keller et al., 2022). This is particularly true in regional contexts, where local experiences of climate disruption and health vulnerability may differ significantly from national narratives (Kelly-Costello, 2021; Ross, 2023).

The chapter begins by illustrating the role of media in constructing public knowledge and shaping engagement with complex issues such as climate change and health (Happer & Philo, 2013; Donohue et al., 1973). It then considers the specific characteristics of Aotearoa media, including centralised ownership, economic constraints, and the underrepresentation of marginalised voices (Angus & Associates, 2023; Armoudian et al., 2023). The underreporting of Indigenous knowledge systems, particularly those rooted in mātauranga Māori, is examined as a critical equity issue in both policy and media discourse (Masters-Awatere et al., 2022; Kelly-Costello, 2021). Finally, the review outlines the community psychology and ecological systems frameworks that underpin the present study, highlighting the value of systems thinking and social justice approaches in climate-health research (Kagan et al., 2019; Bronfenbrenner, 1986; WHO, 2019).

Each section offers a critical appraisal of existing research, identifying methodological strengths, conceptual limitations, and representational gaps. In doing so, this review positions the current study within a broader academic and socio-political context. It outlines the rationale for investigating regional newspaper coverage of climate change and health, and the importance of assessing whether these narratives frame climate change, extreme weather, and health in a way that fosters public engagement, relational accountability, and equity in climate adaptation efforts.

2.1 Climate Change, Extreme Weather, and the Media

Climate change is intensifying the frequency, severity, and unpredictability of extreme weather events (EWEs), posing escalating risks to ecosystems, infrastructure, and human health globally and in Aotearoa New Zealand (Ministry for the Environment, 2023b; WHO, 2023; Environmental Health Intelligence New Zealand [EHINZ], 2018a). While variability in weather patterns is natural, scientific consensus shows that the rising concentration of greenhouse

gases in the atmosphere, largely driven by human activity, has shifted baseline climate conditions, increasing the likelihood and extremity of events such as heatwaves, floods, cyclones, and droughts (Ministry for the Environment, 2023b; WHO, 2023). In Aotearoa, the National Institute of Water and Atmospheric Research (NIWA) highlights that warming oceans and changing wind patterns are influencing rainfall extremes and storm systems, with expected increases in heavy rainfall, coastal inundation, and drought intensity (NIWA, n.d.-b). These issues are particularly urgent for rural, coastal, and marginalised communities that are more exposed to climate hazards and less resourced to recover (EHINZ, 2018a, 2018b).

Understanding the localised impacts of climate change and EWEs is therefore essential to informing equitable and effective responses that promote wellbeing, reduce health disparities, and support community resilience.

These climatic disruptions are not only environmental issues but also pressing public health concerns. The World Health Organization (2023) identifies climate change as the greatest health threat facing humanity, noting that EWEs can cause direct injuries and fatalities, increase exposure to infectious diseases, disrupt access to healthcare, and intensify mental health challenges. The severity and distribution of these health impacts are shaped by underlying social, economic, and environmental conditions, making a social determinants of health (SDOH) framework critical for understanding who is most affected (WHO, 2019). This approach recognises that factors such as housing quality, income, access to healthcare, and social support influence a population's vulnerability and capacity to respond to climate-related health risks with some groups such as the elderly, children, and low-income populations, bearing disproportionate risks (Ebi et al., 2021).

In this context, the media play a critical role in shaping how climate change, extreme weather, and related health risks are publicly understood. As institutions that influence public discourse, the media not only inform audiences but also frame the social and political relevance of climate impacts and proposed solutions. Media coverage determines which voices are heard, which issues are prioritised, and how responsibility is distributed. This has implications for individual engagement, community mobilisation, and policy development.

This section examines the intersection of climate change, extreme weather, and media and how my understanding of the media's role in public engagement with climate and health discourse and resilience efforts influenced the formulation of the present study. Firstly, it considers the role of the media as knowledge-producing institutions that shape public discourse and social understanding, followed by an examination of climate change, EWEs, and health as represented in media narratives, with particular attention to framing, source

selection, and the consequences of marginalised perspectives. How media framing and psychological distance influence public engagement is then discussed, drawing on theories of focusing events and the role of lived experience in shifting public concern.

2.1.1 Role of the Media

Media publications function as powerful institutions that produce and circulate knowledge, playing a central role in the formation of public understanding (Gordon, 2018; Happer & Philo, 2013). By selecting which issues to report, what sources to use, and how to frame events, the media influences which topics gain prominence and how they are interpreted (Happer & Philo, 2013). This process has consequences for public knowledge and political responses, particularly for complex issues like climate change that require scientific literacy and sustained attention (Keller et al., 2022). As such, the media shape the boundaries of public discourse and affect how societal problems are understood and addressed (Macnamara, 2009).

Media institutions are embedded in larger systems of power and can function as mechanisms of social regulation and control (Donohue et al., 1973). They often reflect the interests of dominant political and economic actors by relying on official sources, repeating elite narratives, and marginalising dissenting perspectives (Donohue et al., 1973; Kenix, 2008). This contributes to the reinforcement of existing hierarchies and the maintenance of the status quo (Happer & Philo, 2013). These dynamics are evident not only in national and global coverage, but also in regional and local contexts where institutional relationships and economic pressures continue to shape editorial decisions (Salmon et al., 2017).

This thesis critically examines how regional online newspapers in Aotearoa communicate climate change, extreme weather events, and their relationship to health and wellbeing. Media representation influences how these issues are understood by constructing narratives, distributing knowledge, and influencing public belief and behaviour (Donohue et al., 1973; Happer & Philo, 2013). An understanding of media not as passive channels of communication but as active and influential systems that operate within broader political, economic, and social structures (Kenix, 2008; Macnamara, 2009) was therefore foundational in approaching my analysis.

2.1.2 Media Representations of Climate, EWEs, and Health

Narrative framing is a central mechanism through which the media construct public knowledge. Frames highlight certain aspects of an issue while obscuring others, thereby influencing how events are defined, interpreted, and evaluated (Happer & Philo, 2013). Climate

change is often framed through political conflict, scientific uncertainty, or economic cost, which can reduce public engagement and hinder behavioural change (Harrison et al., 2020; Keller et al., 2022). When media coverage distances audiences from the local and immediate effects of climate change through their framing of its impacts as occurring geographically or temporally far from the reader, it contributes to a sense of disengagement and disempowerment (Keller et al., 2022). As a result, framing choices can significantly affect public perception of and engagement with efforts to directly address climate change and extreme weather (Happer & Philo, 2013).

Similar dynamics appear in media representations of health and wellbeing. Media coverage tends to emphasise individual behaviour and personal responsibility, which can obscure the social and environmental determinants of health (Hodgetts & Chamberlain, 2006). This narrative framing limits public understanding of climate-related health impacts, as structural contributors such as housing, income inequality, and environmental degradation are frequently underreported (Harrison et al., 2020). Consequently, the media can contribute to the marginalisation of already disadvantaged populations by failing to centre their experiences (Ross, 2023).

Despite these limitations, the media remain an important site of public discourse and engagement (Gordon, 2018). Through investigative reporting, commentary, and public interest journalism, the media can raise awareness and foster critical debate on social issues (Macnamara, 2009). Media advocacy has historically played a role in shaping public opinion and advancing social movements related to environmental justice, gender equity, and human rights (Arias, 2018). As such, the media do not merely reflect public knowledge and action, but actively construct and constrain it through selection, framing, and distribution (Donohue et al., 1973; Happer & Philo, 2013). They influence whose voices are heard, how problems are defined, and what solutions are considered possible (Macnamara, 2009).

2.1.3 Climate Discourse, Focusing Events, and Public Engagement

Public perceptions of climate change and extreme weather events (EWEs) are shaped by a combination of psychological factors, media framing, and direct experiences with disasters (Keller et al., 2022) representations playing a crucial role in influencing public engagement with climate action by determining whether climate change is seen as an immediate concern or a distant, abstract issue (Hopkins et al., 2015; Keller et al., 2022). The concept of psychological distance (Spence et al., 2011; Trope & Liberman, 2010) is particularly relevant in this context, explaining why individuals disengage from climate issues if they perceive them as temporally, geographically, or socially distant.

Natural disasters, such as extreme weather events, function as “focusing events” in the media (Birkland, 1997), increasing public and institutional attention to health vulnerabilities (Miles & Morse, 2007). The ways in which disasters are framed in news coverage in these periods influence not only immediate public understanding but also long-term policy responses and risk mitigation strategies. The effectiveness of climate media in bridging psychological distance depends on how extreme weather events are framed (Miles & Morse, 2007; Sloggy et al., 2021).

Miles and Morse (2007) argue that media narratives around disaster recovery tend to prioritise built and social capital over natural capital. Infrastructure damage, human suffering, and social cohesion were central themes in their examination of media reports, while the role of environmental factors such as the degradation of wetlands that exacerbated storm surges, received relatively little coverage. This selective emphasis influences how the public and policymakers perceive disaster risks and the appropriate responses to mitigate them (Hopkins et al., 2015; Keller et al., 2022). Birkland (1997) similarly contends that focusing events open policy windows, but the extent to which they lead to substantive change depends on how they are framed in media discourse. If media coverage concentrates on short-term recovery and political failures rather than structural vulnerabilities, long-term policy shifts may be limited (Birkland, 1997). For example, if the media frames an event as a failure of government response rather than a consequence of systemic environmental vulnerabilities, the policy changes that follow may focus on emergency management rather than long-term mitigation (Birkland, 1997).

Additional research from Sloggy et al. (2021) again demonstrated that direct exposure to extreme weather events can shift public perceptions of climate change but found that certain disasters, particularly hurricanes, had a strong impact on increasing belief in climate change and its human causes. However, other events, such as wildfires and floods, had more inconsistent effects, suggesting that not all EWEs function equally as focusing events. This aligns with Birkland’s (1997) argument that media framing and political discourse determine whether a disaster ignites sustained public concern or remains an isolated event.

Taken together, the literature shows that media framing plays a crucial role in shaping how the public interprets and responds to climate change, particularly during and after extreme weather events (Kenix, 2008; Salmon et al., 2017). Frames that emphasise immediacy, local relevance, and structural causes are more likely to support engagement and action, especially when they reduce psychological distance (Spence et al., 2011; Keller et al., 2022). However, analyses of national-level media coverage in Aotearoa demonstrated that climate journalism continues to prioritise political and economic frames, often sidelining community experiences,

health-related consequences, and Māori perspectives (Harrison et al., 2020; Kelly-Costello, 2021).

2.2 Climate, Extreme Weather, and Health Discourse in Aotearoa

This section explores how climate change, extreme weather events (EWEs), and their associated health impacts are represented within media in Aotearoa. It begins by examining the structure and dynamics of the national media landscape, where centralised ownership, commercial pressures, and institutional norms shape climate and health reporting (Angus & Associates, 2023; Kenix, 2008; Armoudian et al., 2023). These dynamics influence which sources and story angles are prioritised, often leading to an overreliance on elite or governmental perspectives and a tendency to frame climate change as a political or scientific issue rather than a social or community concern (Salmon et al., 2017; Harrison et al., 2020).

The section then considers the systemic exclusion of Indigenous worldviews from mainstream reporting, despite the alignment between Māori environmental values and sustainability science (Armoudian et al., 2023; Ross, 2023). Research shows that Māori perspectives are frequently marginalised or validated only through Western scientific frameworks, reflecting ongoing colonial dynamics in media practice and policy (Kelly-Costello, 2021; Phillips, 2022; Masters-Awatere et al., 2022).

The final part of this section turns to regional media, investigating whether these outlets, due to their proximity to local communities, offer more inclusive or engagement-focused narratives. In particular, it considers how Cyclone Gabrielle was covered in regional newspapers and whether this framing supported public understanding of climate-related health impacts and responsibilities. This focus builds on research into psychological distance and focusing events (Birkland, 1997; Keller et al., 2022; Sloggy et al., 2021), as well as international studies on regional climate media (Spradlin & Givens, 2022), to explore whether regional journalism in Aotearoa reinforces or challenges dominant narratives.

2.2.1 Climate Discourse in the Media Landscape of Aotearoa

The media landscape in Aotearoa is shaped by centralised ownership, constrained resources, and uneven representation of diverse communities and knowledge systems. A small number of dominant national organisations, including TVNZ, RNZ, NZME, and Stuff, produce the majority of content consumed by the public, while smaller regional and independent outlets operate with limited funding and reduced visibility (Angus & Associates, 2023). According to recent audience metrics, around 2.8 million New Zealanders regularly read newspapers and 1.7 million read magazines (Morgan, 2023). However, the rise of digital platforms and changing

media consumption habits, especially among younger demographics, have intensified commercial pressures and contributed to declining revenues for many traditional and regional outlets (NZ On Air, 2021). These conditions threaten the viability of local journalism and contribute to increasing centralisation, which can further limit the diversity of voices and perspectives in public discourse (Angus & Associates, 2023).

Within this constrained media environment, climate journalism in Aotearoa reflects a complex interplay of journalistic norms, institutional priorities, and public engagement strategies. Although mainstream reporting generally aligns with the scientific consensus on climate change, it tends to privilege institutional, governmental, and expert sources while marginalising community perspectives (Kenix, 2008; Salmon et al., 2017; Armoudian et al., 2023). Even when scientific voices are present, key concerns such as ocean acidification or deoxygenation receive limited attention compared to more visually dramatic or politically salient issues like sea-level rise and storm events (Salmon et al., 2017; Armoudian et al., 2023). Media reliance on elite sources and conventional news values contributes to coverage that often frames climate change as a political or policy issue, rather than a moral, social, or community concern (Kenix, 2008; Salmon et al., 2017). This approach risks reinforcing top-down narratives while limiting opportunities for public engagement and collective action.

Climate-health reporting in Aotearoa mirrors these tendencies. Threat-based framing dominates, with coverage frequently emphasising risks to human wellbeing through narratives focused on disease, disaster, and disruption (Harrison et al., 2020). While this aligns with the urgency expressed in scientific assessments (WHO, 2023; EHINZ, 2018a), it can discourage engagement if not paired with accessible, constructive, or solutions-oriented messaging (Keller et al., 2022). Harrison et al. (2020) found that media coverage rarely included co-benefits of climate action or locally relevant health stories that could increase emotional and relational engagement. This contributes to psychological distancing, where climate change is perceived as a remote or abstract issue despite its local relevance (Hopkins et al., 2015; Keller et al., 2022).

The potential of these factors within wider climate discourse to impact engagement with localised efforts to address the growing impacts of climate and extreme weather on health and wellbeing directly informed the focus and design of the present study. The dominance of elite voices, the absence of solutions-oriented content, and the exclusion of diverse worldviews shaped my decision to examine whether regional newspapers in Aotearoa offer more inclusive or grounded climate-health narratives. In particular, the thematic framework developed by Harrison et al. (2020) influenced the analytic attention given to source selection, relational

framing, and the inclusion of human-interest stories. The work of Armoudian et al. (2023) further underscored the importance of examining which knowledge systems are legitimised and whose voices are amplified in regional reporting.

Hopkins et al. (2015) provide important context for understanding public engagement with climate change in Aotearoa. Their findings highlight a disjuncture between scientific knowledge and public concern, shaped by the country's high per capita emissions and a prevailing self-image as "clean and green." Media coverage often positioned climate change as a political issue and gave more visibility to policymakers and industry representatives than to climate scientists or affected communities (Hopkins et al., 2015). This framing contributes to psychological distancing and therefore disengagement with community resilience and response efforts as national coverage does not reflect local experiences or impacts (Keller et al., 2022). These insights informed my decision to focus on regional news media as a potential site where climate and health impacts may be framed in ways that reduce abstraction and foster public engagement.

The question of whether regional newspapers replicate dominant national frames or offer more community-oriented, engagement-focused narratives is central to my study. While some research suggests independent or alternative media may have greater flexibility in narrative framing, they are often subject to the same structural and editorial constraints as their mainstream counterparts (Kenix, 2008; Armoudian et al., 2023). The decision to apply thematic analysis (Braun & Clarke, 2006) allowed for a systematic examination of how climate and health are constructed in regional coverage, including whose experiences are prioritised and whether the framing supports values of equity, relational accountability, and collective wellbeing.

While regional outlets may be uniquely positioned to localise climate discourse and connect it with lived experience, this potential is constrained by the same journalistic norms and structural limitations found across the national media landscape (Angus & Associates, 2023; Kenix, 2008; NZ on Air, 2021). Among the most pressing of these limitations is the persistent underrepresentation of Indigenous knowledge systems. Despite clear alignment between Māori environmental values such as kaitiakitanga and contemporary climate science, these perspectives remain marginal within both media and policy discourse (Armoudian et al., 2023). This pattern not only limits the representational scope of climate discourse but also undermines the potential for culturally relevant, socially just climate responses.

2.2.2 Indigenous Representation in Climate Media Discourse

Indigenous perspectives remain significantly underrepresented in Aotearoa climate change and extreme weather event (EWE) discourse, both in policy development and media

coverage (Kelly-Costello, 2021; Masters-Awatere et al., 2022). Despite the depth of environmental knowledge embedded within Māori and other Indigenous communities, their worldviews are frequently sidelined in favour of dominant Western science frameworks (Masters-Awatere et al., 2022; Ross, 2023).

In policy and planning contexts, Indigenous inclusion is often tokenistic rather than substantive. Indigenous governance systems and values are rarely embedded in decision-making processes, with Western scientific knowledge typically prioritised (Masters-Awatere et al., 2022). Bureaucratic constraints and limited institutional recognition of tino rangatiratanga continue to restrict the influence of Māori leadership in climate policy (Masters-Awatere et al., 2022). A review of Indigenous inclusion across settler-colonial nations found that although Māori are often named as stakeholders, their involvement is seldom reflected in policy substance or outcomes (Masters-Awatere et al., 2022).

Mainstream media in Aotearoa reflects similar structural exclusions. Māori voices have been consistently underrepresented or misrepresented in climate and environmental journalism; a pattern publicly acknowledged through the 2020 institutional apology by Stuff (Phillips, 2022). Although this was a significant step, colonial assumptions continue to shape news production and narrative framing (Kelly-Costello, 2021; Ross, 2023). Māori are often framed as passive victims of climate disruption, rather than as experts or active agents with adaptation knowledge (Kelly-Costello, 2021). Even when Māori perspectives are included, they are frequently positioned as secondary to or validated by Western science, rather than treated as legitimate knowledge in their own right (Phillips, 2022; Kelly-Costello, 2021; Ross, 2023).

Structural barriers such as limited newsroom capacity, economic constraints, and editorial reliance on government and scientific sources further inhibit the inclusion of diverse perspectives (Kelly-Costello, 2021; Angus & Associates, 2023). These dynamics lead to a persistent gap between rhetorical commitments to inclusion and meaningful representation. Although 93 percent of journalists surveyed agree that Te Tiriti o Waitangi is relevant to their work, only 31 percent support its application across all forms of journalism, highlighting internal tensions within the profession (Angus & Associates, 2023). Māori, Pacific, and Asian peoples remain underrepresented across both the media workforce and news content, further limiting the range of voices and experiences included in climate narratives (Angus & Associates, 2023). Journalistic ideals of objectivity and neutrality can further entrench these exclusions, as intended to ensure balance often result in uncritical reproductions of dominant narratives, even when those narratives marginalise Indigenous communities (Kelly-Costello, 2021; Phillips, 2022).

These practices reinforce power asymmetries and frame Indigenous perspectives as optional or supplementary rather than essential to climate response, as evidenced by Ross' (2023) Tiriti-led analysis of *The Press* newspaper. Although Māori-related coverage increased following an apology from *Stuff* regarding their historic marginalisation of Māori, representation remained limited in both range and depth. Māori perspectives on climate adaptation and environmental governance were notably absent, despite Māori holding legal roles as kaitiaki under environmental law (Ross, 2023). The study found that editorial routines continued to favour institutional and Pākehā sources, even in areas where Māori perspectives were directly relevant. Despite *Stuff*'s stated equity commitments, these structural constraints persisted, resulting in Māori issues being relegated to lower-priority sections of the paper and non-Māori experts continuing to dominate reporting (Ross, 2023).

Research on decolonising journalism highlights the need for structural reform beyond surface-level diversity initiatives. Achieving equity in climate reporting requires transformation in newsroom policies, editorial decision-making, and recruitment practices to embed Te Tiriti o Waitangi in meaningful and enduring ways (Ross, 2023; Masters-Awatere et al., 2022). Media organisations must reposition Indigenous knowledge as central, rather than supplementary, in climate discourse to reflect both legal obligations and ethical responsibilities (Ross, 2023).

Qualitative discourse and content analysis have been critical to exposing these underlying biases in climate and Indigenous representation (Phillips 2022; Armoudian, 2023). These methods enable scholars to identify patterns in language, source selection, and thematic emphasis that subtly reinforce colonial hierarchies (Phillips, 2022). They also reveal how journalistic conventions, even when well-intentioned, can perpetuate exclusion by limiting the framing of Indigenous perspectives to crisis, culture, or conflict (Ross, 2023).

The persistent marginalisation of Māori perspectives in both policy and media demonstrated the need to examine within my research whether regional newspapers replicate or resist these dominant national patterns (Kelly-Costello, 2021; Phillips, 2022; Ross, 2023). While most existing scholarship focuses on national outlets, little is known about how regional newsrooms frame climate-related stories, particularly those involving health and wellbeing. My study draws on Tiriti-informed research (Ross, 2023; Phillips, 2022) and builds on critiques of structural exclusion (Masters-Awatere, et al. 2022; Kelly-Costello, 2021) to assess how regional newspapers in Aotearoa construct narratives around climate, health, and resilience. By examining framing strategies, source selection, and representational patterns, this research seeks to determine whether regional journalism contributes to more inclusive and equity-focused climate discourse. In doing so, my research aims to support broader efforts to

decolonise climate communication in Aotearoa and to amplify the roles of Māori communities as knowledge holders, leaders, and active participants in climate adaptation (Ross, 2023).

2.2.3 Examining Climate Discourse in Regional Aotearoa Media

In Aotearoa, regional newspapers play a crucial role in connecting local communities to national and global discourses, including those on climate change and health (Hopkins et al., 2015; Kelly-Costello, 2021). A critical examination of these media representations is necessary to understand how climate and health knowledge, and responsibility for climate resilience and response efforts, are conveyed to local communities, as well as to assess the potential of the media to support or hinder equitable climate action and resilience efforts (Kelly-Costello, 2021; Ross, 2023) in regional communities of Aotearoa.

Regional newspapers can offer more localised, context-specific reporting with the opportunity to better reflect the priorities and experiences of local communities (McLeod et al., 1999). In this way, localised reporting has the potential to reduce psychological distance from global issues and to support civic participation by linking abstract challenges to tangible experiences (Keller et al., 2022; Kenix, 2008). However, these outlets are shaped by resource constraints, commercial pressures, and professional norms, which may limit their ability to present diverse perspectives or challenge dominant narratives (Kenix, 2008; Salmon et al., 2017). For this reason, it was necessary within my analysis to actively examine not only what is included in regional media coverage, but also what is omitted, and how these silences influence public understanding (Donohue et al., 1973).

Understanding how local media can either reinforce or resist dominant framing requires attention to the broader discursive patterns that shape climate reporting in Aotearoa. Hopkins et al. (2015) highlight how climate change discourse in Aotearoa is often shaped by political and economic considerations, contributing to psychological distancing that hinders public concern and action. They observed that media frequently frame climate change as a political debate rather than a direct social or health issue, reinforcing the perception that its impacts are remote or abstract. Similarly, Keller et al. (2022) argue that climate framing can either reinforce psychological distance or reduce it by highlighting immediate, localised consequences. They suggest that emphasising regional climate impacts and personal stories can make climate change more tangible and actionable for audiences.

These framing dynamics are especially relevant to the present study, which explores how regional newspapers in Aotearoa represent extreme weather events and climate change. If regional media portray climate-related impacts, such as extreme weather events (EWEs), as isolated disasters rather than symptoms of a broader climate crisis, they may reinforce

psychological distance and hinder long-term engagement (Keller et al, 2022). However, if coverage draws connections between localised impacts and broader systemic drivers, it has the potential to foster greater public understanding and shift policy discourse toward adaptation and mitigation efforts (Keller et al., 2022).

This concern with media framing also relates closely to how crises are understood and communicated over time. As discussed earlier in this chapter, research on focusing events suggests that such crises can catalyse shifts in public and policy discourse, but the extent of these shifts depends on both lived experience and how the media frame the event (Birkland, 1997; Miles & Morse, 2007). The decision to focus this research on Cyclone Gabrielle, a significant extreme weather event that occurred in February 2023, was informed by these theoretical and empirical considerations. The cyclone disrupted key social determinants of health, including access to safe housing, clean water, and stable income, (WHO, 2019) and had compounding effects on health and wellbeing in the most affected communities (EHINZ, 2018a, 2018b). As a locally experienced and widely reported event, Cyclone Gabrielle offers a case study through which my research is able to discuss how regional media construct narratives around climate, health, and responsibility. It also provides a valuable opportunity to assess whether media narratives shifted in the wake of the event, and if so, how these shifts reflect or challenge dominant climate framings in Aotearoa.

Given the proximity of regional newspapers to the communities they serve, their reporting has the potential to shape public understanding of vulnerability and responsibility in ways that are more distinctly tailored to their local audience (Harrison et al., 2020; Kelly-Costello, 2021; Ross, 2023). Analysing how health is framed in this context my research sought to reveal whether regional reporting emphasises structural vulnerabilities or places responsibility at the level of the individual. The presence or absence of sustained framing practices is significant, as episodic coverage may heighten awareness briefly but fail to support long-term engagement or systemic change (Keller et al., 2022).

In developing a suitable methodological approach to identify these patterns in climate reporting, I drew on both local and international research on regional climate coverage. With little previous research focused on regional variations in Aotearoa journalism coverage, and no prior investigation into climate-related topics at a regional level in Aotearoa media available, international research on regional climate media framing also informed the methodological development of my study. In particular, the findings of Spradlin and Givens (2022) offer valuable methodological and conceptual insights relevant to the analysis of regional climate change reporting in their study on localised reporting of climate narratives in the United States. While

the geographical and population sizes of the United States are significantly larger than Aotearoa, and therefore not an appropriate comparison in relation to media landscape and narrative framing, their study still provided important methodological guidance in relation to my research design.

Utilising Semetko and Valkenburg's (2000) five-frame typology, *responsibility, human-interest, conflict, morality, and economic consequences*, Spradlin and Givens' (2022) research uncovered notable disparities in climate change framing across media contexts. While use of standardised framing techniques enabled the researchers to create easier comparisons with other studies, the study also highlighted the potential drawbacks of applying established frames outside their original context. Adopting predefined categories risked marginalising perspectives that do not align with dominant frameworks, particularly Indigenous knowledge systems and community-driven narratives (Spradlin & Givens, 2022).

Recognising the risks associated with applying external frameworks outside the contexts in which they were developed, I adopted an iterative approach to data analysis in this research, allowing frames and themes to emerge from the data. This approach was chosen to avoid reproducing potentially harmful or exclusionary frameworks (Spradlin & Givens, 2022) within the unique social and cultural context of Aotearoa. I aimed to address the marginalisation of Māori perspectives by avoiding the imposition of pre-established analytic categories that may not reflect Indigenous experiences, knowledge systems, or worldviews (Kagan et al., 2019; Harrison et al., 2020).

2.3 Theoretical Frameworks Informing the Present Study

Community psychology offers a unique lens by emphasising structural and systemic factors, rather than just individual behaviour change, in addressing climate challenges (Dittmer & Riemer, 2012). My research adopts a community psychology perspective, focusing on systems thinking, social justice, and collective action (Kagan et al., 2019; Dittmer & Riemer, 2012). Climate change disproportionately affects marginalised communities, including Māori and rural populations (EHINZ, 2018a, 2018b), making it crucial to understand how media narratives shape public understanding and policy responses.

This section explores how a community psychology lens informs the study's analytical focus and methodology, supporting a shift away from individualised narratives toward an understanding of collective responsibility and structural change. It also draws on Bronfenbrenner's ecological systems theory (1986) to examine the multiple layers of influence that shape how climate risks and resilience are communicated. Additionally, the integration of the Social Determinants of Health (WHO, 2019) provides a framework for analysing how climate

change exacerbates existing health inequities and how these are represented or overlooked within the media.

Together, these frameworks support a holistic approach to climate communication research, enabling a critical investigation of how media narratives reflect or obscure the structural and systemic conditions influencing health outcomes, public engagement, and community-level climate adaptation.

2.3.1 Community Psychology and Media Analysis

For this research, I adopted a community psychology perspective to examine how climate change and its relationship to health are framed in regional news media. Community psychology provides a valuable framework for this analysis due to its emphasis on systems thinking, social justice, and collective action (Kagan et al., 2019; Dittmer & Riemer, 2012). Given that climate change disproportionately affects marginalised communities, particularly Māori and rural populations in Aotearoa New Zealand (EHINZ, 2018a, 2018b), it is essential to consider how media narratives influence public understanding, policy responses, and opportunities for community-driven solutions.

Dittmer and Riemer (2012) argue that community psychology has much to offer in addressing environmental challenges, as its core principles, including ecological thinking, stakeholder participation, and praxis, align with the need for transformative, community-led responses to climate change. Rather than focusing solely on individual behaviour change, this perspective encourages an analysis of the structural and systemic factors shaping climate discourse (Dittmer & Riemer, 2012). In the context of regional newspapers, this means critically examining whether media narratives reinforce psychological distance, depoliticisation, and personal responsibility narratives or highlight equity, systemic accountability, and pathways for collective action.

Community psychology is a critical and applied discipline that engages with real-world social issues (Kagan et al, 201). By recognising that climate change is not only an environmental issue but also a social and structural challenge, a community psychology approach allows for an exploration of how media narratives shape collective responsibility and systemic solutions (Kagan et al., 2019). In Aotearoa, where Māori communities are among those most affected by extreme weather events (EHINZ, 2018b), ensuring Tiriti-informed, equity-focused reporting is critical. If regional media narratives fail to represent Indigenous and community-led solutions, this may perpetuate systemic inequalities in climate adaptation and disaster response efforts.

By positioning my study within a community psychology framework, my research extends beyond traditional media analysis to explore how media framing interacts with broader

social structures, power dynamics, and collective wellbeing. This perspective not only enables a deeper understanding of regional media's role in shaping climate action but also provides practical insights for journalists, policymakers, and community advocates aiming to foster more inclusive, action-oriented climate communication (Dittmer & Riemer, 2012). By combining community psychology core values of systems thinking, social justice, and equity with the application of Bronfenbrenner's (1986) ecological model and the Social Determinants of Health (WHO, 2019), My study aims to provide a deeper understanding of how regional media narratives influence public engagement with climate action and contribute to the broader discourse on climate resilience.

2.3.2 Bronfenbrenner's Ecological Systems Theory in Community Psychology

Bronfenbrenner's (1986) ecological systems theory provides a valuable framework for understanding the interplay between individuals and their environments. This model emphasises that human development is influenced by multiple, interconnected layers of social and environmental factors, which shape health and wellbeing outcomes (Bronfenbrenner, 1986). Within the context of climate change, the ecological systems perspective offers a lens through which to examine how different levels of society experience and respond to environmental disruptions. This perspective aligns closely with community psychology's emphasis on multi-level systemic interventions and the interaction between individuals, communities, and broader societal structures (Jason et al., 2016).

At the core of this model is the microsystem, which includes an individual's immediate environments, such as family, schools, workplaces, and peer networks (Bronfenbrenner, 1986). The nature of relationships within these settings significantly influences health and wellbeing. For example, access to stable housing, quality education, and strong social support systems are critical social determinants of health that operate at this level (Reifsnider et al., 2005). In the context of climate change, disruptions to these determinants, such as displacement due to extreme weather events, can have immediate and lasting health consequences (WHO, 2019). In the context of my research, media coverage serves as a microsystemic influence, shaping individuals' understanding of climate risks and adaptive behaviours.

The mesosystem extends this analysis by considering the connections between various microsystems. For instance, how families and schools engage with climate-related media coverage can influence community-wide perceptions of risk and resilience. Jason et al. (2016) highlight the role of mesosystemic interactions in fostering collective efficacy, whereby stronger connections between key institutions, such as schools, local councils, and healthcare providers, enhance a community's ability to respond to environmental stressors.

Beyond direct interactions, the exosystem includes broader social structures that indirectly affect individuals, such as local governance, media institutions, and economic conditions (Bronfenbrenner, 1986). Community psychology perspectives emphasise that exosystemic influences, such as the framing of climate change in regional newspapers, shape public discourse and policy responses (Jason et al., 2016). The way climate-related issues are presented in the media influences how communities prioritise adaptation strategies, whether by reinforcing a sense of urgency or, conversely, contributing to inaction through psychological distancing (Keller et al., 2022).

The macrosystem encompasses the overarching cultural, political, and economic systems that shape all other levels of influence (Bronfenbrenner, 1986). National policies on climate resilience, economic structures that determine resource allocation, and dominant cultural values regarding environmental responsibility all shape how climate change is understood and addressed. For example, societies that prioritise collective responsibility may foster greater community-driven adaptation efforts, whereas those that emphasise individual responsibility may lead to fragmented responses and increased vulnerability (Jason et al., 2016). Media narratives at this level reinforce dominant societal beliefs, either supporting or challenging policy decisions that impact climate-related health outcomes.

Finally, the chronosystem introduces a temporal dimension, recognising that socio-environmental changes unfold over time and influence development at both individual and societal levels (Bronfenbrenner, 1986). Community psychology highlights the importance of historical and policy shifts in shaping long-term responses to climate change (Jason et al., 2016). For instance, shifts in discourse following major climate events, such as Cyclone Gabrielle, can affect public perceptions, policy development, and community resilience-building efforts through challenging people's temporal perception of climate change and extreme weather as temporally far in the future (Keller et al., 2022).

Bronfenbrenner's ecological systems theory (1986) provides a framework for understanding the multiple layers of influence on individuals' responses to climate change. This model considers the interplay between individuals, communities, and broader societal structures, such as local governance and media institutions. The theory highlights the role of local media in shaping public perceptions of climate risks, influencing community resilience and adaptation strategies. By utilising this theoretical approach in conjunction with the Social Determinants of Health framework (WHO, 2019) discussed below, my research situates climate change as both an environmental and a social justice issue, emphasising the importance of multi-level, inclusive interventions that address systemic health disparities.

2.3.3 A Holistic Approach to Climate and Health Research

The intersection of climate change and social determinants of health (SDOH) (WHO, 2019) has garnered increasing attention, particularly as environmental shifts disproportionately affect marginalised populations. SDOH refers to the broad range of social, economic, and environmental factors that shape individual and community health outcomes such as housing, education, employment, income, social support, and healthcare access, are critical in influencing population health (WHO, 2019). Disparities in these determinants contribute to health inequities, with certain groups experiencing poorer health outcomes due to their socioeconomic position (WHO, 2019). Importantly, climate change interacts with these determinants, amplifying existing vulnerabilities and exacerbating health inequities (WHO, 2023; Paavola, 2017).

Galvão et al. (2009) emphasise that climate change exacerbates existing health inequities by influencing access to essential resources like clean water, food security, and healthcare. A key argument put forward by Galvão et al. (2009) is that climate change should not be treated as a standalone issue but rather as an integral component of broader social justice efforts. They stress that health equity must be embedded within climate policies to ensure that marginalised communities are not disproportionately burdened by environmental changes. This perspective aligns with the social determinants of health framework, which illustrates the importance of structural factors such as economic policies, housing conditions, and access to education in shaping health outcomes. By linking climate change to social determinants of health, Galvão et al. (2009) reinforce the necessity of interdisciplinary collaboration in addressing climate-related health challenges. Their work highlights the urgency of adopting policies that prioritise equity, sustainability, and resilience, ensuring that climate adaptation efforts are inclusive and responsive to the needs of the most affected populations.

From a holistic perspective, ecological models of interpretation offer a valuable framework for researchers seeking to understand and address disparities outlined by the social determinants of health by recognising the complex interplay of individual, social, and environmental factors. Reifsnider et al. (2005) illustrate the utility of these models in examining health disparities among low-income mothers and children, drawing upon Bronfenbrenner's (1986) ecological systems theory in the exploration health-related behaviours and outcomes to contextualise health within nested systems, from the microsystem's immediate environment to the macrosystem's broader cultural and policy influences and beyond (Reifsnider et al., 2005).

The application of ecological models in health disparities research such as Reifsnider et al.'s (2005) is especially relevant informing a theoretical base for research in the context of

climate change and health, as these models account for the systemic nature of health risks and resilience (Paavola, 2017). By acknowledging the interconnectedness of health, environment, and policy, ecological models support more comprehensive interventions that address both individual and structural determinants of health (Paavola, 2017; Galvão et al., 2009). This aligns with community psychology's emphasis on multi-level approaches to social issues (Kagan et al., 2019; Jason et al., 2016), reinforcing the importance of examining health disparities within their broader ecological context.

As climate change continues to drive environmental and health changes, adaptive strategies that consider both individual and community-level factors are crucial. Public preparedness measures and inclusive climate and health communications are essential to reduce health risks, particularly for those with lower adaptive capacity due to socio-economic status, lack of access to healthcare, or other social determinants (Paavola, 2017). These strategies must be integrated within broader social justice frameworks to ensure that all populations, particularly marginalised communities, benefit from climate adaptation efforts. By combining this approach with the core values of community psychology (Kagan et al., 2019), and utilising Bronfenbrenner's (1986) ecological model, my research aims to provide a deeper understanding of how media narratives in regional newspapers shape public engagement with climate action, while addressing health disparities. This integrative approach ensures that the study goes beyond media content analysis, to examine the broader structural and systemic factors influencing climate discourse, public health outcomes, and climate adaptation efforts.

2.4 Summary of Literature Review

This chapter has reviewed interdisciplinary scholarship on climate change, extreme weather, media representation, health equity, and public engagement. A consistent theme across the literature is that media serve as both mirrors and shapers of public discourse, wielding significant influence over how societal problems are defined and which solutions are deemed credible (Happer & Philo, 2013; Macnamara, 2009). However, this influence is not neutral. Media institutions often reflect dominant power structures by privileging elite sources, minimising community agency, and marginalising Indigenous perspectives (Donohue et al., 1973; Kenix, 2008; Kelly-Costello, 2021).

Aotearoa-specific research reveals that national media coverage of climate change frequently frames it as a political issue, rather than one of social justice, health, or collective responsibility (Hopkins et al., 2015; Harrison et al., 2020). This contributes to psychological distancing, where climate change is perceived as abstract or temporally remote, thereby reducing public motivation to engage (Keller et al., 2022; Spence et al., 2011). Despite extreme

weather events' potential to act as focusing events that catalyse public concern, media framing often centres on short-term damage and governmental responses rather than structural causes or long-term solutions (Birkland, 1997; Miles & Morse, 2007; Sloggy et al., 2021).

A significant gap in the literature remains in relation to regional media framing in Aotearoa. Most studies focus on national media or international comparisons, with little attention paid to how regional newspapers in Aotearoa construct climate-health narratives (Spradlin & Givens, 2022). My research seeks to address this gap. By applying frameworks from community psychology (Kagan et al., 2019; Dittmer & Riemer, 2012), ecological systems theory (Bronfenbrenner, 1986), and the social determinants of health (WHO, 2019), this research positions climate change as both an environmental and social justice issue. It examines whether regional media offer alternative, community-centred framings that support equity, resilience, and public engagement.

Equitable climate reporting in Aotearoa journalism is essential for ensuring that all communities, especially those disproportionately affected, have access to the information they need to respond to environmental change. By platforming marginalised voices (Harrison et al., 2020; Fisher et al., 2022) and upholding a Tiriti-based approach (Phillips, 2022; Masters-Awatere et al., 2022), regional media can play a pivotal role in climate resilience. Strengthening these practices will not only improve public understanding of climate change but also foster inclusive, community-driven solutions that reflect Aotearoa diverse environmental and cultural landscape. By critically analysing how health, climate, and responsibility are framed in regional coverage, the study contributes to a more contextualised understanding of climate communication and the conditions necessary for effective, equitable climate action.

3. Research Design

This chapter outlines the methodological framework guiding this study, including the development of the dataset, the rationale for key search terms, and the inclusion and exclusion criteria applied. It details the selection of data sources and search strategies used to capture media coverage related to climate change, extreme weather events, and associated health and wellbeing impacts in Aotearoa. The latter part of this section addresses methodological limitations, research contributions, ethical considerations, and the role of researcher reflexivity, establishing a transparent and critically engaged foundation for the thematic analysis that follows.

3.1 Rationale and Establishing Research Questions and Objectives

This section explains the study's focus on regional online newspapers in Aotearoa, highlighting their role in shaping local climate change and health discourse, including a focus around Cyclone Gabrielle. It outlines the rationale for using inductive thematic analysis, the importance of actively examining Indigenous representation in Aotearoa news media and concludes by presenting the primary research question and two sub-questions, which guide the study's data collection and analysis.

3.1.1 Rationale for the Present Study

This study examined how regional online newspapers in Aotearoa New Zealand framed climate change and health, particularly in relation to the extreme weather event Cyclone Gabrielle. While previous research has explored climate change coverage in national news media (Harrison et al., 2020), limited attention has been given to regional publications, despite their significant role in shaping public discourse at the community level. Regional newspapers served as a critical information source for many communities, particularly those in areas most affected by climate-related disasters. Given their localised focus, they have the potential to highlight community-specific concerns, provide nuanced representations of climate risks, and facilitate public engagement with climate action.

My rationale for analysing coverage before and after Cyclone Gabrielle was informed by the role of extreme weather events as focusing events (Birkland, 1997). International and Aotearoa-based studies have demonstrated that disasters often prompted increased media attention to climate change, creating windows of opportunity for discourse shifts (Hopkins et al., 2015; Salmon et al., 2017). This is supported by Keller et al. (2022) who argued that reducing psychological distance in media coverage is crucial for fostering engagement with climate action, as individuals are more likely to respond to climate change when it is framed as an issue

that directly affects them and their communities. By comparing media framing across a two-year period, this study assessed whether Cyclone Gabrielle functioned as a catalyst for altered discourse on climate and health within regional newspapers. Regional newspapers, by virtue of their focus on local events and issues, have the potential to reduce psychological distance by highlighting tangible, community-specific climate impacts (Keller et al., 2022). My research examined whether regional media fulfil this role or whether their framing reinforces climate change as a distant, abstract issue, thereby influencing public engagement with climate action.

Furthermore, existing studies on climate change media coverage had also highlighted key gaps in the representation of health impacts and equity concerns (Harrison et al., 2020; Kenix, 2008; Ross, 2023). While climate change posed significant risks to public health, these issues were often overshadowed by economic and political frames (Harrison et al., 2020). Furthermore, research in Aotearoa had demonstrated that Māori perspectives on climate change remained underrepresented in mainstream news media (Phillips, 2022), despite the disproportionate impacts of environmental degradation on Māori communities (EHINZ, 2018b).

Ross (2023) argues that a Tiriti-led approach to journalism is essential for ensuring that Māori knowledge and voices are adequately represented in climate discourse. Given that the selected online regional newspapers operate within communities that include significant Māori populations (StatsNZ, 2022), this study provided an opportunity to explore whether these publications incorporate Indigenous perspectives into their framing of climate change and health or prioritised dominant economic and political interests.

In addition, this study contributed to methodological discussions on media framing and the applicability of qualitative thematic analysis in a regional Aotearoa context. An inductive thematic analysis was undertaken following Braun and Clarke's (2006) guidelines. In contrast to a deductive approach, which applies pre-existing theoretical frameworks or typologies to the data, an inductive approach begins with the data itself, allowing patterns, meanings, and themes to emerge organically through close and repeated reading (Thomas, 2006). I selected this method to ensure that the analysis remained grounded in the content and language of the sampled articles, rather than being shaped by international framing typologies that may not reflect Aotearoa media or sociopolitical context. The inductive nature of the analysis was especially important for capturing the specific ways regional newspapers constructed narratives around climate change and health, including attention to the presence, absence, or marginalisation of Māori perspectives and community-specific concerns.

3.1.2 Research Questions

The overarching aim of this study is to understand how regional online newspapers in Aotearoa New Zealand frame climate change and its relationship to health, particularly in the context of extreme weather events. To structure this inquiry, I developed one primary research question and two interconnected sub-questions. These questions shaped the design, analysis, and interpretive focus of the study. The following outlines the research questions, explaining their relationships to each other and to the broader aim of the study.

Primary Research Question: How is climate change and its relationship to health framed by regional online newspapers in Aotearoa New Zealand?

This central question provides the foundation for the study by seeking to characterise the overall narratives presented in regional media. It directs attention to the ways in which climate change and health are linked, represented, and potentially made more or less tangible to local communities through media discourse.

Sub Question 1: How do regional newspapers frame climate change and its relationship to health before and after experiencing an extreme weather event (EWE) as a focusing event, and what themes emerge in their coverage?

Building on this broad inquiry, the first sub-question refines the focus by introducing a temporal and contextual dimension. This sub-question recognises that media framing is not static and may shift in response to significant events. Cyclone Gabrielle, serving as a focusing event, offers a lens through which to examine whether and how media narratives evolve over time. Understanding these shifts is critical for assessing whether local media seized the opportunity to reduce psychological distance and deepen community engagement with climate issues.

Sub Question 2: To what extent do these media narratives align with or challenge community psychology principles of social justice, collective resilience, and ecological systems thinking?

The second sub-question then critically evaluates the implications of these media frames through a community psychology lens. By incorporating this lens, the study moves beyond descriptive analysis to consider the broader social and psychological impacts of media narratives. This question connects the findings to key values of community psychology, asking whether the media's portrayals empower communities, acknowledge systemic inequalities, and foster a sense of collective efficacy.

Together, these research questions guide a layered analysis by first describing media framings, then assessing their evolution over time, and finally evaluating their alignment with

community psychology principles. This integrated approach ensures that the study not only captures what is being communicated but also interrogates the broader implications for community representation, resilience, and equity in the face of climate challenges in Aotearoa.

3.2 Establishing the Research Paradigm

This section outlines the philosophical and ethical foundations that guided the design and implementation of this research. It begins by discussing the theoretical positioning of the research, followed by a reflection on my positionality as a researcher, and concludes with the ethical considerations and bias management that informed my research practice throughout the project.

3.2.1 Theoretical Foundations

For this project I applied thematic analysis (Braun & Clarke, 2006) to understand how regional newspapers frame climate change and health, with a focus on equitable representation, the role of focusing events in relation to climate journalism, and to what degree the sampled articles included core community psychology values of social justice, equity, and inclusivity, with a focus on ethical, responsible, community led change (Kagan et al., 2019). This study was grounded in a community psychology framework, incorporating ontological, epistemological, and axiological considerations to ensure a holistic and ethically responsible approach (Kagan et al., 2019).

When designing this research project, I adopted a constructivist epistemological stance, recognising that knowledge about climate change and its impacts is not merely an objective reality but is actively constructed through media portrayals. By focusing on regional online newspapers in Aotearoa, my research sought to reveal how these newspapers frame climate change and health issues, thereby shaping the knowledge and understanding of their audiences (Kenix, 2008) and therefore their engagement in climate action and pro-environmental behaviour (Huang, 2016). The constructivist approach highlights that media framing influences public perceptions by emphasising certain aspects of climate change over others, creating specific narratives that align with audiences' attitudes and beliefs. My use of thematic analysis in this study aligned with this epistemological perspective, aiming to interpret and understand the ways in which knowledge about climate change and health is represented and constructed through regional media (Braun & Clarke, 2006).

From an ontological perspective, throughout this study I acknowledged that climate change and its consequences are real phenomena that can be observed and studied, but the understanding and representation of these phenomena can vary significantly depending on the

media's framing practices and the unique experiences of different communities. This study assumed that reality is multifaceted and that the portrayal of climate change in regional newspapers reflects one of many possible understandings of its effects. By examining how regional online newspapers frame climate change and health issues, the research explored how these varied realities were constructed and communicated, providing insights into the complex interplay between media narratives and community perceptions (Salmon et al., 2017).

From an axiological standpoint, this research was underpinned by a commitment to values central to community psychology, including equity, social justice, and respect for diverse forms of knowledge (Kagan et al., 2019). These values informed the research aims, the choice to focus on underrepresented regional voices, and the prioritisation of ethical considerations throughout the research process. By examining media portrayals of climate change and health, this study was designed to contribute to the discourse surrounding equitable and effective climate communication strategies that address the needs and concerns of affected communities.

3.2.2 Positionality as a Researcher

Positionality plays a crucial role in constructing the paradigm from which the study is approached. This research draws on critical paradigms that emphasise the need to challenge dominant discourses and amplify marginalised voices. By explicitly situating the study within this framework, I ensured that the analysis not only identified harmful media practices but also highlighted opportunities for more balanced and culturally informed reporting on climate change and health in Aotearoa. Engaging critically with the disproportionate impacts on Māori communities (EHINZ, 2018b), I sought to avoid perpetuating a colonial perspective in climate discourse and instead supports indigenous sovereignty and self-determination in climate action (Phillips, 2022; Ross, 2023).

Māori rely heavily on natural resources for sustenance, identity, and livelihood, meaning any disruption caused by climate change such as rising sea levels, extreme weather events, or reduced biodiversity, has compounding effects beyond physical damage (Harmsworth & Awatere, 2013). Given these realities, ensuring that Māori perspectives are explicitly represented in climate-related media discourse is critical. Media framing shapes public understanding and policy responses to climate change, and if indigenous voices are marginalised or omitted, it risks perpetuating inequities in both policy and practice. Research in this area, therefore, not only contributes to understanding public discourse but also holds potential for supporting equitable climate adaptation strategies that honour Te Tiriti o Waitangi.

Recognising one's positionality involves reflecting on how personal identity, cultural background, and privilege influence the research process, including the interpretation of media narratives and engagement with indigenous knowledge systems. This reflection is especially important in research that involves indigenous communities or issues, to ensure that findings are presented respectfully and ethically. This reflexive practice aligns with insights from other non-Māori researchers, such as Lammers (2012), who explored cultural safety as a Pākehā psychologist working with Māori, and Wheaton and Olive (2023), who highlighted the ethical complexities involved with conducting "research with responsibility" (Wheaton & Olive, 2023) in Aotearoa. These works emphasised the need for critical self-awareness, cultural humility, and accountability in cross-cultural research. As a non-Māori researcher undertaking this study, it was therefore essential to acknowledge my positionality.

As a Pākehā woman conducting this research, I am acutely aware of my positionality and its implications for my engagement with the topic of climate change and health in Aotearoa New Zealand. My background influences my perspectives, values, and interpretations, particularly in the context of studying Indigenous experiences and knowledge systems.

I recognise that my cultural heritage carries privileges that can create distance from the lived realities of Māori communities, who are disproportionately affected by climate change. This awareness compels me to approach my research with humility and a commitment to ethical and culturally competent practices. I aim to amplify Māori voices and perspectives in my analysis, ensuring that their experiences are respectfully represented and that my work does not perpetuate colonial narratives.

Understanding that media framing shapes public discourse and policy responses, I strive to challenge dominant narratives that marginalise Indigenous knowledge. My research is informed by principles of social justice, equity, and inclusivity, seeking to address the gaps in representation of Māori perspectives in climate-related media coverage. It is vital that my interpretations reflect the complexities of these issues and the diverse realities of communities affected by climate change.

In undertaking this project, I acknowledge my responsibility to ensure that my findings contribute positively to the discourse surrounding climate change and health, particularly in supporting equitable adaptation strategies that honour Te Tiriti o Waitangi. By critically engaging with my positionality, I aim to foster a research environment that is accountable, reflective, and responsive to the needs and concerns of Māori communities.

3.2.3 Ethical Considerations

As a community psychology researcher in Aotearoa, my practice is guided by the ethical standards established by the New Zealand Psychological Society (NZPS) and the New Zealand Psychologists Board (NZPB). These frameworks inform my approach to ethical sampling, cultural competence, reflexivity, and the management of bias throughout this study. Ethical considerations included ensuring that the research respects community perspectives and avoids perpetuating stereotypes or misinformation. My study valued the enhancement of public understanding and preparedness for climate change, with a goal of fostering inclusive and actionable discourse that supports proactive responses to climate-related health challenges (Kagan et al., 2019). This commitment to ethical research practices and social justice was woven throughout the study's objectives and methodology.

The *Code of Ethics for Psychologists Working in Aotearoa/New Zealand* (NZPS, 2002) outlines four core principles: respect for the dignity of persons and peoples, responsible caring, integrity in relationships, and social justice and responsibility to society. These principles shaped the ethical decision-making processes in this research, particularly regarding the sampling, interpretation, and representation of publicly available media content. While the study focused primarily on the framing of climate change and health, particular care was taken when analysing sensitive content involving vulnerable communities affected by extreme weather events. Privacy standards were upheld by ensuring that personal or private information about individuals was neither misrepresented nor misused (Holtorf et al., 2023; Roberts, 2015).

The *Cultural Competencies Guidelines* (NZPB, 2011) further emphasise the importance of cultural awareness, knowledge, and skills. These guidelines informed my approach to analysing media portrayals of Māori and other Indigenous communities, ensuring interpretations were situated within appropriate cultural, historical, and environmental contexts. Cultural bias was therefore a critical area of concern throughout the entirety of my research. Recognising my ethical responsibilities, I critically evaluated representations that risked reproducing harmful stereotypes and sought to amplify Indigenous perspectives where possible, ensuring respectful and accurate representation (Roberts, 2015). As the sole researcher, my own background, experiences, and preconceptions shaped my interpretation of how climate change and health were framed. To address this, I maintained ongoing critical reflection regarding how my personal values, background, and assumptions might influence the research process and outcomes. Engaging in this reflexive practice contributed to a more ethical, culturally aware, and balanced analysis (Pietilä et al., 2020).

Selection bias was also a particular concern, as the choice of news outlets and articles could influence the framing patterns identified. To mitigate this, clear inclusion and exclusion criteria were established prior to article collection. Although the selection was necessarily focused rather than broad, efforts were made throughout the sampling process (See Section 3.3.5) to ensure that the analysis represented regional perspectives rather than reinforcing dominant narratives (Pietilä et al., 2020). Methodological transparency was upheld by documenting the sampling process in detail, including the selection criteria, regional focus, and timeframe, to support reproducibility and fairness (Wiedicke, 2023; Pietilä et al., 2020).

Additionally, the ethical considerations of online-based research, particularly in relation to content analysis, informed my approach to handling publicly available content while protecting the integrity of original reporting and avoiding unethical use of online materials (Harriman & Patel, 2014). As the news articles selected for this study were publicly available, I did not require direct consent from publishers or journalists (Pietilä et al., 2020; Wiedicke, 2023). Respect for the work of journalists and editors was therefore maintained by using articles in their proper context and avoiding misrepresentation of editorial choices. Fidelity to the original framing and meaning of each article was a key consideration throughout the research process (Wiedicke, 2023).

Ethical approval for this research was granted by the University of Waikato ALPSS Human Research Ethics Committee (Application Number: FS2024-39) on 11 October 2024 (See Appendix D).

3.3 Methods

This section outlines the methodological approach used to examine how regional online newspapers in Aotearoa frame the relationship between climate change, extreme weather events (EWEs), and public health. It details the data collection period and strategy, criteria for selecting regions and publications, the rationale behind keyword search terms, and the sampling and analysis process. Drawing on a reflexive thematic analysis framework, the study was designed to ensure both methodological rigour and contextual relevance, allowing for a nuanced understanding of media framing Aotearoa climate and EWE news coverage.

3.3.1 Data Collection

The sampling period for this study spanned from 1 February 2022 to 29 February 2024, strategically chosen to examine how Cyclone Gabrielle (5 -11 February 2023) functioned as a focusing event in shaping regional news coverage of climate change and health. Rather than using an exact 12-month window, this period was structured to ensure that coverage was not

arbitrarily constrained by calendar dates, but instead captured meaningful shifts in reporting before, during, and after the event.

The inclusion of February in full for both years ensures that media coverage in the lead-up to and aftermath of the cyclone is comprehensively represented, rather than being disrupted by an artificial cut-off mid-month. While the event officially occurred between 5–11 February 2023, restricting the dataset strictly to a 12-month cycle (e.g., 5 February–4 February) risked either under capturing pre-event discourse in 2023 or truncating the post-event discussion in 2024, particularly given that media narratives could evolve gradually rather than aligning neatly with a disaster's exact duration.

Research on focusing events (Birkland, 1997) suggests that media responses to extreme weather events extend beyond their immediate occurrence, shaping discourse over time. By ensuring a full month on either side of the event, this study allowed for the capture of both the anticipatory framing before the cyclone and any prolonged media engagement with its consequences, particularly in relation to climate change and public health. This approach ensured a balanced and methodologically sound dataset, preventing distortions that could arise from an overly rigid application of event-centred timeframes.

Due to the lack of an appropriate database of regional newspaper articles in Aotearoa from which to create a sample, a database for this project was constructed utilising Google's advanced search tools. While the analysis itself follows an inductive thematic approach, the construction of the dataset required a deductive framework for selecting relevant keywords that would capture media discourse pertinent to these topics. This search strategy was therefore designed in advance to build a dataset capable of answering the research questions, while remaining broad enough to accommodate emergent themes during analysis

To ensure alignment with the study's objectives, the selection of search terms was guided by a conceptual focus on climate change and extreme weather events that is outlined in *Section 3.3.3*. Articles were gathered using a systematic search strategy, incorporating key terms such as "climate change," "global warming", "extreme weather" and "Cyclone Gabrielle." The search applied these terms to all articles from the selected publications produced in the time frame spanning twelve months before and after the cyclone to capture changes in framing strategies following this *focusing event* (Birkland, 1997).

Utilising search functions (site:) and ("") ensured that results were exclusively from the appropriate publication URLs (See Appendix A) and had to include the keyword in the body of the article (See Figure 3.3.1A). Articles were further filtered using the 'Tools' custom range function to restrict results to publications to those within the sample period of 1 February 2022

to 29 February 2024. Publications would be further filtered to collect articles published specifically before or after Cyclone Gabrielle by limiting the ranges to either 1 February 2022 to 5 February 2023, or 5 February 2023 to 29 February 2024. Duplicate results stemming from different key search terms were then removed from the sampling pool to ensure that all articles sampled had only one entry in the final data pools (See Figure 3.3.1B).

Figure 3.3.1A

Example of a Search in the Data Collection Phase

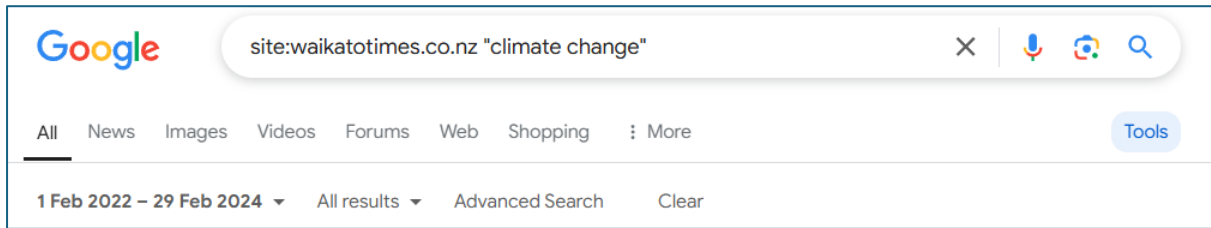
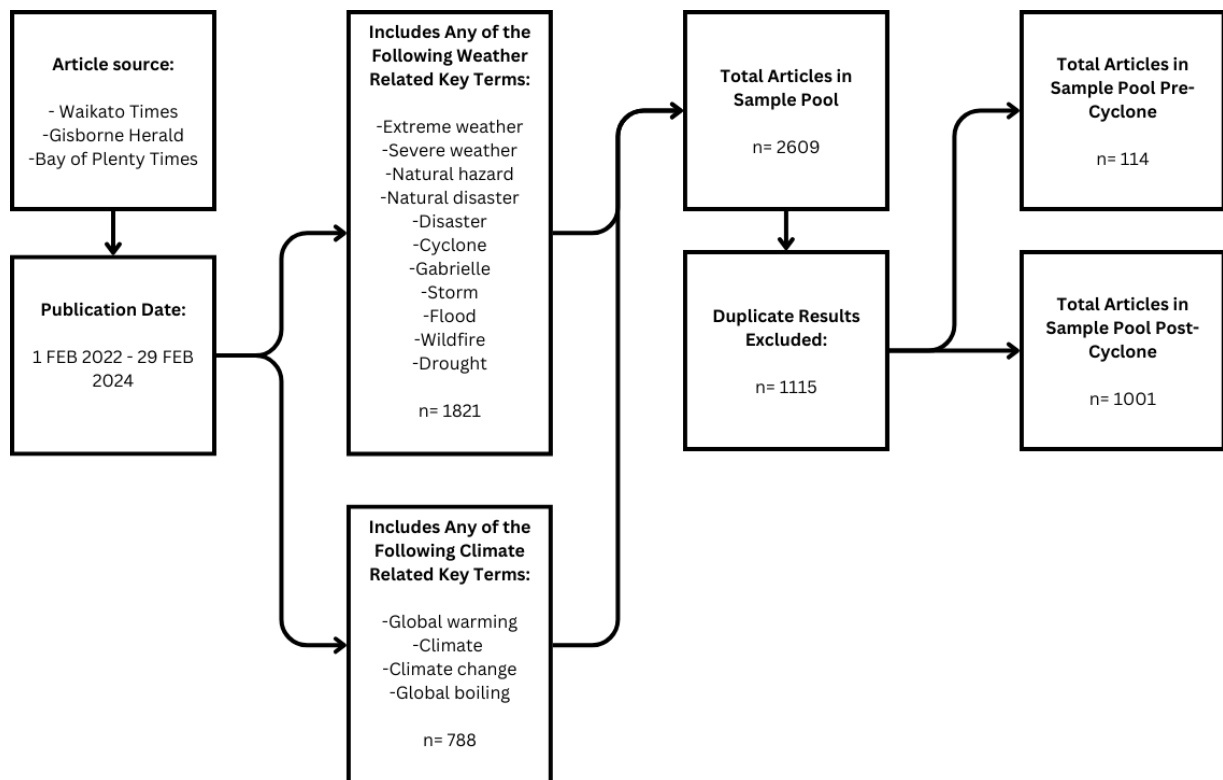


Figure 3.3.1B

Article Inclusion Criteria



3.3.2 Rationale for Regions and Publications Selected:

The Waikato, Te Tairāwhiti/Gisborne, and Bay of Plenty regions were all directly affected Cyclone Gabrielle with varying degrees of severity and these areas are predicted to experience increased temperatures, changes in rainfall, sea level, and an increased frequency of EWEs

(EHINZ, 2018a). These areas encompass both coastal and inland cities and have large agriculture and tourism industries that are more likely to be disrupted due to ongoing climate change. Additionally, the populations of these regions have some of the highest proportions of Māori (StatsNZ, 2022), who are projected to experience some of the most severe ramifications of climate change in terms of health, economic, and ecological wellbeing (EHINZ, 2018b). Online newspapers were selected over physical publications due to recent research indicating that the majority of New Zealanders receive their news via a website or app than a physical issue (Morgan, 2023).

The Waikato Times, Gisborne Herald, and Bay of Plenty Times online news publications were selected according to the following criteria:

Climate risk and proximity to EWE: Newspapers must be located in regions projected to experience significant impacts due to climate change by 2050 (Ministry for the Environment, 2023a), and that were affected by Cyclone Gabrielle in February 2023.

Regional newspaper availability: Newspapers must have been published online either daily or weekly prior to 1 February 2022 and must have continued to be published either daily or weekly as of 29 February 2024.

The inclusion criteria above did not place a restriction on the incorporation of paid ‘premium content’ into the data set. It was therefore anticipated that there would be articles included in the dataset from which the sample was drawn were concealed to some degree behind a subscription fee. Each of the three newspapers selected required an active subscription to access at least a portion of the sampled articles.

Pay walling regional news through a subscription fee has become a significant issue in the media landscape, affecting public access to important local stories and information. While national news outlets can maintain more accessible content, many regional newspapers in Aotearoa have increasingly turned to paywalls as a revenue model to stay financially viable (RNZ, 2023). Given the price of annual subscriptions for *The Waikato Times*, *Bay of Plenty Times*, and *Gisborne Herald*, were \$260.00, \$199.00, and \$179.00 NZD per year respectively on the cheapest plans (See Table 3.3.2), this subscription model places a tangible economic cost on news that is relevant to communities who are going to be directly impacted by climate change and continued exposure to EWEs and their associated effects on key determinants of health (EHINZ, 2018a; WHO, 2019).

With the economic impacts of Cyclone Gabrielle (EHINZ, 2018b) and rising living costs (Stats NZ, 2024), accessing relevant news may be increasingly difficult for affected communities. Pay walling regional news disproportionately affects those who are less able or

willing to pay for subscriptions, creating a digital divide between those with access to vital local information and those without (Harrison et al., 2020). As such, it was important to include both free and premium content in the analysis in order to represent the full range of reporting that exists on climate change and health in these regional areas. Analysing only freely accessible content would risk under-representing significant reporting as premium articles may contain greater editorial investment. Including both types of content provides a more accurate reflection of the regional media environment and allows for a critical examination of the information landscape that communities are navigating.

Table 3.3.2

Online Newspaper Subscription Fees

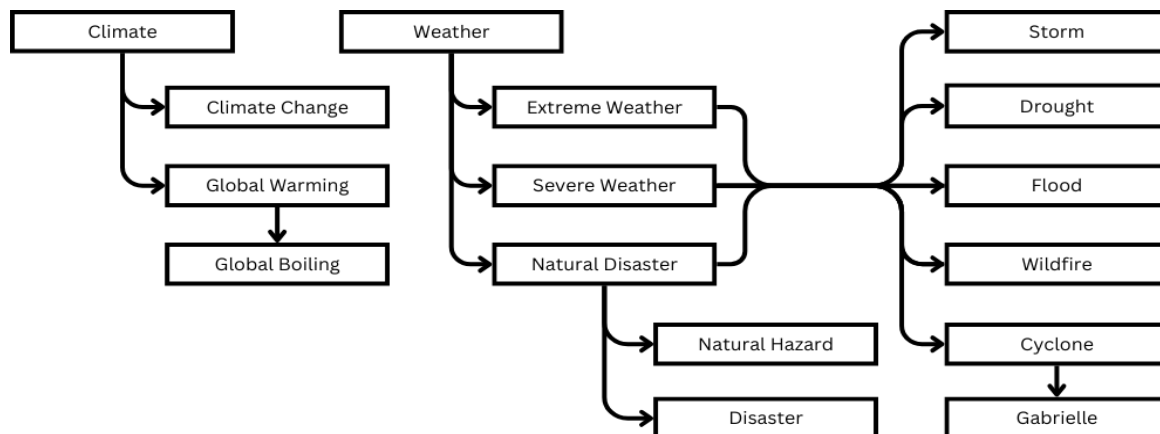
Publisher	** Online Only Subscription Fees (NZD)		
	Weekly	Monthly	Yearly
Stuff (The Waikato Times)	\$5.00	-	\$260.00
The New Zealand Herald (The Bay of Plenty Times)	\$6.00	-	\$199.00
The Gisborne Herald	-	\$20.00	\$179.00

**Pricing includes GST and excludes signup discounts and promotions.

3.3.3 Rationale for Key Search Terms

In selecting search terms for this study, key words were selected that focused on capturing media discussions related to climate change and extreme weather events (EWEs) in regional newspapers. The search parameters were designed to encompass both well-established and emerging climate-related terms, as well as specific weather events that have had significant impacts in Aotearoa New Zealand. To do so, I conducted a systematic search for key terms by first identifying primary keywords from the research questions in *Section 3.1.2*. These terms, such as 'climate,' 'extreme weather,' and 'cyclone,' were used as a foundation for developing additional related search terms. I then organised these terms into groups based on their relevance to climate change and extreme weather events (See Figure 3.3.3), ensuring that the selected terms were both comprehensive and focused on capturing relevant media discussions. The inclusion and exclusion of specific terms were guided by established criteria discussed in this section, such as the direct relevance to climate-driven events in Aotearoa and the alignment with the study's theoretical framework

Figure 3.3.3
 Key Search Terms Grouped by Relationship



Climate-Related Terms:

Global Warming, Climate Change, Climate – These foundational terms were included to capture broad discussions on climate science, policy, and impacts. While "climate change" is the dominant term in public and journalistic discourse, "global warming" continues to appear in discussions of temperature rise, and "climate" ensures coverage of wider contextual discussions.

Global Boiling – Though this term did not yield results in this specific search, its increasing use in global journalism, particularly in discussions of rising sea temperatures and climate inaction, justified its inclusion.

Weather-Related Terms:

Natural Disaster, Extreme Weather, Severe Weather – These terms capture the ways in which climate-related events are framed in news coverage. While "natural disaster" is commonly used in media, its inclusion allows for analysis of how newspapers attribute causality to such events.

Cyclone, Gabrielle, Storm, Drought, Flood, Wildfire – These event-specific terms were chosen to track reporting on key climate-driven disasters affecting Aotearoa. Cyclone Gabrielle, in particular, represented a major climate-related disaster with significant health and wellbeing implications for affected communities.

Disaster– This broad term was included to capture discussions on preparedness, response, and resilience in relation to climate-driven events to ensure that less explicit coverage of climate and extreme weather could be included in the data set.

Natural Hazard– This term was included due to its growing presence in academic literature relating to climate change and wider discussions on spatial planning and community resilience.

3.3.4 Search Term Exclusions

To maintain a focused scope, this study deliberately excluded terms related to other disasters that were unconnected to the Cyclone Gabrielle EWE, such as "earthquake," "tsunami," or "eruption," even though these events are highly relevant to wider disaster discourse in Aotearoa. While these hazards pose significant risks, they do not fall within the study's primary concern, that is, how regional newspapers frame climate change, extreme weather and its associated health and wellbeing impacts, particularly in relation to EWEs. Including specific geophysical disaster terms could have included results that were outside the scope of climate-driven risks, potentially conflating coverage of climate adaptation with broader discussions of disaster resilience.

The dataset was constructed using predefined climate and disaster-related terms, while the analysis of media framing was conducted inductively, allowing themes and narratives to emerge reflexively from the data rather than being limited by pre-existing typologies. By carefully selecting climate and weather-related search terms while excluding unrelated disaster categories, I ensured a focused analysis of media framing in the context of climate change. This approach allowed for a more precise examination of how the selected online regional newspapers portray the relationship between climate-driven extreme weather events and public health, reinforcing the study's relevance to climate communication and policy discussions.

While the search strategy focused on terms directly associated with climate change and extreme weather, this approach may have excluded articles that discussed health and wellbeing outcomes such as respiratory conditions, mental health outcomes, or hospitalisations, without explicitly linking them to climate factors. I made this decision to maintain a focused scope aligned with the study's theoretical framing through the Social Determinants of Health (WHO, 2019) and Ecological Systems (Bronfenbrenner, 1986) lenses, prioritising broad, systemic narratives over narrow symptom-specific reporting.

3.3.5 Sampling and Analysis

Braun and Clarke's (2006) framework for thematic analysis provides a flexible and systematic approach to identifying and interpreting patterns within qualitative data. Building on prior international studies of regional media coverage in countries such as the United States (Spradlin & Givens, 2022) and Harrison et al.'s (2020) study of nationwide online news coverage of climate change in Aotearoa, this study applied reflexive thematic analysis in the *Findings* to examine how regional online newspapers in Aotearoa frame climate change and its relationship to health and wellbeing. An example of the analysis is provided in *Appendix C*.

The present study determined its sample size through the prioritisation of data richness and analytical depth over a fixed saturation threshold. Instead of ceasing data collection at the point where no new themes emerged, the study followed the principle of thematic sufficiency (Vasileiou et al., 2018), ensuring a dataset extensive enough to generate well-supported insights while remaining analytically manageable. Traditional saturation models assume that themes exist independently within data and can be fully captured through exhaustive sampling (Braun & Clarke, 2019). Reflexive thematic analysis challenges this by positioning themes as actively constructed through researcher engagement, where sufficiency is determined by coherence, clarity, and interpretability rather than reaching a saturation point (Braun & Clarke, 2019). Thematic sufficiency (Vasileiou et al., 2018) shifts the focus from numerical completeness to data quality. A carefully curated dataset can produce meaningful insights without requiring exhaustive collection. This study, therefore, determined sample size based on the depth needed to answer the research questions rather than an arbitrary threshold.

This study utilised a structured yet flexible sampling process, combining random selection with an iterative approach to ensure both breadth and analytical depth. Initially, articles were randomly selected to achieve broad representation of regional climate reporting. Sampling continued with additional randomly selected articles, and each new selection was assessed for whether it introduced novel thematic insights. Data collection proceeded until it became evident that additional articles primarily reinforced existing themes and frames rather than contributing substantively new perspectives. This approach maintained the objectivity of random sampling while allowing for iterative refinement, ensuring that the dataset was sufficiently comprehensive to support meaningful analysis without unnecessary redundancy. Empirical reviews supported this flexible approach. Wutich et al. (2024) found that sample size recommendations for reflexive thematic analysis vary as iterative theme development benefits from flexible, context-dependent selection. Similarly, Naeem et al. (2024) argued that saturation should be seen as an evolving process, achieved through iterative theme refinement rather than a predefined number of data points. A full list of articles sampled is provided in *Appendix B*.

The synthesis of findings took place within the *Discussion*, where the results of the thematic analysis were applied to the research questions and objectives, framed within relevant theoretical and contextual frameworks. Rather than simply summarising the identified themes, this synthesis integrated them to provide a comprehensive interpretation of how regional newspapers in Aotearoa framed climate change and its relationship to health in order to address key gaps in the existing literature.

Studies on psychological distance and climate communication suggest that media can either reduce or reinforce psychological distance (Keller et al., 2022), shaping public perceptions of climate urgency (Spence et al., 2011). While research has explored this in broader climate discourse, it has not been extensively applied to climate-related health risks in Aotearoa regional media. Keller et al. (2022) argued that future research should integrate additional frameworks to strengthen the analysis of psychological distance in media framing. By exploring themes and narrative frames relevant to psychological distance from a perspective grounded in Social Determinants of Health (SDOH) (WHO, 2019) and Ecological Systems frameworks (Bronfenbrenner, 1986), the present study addressed Keller et al.'s recommendation through utilisation of a more holistic approach to analysing climate, extreme weather, and health in Aotearoa regional journalism. The aim of this approach was to form a foundation for future research exploring the ways in which media narratives influence public perception, community resilience, and policy support that is firmly rooted in core values of community psychology.

3.4 Gaps in the Literature and Expected Contributions

This research sought to make key contributions to the field of climate change communication and community psychology by addressing critical gaps in the literature on regional media framing of climate change and health in Aotearoa New Zealand. Previous studies, such as those by Harrison et al. (2020) and Kenix (2008), primarily focused on national media, leaving the role of regional newspapers in shaping climate discourse underexplored. National media outlets often frame climate change through political or economic lenses, whereas regional newspapers have the potential to offer community-driven narratives that foster local engagement and resilience (Spradlin & Givens, 2022). By investigating regional news media, this study highlighted the role of community-level journalism in shaping public discourse and influencing local attitudes toward climate-related health issues.

Prior research has shown that Māori perspectives on climate change are frequently marginalised in mainstream media (King et al., 2007; Phillips, 2022). Given this, it was anticipated that some level of underrepresentation might persist. However, this study expected that regional newspapers, especially those serving areas with some of the highest proportions of Māori in their populations, would provide greater opportunities for community-led and inclusive narratives. Unexpectedly, the findings revealed that Māori perspectives remained inconsistently included even in the wake of Cyclone Gabrielle, when community impact was most visible. This persistence of marginalisation in regional media, despite proximity to

affected communities, signals an important and underacknowledged gap in climate communication and challenges assumptions about the inclusivity of local journalism.

Another gap in the literature concerned the role of extreme weather events (EWEs) as focusing events in media discourse. While this phenomenon has been widely studied internationally (Birkland, 1997; Miles & Morse, 2007), limited research has examined how media outlets in Aotearoa shift their framing before and after such events. This study addressed this gap by analysing Cyclone Gabrielle as a potential catalyst for framing changes in online regional climate discourse. Furthermore, psychological distance theory (Trope & Liberman, 2010) suggests that media can either reduce or reinforce psychological distance, shaping public perceptions of climate urgency. While this has been explored in broader climate discourse, it has not been extensively applied to climate-related health risks in Aotearoa regional media.

By exploring themes and narrative frames relevant to psychological distance through these integrated perspectives, this study laid the groundwork for future research into how media narratives influence public perception, community resilience, and policy support. Its findings have practical implications for journalists, policymakers, and community organisations seeking to develop equitable, community-focused, and responsive climate communication strategies. Through its analysis and recommendations, this research aimed to support efforts to improve public understanding of climate-related health risks and foster resilience within affected communities.

3.5 Limitations and Future Research

While this study provides valuable insights into how regional online newspapers in Aotearoa New Zealand frame climate change and its relationship to health, some limitations must be acknowledged. These limitations highlight areas for future research that could further develop understanding of regional climate communication, public engagement, and policy implications.

While this study highlights gaps in Māori representation in climate reporting, it does not include direct engagement with Māori communities or media practitioners. Developing deeper understanding of how Māori perspectives are integrated into regional climate discourse requires deeper exploration of the structural barriers and opportunities for Indigenous-led climate communication. Kaupapa Māori research challenges dominant Western paradigms, ensuring that Māori voices are not only included but are central to the discourse. For example, research exploring Māori-led journalism could provide insights into how Indigenous knowledge can enhance the framing of climate issues in ways that are culturally relevant and meaningful to Māori communities (Allport et al., 2023).

Additionally, this study employs a qualitative thematic analysis, which provides depth in understanding how climate change and health are framed but does not quantify the prevalence of specific frames or themes over time. While this approach allows for a rich exploration of meaning, it does not provide statistical insights into trends in climate coverage. Due to time and resource constraints, a mixed-methods approach was beyond the scope of the present study, however, incorporating quantitative content analysis could help measure the frequency and prominence of different frames across a larger dataset, providing a more comprehensive picture of climate discourse in regional media. This would align with methodologies used in Harrison, et al., (2020), who combined qualitative and quantitative approaches to examine climate-health framing in national media.

Another potential area for future research is the exploration of additional health-specific terms in the context of climate-driven events. Including a broader range of health-related terms could refine the capture of media discourse surrounding climate and health, providing more nuanced insights into the ways in which climate change is framed in relation to public health. While this study maintained a deliberate focus on broader, systemic narratives in line with its theoretical foundations in the Social Determinants of Health (WHO, 2019) and Ecological Systems (Bronfenbrenner, 1986) lenses, future work could complement this approach by capturing more granular public health discourse that may not explicitly reference climate factors but is nonetheless shaped by environmental change.

Secondly, examining the role of social media and alternative digital platforms in climate communication would address an important gap in the literature. Research by Armoudian et al. (2023) demonstrates that digital media plays a growing role in shaping climate discourse, yet its influence on regional narratives remains underexplored. With declining trust in mainstream media and the increasing role of social media in public discourse, future studies could explore how regional communities engage with climate narratives on platforms such as Facebook, Twitter, and TikTok, and whether these discussions differ from those in traditional news media.

Finally, policy-focused research could explore how media framing influences climate adaptation strategies and decision-making at the local and national levels. Hopkins et al. (2015) highlight the role of media in shaping policy discussions, yet there remains limited research on how policymakers, emergency responders, and community organisations interact with and respond to media narratives. Investigating these interactions could provide valuable insights into the role of journalism in shaping climate resilience efforts in Aotearoa.

3.6 Summary of Research Design

This study employed a qualitative thematic analysis to examine how regional online newspapers in Aotearoa New Zealand framed climate change and its relationship to health. A constructivist epistemological approach underpinned the research, recognising that media narratives actively shaped public understanding and perceptions of climate-related health risks (Braun & Clarke, 2006). The research focused on three regional newspapers, examining their coverage of climate change and health over a two-year period, spanning one year before and one year after Cyclone Gabrielle. The cyclone served as a focusing event (Birkland, 1997), allowing for an analysis of whether and how media narratives shifted in response to an extreme weather event (EWE).

Inclusion and exclusion criteria were applied to ensure articles focused specifically on climate change, health, and extreme weather impacts. Data was analysed thematically to uncover dominant frames and their potential shifts in the wake of an EWE. Guided by community psychology principles (Kagan et al., 2019), the study critically evaluated the extent to which media coverage fostered or hindered public engagement, resilience, and equity. Ethical considerations, including the responsible representation of Indigenous perspectives and the researcher's positionality, were central to this design.

This research makes a valuable contribution by shifting the focus of climate communication studies in Aotearoa from national to regional contexts. It highlights how localised media narratives can shape public understandings of climate change and health, particularly in the wake of extreme weather events. The integration of community psychology, ecological systems theory, and media framing analysis offers a holistic, interdisciplinary approach. The findings serve as a valuable foundation to inform more inclusive, grounded, and community-responsive climate communication strategies, especially in regions facing heightened climate vulnerability.

4. Findings

This section presents the results of a thematic analysis of regional online news media coverage related to climate, extreme weather, and the related impacts on health and wellbeing in Aotearoa. The analysis was guided by a qualitative, inductive approach, drawing from principles of reflexive thematic analysis (Braun & Clarke, 2006) to identify narrative framing and themes across the sampled articles. Frames and themes were generated through a recursive process of coding, comparison, and refinement, with attention to semantic content as well as latent meanings embedded in the discursive construction of climate and health issues. Analytical decisions were informed by a community psychology orientation, which foregrounds the sociopolitical positioning of texts, the implications of representation, and the role of power in the shaping of public narratives (Kagan et al., 2019)

Rather than isolating climate and health as distinct domains, the analysis examined their points of intersection, with a focus on how regional media framed their relationship, their scale of impact, and the attribution of responsibility. The findings reflect dominant discourses that shape public understanding, political will, and the perceived boundaries of action, as well as identifying absences, silences, and marginalised perspectives, particularly in relation to Te Ao Māori and Indigenous knowledge systems.

4.1 Sampling Results

Utilising the key search terms established in *Section 3.3.3*, a search of the three regional newspapers, *The Waikato Times*, *Bay of Plenty Times*, and *Gisborne Herald* was conducted over the period of 1 February 2022 to 29 February 2024. The search yielded 1115 results, excluding duplicate articles, which formed the sampling pool for articles included in the thematic analysis. Each publication included within this study yielded fewer results from climate-related key terms, compared to the weather-related search term (See Table 4.1.1). For the total number of results for each publication sorted by individual search term, see *Appendix A*.

Table 4.1.1

*Search Term Results for Articles Published by Sampled Newspapers 1 Feb 2022 to 29 Feb 2024**

Online Newspaper Publication:	Key Term Search Results:		Total Search Results:	Total Results Excluding Duplicate Articles:
	Climate Related Key Term	Weather Related Key Terms		
Waikato Times	358	459	817	517
Bay of Plenty Times	374	794	1168	314
Gisborne Herald	56	568	624	284
Total	788	1821	2609	1115

*Search was completed 30th July 2024.

An analysis of the total published articles in the search results revealed that 89.78% were published in the year following Cyclone Gabrielle, with only 10.22% appearing in the year prior (See Table 4.1.2). This stark disparity highlighted the significant impact of extreme weather events (EWEs) on media attention, suggesting that Cyclone Gabrielle served as a pivotal moment for regional newspapers to engage with the complex relationships between the impacts of climate change, health, and wellbeing. This finding aligns with research suggesting that crises often act as ‘focusing events’ that elevate public and institutional awareness of critical issues, including the systemic challenges posed by climate change (Birkland, 1997; Miles & Morse, 2007). The substantial increase in coverage post-Gabrielle reflects a heightened awareness of the event's localised impacts, which regional media are particularly well-positioned to amplify (Spradlin & Givens, 2022).

Table 4.1.2

Total Number of Articles Published by Sampled Newspapers 1-Year Prior to Cyclone Gabrielle, and the 1-Year Period Following

Online Newspaper Publication:	Articles Published Prior to EWE	Articles Published Following EWE	Total Articles Published	% Articles Published Following EWE**
Waikato Times	38	479	517	92.65
Bay of Plenty Times	75	239	314	76.11
Gisborne Herald	1	283	284	99.65
Total	114	1001	1115	89.78%

**2DP

The surge in reporting following Cyclone Gabrielle provided an opportunity to examine whether the framing of climate change and its health and wellbeing impacts shifted substantively after the cyclone. The increase in volume suggests that the disaster may have prompted a more urgent and detailed exploration of these issues, including their links to the social determinants of health (WHO, 2019). Media coverage immediately post-Gabrielle was more heavily centred on narratives of vulnerability, resilience, and adaptation, particularly in communities that were increasingly more likely to continue being affected by climate change through increased exposure to natural hazards, such as flooding. However, this also raised questions about the sustainability of media attention in relation to addressing the long-term impacts of these events. While news coverage often spikes following the immediate effects of an extreme natural event, over time this coverage will taper off in favour of more recent and engaging stories, even as the health and wellbeing challenges associated with the previous event continue to affect the community (Boykoff, 2008).

This event-driven pattern of reporting has important implications for equity and representation. Māori and Pasifika communities, who will experience disproportionate impacts from climate change, should be central to these narratives (EHINZ, 2018b). It is crucial to assess whether the increased volume of reporting post-Gabrielle aligns with a Tiriti-based approach, amplifying Māori voices and ensuring culturally competent coverage (Berghan et al., 2017). Conversely, a failure to do so risks perpetuating inequities in how these issues are framed and addressed. The clear disparity between the number of articles aimed to address such issues in the lead up to the impact of Cyclone Gabrielle, when compared to the more than quadrupled output of these same publications the year following, (See Table 4.1.2) illustrates the need for media to not only respond to immediate crises but to sustain attention on the ongoing, systemic nature of climate-related health and wellbeing challenges in Aotearoa.

These findings form a foundation for analysing qualitative changes in framing and themes between the year prior to and following Cyclone Gabrielle as a ‘focusing event’ for media discussion of climate change and extreme weather. Indeed, these findings follow the patterns of previous research indicating how EWEs can act as catalysts for public discourse (Birkland, 1997) while also underlining the need for future study and critical examination of whether this heightened attention translates into meaningful and equitable narratives about climate change and its impacts on health.

4.2 Identified Frames Across Regional New Articles

Media framing significantly influences public perception and understanding of climate change, particularly in regional contexts where local narratives and priorities shape discourse. In Aotearoa New Zealand, regional newspapers play a crucial role in communicating climate-related issues to communities, and the framing within these outlets often reflects both global and local concerns.

Six core narrative frames were apparent across the sampled news articles from the three regional newspapers selected (See Table 4.2.1). These frames appeared at slightly differing frequencies depending on the publication, but each frame was found to be present in articles from each of the selected online newspapers over the sampled 2-year period. Key narratives that emerge in the coverage can be classified into economic, health, environmental, disaster resilience, policy, and community-oriented frames, each contributing to a nuanced and multi-dimensional understanding.

Table 4.2.1*Frames in Regional Online Newspapers Published Between February 2022 - February 2024*

Frame	Definition
Economic Impact and Industry Concerns	This frame considers the financial and resourcing of climate-related planning and investment. It also regards economic impacts from disasters and changes in climate on the financial security on government, employment, and industries like agriculture and construction.
Disaster Response and Resilience	This frame presents key information on EWEs as they happen, how to access response services or provide assistance. Impacts of EWEs and climate change are often presented in terms of singular acute events. Other articles may focus on the lack of preparedness in hindsight following an EWE, or on future projects to address natural hazards in light of previous experiences in the region.
Policy and Governance	This frame focuses on issues of policy, political demonstrations, and political positions of parties in government. Political pieces address issues of climate, environmentalism, and disaster-preparedness in terms of economic impact and financial investment, and as a means of engaging the public in political party debates. Policy and governance articles may call for collaborative efforts address issues of climate and EWE impacts, with discussions of co-governance efforts between councils and local iwi, and collaborative action between policy makers and community efforts in conservation and resilience planning.
Environmental Stewardship and Sustainability	This frame emphasises environmental responsibility and the importance of sustainability in relation to climate change. It may include discussions on conservation efforts, sustainable practices, and the role of communities in safeguarding the environment.
Community-Oriented Coverage	This frame focuses on how local communities respond to and cope with climate change and environmental impacts. It includes coverage of grassroots resilience, local initiatives, and collective actions by communities both in the aftermath of disasters (e.g., Cyclone Gabrielle) and in ongoing efforts to build climate resilience.
Health and Wellbeing	This frame addresses the health and wellbeing impacts of climate change, including physical and mental health. It also considers wider issues such as housing, financial security, and other determinants of health, particularly in the context of climate-related disasters and their long-term effects on communities.

4.2.1 Economic Impact and Industry Concerns:

Economic framing in climate-related stories centred on how climate change impacts vital local industries such as agriculture, fisheries, and tourism. Regional newspapers highlighted both the risks, such as job losses and decreased productivity due to extreme weather, and opportunities, such as innovations in sustainable practices and investment in green technology. This framing was presented as a means to appeal to stakeholders concerned with balancing environmental responsibility with economic growth and sustainability (Ward & Pullar-Strecker, 2022; Leaman 2022). Articles would incorporate discussions about the economic implications of climate policies, such as carbon-neutrality and moving away from fossil fuels, and how these regulations can affect local businesses and economies. Concerned parties often voiced that “there may be unintended consequences of trying to do too much too fast, such as a drop in GDP.” (McGougan, 2022)

Articles focussed heavily on economic impacts appeared to use attention grabbing figures in the title of the article to draw attention to the story, as demonstrated by titles such as ‘\$6 billion-plus wind farm investment blowing Waikato’s way’ (Ward & Pullar-Strecker, 2022). This article exemplified how economic framing is used to highlight the scale of financial investment associated with climate solutions, particularly renewable energy projects. The article outlined the ambitious plans for an offshore wind farm near Waikato, emphasising its potential to generate electricity for 700,000 homes and create over 1000 jobs during construction.

The focus on large financial figures and employment opportunities served to position climate-related infrastructure projects as economically beneficial, countering narratives that frame climate action as a financial burden. Furthermore, the article highlighted the involvement of regional investors, iwi, and private equity firms, showcasing the diverse economic partnerships necessary for these projects to succeed. Notably, the co-founder of the project and the partnerships director both emphasised the importance of “co-design, co-governance, co-ownership, compensation” (Simon Currie qtd., Ward & Pullar-Strecker, 2022) in negotiations with iwi, fishers, and local communities. This highlighted the intersection of economic and social considerations in climate-related industries, reflecting broader trends in regional newspapers where economic benefits were framed alongside community engagement and regulatory challenges.

Beyond infrastructure projects, the agricultural sector was also a focal point in economic climate framing. For example, coverage of the 2023 Zespri kiwifruit crop in *The Bay of Plenty Times* illustrated the economic challenges posed by extreme weather events. The article

highlighted how severe weather conditions led to a substantial decline in kiwifruit yields, with green kiwifruit production reaching one of its lowest volumes in two decades (Bay of Plenty Times, 2023). This decline had significant economic repercussions, affecting both growers and the broader supply chain. However, the framing also included an emphasis on resilience and adaptation, noting how the industry was using this period to improve fruit quality and prepare for future growth (Bay of Plenty Times, 2023).

By highlighting both economic risks and opportunities, regional newspapers played a key role in shaping public perception of climate-related policies and projects, influencing stakeholder engagement and investment in sustainable industry development.

4.2.2 Disaster Response and Resilience:

Regional media coverage focused heavily on the immediate responses to climate-induced natural disasters such as floods, storms, and wildfires (Ashton, 2023; Garcia, 2023). These stories highlighted community solidarity, local heroes, and volunteer efforts that emerge during crises (Gisborne Herald, 2023a, Boland, 2024). Disaster response framing drew attention to the importance of preparedness and adaptation strategies and identified gaps in infrastructure or emergency management (Campbell, 2024; Parker, 2022; Evans, 2023). This coverage served to inspire community pride and readiness while pointing out the urgent need for improved policies and resources.

An article in the *Waikato Times* covering the experiences of residents during Cyclone Gabrielle and subsequent storms on the Coromandel Peninsula exemplified the varied impacts of such disasters and the importance of community adaptation (Rolleston, 2023a). In the aftermath of severe storms that cut off access to the Coromandel Peninsula, residents faced significant challenges, including disrupted transportation routes and limited access to essential services. Schools transitioned to online learning, and travel times were extended by up to 45 minutes due to detours (Rolleston, 2023a). However, this adversity fostered a sense of empathy and understanding within the community, as people banded together to support one another during the crisis.

The anticipated reopening of State Highway 25A and the completion of the Taparahi Bridge were seen as pivotal moments for the region. Local business owners expressed renewed optimism, viewing the reopening not just as a logistical improvement but as a morale booster for the entire community (Rolleston, 2023a). The collaborative efforts of contractors and local authorities to expedite the bridge's construction exemplified how innovative solutions and community resilience emerged in challenging circumstances. The reopening of SH25A was not

just a restoration of physical access; it represented a significant step toward revitalising the local economy and restoring confidence among residents and businesses.

Thames-Coromandel District Mayor Len Salt reflected on the challenges faced during the period of extreme weather, highlighting the need for authorities to adapt quickly and effectively. He noted that this period of adversity led to the development of a strong long-term plan for the region's infrastructure, ensuring that the community was better prepared for future climate-related challenges (Rolleston, 2023a). As the community looked forward to a busy summer season, the lessons learned from this experience contributed to ongoing efforts to enhance disaster preparedness and resilience.

4.2.3 Policy and Governance:

Political framing was evident in stories that examined the effectiveness of both national and local climate policies. Coverage critiqued or applauded legislative measures related to climate action, showcasing public debates around emissions targets, adaptation funding, and the distribution of resources (Leaman, 2023; Wilson, 2023). Political framing also served as a platform for the voices of community leaders and advocacy groups pushing for stronger commitments and accountability from government bodies (Conchie, 2022; McConnell, 2024; McGougan, 2022). By incorporating diverse perspectives, this framing served to shape public understanding of the political landscape surrounding climate change, encouraging civic engagement and informed discourse.

Due to 2023 being an election year in Aotearoa, parties across the political spectrum sought to court voters with various environmental and economic policies to address growing concerns from communities across the country. The nature of partisan politics naturally led to the criticism of disaster handling under the previous government, along with the presentation of new and innovative solutions to build voter confidence in ongoing climate, disaster, and ecological response efforts (Mathias, 2023).

Cyclone Gabrielle's devastation in February 2023 coincided with the ramping up of political campaigning, making its widespread impacts a focal point of policy discussions. The event underscored intersecting challenges in agriculture, tourism, housing, and future-proofed urban planning, all of which demanded urgent governmental response. The way these issues were framed in media narratives reflected public expectations of leadership and institutional accountability.

A prominent example of this framing appeared in a *Gisborne Herald* opinion piece by Gisborne District Council chief executive Nedine Thatcher Swann, titled *Poor form during State of Emergency* (2023). The article reflected a broader tension in political framing between

holding authorities accountable for crisis management and ensuring that criticism does not exacerbate public uncertainty or anxiety (Soutar & Wand, 2022). This article criticised the timing of a prior front-page piece published during an active State of Emergency, arguing that it undermined public trust in Civil Defence, local government, and emergency responders at a critical time. She stated,

The overall effect of this [article] for the unaware reader is undermining their trust and confidence in those who go above and beyond the call of duty to support our communities. (Thatcher Swann, 2023).

The opinion within this article highlighted competing perspectives on the role of media in crisis reporting. While some viewed the critique of Civil Defence as a necessary check on governmental action, others, like Thatcher Swann (2023), emphasised the importance of cohesion and trust-building during emergencies. The framing of governance in this instance illustrates the delicate balance between transparency, criticism, and the need for unity in disaster response efforts. Post-cyclone media coverage placed greater scrutiny on policy failures and recovery efforts, with community leaders and political figures debating the adequacy of existing climate resilience strategies. This shift in framing presented an opportunity for discourse on governmental responsibility, particularly in relation to infrastructure investments, emergency preparedness, and resource distribution in regions most vulnerable to extreme weather events.

4.2.4 Environmental Stewardship and Sustainability:

In this frame, regional news stories highlighted themes of environmental stewardship and conservation. Journalists seeking to present climate and environmental news from an indigenous perspective approached narratives with an emphasis on key concepts like *kaitiakitanga*, the Māori principle of guardianship of the land (Sparks, 2023). This type of framing emphasised the cultural values inherent in protecting Aotearoa unique ecosystems and biodiversity (Walker, 2023b; Smith, 2022a). Articles using this frame sought to showcase collaborative sustainability initiatives led by councils, businesses, *iwi* and community groups that blend traditional ecological knowledge with modern environmental practices (Waiwiri-Smith, 2023; Walker 2023b). By focusing on collective responsibility, this framing promoted a vision of climate action that is as much cultural and moral as it is practical.

The inclusion Māori voices in governance and environmental decision-making has been increasingly recognised as critical for addressing systemic issues related to land and water management (Sparks, 2023). Indigenous governance models, grounded in principles such as

intergenerational stewardship and holistic well-being, offer alternative perspectives that contrast with individualistic Western approaches. These perspectives prioritise long-term sustainability over short-term economic gains, reinforcing the role of tangata whenua in shaping equitable and effective environmental policies (Sparks, 2023).

Articles in the sample reflected these themes through coverage of key figures and initiatives. One *Bay of Plenty Times* article profiled Carlton Bidois, a passionate environmental advocate and key figure in Māori-Crown environmental relations (Conchie, 2022). Bidois has played a critical role in integrating Māori perspectives into policy-making and emergency response frameworks, particularly in relation to biosecurity and marine pollution responses (Conchie, 2022). His efforts demonstrated the significance of iwi leadership in environmental governance and demonstrate how Māori-led conservation strategies are gaining formal recognition.

This was reflected in an article recognising Māori-led conservation efforts, such as the recent Water Conservation Order for Te Waikoropupū Springs. The protracted legal battle to safeguard this taonga gave emphasis to the challenges faced by iwi in exercising kaitiakitanga within existing legal frameworks. The author argued that respecting Māori autonomy in upholding tikanga and ecological values could mitigate the need for such costly and adversarial processes, ultimately benefiting both the environment and wider society (Sparks, 2023). This call reflected the wider academic discourse on the integration of Māori environmental knowledge into governance structures to enhance resilience in the face of climate change (Conchie, 2022; Waiwiri-Smith, 2023), aligning with international human rights frameworks, which emphasise the role of indigenous communities in sustainable development through the right to 'protect their natural and cultural heritage' (Human Rights Commission, n.d.). By embedding Māori principles into climate policy and environmental decision-making, regional news narratives contributed to shifting public discourse towards more inclusive and justice-oriented solutions (Sparks, 2023; Walker, 2023b).

Building on these concepts of stewardship and the recognition of Māori perspectives, regional news coverage of the forestry sector's response to land-use challenges following extreme weather events further illustrated the evolving landscape of environmental responsibility. Following the Ministerial Inquiry into Land Use in Te Tairāwhiti and Wairoa, forestry industry bodies began implementing sector-led measures aimed at mitigating future risks (Gisborne Herald, 2023b). *The Gisborne Herald* presented the voluntary initiatives, such as limiting clear-cut sizes, developing intensive wood removal plans for at-risk slopes, and crafting catchment-specific harvest strategies, as significant shifts towards sustainability within the Te

Tairāwhiti/Gisborne region's industries. These initiatives, alongside collaboration with councils, iwi, and local government, illustrated the role of multi-stakeholder partnerships in advancing environmental resilience.

4.2.5 Community-Oriented Coverage:

Community-oriented framing focused on how climate change impacts individuals and groups at the grassroots level, showcasing the resilience, initiatives, and adaptations of local communities. Stories included first-person accounts from residents affected by climate events, grassroots movements, and the collaborative efforts of local councils, iwi, and NGOs (Campbell, 2024; Evans, 2023). This type of framing humanised the issue and fostered a sense of agency, demonstrating how collective action can drive tangible change. It aligned with narratives that emphasise local problem-solving and empowerment, encouraging proactive engagement from readers (Spradlin & Givens, 2022; Salmon et al., 2017).

The role of community-oriented coverage in climate reporting was evident in how regional newspapers highlighted local responses to extreme weather events, amplifying the voices of those directly affected. A *Gisborne Herald* article that was published in February of the year following Cyclone Gabrielle, covered research presented at the Tairāwhiti Resilience Research Symposium (Campbell, 2024). In the report, it was revealed that elderly and disabled individuals were often overlooked during Cyclone Gabrielle evacuations (Campbell, 2024). This study documented cases where community members, rather than official emergency responders, played a crucial role in assisting vulnerable individuals, including rangatahi rescuing elderly residents and a disabled woman left stranded in rising floodwaters. Such narratives aligned with the community-oriented framing observed in regional media, which stressed grassroots resilience and the role of local actors in climate adaptation and disaster response (Harrison et al., 2020).

This type of reporting emphasised a sense of agency by showcasing how local groups mobilise in response to crises. It also highlighted systemic gaps in disaster preparedness, particularly regarding marginalised populations. Coverage of these issues can serve as a catalyst for policy advocacy, prompting local and national authorities to improve emergency response strategies that prioritise vulnerable groups (Kenix, 2008). As regional media continued to frame climate impacts through a localised and community-driven lens, they contributed to shaping public discourse on climate resilience and social justice (Armoudian et al., 2023).

Such approaches align with research highlighting the strengths of local media in fostering place-based identity and collective action in the face of climate challenges (Hopkins et al., 2015). Studies indicate that by focusing on community-driven responses, regional news

narratives can reduce psychological distancing, increasing the perceived relevance of climate risks and strengthening public engagement (Keller et al., 2022). Moreover, media that highlight collaborative governance efforts reinforce the idea that addressing climate change is a shared responsibility requiring inclusive and participatory approaches (Phillips, 2022).

4.2.6 Health and Wellbeing:

Framing climate change through the lens of health and wellbeing drew attention to the direct and indirect effects on public health (Murray Greenway, 2023; Campbell, 2024). Regional media reported on how extreme weather events can exacerbate existing health issues, increase the spread of climate-sensitive diseases, and take a toll on mental health. These stories humanised climate change by linking it directly to the wellbeing of individuals and communities, making the issue relatable and urgent. Coverage included efforts by healthcare providers and public health campaigns aimed at mitigating these effects, especially in more vulnerable populations.

We are in a perfect storm right now, grappling with complex and costly environmental, social and economic issues.

Some were foretold. Some were completely unforeseen. All have foundational implications for our collective wealth, which is connected to our health, both tangibly and intangibly.

The health of our land and water is connected to the health of our people, and the health of our workforce is connected to the health of our economy – and so the cycle goes.

It can be one of deprivation for many. Persistent disadvantage is a systemic problem for hundreds of thousands in our country. That glaring gap felt by the old, sick and vulnerable is widening every day. (Sparks, 2023).

The framing of climate change through health and wellbeing is significant as it made the issue more tangible and immediate to local communities. The excerpt from Sparks (2023) above exemplified how regional media presents an excellent opportunity to frame climate change as deeply intertwined with social and economic conditions, reinforcing the cyclical nature of environmental degradation, economic hardship, and public health disparities (NIWA, n.d.-b). This position aligns with existing research into climate and the social determinants of health, which highlight how climate-related disruptions exacerbate existing inequalities, particularly for vulnerable populations (Royal Society, 2017).

By stating, *“The health of our land and water is connected to the health of our people, and the health of our workforce is connected to the health of our economy – and so the cycle goes,”* (Sparks, 2023) the article captured the interconnectedness of environmental, economic,

and social determinants of health. Additionally, the reference to “*foundational implications for our collective wealth*” demonstrated that health and economic wellbeing are inseparable, reinforcing the need for holistic approaches to climate adaptation that consider social determinants of health.

This finding was particularly relevant when considering how regional media shape public perceptions and policy discourse. By linking climate change to health and wellbeing, these narratives increase public engagement and policy responsiveness, as people are more likely to relate to health concerns than abstract environmental threats (Spence et al., 2011; Keller et al., 2022).

4.2.7 Framing Summary

These six key frames utilised within regional climate journalism in Aotearoa intertwine to create a comprehensive narrative in online regional climate coverage. Political and environmental framing provides context for policymaking and government accountability, while economic framing addresses practical considerations related to livelihoods and business continuity. Community-oriented and health focused frames ensure the human aspect of climate change remains at the forefront, creating stories that resonate deeply with readers. These integrated frames help shape a multi-dimensional view of climate change that positions it as an urgent and complex issue involving governance, economic resilience, and community empowerment.

By weaving these frames together, regional media in Aotearoa New Zealand create a robust narrative that informs public dialogue, influences policy perspectives, and mobilises collective action. The combined frames demonstrate that climate change is understood not just as an abstract environmental challenge but as an immediate and multi-faceted concern that touches all aspects of regional life. As such, these frames create a foundation for the deeper examination and understanding of the underlying themes that link these different narrative perspectives,

4.3 Underlying Themes Across Frames

The analysis of regional newspapers identified six key themes underlying the framing of climate change and health: *Risk and Responsibility, Psychological Distancing, Marginalisation of Mātauranga Māori, (Dis)connection with Environment, Resignation and Senses of Helplessness, and Limited Information Access* (See Table 4.3.1). These themes manifested across the six frames in ways that both perpetuated challenges and highlighted opportunities. While some narratives illustrated gaps in preparedness, accountability, and public

engagement, others showcased resilience, community-driven initiatives, and innovative responses to climate challenges. This duality demonstrates how the framing of climate change can either hinder or enhance public understanding, sense of agency, and ability to act. The following explores each theme in turn, illustrating its complexity and implications.

Table 4.3.1

Themes in Regional Online Newspapers Published between February 2022 - February 2024

Theme	Definition
Risk and Responsibility	This theme explores how risk is framed in relation to climate change, often focusing on the responsibility of individuals, communities, businesses, and governments to mitigate or adapt to these risks. It may include discussions on personal and collective accountability in reducing the impacts of climate change and preparing for future environmental challenges.
Psychological Distancing	This theme examines how climate change is framed in a way that distances the issue psychologically from people’s immediate lives. It involves framing climate change as something happening "elsewhere" or "in the future," making it feel less urgent or relevant to individuals and communities in the present moment.
Platforming Mātauranga Māori	This theme considers how media narratives tend to confine Māori perspectives to isolated stories or reactive coverage, overlooking their relevance in broader policy or resilience contexts. It highlights how mātauranga Māori and Tiriti-based environmental leadership are often sidelined in favour of reinforcing dominant Western epistemologies. This marginalisation restricts the media’s capacity to represent holistic, community-based climate responses grounded in relational ethics, cultural identity, and intergenerational stewardship
(Dis)connection with Environment	This theme highlights how the relationship between individuals and the environment is portrayed. It examines how articles on topics such as urbanisation or lifestyle changes distance people from nature, or conversely, how articles can provide sense of audience connection that fosters environmental stewardship and sustainable practices.
Resignation and Senses of Helplessness	This theme focuses on how media framing may foster feelings of resignation or helplessness in relation to climate change. It reflects the portrayal of the scale of the problem as so vast or insurmountable that individuals or communities feel powerless to make meaningful change or address the issues effectively.
Limited Information Access	This theme examines how the availability and accessibility of information on climate change may shape public understanding and engagement. It highlights gaps in media coverage, absence of clear, actionable information, and other limitations hindering communities from responding effectively to climate-related challenges.

4.3.1 Risk and Responsibility

The theme of *Risk and Responsibility* highlighted a spectrum of narratives regarding preparedness and accountability. On one hand, articles criticised insufficient preparation for extreme weather events (EWEs), particularly within the *Disaster Response and Resilience* frame. Stories of inadequate infrastructure, delayed policy action, or insufficient funding for disaster mitigation depicted a lack of systemic responsibility. These narratives positioned local communities as vulnerable, often left to bear the brunt of climate risks without adequate institutional support. Conversely, other articles celebrated the resilience and proactive measures of local communities and councils. These stories framed responsibility as an opportunity to build resilience rather than a burden.

Across the six frames, the theme of *Risk and Responsibility* was prominent. Risk was emphasised in articles about acute events, such as flooding or Cyclone Gabrielle, particularly in the *Disaster Response and Resilience* and *Health and Wellbeing* frames. These articles highlighted immediate threats to public safety, infrastructure, and economic stability, creating a sense of urgency around disaster preparedness and response. Responsibility, however, was framed inconsistently. Some articles focused on institutional accountability, such as government actions and industry regulation, particularly within the *Policy and Governance* frame. Others, particularly in the *Community-Oriented Coverage* and *Environmental Stewardship* frames, shifted responsibility toward individuals or local groups, portraying small-scale initiatives as sufficient responses to systemic issues.

Across the articles analysed, addressing the risks and challenges associated with ongoing climate change and increased natural hazards or extreme weather was understood as a responsibility of society as a whole, rather than select industries, businesses, communities, or individuals. However, the understanding that this is a collective challenge requiring collaborative efforts to confront was frequently used to shift away scrutiny from key contributors to climate change such as agricultural and fossil fuel emissions. For example, in an interview with the *Waikato Times*, a general manager of a farming group shared their perspective on the responsibility of the agricultural sector, responsible for almost 50% of greenhouse gas emissions in Aotearoa (NIWA, n.d.-a)

“If I had to talk about where I see agriculture in 10 years, the big challenge for us in the next 10 years is going to be around regulation, legislation, and trying to achieve some of these [climate] targets.”

All industries need to look at their sustainability and come up with mitigation strategies, he said. “I’m not trying to deny there’s an issue there, because there is an issue, but across all industries. We all need to improve.” (Walker, 2023a)

However, there were still reports that provided inspiring examples of community collaboration with local businesses and councils to establish codeveloped plans for future disaster relief and resilience in the recognition of the risk of future natural hazards. *The Gisborne Herald* discussed how the Te Karaka township was coming together to move their cyclone-affected marae in preparation for what the town will face in the future (Curtis, 2023). The township was also developing plans for a purpose-built evacuation centre in the form of the Mahaki Tiaki/Civil Defence Hub, modelled after international centres with built-in disaster contingencies such as cooking and hygiene facilities, and would be able to provide shelter for 500 civilians.

Despite select stories focusing on the coming together of communities in acts of collective responsibility, few sampled articles presented viable, actionable solutions for addressing climate change. Coverage instead centred on long-term mitigation strategies or ambitious goals, such as reducing carbon emissions or adapting infrastructure over the next decade (Ward & Pullar-Strecker, 2022; Leaman 2022). While these plans are critical, the lack of emphasis on immediate, tangible actions that communities or individuals could implement reinforces a sense of inaction or inevitability.

4.3.2 Psychological Distancing

Regional newspaper framing of climate change and health issues that influenced perceptions of proximity of these challenges to readers was coded in the theme *Psychological Distancing*. Distancing was perpetuated through an emphasis on global or long-term narratives, such as discussions of environmental targets or nationwide strategies that lacked concrete connections to local contexts. For instance, within the *Policy and Governance* frame, references to "carbon neutral by 2050" (Sanson, 2023) risked making climate change seem abstract and disconnected from regional realities, reducing public engagement by positioning climate issues as temporally distant from immediate community concerns (Trope & Liberman, 2010).

The results of psychological distance on the public perceptions of climate change and extreme weather risks were succinctly put in one *Waikato Times* article: "We thought we had more time." (Len Salt, qtd. Rolleston, 2023b). In recognition of the need to challenge this pervasive belief, other articles sought to more effectively counter psychological distancing. One such article encompassed this idea simply but impactfully during discussions of prevention and community resilience in the wake of Cyclone Gabrielle, that "It was not a matter of "if" there would be another natural disaster, but "when"" (Curtis, 2023).

Regional coverage of disasters, particularly within the *Health and Wellbeing* frame, detailed the immediate impacts of climate events on local populations, connecting readers to the human toll of these challenges. Additionally, stories highlighting local adaptation strategies, such as conservation initiatives or council-led renewable energy projects, brought abstract climate issues closer to home, fostering a sense of relevance and engagement.

Prior to Cyclone Gabrielle, regional online newspaper coverage was limited, with a portraying climate change impacts as distant concerns in both time and location. Articles highlighted potential long-term consequences or impacts occurring in other parts of the world, increasing temporal and geographical aspects of psychological distance (Spence et al., 2011; Keller et al., 2022) and reinforcing the perception that climate change was a remote or future issue with limited immediate relevance for local communities.

After the cyclone, the reporting on climate and EWEs shifted to emphasise immediate, localised impacts, with a significant increase in overall publication of articles related to these topics. This demonstrated the role of the ‘focusing event’ (Birkland, 1998) Cyclone Gabrielle in reducing both the temporal and geographical distance perceived both by the public and by journalists. Acute disasters and economic impacts, particularly within the *Disaster Response and Economic Impact* frames, were grounded in specific regional contexts. Articles discussed damage to local industries, such as agriculture or tourism, or the immediate health impacts on affected communities. The reduction in temporal distance was marked by a shift in media narratives toward urgent health risks, such as waterborne illnesses, trauma-related mental health issues, and disruptions to local healthcare services (Campbell, 2024). This grounding created a stronger connection to readers’ lived experiences, fostering a sense of urgency. These shifts to bring climate change and extreme weather’s associated risk to the forefront of journalism discourse played a crucial role in fostering a heightened sense of urgency for those consuming these publications.

In contrast, discussions within the *Policy and Governance* and *Environmental Stewardship and Sustainability* frames adopted an ambiguous temporal focus. Articles referred to government policy, national strategies, or vague commitments to sustainability without clear links to regional or community-level implications (Boykoff, 2008). The emphasis on long-term mitigation plans rather than immediate, actionable solutions exacerbated this distancing. By framing climate change as a challenge requiring gradual, large-scale transformation over decades, these articles may have unintentionally signalled that it was not an immediate concern for individuals or local communities, reducing engagement.

The framework of psychological distance provides a nuanced way to understand how regional newspapers framed the health and wellbeing impacts of climate change before and after Cyclone Gabrielle. By reducing temporal, geographical, social, and hypothetical distance, post-cyclone media coverage likely heightened the immediacy and relevance of climate change for readers (Spence et al., 2012). These changes in framing may have influenced public perceptions, increasing the perceived urgency of addressing climate change and its associated health challenges. It is therefore clear that understanding the role of psychological distance in regional journalism is vital for developing effective communication strategies that engage communities and promote proactive responses to climate issues.

4.3.3 Platforming Mātauranga Māori

Across the three regional newspapers sampled, mātauranga Māori (Māori knowledge systems) was limited in its incorporation within the wider coverage related to climate change, and extreme weather events. Although Māori communities in regions like Te Tai Rāwhiti are among those most affected by EWEs like Cyclone Gabrielle and climate-related impacts on wellbeing (EHINZ, 2018b), their understandings, experiences, and responses as Māori were rarely centred within the wider journalism. While some articles did reference Te Ao Māori concepts such as kaitiakitanga, whakapapa, and collective wellbeing in the context of climate resilience, these were siloed within cultural or human-interest reporting (Murray Greenway, 2023; Sparks, 2023; Smith, 2022a).

Despite this overall marginalisation, examples of strong regional reporting demonstrating the depth and relevance of Māori knowledge systems occurred within the *Environmental Stewardship and Sustainability* and *Health and Wellbeing* frames. One article on rongoā Māori following Cyclone Gabrielle highlighted how Māori healing practices address not only physical illness but also spiritual and collective trauma (Murray Greenway, 2023). These practices link healing to the land, to ancestry, and to the broader environment, offering a model of health that is ecological, relational, and community-based.

Similarly, another article explored the role of traditional food practices in sustainability and climate resilience. Coverage of Feast Matariki events emphasised the importance of mahika kai (traditional food gathering practices) in reinforcing sustainable land use and environmental awareness (Waiwiri-Smith, 2023). These workshops, which brought together Māori food practitioners, chefs, and local communities, framed environmental responsibility as deeply connected to cultural heritage and food sovereignty. This perspective aligns with broader discussions on how indigenous knowledge systems contribute to environmental resilience.

It's a whole different understanding of connecting to our natural world ... people tend to forget they're living animals, and where they come from. If we don't understand that we're a part of the natural world and we have to coexist and have an even balance with our ecosystems, we'll be destroying us as a species. (Makarini Rupene qtd, Waiwiri-Smith, 2023)

These examples showed mātauranga Māori as future-focused and restorative, with clear applications for climate resilience and wellbeing. However, inclusion of these stories in the sampled articles were largely restricted to cultural or feature sections of the newspaper reporting, rather than being interwoven into broader climate policy or emergency coverage. This limited inclusion is reflective of previously identified structural biases of media institutions, which often limit Māori knowledge to cultural reporting and marginalise it within science and policy-related discourse (Ross, 2023; Kelly-Costello, 2021).

When Māori individuals or organisations were mentioned in relation to other frames, it was predominantly in stories with narratives of victimhood, such as damage to marae or disruption to whānau (Hill 2023a, 2023b; Gisborne Herald, 2023a), over stories of leadership or stewardship. This was particularly notable in articles surrounding *Policy and Governance*. Government-led initiatives were often reported on with input from officials, scientists, or local councillors, but with minimal reference to iwi or hapū engagement (Gisborne Herald, 2022; Smith 2022b). Stories in the *Disaster Response and Resilience* frame that touched on adaptation and planning strategies largely omitted Māori viewpoints (Parker, 2022; Ashton, 2023), reinforcing a dominant narrative that positioned Western science and government authority as the central sources of climate knowledge and adaptation (Ross, 2023).

In articles where Māori perspectives were explicitly included, it was because they were the focal point of the story, either signposted by headlines such as '*Te Karaka iwi grateful for extra clean-up funding*' (Gisborne Herald, 2023a) or framed through conflict, controversy, or political dissent (McConnell, 2024; Wilson, 2023). For example, an opinion article that engaged in depth with mātauranga Māori did so in response to protest actions by Te Waka Hourua, a climate activism group, at Te Papa (Wilson, 2023). Similarly, reporting on coastal erosion and marae displacement in the Bay of Plenty provided hapū and iwi leadership visibility, but treated their experience as a discrete, localised issue rather than integrating their perspectives into broader climate reporting (Hill, 2023b).

4.3.4 (Dis)connection with Environment

The theme of *(Dis)connection with Environment* revealed both critiques of environmental neglect and efforts to rebuild connections to the whenua (land). Negative

narratives highlighted a growing disconnection from the environment, linked to industrial or economic pressures. For instance, coverage in the *Economic Impact and Industry Concerns* frame sometimes described environmental degradation driven by intensive farming practices or extractive industries (McGougan, 2022; Bay of Plenty Times, 2022). This framing demonstrated how economic priorities could exacerbate ecological disconnection, impacting both the environment and community wellbeing. In contrast, positive stories showcased initiatives to rebuild these connections. Articles within the *Environmental Stewardship and Sustainability* frame often highlighted iwi-led conservation efforts, such as restoring wetlands, protecting biodiversity, and promoting kaitiakitanga (guardianship) (Conchie, 2022; Waiwiri-Smith, 2023; Sparks 2023). Similarly, community-driven projects focused on eco-friendly development and sustainable resource use demonstrated how reconnecting with the whenua could support both environmental and social wellbeing. This approach to environmental care is deeply rooted in Māori values. As one of the articles included in the analysis explains,

Māori kaitiakitanga is grounded in custodianship that safeguards and sets up prosperity for the next seven future generations unborn. This philosophy is tūturu. An indigenous mindset is ancient and enduring, and prioritises the well-being of the people. It has a different view of time, space and, more importantly, the structures of power.

He aha te mea nui o te ao? What is the most important thing in the world? He tangata, he tangata, he tangata. It is the people, it is the people, it is the people. (Sparks, 2023).

Cultural awareness is crucial in Aotearoa, where communities, particularly Māori, have a deeply rooted relationship with the environment (Masters-Awatere et al., 2022). The theme of *(Dis)connection with Environment* is therefore inherently interwoven with that of the *Marginalisation of Mātauranga Māori*. Incorporating concepts such as kaitiakitanga (guardianship) and manaaki whenua (caring for the land) into climate discourse acknowledges these perspectives and aligns with the principles of Te Tiriti o Waitangi (Phillips, 2022; Ross, 2023). Recognising mātauranga Māori (Māori knowledge) within environmental discussions enhances engagement, ensuring climate narratives resonate with diverse communities and foster more inclusive decision-making (Masters-Awatere et al., 2022).

Additionally, shifting the focus from individual responsibility to collective action is essential. While personal behaviour changes contribute to environmental efforts, systemic solutions led by governments, industries, and communities are fundamental in addressing large-scale environmental challenges (Hopkins et al., 2015; Salmon et al., 2017). Media framing that highlights collaborative efforts, emphasises shared accountability, and showcases

successful community-led initiatives can strengthen public engagement and inspire meaningful action (Harrison et al., 2020).

4.3.5 Resignation and Senses of Helplessness

The theme *Resignation and Senses of Helplessness*, which appeared across narratives that depicted the impacts of EWEs or climate change as overwhelming or insurmountable. These narratives conveyed a sense that the scale and complexity of climate change create feelings of powerlessness, limiting individuals' belief in their ability to influence outcomes. Articles in the *Policy and Governance* and *Economic Impact* frames described the scale of climate challenges in ways that evoked fatalism. Such framing influence public perceptions that climate change is a problem too vast for meaningful individual or localised community action. These narratives risked fostering apathy or inaction among readers. This sense of resignation was not merely a reaction to external challenges, but a consequence of how media framing emphasised complexity and scale over agency. By repeatedly presenting climate change as an unmanageable force, coverage reinforced narratives of helplessness and disempowerment.

Other articles examining the complex challenges associated with confronting climate change from *Community-Oriented* and *Health and Wellbeing* perspectives discussed feelings of helplessness from a more acute angle, looking at people's immediate access to necessities like water or transport to safer areas in the wake of the cyclone. The neglect of specific at-risk populations further exacerbated this sense of vulnerability. For example, research highlighted in *The Gisborne Herald* revealed that elderly and disabled individuals were deprioritised in evacuation efforts during Cyclone Gabrielle, leaving many stranded without adequate support (Campbell, 2024). The findings emphasised systemic failures in emergency planning, demonstrating structural inequities that compounded vulnerability and intensified feelings of abandonment and powerlessness. This reinforced the perception that those most in need are often overlooked in disaster response efforts (Soutar & Wand, 2022).

However, contrasting stories highlighted pathways to empowerment and hope. Coverage of community resilience, grassroots activism, and innovative solutions presented opportunities to disrupt this sense of helplessness. For instance, iwi-led health and wellbeing projects that integrated cultural practices with sustainable development offered compelling examples of how communities can adapt to climate challenges while preserving their identity and wellbeing (Murray Greenway, 2023). Similarly, efforts in environmental stewardship showcased how proactive conservation initiatives can counteract ecological decline. A *Waikato Times* article highlighted environmental conservation work in Hamilton, where

community and council-led projects are restoring biodiversity with goals of protecting native species like Aotearoa endangered bats and managing invasive species like rats (Walker, 2023b).

“I suppose the older I get, the more concerned I am about the state of the planet. And this seemed to be a very practical thing to get involved in and it's really rewarding,” Robertson says.

“We need to mobilise the whole community to get on board this waka of restoration and taking action that will reduce and mitigate climate change.

“They are big issues and there are practical things that people can do. They don't have to feel helpless.” (Neville Robertson qtd., Walker, 2023b).

These initiatives not only support local ecosystems at risk of habitat impacts due to climate but also demonstrate how targeted action can create tangible positive change. Such stories reinforced the idea that while climate challenges are significant, collective efforts, whether in disaster preparedness, community wellbeing, or environmental restoration, can foster resilience and agency in the face of uncertainty. Journalism in articles such as Walker (2023b) encompassed what Soutar & Wand (2022) identify as 'constructive climate anxiety', where concerns about climate change are channelled into meaningful action. Unlike fatalistic responses, which lead to disengagement, stories that highlight community-led solutions can reframe anxiety as a motivating force, fostering resilience and proactive climate engagement.

4.3.6 Limited Information Access

The theme of *Limited Information Access* reflected disparities in the depth and quality of climate-related reporting. Articles relied on surface-level reporting, particularly in the *Disaster Response and Resilience* frame, where coverage focused on event-driven narratives without exploring root causes or long-term implications. Similarly, *Policy and Governance* articles oversimplified complex issues, omitting critical details about local impacts or actionable solutions. This limited reporting may contribute to public disengagement by failing to provide the information necessary for informed action (Spradlin & Givens, 2022). In contrast, in-depth reporting through investigative and expert opinion pieces highlighting scientific research and community-driven projects provided nuanced insights, empowering readers with actionable knowledge (Urlich 2023). Such articles served to demonstrate the potential of journalism to bridge information gaps and support public understanding of climate issues (Armoudian et al., 2023).

The challenges of with balancing fiscal viability for smaller regional newspapers and the need for access to sources of community education on critical issues has lead to issues of

‘paywalling’, in which subscriptions are required to access ‘premium’ content. ‘Premium’ articles often come in the form of expert opinion pieces that are paywalled via a subscription fee, limiting public access to critical insights. A key example is the article *Spatial Planning along the Ecological Tightrope* by Dr. Steve Ulrich (2023) published in the *Waikato Times*, which discusses the transformative potential of the Spatial Planning Act (SPA) in balancing environmental and human needs. The article critiques the maladaptive regulatory environment exposed by Cyclone Gabrielle and calls for a shift in planning frameworks to prioritise ecological and social sustainability. Because such critical discussions remain behind paywalls, crucial knowledge on climate adaptation and resilience is restricted to those who can afford subscriptions (Harrison et al., 2020).

Regional newspapers are essential for reporting on local events, governance, and community-specific issues, including climate impacts, health alerts, and social initiatives. When this content is placed behind a paywall, it limits the public’s ability to stay informed and engaged with local affairs. This can particularly impact lower-income communities that may rely on free news sources to stay informed about local developments (Salmon et al., 2017; Harrison et al., 2020). Access to local news is also crucial for fostering community engagement and civic participation. Requiring a subscription to access select local content can lead to decreased awareness of regional governance issues, local council decisions, and community events, which in turn can reduce public involvement in decision-making processes. Without affordable access to regional reporting, communities at risk may become less informed about local matters, weakening democratic participation and reducing accountability for local officials and organisations (Phillips, 2022).

Local news helps to build and maintain a sense of identity and social cohesion within communities by sharing stories that resonate with local experiences and values. When these stories are paywalled, it inherently hinders the dissemination of community narratives and reduces the visibility of issues unique to specific regions. The move to paywall local news is often driven by economic pressures faced by regional media outlets, and for smaller publications, paywalls can be a necessary measure to sustain operations and maintain journalistic quality. However, this shift risks prioritising national or global stories, due to their increased public availability, over the distinctive voices and concerns that regional online newspapers are meant to represent (NZ On Air, 2021).

In addition to financial limitations to accessibility, the terminology used in climate reporting significantly influences public access, perception, and engagement. Clear and accurate language is essential for effective climate communication. Accessible and accurate

climate science communication reduces psychological distance (Keller et al., 2022), increasing public awareness and reinforcing that climate change is a current issue. (Spence et al., 2011; Trope & Liberman, 2010). Phrasing such 'driest on record' (Handford, 2023) reinforced the urgency of the crisis, but overly dramatic or alarmist language such as 'imminent and extreme risk' (Gisborne Herald, 2022) can risk backfiring by fostering fear and disengagement. Instead, reporting should balance risk communication with solutions-focused narratives that empower public action (Keller et al., 2022).

A clear shift in the terminology of climate reporting was demonstrated with the once-popularly phrase 'global warming'. Once widely used, it has largely been replaced by 'climate change' in journalistic discourse due to its broader accuracy in describing climate shifts beyond just rising temperatures (Keller et al., 2022). Indeed, when compiling the dataset for this research, the term 'global warming' appeared in only five articles, all published in *The Waikato Times* before Cyclone Gabrielle, with two appearing in letters to the editor (Waikato Times, 2023a, 2023b). This suggests that while the term remains part of everyday language for some in Aotearoa, journalists have transitioned to using 'climate change' for greater precision.

Cultural context also plays a crucial role in shaping effective climate messaging in Aotearoa. Māori perspectives emphasise a deep connection to the environment, reflected in concepts such as kaitiakitanga (guardianship) and manaaki whenua (caring for the land). Incorporating these terms into climate discourse aligns with Te Tiriti o Waitangi principles and helps ensure that climate communication resonates with diverse audiences (Phillips, 2022; Ross, 2023). Incorporating and explaining concepts like kaitiakitanga into climate-oriented journalism offers a culturally grounded, holistic approach to reporting that transcends conventional narratives. Highlighting this concept allows journalists to shift the discourse towards one that emphasises collective responsibility, interconnectedness, and sustainable guardianship.

Precise and thoughtful language in climate reporting drives better public engagement and action. By framing climate change as an immediate issue, avoiding alarmism, respecting cultural perspectives, emphasising collective solutions, addressing inequities, highlighting resilience, and ensuring clarity, the media can support informed and equitable responses to climate challenges in Aotearoa.

4.3.7 Summary of Themes

Six key themes emerged in how climate change and health were framed in regional news coverage. The distribution of responsibility varied, with some narratives emphasising government and corporate accountability, while others placed the burden on individuals and

communities. Psychological distancing reduced the sense of urgency, framing climate change as a distant or future issue. Māori perspectives and mātauranga Māori were overlooked in favour of reinforcing dominant Western understandings and approaches to climate related issues. Media portrayals influenced public connections with the environment, either fostering stewardship or reinforcing detachment. Feelings of helplessness were exacerbated, while barriers to accessing information, such as media paywalls, further restricted engagement. These themes highlight how media narratives can shape both proactive climate action and disengagement.

4.4 Summary of Findings

An analysis of regional online newspapers before and after Cyclone Gabrielle revealed a substantial increase in climate-related reporting in the year post-EWE, with nearly 90% of sampled articles published in the aftermath. This suggests that extreme weather events serve as key catalysts for regional climate related media coverage. The six primary frames identified each played a role in shaping public discourse on climate change.

Beyond framing, underlying themes influenced the portrayal of climate risks and responses. The attribution of responsibility fluctuated across reports, affecting perceptions of agency and accountability. Psychological distancing reduced the immediacy of climate change impacts. Indigenous knowledge was rarely integrated into general climate reporting, appearing mainly when explicitly highlighted or tied to specific events. Environmental connections varied, sometimes promoting community-based solutions and other times depicting climate change as an abstract concern. Additionally, the interplay between media accessibility and economic constraints affected public engagement with climate-related information.

These findings emphasised the media's pivotal role in constructing climate narratives. While regional newspapers highlight local experiences and community responses, the sustainability of media attention and the effectiveness of climate communication strategies remain challenges. Ensuring that media coverage supports long-term engagement requires framing strategies that prioritise accessibility, relevance, and solutions-oriented reporting.

In the following *Discussion* section, this thesis will examine the broader implications of these findings by situating them within the framework of Bronfenbrenner's (1986) ecological systems model utilising a critical community psychology lens. It will discuss how different levels of media influence, from individual perceptions to policy discourse, affect engagement with climate change and health, and directly address my research questions (See Section 3.1.2).

5. Discussion

Climate change and extreme weather events (EWEs) pose significant risks to public health and wellbeing, particularly for communities with existing social and economic vulnerabilities (WHO, 2019). News media publications play a crucial role in shaping public perceptions of these risks, influencing levels of engagement, policy support, and community preparedness (Salmon et al., 2017; Harrison, et al., 2020). This study examined how regional online newspapers in Aotearoa New Zealand framed climate change and its relationship to health in the 1-year span before and after Cyclone Gabrielle, assessing whether these narratives reflected or challenged dominant discourses.

This discussion contextualises and expands on the results of the previous chapter, considering the identified frames, themes, and variations in reporting prior to and following Cyclone Gabrielle. Firstly, the discussion considers the two research sub questions established in *Section 3.1.2.*, expanding on the findings presented in the previous chapter to illustrate the extent regional newspapers' framing of climate and extreme weather shifted in the wake of the Cyclone Gabrielle EWE. I then interpret the findings of my analysis, utilising a holistic community psychology approach and the Ecological Systems (Bronfenbrenner, 1986) and Social Determinants of Health (WHO, 2019) frameworks to evaluate whether the articles sampled aligned with or challenged community psychology values of social justice, collective resilience, and ecological systems thinking. I identify the gaps in regional news reporting of climate and health in relation to equitable community representation and accessibility and highlight potential opportunities for strengthening community resilience in the face of the ongoing impacts of climate change and extreme weather events.

5.1 Extreme Weather as a Focusing Event for Climate Reporting

Extreme weather events (EWEs) act as catalysts for shifting media narratives around climate change, serving as 'focusing events' that draw attention to the human and environmental consequences of the climate crisis through reactive reporting (Birkland, 1997). In media coverage, these high-impact events can reduce psychological distance by making abstract or distant climate risks feel immediate and personally relevant (Spence et al., 2011; Trope & Liberman, 2010). The framing of climate change, extreme weather, and their health impacts in the media significantly influences public engagement and policy support, and shapes how individuals interpret risks and determine the relevance of climate-related issues (Kenix, 2008; Harrison et al., 2020). High-impact stories, such as extreme weather events and natural disaster-related narratives are essential for raising awareness, but an overreliance on event-based reporting can fragment public understanding of climate change (Boykoff, 2008;

Salmon et al., 2017). When climate change is framed primarily through reactive reporting of isolated disasters, it reinforces psychological distance and obscures the broader systemic nature of the crisis (Keller et al., 2022). This disconnection diminishes public motivation to engage with long-term mitigation and adaptation efforts (Spradlin & Givens, 2022).

In this study I examined the regional news coverage in the year prior to and following Cyclone Gabrielle, to determine its effect as a ‘focusing event’ (Birkland, 1997). A clear distinction in newspaper coverage of climate and EWEs emerged in the year before and year after Cyclone Gabrielle. The scale of the disruption in climate and EWE related news coverage was evident with 89.78% of total articles were published in the year following Cyclone Gabrielle, compared to just 10.22% in the year prior. This influx of coverage in reaction to the cyclone raised critical concerns about the depth, sustainability, and equity such journalism, particularly whether such coverage adequately captures systemic issues and includes Māori perspectives in ways aligned with Tiriti-based climate reporting (Phillips, 2022; Ross, 2023).

5.1.1 Regional News Coverage Before and After Cyclone Gabrielle

In the year leading up to Cyclone Gabrielle, regional newspaper articles framed climate change through a distal, policy-oriented lens. Coverage emphasised *Policy and Governance* and *Economic Impact and Industry Concerns* framing, focusing infrastructure planning, land management, and national strategy, while largely neglecting the social and health-related consequences of climate change. My findings reflect broader patterns in Aotearoa climate reporting, which has been shown to prioritise economic impacts over issues like mental health, community cohesion, and wellbeing (Harrison et al., 2020; Armoudian et al., 2023). Articles in this time-period instead focused on technical solutions, such as flood defences, and foregrounded top-down policy responses, with little attention paid to community-based adaptation or the immediate, localised health risks associated with climate events. This form of framing, which distances the threat and positions it as a future concern, has been shown to reduce public urgency and engagement (Trope & Liberman, 2010; Salmon et al., 2017). By positioning climate change as a strategic or infrastructure issue, rather than a pressing public health concern, pre-Gabrielle reporting risked narrowing public understanding and delaying action on more human-centred dimensions of climate resilience.

In the year following Cyclone Gabrielle, the theme of *Risk and Responsibility* in regional coverage remained focused on government and institutional actors, with limited attention to corporate accountability or structural vulnerability (Kenix, 2008; Hopkins et al., 2015). While some articles acknowledged systemic factors, narratives predominantly framed responsibility in a manner that limited corporate or governmental culpability (Leaman, 2022; Gisborne

Herald, 2023a). Although risk-oriented coverage increased post-cyclone, it centred on immediate disaster responses rather than systemic issues. Articles detailed tangible effects such as property damage and access to healthcare (Campbell, 2024) but rarely discussed how these risks were exacerbated by long-term environmental mismanagement or policy inaction. This aligns with findings from Harrison et al. (2020), highlighting a lack of depth in connecting immediate crises to structural determinants of vulnerability. Regional media inadvertently reinforces psychological distancing by focusing on broader climate impacts without adequately linking them to local experiences (Spence et al., 2011). When coverage fails to illustrate how climate change directly affects local communities, readers will be unable to relate to the issue or feel urgency at an individual level, thereby reducing motivation for collective action (Keller et al., 2022; Spradlin & Givens, 2022).

Narrative framing following Cyclone Gabrielle shifted to highlight the immediate human cost of climate change and EWEs, particularly within the *Health and Wellbeing* frame. Media coverage included stories of displaced families and disruptions to healthcare services (Campbell, 2024; Curtis, 2023), reflecting previous research demonstrating how experiences of EWEs can temporarily amplify public discourse on climate-related issues (Sloggy et al., 2021; Birkland, 1997). Community anxiety regarding economic and environmental risks was prominent (Walker, 2023a; 2023b; Ashton, 2023), aligning with broader discussions on climate anxiety and mental health (Spradlin & Givens, 2022; Soutar & Ward, 2022). While regional newspapers increased their focus on the immediate effects of EWEs such as property damage and community displacement, coverage offered limited engagement with the deeper structural factors that shape climate vulnerability. Issues like access to healthcare, housing insecurity, and broader socioeconomic inequities received little sustained attention, despite their significance in shaping communities' capacity to cope with and recover from climate impacts (Berghan et al., 2017). This narrow framing risks constraining public understanding of the full scope of climate-related health risks and the need for long-term, equity-focused policy responses that go beyond short-term disaster recovery, emphasising the need for sustained coverage of systemic risks rather than an exclusive focus on visible consequences (Salmon et al., 2017).

Furthermore, the articles included in my analysis lacked consistency and depth in their representation of Indigenous community perspectives, reflecting prior research that regional newspapers may prioritise official sources over grassroots perspectives (Kenix, 2008; Phillips, 2022). Although select articles provided a platform for affected communities post-Cyclone Gabrielle (Hill, 2023b; Evans, 2023), these voices were primarily included reactively. By failing

to consistently centre Indigenous perspectives and mātauranga Māori, the selected regional newspapers in my study reinforced top-down framings of climate responsibility, limiting visibility for alternative, community-driven resilience strategies. The exclusion of Māori perspectives in climate discourse reinforces a narrow view of who holds expertise and what counts as legitimate knowledge (Phillips, 2022; Ross 2023). The continued marginalisation of Indigenous knowledge systems in mainstream climate communication illustrates the need for news publications to actively incorporate Māori worldviews, leadership, and lived experiences. (King et al., 2007; Masters-Awatere et al., 2022). Addressing this gap in future reporting is essential for fostering a more equitable understanding of climate change impacts and ensuring that Māori-led solutions are integrated into adaptation discussions given the disproportionate impact of climate events on Māori communities (EHINZ, 2018a, 2018b). Strengthening Tiriti-based approaches to journalism is not only a matter of inclusion but a necessary shift toward more relational and locally grounded climate narratives.

5.1.2 Reactive Reporting in Response to Cyclone Gabrielle

Reactive reporting in the aftermath of extreme weather events such as Cyclone Gabrielle plays a crucial role in raising public awareness, mobilising immediate responses, and influencing policy discussions (Birkland, 1997). One key strength of this reactive reporting is its ability to amplify community concerns in the immediate aftermath of a disaster. These shifts in media narrative framing toward *Community-Oriented Coverage* and *Health and Wellbeing* in the year following the cyclone reflect the ability of reactive reporting to centre human experiences, fostering a sense of urgency and emotional engagement (Salmon et al., 2017). This type of reporting can also prompt institutional responses, as policymakers and local governments feel pressured to act when the media highlights public distress and infrastructural failures (Birkland, 1997; Miles & Morse, 2007).

Additionally, reactive reporting helps document climate change in ways that are tangible and relatable to local communities, promoting community resilience through collective action (Keller et al., 2022). In the articles sampled in the year prior to Cyclone Gabrielle, the study found that regional newspapers framed climate change in abstract terms, focusing on policy discussions or economic consequences (Ward & Pullar-Strecker, 2022; Leaman, 2022; McGougan, 2022) rather than its immediate health and social impacts. In the year following the cyclone, however, analysed articles within the *Policy and Governance* and *Economic and Industry Concerns* frames increased in their coverage of more immediate and localised narratives (Rolleston, 2023a; Gisborne Herald, 2023a). This shift aligns with psychological distance research (Spence et al., 2011), which suggests that climate issues

become more salient when the impacts of climate change are perceived to be closer in proximity. Research by Keller et al. (2022) also supports this idea, showing that event-driven reporting can temporarily reduce perceived temporal and spatial distance from climate risks, therefore increasing engagement and building community preparedness.

Despite its strengths, reactive reporting has an important limitation in regard to fostering ongoing engagement with climate change as a systemic issue. Research on reactive reporting during and following focusing events has shown that media coverage of climate disasters often spikes during crises, only to decline rapidly once the immediate threat subsides (Boykoff, 2008; Birkland, 1997). This is due to journalism prioritising short-term impacts over systemic causes and the inconsistent representation of diverse perspectives. The articles included in my analysis followed this pattern of reporting, particularly in relation to including Māori perspectives and systemic challenges associated with climate and EWEs that disproportionately affect this community (EHINZ, 2018b).

While post-cyclone coverage in my sample highlighted immediate consequences such as property damage, infrastructure failures, and some health challenges, there was limited discussion of how longstanding social and economic inequalities shape vulnerability to climate change. Māori, despite being critical to Aotearoa climate resilience through mātauranga Māori and their role as kaitiaki (guardians) of the land (Phillips, 2022; Ross, 2023), were especially underrepresented in the analysed sample. This reflects a broader pattern in climate reporting, where Indigenous perspectives and systemic critiques of environmental governance are often marginalised (King et al., 2007; Masters-Awatere et al., 2022), and such omission risks concealing how climate vulnerability is unequally distributed across communities.

Within the *Platforming Mātauranga Māori* theme, reporting was typically restricted to cultural or lifestyle coverage (Waiwiri-Smith, 2023; Murray Greenway, 2023) and was not meaningfully incorporated into broader climate reporting. Māori perspectives, when included, were predominantly framed through narratives of hardship or displacement, such as damage to marae or whānau disruption (Curtis, 2023; Hill, 2023a; 2023b), rather than being recognised as expressions of leadership, environmental stewardship, or proactive adaptation strategies. Additionally, within the *Policy and Governance* narrative frame, Māori voices were included in the context of protest or political disagreement, reinforcing a reactive mode of representation (McConnell, 2024; Wilson, 2023).

My findings reflect a broader pattern in climate journalism, where Indigenous perspectives and systemic critiques of environmental governance remain marginal (King et al., 2007; Masters-Awatere et al., 2022). Despite being central to Aotearoa climate resilience

through mātauranga Māori and their role as kaitiaki (Phillips, 2022; Ross, 2023), Māori communities were underrepresented in the sample analysed. This dynamic within my findings illustrate that regional media continue to prioritise institutional and Western scientific sources, while sidelining alternative knowledges and community-led solutions. The implications of this exclusion are discussed further in *Section 5.2*, which addresses equity and representation and outlines the need for Tiriti-based approaches to environmental journalism.

To address these limitations, media narratives need to move beyond reactive reporting and integrate more sustained discussions of climate adaptation, social determinants of health, and long-term climate policies. While focusing events like Cyclone Gabrielle can serve as critical entry points for public discourse, maintaining attention on climate change beyond the immediate disaster is necessary for fostering long-term engagement and action. Research by Keller et al. (2022) suggests that media should incorporate solutions-focused and equity-driven narratives to ensure that climate change is understood not just as a series of isolated events, but as an ongoing structural challenge.

Additionally, ensuring that Indigenous knowledge systems are meaningfully incorporated into climate discourse could strengthen climate adaptation efforts. Studies by Phillips (2022) and Ross (2023) highlight the importance of a Tiriti-led approach to climate journalism, where Māori perspectives are not just included in times of crisis but are embedded within broader environmental narratives. Regional newspapers could play a key role in amplifying these voices, providing a counterbalance to national media's often policy-centric framing of climate change (Harrison et al., 2020).

Ultimately, while reactive reporting serves an important function in raising awareness and documenting climate disasters, its limitations are indicative of the need for more consistent and systemic approaches to climate communication. My findings affirm that for regional media to play a transformative role in Aotearoa climate resilience, reporting must move beyond episodic, event-driven coverage. It must integrate Indigenous perspectives as part of everyday climate communication, recognise systemic inequities as core drivers of vulnerability, and sustain narratives that reflect lived experiences and community solutions.

5.2 Social Justice, Accessibility, and Equitable Representation in Regional Reporting

Equitable climate reporting in regional media is crucial to ensuring that all communities, particularly those disproportionately affected by climate change, have access to relevant, actionable information. Improved media practices prioritising equity and inclusivity can help bridge these gaps and foster informed climate resilience (Spradlin & Givens, 2022; Harrison et

al., 2020; StatsNZ, 2022). This section expands on the gaps in platforming and dissemination of regional news identified within my analysis that leave some populations more vulnerable to climate and extreme weather-related risks.

5.2.1 Platforming Disproportionately Affected Communities

Climate change does not affect all communities equally (EHINZ, 2018b). Low-income, rural, Māori, and Pasifika populations all face heightened risks due to existing structural inequities, including inadequate infrastructure, limited healthcare access, and socioeconomic vulnerability (Miles & Morse, 2007; WHO, 2019). Despite these risks, regional media often underrepresent these communities in climate reporting, perpetuating disparities in public awareness and policy advocacy. Equitable reporting requires deliberate attention to whose voices are heard and whose knowledge is centred in public discourse. When those most impacted are consistently absent or marginalised, the reporting reinforces existing power imbalances rather than challenging them.

To rectify this, regional news outlets must actively platform voices from disproportionately affected communities and prioritise localised storytelling that reflects lived experiences and the specific challenges these populations face. In-depth reporting that highlights community-led adaptation strategies, mātauranga Māori, and local resilience initiatives can empower affected groups and foster inclusive climate action (Harrison et al., 2020; Fisher et al., 2022), but my analysis found that voices from these groups were significantly underrepresented.

Institutional and political actors, prioritised as primary sources and expert commentators in coverage of Cyclone Gabrielle (Ashton, 2023; Thatcher Swann, 2023), which heavily affected Māori and rural communities whose perspectives were rarely given space or treated as authoritative. Mātauranga Māori was occasionally referenced but seldom positioned as a valid or central framework for understanding environmental change (Sparks, 2023; Murray Greenway, 2023). Instead, it appeared in ways that were tokenistic or disconnected from the surrounding narrative, often used to supplement rather than shape the framing of climate issues (Gisborne Herald, 2022; Hall, 2023). This mirrors findings from Phillips (2022) and Ross (2023), who note that despite public commitments to equity, mainstream reporting continues to privilege Western knowledge systems and marginalise Indigenous expertise.

Such exclusion not only distorts the public understanding of climate impacts, it also undermines the legitimacy of Māori-led solutions. Mātauranga Māori includes holistic, place-based approaches that emphasise interconnection between environmental and community wellbeing (Sparks, 2023). When these perspectives are excluded or sidelined, opportunities to

promote sustainable, community-driven adaptation are lost (Harmsworth & Awatere, 2013). In the articles analysed, even where local iwi responses to climate and extreme weather impacts were mentioned (Hill, 2023b; Gisborne Herald, 2023a), they were seldom contextualised within Indigenous frameworks or linked to broader structural causes of vulnerability. This pattern aligns with concerns raised by Salmon et al. (2017) and Armoudian et al. (2023), who found that media often frame climate action as a matter of personal or institutional responsibility, with little engagement with systemic inequities. It also reflects the absence of social justice, equity, and ecological framing, where structural causes and community responses are connected.

This lack of representation also points to deeper structural issues in the Aotearoa media landscape, where the absence of Māori journalists, limited cultural competency, and institutional norms continue to shape who is heard and who is silenced. Regional newspapers are best situated to tell local, relational stories that can both inform and engage. However, doing so requires more than occasional references to community impacts. It involves editorial decisions that prioritise equity in sourcing, framing, and narrative development. Platforming those most affected must include consistent representation of lived experience, locally led initiatives, and the explicit recognition of mātauranga Māori as an important organising framework for understanding and responding to climate threats (Fisher et al., 2022; Ross, 2023). Regional reporting that fails to actively platform disproportionately affected communities not only reinforces exclusion, but it also misses the opportunity to foster more relevant and effective climate communication.

5.2.2 Tiriti-Based Media Practice and Integration of Mātauranga Māori

A Tiriti-based approach to climate reporting requires media to uphold Te Tiriti o Waitangi by ensuring Māori perspectives and knowledge systems are meaningfully integrated into environmental journalism. This involves more than symbolic inclusion; it necessitates sustained collaboration with iwi, hapū, and whānau to align reporting with Indigenous environmental priorities (Phillips, 2022; Masters-Awatere et al., 2022). It also requires recognising the constitutional role of Māori as Tiriti partners, not simply as stakeholders, and reflects a commitment to partnership, protection, and participation in both the content and process of reporting.

Māori-led initiatives such as conservation projects and land management strategies provide effective climate solutions deeply rooted in tikanga and mātauranga Māori. Highlighting these approaches in regional reporting not only enriches public discourse but also affirms Indigenous leadership in climate resilience (Harmsworth & Awatere, 2013). My analysis identified that while the sampled publications made mention of such initiatives in the

Environmental Stewardship and Sustainability frame, there was a noted lack of engagement within articles framed within *Policy and Governance* narratives.

Where iwi-led environmental responses were mentioned, they were seldom positioned within a Tiriti or Indigenous governance framework. Rather than being acknowledged as expressions of tino rangatiratanga, these responses were typically framed as reactive or community-level participation, disconnected from structural climate planning. This gap points not only to underrepresentation, as established previously, but to a broader failure to reflect Indigenous authority and relational responsibility in the framing of climate governance. The findings showed no examples of regional articles that referenced iwi roles in co-governance or kaitiakitanga as an expression of their position as an environmental authority, despite iwi and hapū playing significant roles in local adaptation and response efforts following Cyclone Gabrielle.

The dominance of institutional and technical frames across the articles reviewed further limited opportunities for Tiriti-based engagement. As previously discussed, government sources and scientific experts were positioned as central authorities, with iwi and hapū references often appearing without voice, context, or historical framing. This absence reflects not only a gap in coverage but a failure to meet media obligations under Te Tiriti.

While mātauranga Māori appeared occasionally in the data, it was never used to frame the direction of a story or integrated as an organising worldview. This marginal presence reflects Ross's (2023) observation that symbolic commitments to equity, such as public apologies, have not necessarily translated into sustained or structural change in editorial practice. It also reinforces Masters-Awatere et al.'s (2022) call for Indigenous knowledge to be embedded, rather than appended, in policy and public discourse. A Tiriti-based approach would require regional media not only to include these perspectives, but to centre them as foundational to understanding and addressing environmental issues.

Tiriti-based journalism involves more than representational diversity. It requires structural alignment with Indigenous worldviews, long-term relationships with mana whenua, and newsroom practices that are reflexive and accountable. This includes editorial decision-making that makes space for Māori-led climate stories and partnerships that support mana motuhake in storytelling. Without these shifts, regional media publications risk reinforcing colonial power structures that limit Māori authority in climate governance.

Given their proximity to iwi-led responses and regional environmental challenges, local outlets are well-placed to lead this change. Doing so would not only improve the quality and relevance of reporting but also contribute to the transformation of climate discourse in

Aotearoa toward justice, partnership, and shared stewardship. A Tiriti-based approach reframes climate journalism as a relational and ethical practice, and one that is necessary for equitable adaptation and intergenerational resilience.

5.2.3 Accessibility and Equitable Climate Communication

For climate communication to be truly equitable, it must be accessible to all communities. In my findings, the theme of *Limited Information Access* reflected multiple barriers to meaningful engagement with climate-health reporting. These included paywalling of critical content, language that either obscured or alienated, and the limited cultural responsiveness of coverage. Each of these barriers constrains the ability of individuals and communities to take informed, timely action, thereby undermining both public empowerment and broader goals of climate resilience.

Regional newspapers' reliance on paywalls restricts access to crucial climate-health information, particularly for lower-income populations who may already be disproportionately impacted by environmental change (Milfont et al., 2023). Ensuring open-access climate reporting can help bridge these information gaps and empower all individuals to make informed decisions. This is especially important in the context of regional climate impacts, where timely and relevant information can influence preparedness, response, and recovery. Articles offering expert analysis or in-depth climate policy critique were often categorised as 'premium content' and placed behind paywalls (Urlich, 2023). When content essential to local preparedness and adaptation is available only to paying subscribers, the most affected communities may be left out of conversations that concern their own wellbeing. This not only limits access to critical knowledge but also restricts participation in climate governance and policy dialogue, an outcome that conflicts with community psychology values of social justice and collective resilience.

At an individual level, clear and relatable communication helps people understand how climate change directly affects their health and wellbeing. Framing extreme weather events such as flooding or heatwaves in terms of their effects on physical health, including increased risk of heatstroke and waterborne diseases, as well as their impact on mental health, such as trauma and anxiety, makes climate risks more tangible (Ebi et al., 2021; Salmon et al., 2017). However, the findings showed that such framing was infrequent and often vague, reducing the clarity and immediacy of climate-health risks. Few articles offered practical guidance or health-protective advice, such as how to prepare for future events (Murray Greenway, 2023; Urlich, 2023). This limits public capacity to respond effectively, particularly in communities already facing barriers to health services or emergency resources (Campbell, 2024; Hill, 2023b).

At the community level, communication strategies must centre on collective understanding and action. Community-driven approaches that utilise storytelling, visual media, and culturally relevant metaphors can enhance engagement and encourage behavioural change and are particularly effective in marginalised regions where mainstream scientific messaging may be less accessible (Salmon et al., 2017; Macinnis-Ng et al., 2023), yet in the articles reviewed, such approaches were largely absent. In my sample, community voices were predominantly featured in the aftermath of extreme events (Gisborne Herald, 2023; Campbell, 2024), rather than in the shaping of preparedness or decision-making narratives. This reactive framing risks reinforcing deficit narratives around local expertise and grassroots leadership and in turn discouraging audience engagement with their local community resilience efforts.

Institutionally, accessible climate reporting can shape both public demand and policy responsiveness. When the public is well-informed and engaged, decision-makers are more likely to prioritise adaptation strategies and allocate resources toward community resilience (Macinnis-Ng et al., 2023). Similarly, health and emergency services can better serve communities that are prepared, connected, and informed (Glavinovic et al., 2023). However, the dominance of governmental and industrial narratives around climate change response and sustainability efforts in the sample (Hall, 2023; Hauraki Coromandel Post, 2023; Bay of Plenty Times, 2023) limited regional newspapers' capacity to mobilise civic pressure or support participatory governance through platforming local community voices.

Accessible communication also plays a vital role in combating misinformation. In the context of climate change, misinformation can erode public trust and hinder mitigation efforts. Journalists, scientists, and policymakers must work together to present evidence-based information in ways that are transparent, engaging, and culturally inclusive (Milfont et al., 2023; Macinnis-Ng et al., 2023). While regional outlets are well placed to lead this, my findings show that most climate-health reporting remains generalised and institutionally framed. This weakens its ability to engage diverse audiences, correct false information, or reflect the needs of those most at risk.

My research demonstrates that regional media framing of climate, EWEs, and health often fails to support the core values of community psychology, including empowerment, justice, and collective wellbeing. While regional media have the potential to promote shared resilience through accessible, localised, and participatory communication, current practices often reproduce disengagement by privileging institutional voices and inaccessible formats. The findings demonstrate that climate-health reporting can either constrain or enable equitable climate action, and that this depends not just on what is reported, but how and for whom.

5.3 Contextualising Regional News Coverage of Climate and Extreme Weather in Aotearoa: A Holistic Approach

Regional newspapers play a vital role in shaping public understanding of climate change and extreme weather events (EWEs), particularly in areas directly affected by these disruptions. In the wake of Cyclone Gabrielle, localised reporting became a key avenue for communicating risk, community impact, and recovery efforts. However, how these events are framed in the media has significant implications for public engagement, health outcomes, and perceptions of climate justice. This section addresses these implications by contextualising the findings using a holistic analytical lens to examine whether regional coverage reinforced or challenged dominant narratives about vulnerability, resilience, and responsibility.

5.3.1 Utilising the Ecological Model and Social Determinants of Health

The World Health Organisation's (2019) Social Determinants of Health (SDOH) framework provides a valuable foundation for understanding how climate change impacts health and wellbeing, particularly for communities that are already vulnerable due to social and economic inequities. Climate change exacerbates existing disparities by disrupting essential social systems, including housing, employment, healthcare access, and infrastructure, which in turn affects individual and community health outcomes (Galvão et al., 2009; EHINZ, 2018a). Regional news coverage plays a crucial role in shaping public understanding of these intersections, influencing whether climate change is framed as a systemic health issue or as a series of isolated weather-related incidents.

Community psychology emphasises the interconnectedness of individuals, communities, and broader societal systems (Kagan et al., 2019), making the ecological model an ideal lens through which to explore the media framing of climate change and extreme weather events (EWEs). The ecological model considers multiple levels of influence: chrono, exo, meso, micro, and macro systems, each contributing to how climate change and its impacts were understood and addressed. The framing and thematic analysis applied Braun and Clarke's (2006) method to identify key narratives and underlying themes in the sampled articles, while the ecological model provided a means of interpreting and contextualising these findings.

Ecological models have been widely used to examine complex social and health issues by acknowledging the multiple layers of influence that shape human behaviour and wellbeing (Reifsnider et al., 2005; Galvão et al., 2009). These models are particularly useful for analysing how structural and environmental factors contribute to disparities in health outcomes, a perspective that aligns with the present study's focus on media framing of climate change and

its associated health impacts. By applying an ecological approach, research can better capture the interconnected social, economic, and political forces that shape how climate change is discussed and understood in regional news media.

Integrating Bronfenbrenner's (1986) ecological model into the analysis of how climate change and extreme weather was framed in regional newspapers further enriched the understanding of how these issues were connected to the Social Determinants of Health (WHO, 2019). Bronfenbrenner's model emphasises the interconnectedness of multiple environmental systems, from individual and family contexts (microsystem) to broader societal structures (macrosystem), and these levels of influence were key to understanding the social, economic, and environmental factors that shaped public health outcomes (Harrison et al., 2020). Utilised together these frameworks highlight the importance of integrating climate adaptation strategies into broader social policies to mitigate these effects, a perspective that reinforces the need for media to frame climate change as a structural, rather than purely environmental, issue.

5.3.2 A Holistic Interpretation of the Findings

By incorporating ecological and SDOH perspectives, this research extends beyond an analysis of media framing to consider the broader implications of how climate change narratives are constructed at the regional level, and their potential impact on public understanding and policy responses. Recognising the media as an active participant in shaping the discourse around climate change and health highlights the importance of framing strategies that acknowledge systemic factors and promote resilience at multiple levels of society.

At the microsystem level, regional news articles highlighted personal and immediate community experiences of extreme weather events (EWEs), particularly in the wake of Cyclone Gabrielle. This framing emphasised individual struggles with property damage, displacement, and mental health impacts, aligning with past research that suggests media often humanises climate issues through personal narratives (Spradlin & Givens, 2022). While these stories provided an opportunity to increase reader engagement by reducing psychological distance (Spence et al., 2011; Trope & Liberman, 2010), they also risked reinforcing the perception of EWEs as isolated incidents rather than symptoms of broader systemic issues.

At the mesosystem level, coverage frequently connected local governance and community organisations' responses to climate impacts. This aligns with findings from Harrison et al. (2020), which emphasised that regional newspapers often serve as an intermediary between local institutions and residents, shaping public perceptions of climate adaptation strategies. However, the extent to which these reports encouraged collective

resilience versus reactive emergency responses varied. Coverage following Cyclone Gabrielle, for example, centred on immediate recovery efforts rather than proactive adaptation measures, reflecting a tendency in climate reporting to prioritise short-term crisis responses over long-term structural change (Birkland, 1997).

The exosystem level was reflected in media discussions of economic consequences, infrastructure disruptions, and industry concerns. Consistent with Kenix's (2008) analysis of Aotearoa climate reporting, economic impacts such as agricultural losses and infrastructure damage were frequently highlighted, often through the perspectives of industry representatives and policymakers. While these narratives illustrated the material consequences of climate change at this structural level, they rarely explored structural inequalities, such as disparities in access to recovery resources or the disproportionate burden on lower-income communities. This omission limits the potential for media coverage to foster deeper public engagement with climate justice issues.

The macrosystem perspective was evident in the way broader socio-political and cultural narratives shaped and constrained regional media coverage. Within Bronfenbrenner's ecological systems theory, the macrosystem represents the overarching cultural values, ideologies, and institutional structures that influence how communities understand and respond to environmental challenges. In the context of Aotearoa, this includes national policy agendas, economic priorities, and dominant political narratives that often frame climate action through the lens of resilience, personal responsibility, and recovery. Media content in the sampled newspapers reflected these dominant discourses, reproducing national-level narratives around economic resilience, infrastructure investment, and individual preparedness, reinforced by institutional voices government officials, mayors, and business leaders cited as sources of authority (Thatcher Swann, 2023; Southgate, 2023; Ashton, 2023).

Importantly, systemic determinants of vulnerability such as historical housing inequities, employment precarity, and unequal access to healthcare (WHO, 2019) were underexplored. These omissions are significant, given their role in shaping community resilience and adaptive capacity. For instance, although Cyclone Gabrielle highlighted urgent concerns around access to safe housing, healthcare, and income stability (Campbell, 2024), this discussion was limited in its ability to connect these issues to the overarching systemic issues exacerbating inequities in the affected communities. Without this structural framing, news articles serve to reinforce the idea that climate responsibility lies with individuals alone, obscuring the role of institutions in perpetuating vulnerability. This finding aligns with research

by Galvão et al. (2009), who argue that climate adaptation must be integrated with broader social policy to mitigate its disproportionate effects on disadvantaged communities.

Māori community experiences and mātauranga Māori approaches to climate resilience were present but limited in the sample. While individual articles demonstrated depth and relevance, these were typically confined to cultural or feature reporting (Murray Greenway, 2023, Waiwiri Smith, 2023), rather than integrated into policy or emergency response narratives (Sparks, 2023). For example, one article on rongoā Māori following Cyclone Gabrielle highlighted how healing practices were used to address spiritual and collective trauma, linking health to the land and environment (Murray Greenway, 2023). Another covered Feast Matariki events, where mahika kai (traditional food gathering practices) were discussed as strategies for reinforcing food sovereignty and sustainable land use (Waiwiri-Smith, 2023). Despite showcasing mātauranga Māori as future-focused and ecological in its approach, these stories were siloed from mainstream climate reporting. Regional newspaper reporting primarily portrayed Māori communities in victim-based frames, such as in stories about marae damage or whānau displacement (Hill, 2023a, 2023b), while omitting their leadership in environmental governance or planning. The findings were demonstrative of concerns raised by Phillips (2022) and Ross (2023) that Indigenous knowledge systems are marginalised in climate discourse, particularly when they are treated as supplementary rather than foundational at a systemic level. These findings reinforce the need for Tiriti-based media practices that not only include but prioritise Indigenous perspectives in climate communication.

Finally, the chronosystem level of Bronfenbrenner's (1986) model contextualises how media framing evolved over time. Before Cyclone Gabrielle, coverage often framed climate change as a distant issue, focusing on emissions targets, budget considerations, and long-term policy goals (Leaman, 2022; Gisborne Herald, 2022). This temporally distant framing positioned climate change as a future concern rather than an immediate crisis, often reinforcing a perception that its impacts were abstract and disconnected from daily life. Additionally, this pre-cyclone coverage emphasised large-scale economic investing and employment stories (Ward & Pullar-Strecker, 2022) aligning with the broader trend of framing climate action as an economic trade-off rather than a necessary public health intervention (Harrison et al., 2020). However, following the cyclone, media narratives shifted significantly, with a greater emphasis on immediate and localised health impacts, infrastructure damage, and emergency responses. This transition reflects the effect of extreme weather events in reducing psychological distance, making climate risks feel more immediate and personally relevant (Sloggy et al., 2021; Keller et al., 2022). The coverage post-cyclone highlighted disrupted

healthcare services, housing insecurity, and economic instability (Gisborne Herald, 2023a; Hill 2023a; Campbell, 2024), each key social determinants of health (EHINZ, 2018a; WHO, 2019). This framing shift provided an opportunity to bridge climate change discussions with broader social determinants, but these systemic connections were not fully developed in news coverage. Instead, reporting focussed on short-term recovery rather than addressing the deeper structural inequities that contributed to local communities' health and wellbeing impacts (EHINZ, 2018a; 2018b; WHO, 2019).

Coverage in the year following the cyclone also became geographically more immediate, drawing attention to specific communities and adaptation challenges (Hill, 2023b; Gisborne Herald, 2023a; Rolleston, 2023a, 2023b) rather than abstract national or global targets. This aligns with Keller et al.'s (2022) assertion that extreme weather events can reduce psychological distance by making climate impacts feel closer and more urgent, however, long-term engagement requires continued media reinforcement of climate-health linkages. This highlights the need for regional media to shift toward sustained climate-related health impacts beyond reacting to immediate crises to foster enduring public engagement and policy responsiveness. Without sustained media attention to these health determinants, the risk remains that public discourse will revert to policy-focused, economically framed discussions that do not prioritise systemic climate resilience and health equity (Keller et al; 2022; Birkland, 1997).

The disruptions caused by Cyclone Gabrielle intersected with key social determinants, including economic and housing related impacts, however, media coverage tended to frame these as temporary crises rather than systemic vulnerabilities exacerbated by climate change (EHINZ, 2018a; WHO, 2019). This framing has significant implications for public understanding and policy action, as it may contribute to a lack of sustained pressure for structural interventions that address the root causes of climate-related health inequities (Galvão et al., 2009). By applying an ecological and SDOH perspective, this study highlights the strengths and limitations of regional media in framing climate change as a public health and social justice issue (Harrison et al., 2020). While online regional newspapers serve as an important bridge between communities and broader policy discussions in Aotearoa, their framing strategies often prioritise immediate impacts over long-term systemic risks (Spradlin & Givens, 2022). Future climate communication efforts should seek to incorporate a more explicit discussion of structural determinants, ensuring that climate resilience narratives reflect the lived realities of affected communities while advocating for equitable, systemic solutions (Phillips, 2022). Therefore, there is a clear need for a holistic, multi-level approach to addressing climate

impacts in regional media, as reporting that considers the full range of social, economic, and health determinants is essential for ensuring health equity and resilience in the face of climate change for all communities in Aotearoa.

5.4 Barriers and Opportunities in Regional News Coverage of Climate, EWEs, and Health: What is needed?

The role of regional news media in shaping public understanding of climate change and extreme weather events (EWEs) is critical. As climate-related disasters become more frequent and severe, the way these events are framed in media coverage influences public perception, preparedness, and policy responses (Armoudian et al., 2023). However, structural limitations, accessibility issues, and dominant framing approaches often hinder comprehensive and inclusive climate-health reporting (Spradlin & Givens, 2022).

This section presents the barriers and strengths identified in my analysis of regional newspaper content on climate, extreme weather, and health, contextualised through a community psychology lens. By systematically examining what limits, shapes, and strengthens effective regional news coverage of climate change and health, this section discusses opportunities for strengthening regional journalism practices to support and promote community resilience and informed decision-making.

5.4.1 Barriers in Regional Climate-Health Reporting

The barriers identified in my findings reflect both structural limitations and recurring patterns in how climate change is framed in regional reporting. These barriers can be grouped into three key areas: how and when climate-health issues are reported, whose health concerns are recognised and prioritised, and who has access to this information. Each presents distinct challenges for building sustained public engagement, equitable climate awareness, and health-protective action.

Event-Driven Coverage and Public Engagement: Psychological distance continues to shape how climate change is reported and perceived. Regional news media often frame climate change as a distant, global issue rather than an immediate local concern, reducing public engagement with climate adaptation and health risks (Spence et al., 2011; Keller et al., 2022). My findings showed that prior to Cyclone Gabrielle, climate-related articles frequently relied on political and economic frames, which contributed to a perception that climate change was not a direct or immediate threat. When climate change is framed as affecting others rather than one's own community, there is an increased likelihood of inaction (Hopkins et al., 2015).

Coverage patterns were also shaped by the presence of extreme weather as a focusing event, with climate-related reporting increasing around Cyclone Gabrielle. Climate coverage in regional news was largely reactive, with increased attention following extreme weather events but little sustained reporting outside of crises (Miles & Morse, 2007). This episodic focus presents climate change as a series of isolated disasters rather than a continuous, systemic issue. This reinforces a short-term narrative and makes it difficult for communities to recognise long-term health risks or sustain engagement with adaptation strategies.

Inequitable Representation in Coverage of Health and Wellbeing: The omission of climate-health connections and equity considerations was also notable. Regional newspapers frequently frame climate change through economic or environmental lenses while neglecting its health implications. Climate-related health issues, including increased respiratory illnesses, heat-related illnesses, and mental health impacts, are often secondary to discussions on infrastructure damage or economic recovery (WHO, 2019). Moreover, coverage largely failed to reflect the disproportionate risks faced by Māori and rural communities, despite substantial evidence of structural health inequities (EHINZ, 2018b). These groups were rarely named explicitly in climate-health reporting, even in regions heavily impacted by Cyclone Gabrielle. The omission of the social determinants of health from climate discourse in regional news limits public understanding of how climate change affects wellbeing beyond immediate disaster events (Berghan et al., 2017).

My analysis showed a heavy dependence on institutional voices, with community, health, and Indigenous perspectives underrepresented. Even in regions directly impacted by Cyclone Gabrielle, community members and local leaders were rarely quoted or centred as experts in their own right. This pattern reinforces existing media hierarchies that prioritise institutional narratives over community-driven perspectives, reducing the opportunity for diverse and inclusive climate communication. It also contributes to the depoliticisation of structural inequities, as the absence of voices from health professionals, Māori organisations, or social service providers limits critical engagement with the intersection of climate, health, and justice. In doing so, regional news media may inadvertently sustain the very disparities they are positioned to challenge, thus failing to equip vulnerable communities with the information and visibility needed to advocate for systemic change.

Regional News Accessibility: Structural constraints such as paywalls and resource limitations further restrict equitable access to climate-health reporting. Many regional newspapers operate on subscription models, which may prevent lower-income communities from accessing vital information (Milfont et al., 2023). This is especially concerning in regions

where climate change and EWEs pose disproportionate risks to already marginalised populations, such as Māori and rural communities. When access to timely, relevant reporting is dependent on financial means, these communities are effectively excluded from critical discourses around preparedness, adaptation, and systemic accountability.

Equitable climate communication depends not only on accurate or inclusive reporting but also on whether communities can realistically access that reporting. Without structural investment in open-access climate journalism or public-interest partnerships, regional media continue to reinforce information gaps that disproportionately affect those already facing environmental and systemic inequities. Ensuring free and ongoing access to climate-health information is not only a journalistic issue but a matter of health equity and climate justice.

5.4.2 Opportunities for Strengthening Climate-Health Reporting

The opportunities identified in my analysis reflect practical pathways for addressing the limitations outlined above. These opportunities involve shifting how climate-health issues are reported, whose knowledge and experiences are centred, and how climate communication can become more accessible and inclusive. Each opens space for regional journalism to more effectively support public engagement, promote equity, and strengthen community resilience in the face of climate-related health risks.

Moving from Crisis Reporting to Sustained Coverage: To foster long-term climate awareness, regional news must move beyond event-driven reporting and incorporate climate and health issues into regular coverage. Investigative reporting on the long-term health effects of climate change, ongoing updates on adaptation strategies, and community-based stories highlighting resilience efforts can support sustained public engagement (Salmon et al., 2017). Media scholars have noted that consistent climate coverage increases public knowledge and policy engagement, reinforcing the importance of the role of journalism in shaping climate discourse (Armoudian et al., 2023).

Regional newspapers have an opportunity to reduce psychological distance by framing climate change as an immediate, localised issue. Coverage that connects climate change to region-specific health risks, such as air quality issues, food security, or increased vector-borne diseases, can foster greater engagement (Keller et al., 2022). Research indicates that making climate change personally relevant encourages behavioural adaptation and community-level preparedness (Spence et al., 2011; Harrison et al., 2020). By integrating community voices and localised impacts, regional media can shift perceptions from seeing climate change as a distant problem to recognising its everyday consequences.

Expanding Solutions-Based Journalism: Solutions-based journalism, which focuses on responses rather than just problems, has been shown to increase audience engagement and encourage constructive action (Spradlin & Givens, 2022). Regional newspapers could integrate more stories on climate resilience initiatives, such as iwi-led environmental projects that incorporate kaitiakitanga, health sector adaptations to climate-related health challenges, and collaborative policy efforts between councils and communities (Harmsworth & Awatere, 2013). By shifting the narrative toward solutions, media can empower communities to see themselves as active participants in climate resilience rather than passive recipients of climate-related challenges.

Regional journalism has a unique opportunity through local, community-centred stories to incorporate kaitiakitanga into climate reporting, reinforcing the interconnectedness of people and nature. By framing environmental issues through this lens, regional media fosters stronger emotional and ethical connections to climate action. Highlighting Indigenous stewardship narratives can also provide tangible solutions rooted in sustainability and intergenerational responsibility (Harmsworth & Awatere, 2013). In this way, addressing psychological distance through culturally grounded frameworks such as kaitiakitanga directly supports the goals of equitable communication, place-based engagement, and community-led response.

Increasing Accessibility and Representation:

Equitable climate communication requires reducing structural barriers to information access. Regional media must explore strategies such as open-access climate reporting for public health topics, and partnerships with community organisations to distribute climate and EWE-related information in order to reach wider audiences.

Additionally, increasing representation of Māori voices, health professionals, and community leaders in climate discourse can provide more holistic and inclusive reporting (Fisher et al., 2022). Training journalists in climate literacy and cultural competency can further enhance the depth and quality of regional reporting (Phillips, 2022). Journalism lacking cultural competence can lead to surface-level engagement with mātauranga Māori rather than its meaningful incorporation. To address this, media outlets must invest in training programs that enhance cultural literacy and build partnerships with Māori experts to guide reporting practices (Fisher et al., 2022).

Regional newspapers must also more deliberately centre health and wellbeing in climate reporting by drawing on the expertise of local health providers, public health agencies, and community advocates. Integrating these perspectives not only broadens the scope of

climate stories but also supports public understanding of the social, mental, and physical implications of environmental change. This approach contributes to a more holistic and prevention-focused climate narrative, aligned with public health evidence and community psychology values of wellbeing, empowerment, and equity.

5.5 Summary of Discussion

In this study I set out to explore how regional online newspapers in Aotearoa New Zealand framed the relationship between climate change, extreme weather events (EWEs), and health, in the year prior to and following Cyclone Gabrielle. My aim was to better understand whether regional journalism changed in its approach to climate, extreme weather, and health following their region being impacted directly by an EWE, whether this coverage reflected or challenged dominant discourses, and to assess the extent to which they aligned with the values of community psychology, such as collective wellbeing, social justice, and equity.

The findings revealed that while Cyclone Gabrielle triggered a notable increase in media attention to climate issues, this surge was largely reactive and short-lived. Coverage centred on immediate impacts rather than addressing the underlying systemic vulnerabilities that exacerbated those impacts. Climate-health linkages were mentioned, but often framed in generalised terms, with limited attention given to the Social Determinants of Health (WHO, 2019) that shape community resilience. The emphasis remained on immediate individual and community responses, subtly reinforcing a narrative of personal responsibility while leaving structural drivers of climate vulnerability largely unexamined.

Importantly, the discussion illuminated persistent gaps in the representation of Māori voices and Indigenous knowledge systems. While *mātauranga Māori* occasionally surfaced, it was often relegated to cultural sections or used to highlight vulnerability, rather than being integrated into mainstream reporting as a source of strength, leadership, or expertise. This underrepresentation both reflects and reinforces epistemic exclusion in the media landscape, limiting the visibility of diverse climate solutions rooted in Indigenous worldviews.

The application of ecological systems and social determinants of health frameworks enabled a layered analysis of how regional news narratives operate across multiple levels, from individual experiences to institutional discourse. While some articles brought climate impacts closer to home, reducing psychological distance (Spence et al., 2011) and fostering emotional resonance, others reverted to distant, episodic frames that obscured systemic risks. Media framing shaped not only what stories were told, but also who had the authority to tell them, and which kinds of knowledge were validated or sidelined.

Overall, my research illustrates the dual potential of online regional newspapers: to either support public understanding, solidarity, and action on climate-health issues, or constrain these through narrow, disconnected, and inequitable narratives. I argue that for regional journalism to contribute meaningfully to climate resilience, it must move beyond reactive coverage to include sustained, accessible, and culturally grounded storytelling. This includes centring Māori leadership, addressing social determinants explicitly, and fostering inclusive public discourse. In doing so, regional media can become a platform not just for reporting disaster, but for supporting long-term community wellbeing, empowerment, and adaptation in the face of climate change.

6. Conclusion

This thesis examined how regional online newspapers in Aotearoa New Zealand frame climate change and its relationship to health, with a particular focus on the framing shifts in the year before and year after Cyclone Gabrielle. Regional newspapers primarily framed climate change through environmental and economic lenses, with limited initial attention to its social and health-related dimensions. Before Cyclone Gabrielle, climate change was dominated by discussions of infrastructure resilience, policy responses, and financial consequences, reinforcing a sense of psychological distance (Keller et al., 2022). This aligns with prior research on climate change reporting in Aotearoa, stating that coverage often centres on mitigation efforts and economic costs rather than adaptation strategies and human wellbeing (Harrison, et al., 2020). The shift in framing observed post-Cyclone Gabrielle showed that regional news coverage became more inclusive of health and wellbeing narratives when prompted by direct, tangible impacts on local communities. For this shift to have a lasting impact, it is crucial that regional online newspapers move beyond episodic framing to a journalistic approach that consistently illustrates the structural dimensions of climate change.

While these narrative frames continued to be present in post-cyclone coverage, regional reporting shifted toward increased attention on the immediate health consequences of extreme weather events, including mental health impacts, healthcare access, and community displacement. This finding aligns with previous research where extreme weather events act as focusing events (Birkland, 1997), reducing psychological distance and prompting a short-term increase in media attention to climate-related health risks (Sloggy et al., 2021; Spence et al., 2011). Despite this shift, media coverage largely failed to examine the long-term structural determinants of climate-related health inequities, reinforcing the event-driven nature of climate discourse (Boykoff, 2008; Salmon et al., 2017).

While regional newspapers played an important role in raising awareness of climate-related health risks, their framing of climate change lacked the depth needed to foster long-term collective action and resilience. By focusing primarily on immediate crisis responses rather than systemic solutions, regional media utilised a reactive approach to climate adaptation, limiting opportunities for sustained engagement with structural determinants of climate vulnerability (Keller et al., 2022; WHO, 2019).

While there were encouraging signs of shifting media narratives in the year post-Cyclone Gabrielle, my study demonstrated the need for more consistent framing that prioritised health and wellbeing as central aspects of climate reporting. By adopting a health-centred, equity-driven approach to climate communication, Aotearoa regional newspapers can contribute to a

more informed and resilient society. Addressing climate change as a public health issue is not only a matter of raising awareness but also a critical step towards promoting social justice and protecting the wellbeing of all communities in Aotearoa.

My research further aimed to assess whether the narrative framing and underlying themes across the sample regional newspapers aligned with community psychology principles, including social justice, collective resilience, and ecological systems thinking. Community psychology emphasises the need for structural change to address climate inequities, yet my analysis demonstrated that regional online newspapers largely framed climate resilience as a matter of individual or local responsibility rather than as an issue requiring broader systemic transformation (Berghan et al., 2017). Although there were instances of community-centred reporting and increased visibility of health concerns after the cyclone, these efforts were not sustained or embedded in a broader equity-oriented framework. Regional newspapers framed climate resilience as a matter of individual or local responsibility, undermining opportunities for structural critique or systemic change. This approach falls short of community psychology goals, which prioritise collective action and address power imbalances that shape vulnerability.

Regional newspapers provided inconsistent representation of community voices, particularly marginalising those of Māori, who play a critical role in climate resilience through kaitiakitanga (guardianship) and Indigenous knowledge systems (Phillips, 2022; Ross, 2023). While some articles highlighted mātauranga Māori and local Māori perspectives, these were included reactively in the aftermath of Cyclone Gabrielle rather than as part of a sustained focus on community-driven adaptation efforts. This reinforces concerns raised in previous research about the marginalisation of Indigenous perspectives in climate discourse (King et al., 2007; Masters-Awatere et al., 2022). Enhancing Indigenous representation in regional climate reporting will require utilising Tiriti-based media practices and active engagement in kaupapa Māori journalism to promote more equitable and culturally responsive climate communication (Ross, 2023).

Contributing to research on journalism engagement with the topics of climate change and extreme weather before and after a significant weather event, my research offers novel insight into the response of online regional media in Aotearoa following an EWE directly impacting their respective regions. There was a significant increase in climate and EWE related articles published by the selected regional newspapers in the year following Cyclone Gabrielle, with over 89% of articles in my initial data collection occurring in this period. However, this surge in coverage did not equate to more solutions-focused or health-centred journalism. Rather, it reflected a pattern of crisis-driven reporting that lacks the consistency needed to

inform public understanding, promote action, or foster resilience. With Aotearoa online regional newspapers rely on reactive, event-driven coverage of climate and extreme weather impacts, future reporting must centre more solutions-oriented, locally relevant, and health-focused stories to promote community engagement in preparation and resilience efforts.

My research has important implications for regional climate reporting in Aotearoa regarding information accessibility and public engagement. First, regional newspapers must adopt sustained and proactive approaches to climate communication, framing climate change as an ongoing social and public health issue rather than reporting on discreet events in isolation. This shift is needed to challenge public perceptions of climate risks as distant, temporary, or exceptional. Second, Māori voices and Indigenous knowledge must be treated as central to climate reporting, not added in reactively or tokenistically. Their ongoing marginalisation undermines culturally relevant responses and ignores the leadership Māori communities provide in climate resilience through kaitiakitanga and mātauranga Māori. Third, regional news must move beyond elite and institutional sources to include grassroots, community-led stories that frame climate adaptation as a shared responsibility. Individualised framings ignore the structural causes of vulnerability and restrict who is seen as having a role in climate action. Crucially, information vital to community preparedness and wellbeing is being concealed behind paywalls. If climate communication is to be effective, it must be accessible. Excluding audiences most at risk and directly contradicts the role of journalism in serving the public good.

Overall, the findings addressed this thesis' research questions by demonstrating that while regional newspapers play a crucial role in climate communication, their framing of climate change and health remains largely reactive and event-driven. The temporary increase in health-focused climate reporting following Cyclone Gabrielle underscores the media's ability to act as a catalyst for public discourse but also highlights the challenge of sustaining engagement with long-term climate vulnerabilities. By incorporating more community-centred, equity-focused, and system-oriented reporting, regional media could better support public understanding, resilience, and policy action in response to climate change.

7. References

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Appendix A.

Search Results by Individual Search Term

Table A.1

Table of Search Results for Each Online Regional Newspaper by Individual Search Term

Key Search Term:	Publication and Site Search Filter			
	Bay of Plenty Times: site:nzherald.co.nz/ bay-of-plenty- times/	Waikato Times: site:waikatoti mes.co.nz/	site:https://ww w.stuff.co.nz/w aikato-times/	Gisborne Herald: site:www.gisborne herald.co.nz/
“global warming”	0	5	0	0
“climate change”	82	120	10	24
“Climate”	292	204	19	32
“global boiling”	0	0	0	0
“natural disaster”	3	2	2	5
“extreme weather”	43	10	1	25
“severe weather”	52	15	3	21
“cyclone”	131	84	9	211
“Gabrielle”	92	69	7	190
“storm”	250	85	20	43
“drought”	8	26	0	9
“disaster”	46	75	6	19
“flood”	167	46	13	41
“wildfire”	0	0	0	0
“natural hazard”	3	0	0	1
Total Results	1168		817	624
Total Results Excluding Duplicates	314		517	284

Appendix B.

List of Articles Included in Analysis by Publication

The Waikato Times

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- Murray Greenway, S., (2023, July 16). *How Rongōā Māori is returning to ancient ways of healing for today's wellbeing*. Waikato Times.
<https://www.waikatotimes.co.nz/a/wellbeing/350035732/how-rongoa-maori-returning-ancient-ways-healing-todays-wellbeing>

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<https://www.gisborneherald.co.nz/news/new-chapter-ahead-of-gisborne-couple-uprooted-by-cyclone-gabrielle>

Robertson, M., (2023, June 5). *LeaderBrand founder Murray McPhail honoured for services to horticulture.* Gisborne Herald

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Thatcher Swann, N., (2023, June 27). *Poor form during State of Emergency.* Gisborne Herald.

<https://www.gisborneherald.co.nz/column/poor-form-during-state-of-emergency>

Appendix C.

Example of Thematic Coding from the Sample

Excerpt Source: Campbell, Z., (2024, February 20). Failure to prioritise elderly, disabled in evacuations, research project reveals. Gisborne Herald. <https://www.gisborneherald.co.nz/news/failure-to-prioritise-elderly-disabled-in-evacuations-research-project-reveals>

<p>The elderly and disabled people are often forgotten during extreme weather events¹, a research project study has found.</p> <p>Many Cyclone Gabrielle stories emerged from the community-led project, which looked at the impacts of extreme weather events on health and wellbeing².</p> <p>The research revealed crucial findings spanning a range of areas that affect health and wellness³.</p> <p>This included reports of a woman stuck in her wheelchair as floodwaters rose to her neck⁴, and local rangatahi having to rescue elderly residents⁵.</p> <p>Te Weu Tairāwhiti presented its report titled “Research into health and wellbeing impacts of adverse weather conditions”⁶ at a Resilience Research Symposium at Midway Surf Rescue Community Hub last week.</p> <p>“Our most vulnerable members of our community, our pakeke (elderly) weren’t prioritised when it came to evacuation⁷,” researcher Hiria Philip-Barbara said.</p> <p>The research showed that when disaster struck, older people who live alone can be forgotten⁸.</p> <p>“A lot of them weren’t evacuated by officials but were evacuated by locals. It was our rangatahi, our young people, that went in and saved their pakeke”⁹ Ms Philip-Barbara said.</p> <p>Haley Maxwell, a researcher and projects manager of Tautua Village which works with rangatahi, said: “We don’t really acknowledge or allow our rangatahi to speak¹⁰.”</p> <p>Some youth felt helpless and unsure how to help their communities while others were integral to recovery initiatives and played key roles in supporting their community’s recovery¹¹.</p> <p>“Our kids really want to be able to help, and it’s up to us (adults) to allow them to have that space¹²,” Ms Maxwell said.</p> <p>The disabled communities also felt vulnerable,¹³ the research found.</p> <p>“There was a lady who was stuck in her wheelchair and by the time people found her, the water was at her neck¹⁴,” Ms Philip-Barbara read from an anonymous participant statement.</p> <p>Ms Philip-Barbara, who is in a wheelchair herself, added that disabled people often had compromised immunity and felt anxiety when they could not clean due to water restrictions.¹⁵</p> <p>This made the situation of being isolated from the hospitals even more stressful¹⁶.</p> <p>“Then once the adrenaline dies down that’s when we get flares. That gets exacerbated by the stress and the anxiety from the weather event itself¹⁷.</p> <p>The stress continued long after the event when dealing with issues such as insurance¹⁸.</p>	<p>Identified Frames</p> <ul style="list-style-type: none">• Economic Impact and Industry Concerns: (18) Ongoing financial impacts from insurance after event• Disaster Response and Resilience: (1,4,5,7,8,9) Elderly and disabled were not centred during official evacuation response efforts (5,9,11) Youth led the response in evacuating elderly and disabled left behind by officials (13,15,17,18) Disabled and elderly do not have contingencies for resilience following an EWE, health wise -sanitation, medical facilities, mental health services for stress- and financially -navigating economic and structural barriers with insurance• Community-Oriented Coverage: (1,2,4,5,7,8,9,13,14,15) Platforming local community voices and experiences, advocating for marginalised members of their community, collaborative research approach to enable representation of diverse perspectives. (9,10,11,12) Providing opportunities for youth to self-advocate, and engage in community resilience efforts. Demonstrating the desire of youth to be involved in discussions on resilience and response efforts.• Health and Wellbeing: (2,3,4,5,6,7,9,14,15,16,17,18) Presents health and wellbeing following an EWE from a broad perspective, including both medical needs, as well as mental, social, and institutional factors. Considers both immediate impact during an EWE, and the prolonged effects following on into the long-term recovery. <p>Identified Themes</p> <ul style="list-style-type: none">• Risk and Responsibility: (1,7,9) Officials responsible for evacuation failed to account for elderly and disabled needs during an EWE (15, 18) Lack of appropriate contingency both immediate and long-term for assisting elderly and disabled in engaging with health and financial systems. (5,9,11,12) Youth sense of responsibility for assisting the community, and official responsibilities for evacuating disabled and elderly displaced onto youth, who can also be a vulnerable group needing consideration.• Resignation and Senses of Helplessness: (1,4,7,8,14,15,16,17) Elderly and disabled feeling unable to address their own care needs, but lacking help from officials. (10,11,12) Youth feeling helpless and lacking recognition of their experiences and desire to help
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Appendix D.

Ethics Committee Letter of Approval

*Te Wānanga o Ngā Kete | Division of Arts,
Law, Psychology & Social Sciences*

The University of Waikato
Private Bag 3105
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THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Lauren Morgan

Professor Bridgette Masters-Awatere

School of Psychological and Social Sciences
Psychology Programme

11 October 2024

Dear Lauren

Re: **FS2024-39: Local Perspectives on Climate Change: An Analysis of Media Framing in Online Regional Newspapers in Aotearoa**

Thank you for submitting your revised application to the ALPSS Human Research Ethics Committee. We have reviewed the final electronic version of your application and the Committee is now pleased to offer formal approval for your research activities.

We encourage you to contact the committee should issues arise during your data collection, or should you wish to add further research activities or make changes to your project as it unfolds. We wish you all the best with your research. Thank-you for engaging with the process of Ethical Review.

Kind regards,

A handwritten signature in black ink, appearing to be 'Oleg Medvedev'.

Dr Oleg Medvedev, Convenor
Division of Arts, Law, Psychology & Social Sciences Human Research Ethics