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Advancing disaster geographies: From marginalisation to inclusion of gender and sexual minorities

Billy Tusker Haworth[1,2] 🔗 | Scott McKinnon[3] 🔗 | Christine Eriksen[4] 🔗

[1]School of Geosciences, University of Sydney, Sydney, Australia

[2]Humanitarian and Conflict Response Institute, University of Manchester, Manchester, UK

[3]Australian Centre for Culture, Environment, Society and Space, University of Wollongong, Wollongong, Australia

[4]Center for Security Studies, ETH Zurich, Zürich, Switzerland

Correspondence
Billy Tusker Haworth, School of Geosciences, University of Sydney, Madsen Building, Sydney 2006, Australia.
Email: billy.haworth@sydney.edu.au

Abstract

Despite growing awareness and research into experiences of gender and sexual minorities – also known as lesbian, gay, bisexual, trans, queer, intersex, asexual and other identities (LGBTQIA+) – their needs and capacities are often overlooked in crisis response and disaster risk reduction. LGBTQIA+ peoples' vulnerability is shaped by social marginalisation, discrimination, and stigma, and exacerbated by dominant value systems and Western heteronormative framings of disaster experiences. We present a review of scholarship into gender and sexual minorities and disasters. We summarise extant knowledge and identify areas for growth in the field of disaster geographies. We argue that progress requires increased conceptual and methodological focus on diversity and the intersectional factors that exacerbate marginality, more inclusive knowledge production pathways focussed on risk reduction, and establishing methods for LGBTQIA+ people to be involved in research about them. More critical and inclusive research will not only aid progress in disaster geographies; it will also provide vital evidence with which to lobby policymakers and disaster management to pay closer attention to diversity and inclusion. By moving beyond normativity, cisgender-heterosexual assumptions, and homogenising identity labels, we can begin to address

social, cultural, and political factors that determine spatial inequalities, marginalisation, and disaster vulnerability for gender and sexual minorities.

1 | INTRODUCTION

Disasters are a product of vulnerability (Wisner et al., 2004), resulting from societal conditions and choices, which create systemic inequalities and marginalisation that, in turn, increase disaster risk for some groups and individuals (Kelman, 2020; Sword-Daniels et al., 2018). Hence, minority and socially marginalised groups, such as lesbian, gay, bisexual, trans, queer, intersex, asexual and other minority gender and sexual identities (LGBTQIA+),[1] are some of the most vulnerable to disasters (Gaillard, Gorman-Murray, et al., 2017; Gorman-Murray et al., 2018).

In recent decades, disaster management scholarship and practice have begun reducing emphasis on hazard responses, instead shifting their energies towards understanding vulnerabilities and disaster risk reduction (DRR) (e.g., UNDRR, 2005; UNDRR, 2015). The reimagined goal of many disaster management policies and agendas is to build disaster resilient communities (UNDRR, 2015). Resilience is a contested concept with diverse interpretations (Cretney, 2014). However, at its core, disaster resilience relates to capacities of individuals and communities to withstand the impacts of hazards and adapt to be better prepared in the future (Haworth et al., 2018). To build disaster resilience, we must understand who needs to be more resilient and why. Social characteristics alter people's risk exposure or their ability to cope with negative impacts.

Despite growing awareness of disasters as "gendered social experiences" (Enarson & Morrow, 1998; Enarson & Pease, 2016), consideration of gender and sexual minorities is still often absent in DRR and emergency management strategies. Research shows how LGBTQIA+ people experience unique disaster vulnerabilities linked to inequality and marginalisation (Gorman-Murray et al., 2016, 2018; Matthijsen, 2018). Yet, disaster management policies have traditionally been written by and for predominant groups (Eriksen, 2014), excluding the needs of minorities, such as LGBTQIA+ people (Dominey-Howes et al., 2016; Seglah & Blanchard, 2021). This 'oversight' extends to the development sector (Mills, 2015). The United Nations (UN) Sustainable Development Goals (SDGs; UN, n.d.b) also overlook gender and sexual diversity. The language of Goal 5 ("Gender equality") is exclusionary and reinforces a male/female binary perspective on gender that excludes the lived experiences of gender and sexual minorities (Ongsupankul, 2019). Erasure of LGBTQIA+ people in the SDGs is significant, as the SDGs guide international development projects. It acts as a disincentive for states to devise inclusive policies and practices (Majeedullah et al., 2016).

This absence has direct impacts on the disaster experiences of LGBTQIA+ people. Following the 2010 Mt. Merapi eruption in Indonesia, emergency workers recorded information about evacuees according to a male/female binary. This policy directly excluded members of the local *waria* population, a 'third gender' group who are assigned male at birth, dress in attire traditionally associated with females, and identify as neither male nor female (Balgos et al., 2012). Similar experiences have been identified among *aravanis* people in Tamil Nadu, India (Pincha & Krishna, 2008) and *baklas* in the Philippines (Gaillard, 2012). Absent from official records, prevented from utilising female facilities, and at risk of abuse or violence in male facilities, these populations face significant risk because of cis-white-heteronormative policy and practice.

Research and policies have also tended to homogenise the vulnerabilities of minorities, disregarding the complexity of intersecting traits and contextual factors, which produce a diversity of vulnerability within marginalised groups (Gorman-Murray et al., 2010; Hopkins, 2019). Gender and sexual identity are complex constructions

that vary between individuals (Sedgwick, 1993). Any individual's experiences of marginalisation are shaped by the intersections of multiple social factors (e.g., gender, race, class) that determine power relations (Crenshaw, 1989). Gaillard, Sanz, et al. (2017) argue that the male/female dichotomy is an insufficient construct with which to address the gendered dimensions of disaster. The framing of LGBTQIA+ experiences as homogeneous can further inequalities, with the voices of more visible or dominant groups, such as gay cisgender men (McKinnon et al., 2017a), being viewed as representing all LGBTQIA+ experiences.

The field of disaster geographies has a history of grappling with socio-cultural dimensions of disasters, sometimes positioned as an alternative but complementary branch of inquiry to research paradigms more concerned with hazards (Dominey-Howes, 2018). Thinking in disaster geographies draws on a diverse canon of social science theories and approaches. It goes beyond hazards to consider topics like, for example, the historical, political, and social structures that operate as root causes of vulnerability and resilience (Wisner et al., 2004), black feminism and radical planning frameworks for understanding factors of racism, classism, and sexism in disaster planning (Jacobs, 2019), or the importance of acknowledging vicarious trauma associated with conducting disaster research (Eriksen, 2017).

Research in disaster geographies into sexual and gendered social experiences and vulnerability has reached a pivotal moment, requiring critical reflection and analysis to advance the current state of knowledge. That social marginality exacerbates the vulnerability of gender and sexual minorities is well-established in the literature reviewed for this paper. However, this has not yet been sufficiently recognised and translated into policy (though, some guidelines for supporting this process do exist, e.g., GAD Pod, 2016), nor has it sufficiently disrupted cis-white-heteronormative and patriarchal frameworks that dominate disasters research more broadly.

In this paper, we review academic research into gender and sexual minorities and disasters, aiming to summarise extant knowledge and debates and identify areas for advancing disaster geographies towards greater inclusion of gender and sexual minorities. Below, we review the state of the field, identifying geography as a leading discipline in this research; noting thematic concentrations on vulnerabilities, and a focus on qualitative methodologies; and outlining key recommendations from the literature. In Section 3, we argue that advancing the field requires moving beyond the conceptual and methodological frameworks that have shaped its development. We call for research which looks beyond normative definitions and categorisations of sexuality and gender; which addresses the root causes of vulnerability while seeking to empower LGBTQIA+ people; and which more broadly considers how and by whom such research is conducted.

2 | STATE OF THE FIELD

2.1 | Geography as a leading discipline

Geography is inherently linked to socioeconomic factors shaped by broader historical, political, ideological, and other factors of place and space that create inequality, marginalisation, and associated vulnerability among particular identities. Human geography has long been recognised for its widely translatable and applicable concern with the meaning and (changing) organisation of places and space (Morrill, 1983). Stemming from activist and academic black feminism (Crenshaw, 1990), human geography has a history of investigating everyday life and identity through the important notion of intersectionality (Hopkins, 2019), with precise pertinence to gender and sexuality (Brown, 2012), and the tracing of individual experiences and lives beyond normative binaries (Johnston, 2016). Dominey-Howes et al. (2014) described how feminist geography and, relatedly, the disciplinary sub-fields of geographies of sexualities and queer geographies, elicit important insights into inequalities through lenses of gender and sexuality, which are highly applicable to marginality and disaster vulnerability. Johnston (2018, p. 929) informs, "feminist and queer geographers are able to examine how genders and sexualities matter when faced with the fragmentation of societal bonds, social and political governance, senses of entitlement and feelings of belonging".

Queer and feminist geography has also been a place for challenging heteronormativity and advocating for positive social change (Johnston, 2017). Gaillard, Gorman-Murray et al. (2017) describe a much more established engagement

with gender and sexuality in geography compared to other fields. Geographers have been the most critical of heteronormative and gender-normative structures and practices in DRR, and, importantly, critical of themselves. They recognise diversity and complexity, and the need to work beyond fixed male/female and heterosexual/homosexual binaries, which reinforce conventional social discourse (Gaillard, Gorman-Murray, et al., 2017).

There was limited interest in gender by disaster scholars until the 1990s. Since then, most work has concerned gender as relating to (cisgender) women (Gaillard, Gorman-Murray, et al., 2017). Research into gender and sexual minorities in disaster is even more recent, with growth aligned to studies following key events, such as the 2004 Indian Ocean Tsunami (Pincha & Krishna, 2008) and Hurricane Katrina in 2005 (D'Ooge, 2008; Stukes, 2014). Gaillard, Gorman-Murray et al. (2017) provide a fuller account of this growth.

Global policy agendas, such as the Hyogo Framework for Action 2005–2015 (UNDRR, 2005), Sendai Framework for DRR (UNDRR, 2015), Millennium Development goals (UN, n.d.a), or the SDGs (UN, n.d.b), have placed increased emphasis on addressing individual and community vulnerabilities, disaster preparedness, and building resilience. These goals place emphasis on inequality and marginalisation because of the inherent link to vulnerability (Sword-Daniels et al., 2018). This, in turn, may have influenced research agendas. However, it is difficult to ascertain the influence such policy trends have had on work relating to disasters and gender and sexual diversity, as none of them explicitly highlight these issues. The Sendai Framework for DRR and the SDGs, for example, both describe goals relating to gender inequalities, but almost exclusively refer to gender as the normative binary of heterosexual men and women (and boys and girls), thus marginalising gender and sexually diverse identities (Mills, 2015).

2.2 | Vulnerabilities

Published work thematically agrees on the vulnerability of, and uneven disaster impact on, gender and sexual minorities. These vulnerabilities are linked to social marginalisation, discrimination, and stigma (Alessi et al., 2018; Gorman-Murray et al., 2017; McKinnon et al., 2017b). They are exacerbated by various factors, including the lack of inclusion of LGBTQIA+ people and needs in disaster, emergency management, and/or development policies (Dominey-Howes et al., 2014; Gaillard, Gorman-Murray, et al., 2017; Sauer & Podhora, 2013; Yamashita et al., 2017); conflict with dominant religious beliefs and value systems (Dominey-Howes et al., 2016; Urbatsch, 2016); and Western heteronormative framings of disaster management and disaster experiences (Dominey-Howes et al., 2014; Gaillard, Sanz, et al., 2017; Gorman-Murray et al., 2014; McKinnon, 2017).

This vulnerability is most often described in the context of disaster response and recovery, reflecting methodological focus on giving visibility to survivor experiences through post-disaster interviews and surveys. Disaster risk reduction for gender and sexual minorities receives little attention. Likewise, comparatively little attention is given to coping capacities and resilience qualities developed through lived experiences of marginality alongside vulnerabilities (hooks, 1989a). Exceptions include discussion of LGBTQIA+ social support networks and capacities observed during disaster relief and recovery in Australia (Gorman-Murray et al., 2017) and the Philippines (McSherry et al., 2015), and during the Covid-19 pandemic (Haworth, 2022), and a focus on community resources and capabilities of trans people for DRR in West Hollywood (Wisner et al., 2017).

2.3 | Diversity

Scholarship to date demonstrates diversity in terms of study participants, subjects, and who is included under the umbrella of gender diversity and sexual identities. McKinnon et al. (2017a) describe biases in media reporting of LGBTQIA+ experiences of disasters, whereby the voices of gay men are often (problematically) perceived to represent the voices of all LGBTQIA+ people. This dominance of gay male voices and their privilege within LGBTQIA+ populations has been argued to exacerbate vulnerability for lesbians, bisexual and trans women in disaster

responses (Gorman-Murray et al., 2016). Though some scholarship focuses on gay men (e.g., McKinnon et al., 2017b; Richards, 2010; Urbatsch, 2016), other studies have devoted attention elsewhere, such as to young queer women (Overton, 2014), transgender individuals (Gorman-Murray et al., 2018), and *bakla*, *waria*, and *fa'afafine* (identities outside Western gender norms; Gaillard, Sanz, et al., 2017; McSherry et al., 2015).

LGBTQIA+ people are often described as one collective, marginalised community. Reported experiences of individual groups are therefore by extension, intentionally or otherwise, portrayed as representative of all gender and sexual minorities. Some authors have acknowledged this as an area to address in future work, asserting the importance of recognising heterogeneity and diversity of experiences, and marginality between groups and individuals *within* LGBTQIA+ communities, and in relation to intersections with race, socioeconomic status, language, culture, education, and more (Dominey-Howes et al., 2014; Gorman-Murray et al., 2017). Exceptions that do highlight intersectional diversity are Ong's (2017) examination of inequalities within LGBTQIA+ groups and lower versus middle class gay men, and Cassal and Haworth's (2021) discussions of Covid-19 experiences and inequalities within LGBTQIA+ populations in Brazil related to race, gender, and class.

2.4 | Qualitative research

A lack of studies and evidence currently inhibits greater recognition of diversity (Dominey-Howes et al., 2014). Researchers have described difficulty in recruiting diverse participant samples in studies of gender diversity, sexuality, and disasters (Cassal et al., 2021; Stukes, 2014). These limitations are particularly salient, as qualitative methods have dominated the field to date, such as interviews, focus groups, and surveys, or analysis of secondary sources. Given the invisibility of LGBTQIA+ lives in disaster research until the 2000s, these studies have been valuable in establishing gender and sexual diversity as necessary components of inclusive and effective geographical research. Interviews have given voice to previously silenced or ignored groups. Through stories of disaster survival, escalating impacts of marginality and discrimination are revealed within the already traumatic experiences of disaster. These methods will continue to be valuable in future research. However, we argue in Section 3 that an expanded methodological focus is necessary. First, to ensure that individuals who are reluctant to participate in an interview or survey for fear of revealing their sexual or gender identity are still able to communicate their experiences. Second, to move beyond the predominant focus on disaster response and recovery, towards methods that build capacity and foster participation in DRR policy and practice.

2.5 | Recommendations from the literature

Recommendations for future research, policy, and/or practice relating to gender and sexual diversity and disasters coalesce around four key areas.

First, scholars call for greater inclusion, representation, and visibility in multiple forms (e.g., McKinnon et al., 2017a). Informed by academic work, better integration and advocacy is needed of sexuality, gender diversity, and non-heteronormative perspectives into disaster and humanitarian policies and procedures. This includes recognition of the intended and unintended impacts of disaster and humanitarian programmes that do, or do not, account for gender and sexual diversity (Alessi et al., 2018; Dominey-Howes et al., 2014; Gaillard et al., 2017a, 2017b; Gorman-Murray et al., 2014, 2018; Hilhorst et al., 2018; McSherry et al., 2015; Sauer & Podhora, 2013).

Second, increased policy integration, awareness, and better planning can be achieved through increased participation of LGBTQIA+ people and their representative organisations in planning processes, whereby they can define their own needs and experiences (Cassal & Haworth, 2021; Dominey-Howes et al., 2016; Gaillard, Sanz, et al., 2017; Haworth, 2021; Sauer & Podhora, 2013). This could include awareness training for disaster/humanitarian agencies, stakeholders, and broader populations into LGBTQIA+ marginality and related issues (Alessi et al., 2018; Gorman-Murray et al., 2018).

Third, intersectional approaches are needed in research and DRR policies to enable deeper understanding of marginality and experiences of gender and sexual minorities in relation to race, class, age, education, language, religion, and other dimensions (Cassal & Haworth, 2021; Dominey-Howes et al., 2014, 2016; Gorman-Murray et al., 2017; Haworth, 2021; Overton, 2014; Richards, 2010).

Fourth, while more work is needed generally to document LGBTQIA+ experiences of disasters (Dominey-Howes et al., 2016; Urbatsch, 2016), more varied research is also required; more varied research contexts, locations, and methods (Dominey-Howes et al., 2022). Further research and policy work is needed to understand and enhance LGBTQIA+ peoples' coping capacities and resilience in disasters beyond considering vulnerabilities (Gorman-Murray et al., 2017, 2018; Haworth, 2022). Next, we build on this literature analysis to present ways forward to advance the field.

3 | ADVANCING THE FIELD

3.1 | Beyond normativity

Much extant disaster research adopts a normative framing of gender and sexuality. Even works that highlight and challenge culturally engrained gender norms largely engage with a male/female gender binary and heterosexuality (e.g., Whittaker et al., 2016). Several authors have called for a move beyond white, binary cisgender and heterosexual (Western) norms in understanding and reducing LGBTQIA+ disaster vulnerabilities (Dominey-Howes et al., 2014; Gaillard, Gorman-Murray, et al., 2017; Gorman-Murray et al., 2014; Rushton et al., 2019).

Just as feminist activism scholarship highlighted the interconnectedness, and widening scope, of axes of oppression for women through the lens of black women, racism, sexism, and class (hooks, 1981, 1984), and later intersectionality (Crenshaw, 1989), critical geography and disasters scholarship needs to look beyond singular or binary approaches, that is, cis-white-heteronormative versus 'other'. The diversity of identities and experiences within the so-called 'LGBTQIA+ community' demands we look for intersections of marginalisation among the groups within this 'community' and examine and resist the structures that frame their collective experiences as one 'group'; as 'other'. If a singular focus on liberation from structural racism is a goal, then black women remain oppressed through structural sexism and reproduction of the patriarchy (hooks, 1981). Similarly, if a singular focus on liberation from homophobic oppression is a goal, then many members of LGBTQIA+ populations remain oppressed through other forms of structural and systemic social inequalities.

If we seek to address vulnerability and marginalisation of LGBTQIA+ people but do so only through a traditional cis-white-heteronormative frame, then we risk furthering divides within LGBTQIA+ populations. This is because those most conforming to, and already benefiting from, existing power and societal structures stand to profit the most, such as white males, those who can and choose to get married, and those with cisgender identities. Eddo-Lodge (2018) offers a perspective on contemporary feminism, which seeks not equality of the sexes but rather liberation from the structures, power dynamics, and standards that societies have built. These dictate how people behave and are treated in the world, and subordinate women, people of colour, and other non-white patriarchal identities. We argue for a similar approach to advance disaster geographies for gender and sexual minorities. Moving beyond cis-white-heteronormative analyses in disaster management and research can lead to analytical framings that elicit and accommodate diverse identities and needs, rather than trying to make them fit into a system built to neglect and exclude.

This will require critical examination of the systems of privilege that produce inequality and marginality. If gender and sexual minorities experience increased vulnerability not inherently because of their identity, but because of the societal and political processes that increase their disadvantage and exclusion, then the structures and conditions of privilege, and the role of those advantaged by power in dominant oppressive structures, must be critiqued. Pease's (2010, p.128) exploration of "institutionalised heterosexuality and heteroprivilege" is instructive. It shows

how normativity of (cis)gender and (hetero)sexuality results in associated privileges being assumed and unquestioned. To address LGBTQIA+ marginality effectively, the assumed naturalness of heterosexuality must be interrogated as socially and systematically constructed (Pease, 2010).

As long as heteronormativity persists, so too will heterosexism, which increases the likelihood of homophobia and/or exclusion of non-heterosexual identities. Heterosexuality viewed as 'normal' implies LGBTQIA+ identities must be 'abnormal' (Katz, 1995). Because of traditional and pervasive heteronormative conceptions of citizenship and family structures, discrimination can persist even in countries where homosexuality has been decriminalised (Johnson, 2002). Issues surrounding normative assumptions of the (hetero)sexuality of citizens are integral to struggles for LGBTQIA+ rights (Johnson & Mackie, 2020).

3.2 | Beyond categories

As a first step, researchers and policymakers should look beyond labels and categories that predefine minorities' experiences as uniform, and LGBTQIA+ people as uniformly vulnerable (Bryan & Mayock, 2012). There are as many different experiences of any gender and sexual identity as there are individual people. Collective terms (such as "LGBTQIA+") are useful and there is power and collaborative strength in operating as a 'collective voice', particularly in campaigning against common oppressions. Recent efforts to define a specifically "LGB" politics, which excludes and delegitimises transgender and non-binary people/identities, disrupts this collective voice by embracing cis-normative (and arguably transphobic) ideas of gender (McLean, 2021). Yet, LGBTQIA+ and similar groupings can also homogenise and mask other identity factors that inform diversity and inequality, such as race, nationality, or class (Anzaldúa, 1991).

Arguments against monolithic and static understandings of sexuality and gender identities are not new (e.g., Galupo et al., 2016; Sedgwick, 1993), yet such limited interpretations have persisted in disaster studies, policy, and practice. While LGBTQIA+ people may have some shared experiences, including of stigma and marginalisation, portraying LGBTQIA+ people as uniformly vulnerable furthers the narrative of LGBTQIA+ people as 'other' compared to cisgender heterosexual lives (Rasmussen, 2006). In this way, placing all LGBTQIA+ people together, without more careful and nuanced analysis, is itself an act of normativity.

We also know that in many cases normative categories simply do not work for representing lived experiences. For example, the transgender experience of sexuality is often misrepresented. Galupo et al. (2016, p. 93) describe how a

> general conflation of gender identity and sexual orientation often leads researchers focused on sexual minority experience to conceptualise sexual orientation based on cisgender assumptions (Galupo, Davis, et al., 2014) and researchers focused on transgender experience to conceptualise gender identity based on heterosexual assumptions (Galupo, Bauerband, et al., 2014).

Historically, transgender people have not always felt included in the 'LGBTQIA+ community' (Fassinger & Arseneau, 2007). Issues around sexuality, and lesbian and gay experiences, have taken priority in LGBT liberation movements, and genderqueer identities have been excluded from trans movements (Catalano & Griffin, 2016). Looking beyond LGBTQIA+ people as a uniform community will enable more accurate comprehension of the diversity of experiences, including inequalities and marginality *within* LGBTQIA+ populations. This includes between different subgroups (e.g., transgender people are often more stigmatised than gays and lesbians; Weiss, 2004), and within subgroups. Moving disaster geographies beyond cis-white-heteronormative categories (and stigmatising categories more broadly) to better recognise LGBTQIA+ diversity will allow for more informed assessment of the influences of culture and society on LGBTQIA+ lives, disaster vulnerability, and coping capacities.

3.3 | Beyond disaster response

The concentration in existing literature on response and recovery in part reflects a similar emphasis in disaster policies. Globally, many governments prioritise reactive funding models. In Australia, for example, it is estimated that 97% of all disaster funding is allocated to response and recovery while only 3% is spent on mitigation, preparedness, and resilience (Coppel & Chester, 2014). This is despite growing evidence that an increased focus on DRR would reduce loss of life and the financial costs of disaster, mitigating negative impacts on health and wellbeing (DAE, 2017; de Vet et al., 2019). For governments, emphasising disaster response over mitigation keeps disaster spending off the budget and provides political opportunities to display acts of leadership and apparent generosity during disasters (de Vet et al., 2019).

A reactive approach also avoids the more challenging process of addressing the root causes of vulnerability (Dominey-Howes, 2018; Wisner et al., 2004). Kelman (2020, p. 137) states, "reducing vulnerability through social change could be widely achieved. Instead, active choices allocate the money available to activities creating vulnerability". Maintaining or exacerbating the vulnerability of marginalised groups is thus a choice made by those in power. Addressing its causes requires significant social, political, and economic commitment to initiate change. An important focus of future research is to identify policies inside and outside disaster management that directly or indirectly create vulnerability. Dominey-Howes et al. (2016), for example, demonstrate how religious organisations are granted exemptions under anti-discrimination legislation in New South Wales, Australia, including in provision of post-disaster services. Even if not acted upon, this ultimately marginalises LGBTQIA+ people in disasters (although, see also Stukes (2014) re capacity building through queer religious organisations). Similar policy analysis would offer a valuable research pathway through which to understand how specific policy decisions influence the everyday marginality of LGBTQIA+ people – marginality magnified during disasters. As such, policy reform can be seen as a form of DRR, reducing the social conditions that produce vulnerability.

Another research pathway is to identify and empower existing organisations and networks through which LGBTQIA+ people currently mitigate their own vulnerability. Research identifies the value of LGBTQIA+ community support organisations and informal friendship and family networks to crisis response and recovery (Gorman-Murray et al., 2018; Haworth, 2021; Larkin, 2019). These organisations and networks could equally contribute to DRR. The response of LGBTQIA+ community organisations to the human immunodificiency virus (HIV)/acquired immunodificiency syndrome (AIDS) epidemic offers a valuable model. Often in the absence of government support—and often in the face of government hostility—LGBTQIA+ people responded to the AIDS crisis by establishing organisations of their own. Through these, they supported community members and developed and implemented risk reduction programs (Brown, 1997). There is substantial existing knowledge within LGBTQIA+ populations about how to reduce vulnerability to, and during, crises. Future research must be attentive to the ways existing support organisations and networks can both benefit and exclude individuals or identity groups within LGBTQIA+ populations, for example, based on race, gender identity, or bodily ability (Johnston, 2016).

3.4 | Expanding methodologies

As 2.4 outlines, qualitative interviews, questionnaires, or analysis of secondary sources have dominated research to date. While these methods continue to have value, there is a need for more creative, inclusive, and spatial methods, and for critical reflection upon *who* is conducting and involved in research.

First, larger, and more diverse samples will facilitate greater disaggregation of data and analyses along different axes to assess diversity within LGBTQIA+ populations. There are important links between stigma and civic participation, such as transgender individuals not accessing healthcare (Samuels et al., 2018), or people living with HIV not participating in community support groups (Mburu et al., 2014), because of fear of identity disclosure and discrimination. This fear may be extended to research participation, where certain people may not undertake interviews or

complete surveys to avoid exposure or stigma (Baez, 2002). While we recognise confidentiality processes in qualitative research methods and reporting, these do not necessarily always equate to anonymity (Surmiak, 2018) (especially for marginalised people in small and targeted samples/contexts). Further, promises of confidentiality may not negate the *fear* of participation felt by potential research participants if they do not have strong awareness of or trust in such processes, which can be especially the case for people with long histories of social disadvantage resulting in low levels of trust in mainstream authoritative systems (Bonevski et al., 2014). Others have suggested that involving community groups can be useful in addressing recruitment barriers relating to mistrust (Bonevski et al., 2014). We suggest larger sample sizes may also encourage greater participation by reducing perceived risks like individual identification.

Second, research should more explicitly account for space in LGBTQIA+ marginality and disaster experiences. Personal safety, increased risk, and vulnerability are highly influenced by space. Examples include the destruction of important physical spaces for LGBTQIA+ people in disasters (Dominey-Howes et al., 2014), safe spaces in disaster response and recovery (McKinnon et al., 2017a), and the significance of online space (Ong, 2017). While human geography is germane to LGBTQIA+ disaster experiences, there has been a lack of explicit investigation of space relating to intersectionality as a determinant of diversity in LGBTQIA+ disaster experiences. Other areas of geography have employed methods that could be utilised more frequently in LGBTQIA+ disaster studies, such as geographic information systems applied through a feminist lens to understand influences and limits on everyday spatial patterns and behaviours of minority identities (Kwan, 2002).

Third, we argue for increased critical reflection upon research ethics. Who is conducting research into gender and sexual minorities? Who is making policies? How can we increase the influence of LGBTQIA+ voices? If institutional structures continue to exclude, we must develop research practices that enable marginalised people to advocate for themselves. For example, due to a lack of diversity in faculty and research positions, scholarship on trans embodiment, subjectivity, culture, and activism in the Global South has largely been conducted by non-trans academics, often in the Global North (Rizki, 2019). Moreover, due to discrimination and exclusion, trans and non-binary people are less likely to be in formal and/or higher education, which limits access to research and publication opportunities (Rizki, 2019). We must question whose voices we are listening to, and who is able to speak for whom. Who does our research empower, and how appropriate is it for more powerful groups to conduct work for or about those less powerful (Valdivia, 2002)? How valid is research about gender and sexual minorities when conducted and interpreted by cisgender heterosexuals?

We do not suggest that 'outsiders' of the groups being studied cannot carry out meaningful and ethical research. But we suggest that more reflection on research practices, validity, and limitations of interpretations, and power dynamics that influence research outcomes, should be included in research concerning gender and sexual minorities in disasters. hooks' (1989b: 44) statements on feminist and race research are enlightening: "scholars who write about an ethnic group to which they do not belong rarely discuss in the introductions to their work the ethical issues of their race privilege, or what motivates them, or why they feel their perspective is important". Johnson (2008) describes how researchers who have centred themselves within their research are aware of their personal position, and have explored creative alternatives for crossing class, gender, ethnicity, and other social divides. Increased consideration for, and transparency of, positionality is needed in disaster geographies, especially where research informs DRR policy and practice.

Active inclusion of gender and sexual minorities in research methods, not only as research subjects, will support initial progress. This will not completely dismantle the confines of existing power-, patriarchal- and normative-structures, which pervade academic research and disaster management. However, it can begin to address some of the issues raised above. A project in El Salvador, Trinidad and Tobago, Barbados, and Haiti provides an example of such an approach. The project sought to "document experiences of gender-based violence and transphobia in healthcare, education, and police encounters" (Lanham et al., 2019, p. 37). Transgender women were trained to interview other trans women, to facilitate more in-depth understandings of how the challenges they face can be considered in development projects. The women were also involved in participant recruitment and data interpretation, playing an active part in shaping the research and results from their own perspectives and positionalities.

We acknowledge here, however, the importance of considering vicarious trauma in co-produced research, whereby researchers can potentially be (re)traumatised if/when exposed to difficult or sensitive topics and activities, as other geographers have previously described (e.g., Eriksen, 2017; Klocker, 2015).

4 | CONCLUSION

Recognition of the vulnerability and resilience of LGBTQIA+ people to disasters has shifted from being almost entirely absent in disaster policy and geographical research, to an acknowledged and developing area of study and reform. In this paper, we reviewed the current state of knowledge with the dual intention of highlighting absences and conceptualising ways forward for more LGBTQIA+ -inclusive disaster research, policy, and practice.

Research to date has revealed how discriminatory and cis-white-heteronormative policy and practice (re)produce the vulnerability of LGBTQIA+ populations. However, more research is needed to better understand how uneven levels of marginality and privilege *within* LGBTQIA+ populations exacerbate vulnerabilities for some subgroups and individuals. Johnston (2016, p. 672) argues, "too little attention is given to the gendered embodied differences of LGBTIQ community members, and transgender people in particular". While Johnston sees continuing political value in the LGBTQIA+ acronym, she also calls for "specific attention" to be "given to trans and gender variant subjectivities." In disaster geographies, and human geography more broadly, a tension remains regarding the use of the LGBTQIA+ acronym: it is both valuable for understanding and bringing attention to vulnerabilities of gender and sexual minorities, and potentially masks the specificities of experience and heightened degrees of marginality within groups.

We argue that inclusive research, heightened research ethics and reflections on positionality, and a strengthened focus on the experiences of trans and gender minority groups would offer important contributions. It is critical that theoretical or conceptual advances form the basis of policy reform. Gaillard and Mercer (2013) advocate for DRR policies that enable collaboration of diverse stakeholders for inclusive DRR. Further research is needed, first, to better understand the capacities of LGBTQIA+ people as stakeholders in DRR policy, and second, to identify and remove discriminatory hurdles limiting LGBTQIA+ voices.

Geographical insights must continue to debunk cis-white-heteronormative assumptions and approaches. More critical and inclusive research will address knowledge gaps and provide vital ammunition with which to lobby policymakers and disaster management to pay closer attention to diversity and inclusion. Ultimately, the pathway from marginalisation to inclusion of gender and sexual minorities starts with the end of neoliberalism and a toppling of the patriarchal power structures that uphold cis-white-heteronormativity.

ORCID
Billy Tusker Haworth https://orcid.org/0000-0002-4191-9502
Scott McKinnon https://orcid.org/0000-0002-8903-7824
Christine Eriksen https://orcid.org/0000-0002-2906-9680

ENDNOTE

[1] There are different terms for these populations, with varying connotations. In this paper, we adopt the terms *LGBTQIA+* and *gender and sexual minorities* interchangeably to include any/all non-cisgender, non-heterosexual, and/or non-normative identities, including those in non-Western contexts.

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AUTHOR BIOGRAPHIES

Billy Tusker Haworth is a Research Fellow in the School of Geosciences, University of Sydney, and Honorary Affiliate of the Humanitarian and Conflict Response Institute, University of Manchester. Their main research areas include critical and participatory GIS, disaster vulnerability and resilience, LGBTQIA+ marginality, and graffiti in

conflict-affected spaces. Recently, Billy led a project researching the experiences of LGBTQIA+ people during COVID-19 in the UK and Brazil, with implications for more inclusive crisis responses and disaster risk reduction.

Scott McKinnon is a Research Fellow in the Australian Centre for Culture, Environment, Society and Space (ACCESS), University of Wollongong. He has a research background in disasters research, geographies of memory, and histories and geographies of sexuality. Scott is co-editor of Disasters in Australia and New Zealand: Historical Approaches to Understanding Catastrophe (Palgrave MacMillan 2020).

Dr. Christine Eriksen is a Senior Researcher in the Centre for Security Studies at ETH Zurich, Switzerland. With a particular interest in social dimensions of disasters, she gained international research recognition by bringing human geography, social justice, and environmental hazards into dialogue. Christine is the author of two books and over 75 articles and book chapters, which examine social vulnerability and risk adaptation in the context of environmental history, cultural norms, and political agendas.