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[Sahar Badiezadeh](#), [Mitra Naseh](#)*, [Alexandra Howard](#)

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Article

Community Perspectives on Social Equity in Disaster Planning: A Qualitative Inquiry

Sahar Badiezadeh ¹, Mitra Naseh ^{2,*} and Alexandra Howard ³

¹ Department of Conflict Resolution, Human Security and Global Governance, University of Massachusetts Boston, Boston, MA 02125, USA

² Forced Migration Initiative, Brown School, Washington University in St. Louis, St. Louis, MO 63130, USA

³ Independent Researcher, Milwaukie, OR, USA

* Correspondence: naseh@wustl.edu

Abstract

This phenomenological study investigates how individuals from diverse backgrounds in Portland, Oregon, perceive barriers and facilitators related to disaster management, response, and recovery, specifically in the case of an earthquake. Drawing on semi-structured interviews with 45 participants, the study explores how social, cultural, and structural factors shape perceived barriers and facilitators related to disaster preparedness among historically marginalized communities. Reflexive thematic analysis and independent coding were used to identify key patterns in the data. Four key themes emerged from the analysis: (1) Natural disasters may exacerbate existing service gaps for specific groups; (2) The privilege of mobility creates unequal access to emergency services; (3) Delays in recovery efforts disproportionately impact vulnerable populations; and (4) Persistent concerns exist around the inclusiveness and trust in disaster management. These findings suggest that disaster planning must account for systemic social barriers in addition to infrastructure needs, to ensure equitable access to resources for all. The study highlights the value of participatory, community-informed strategies that can reduce vulnerabilities and foster trust. By illustrating the intersection of disaster preparedness with systemic inequality, the research contributes to broader discussions of urban resilience and offers insights to inform more inclusive emergency planning in high-risk urban environments.

Keywords: earthquake; disaster preparedness; equitable disaster planning; qualitative study; recovery; mobility; urban resilience

1. Introduction

The increasing frequency and severity of natural disasters underscore the urgent need to integrate social equity into disaster preparedness frameworks. While mainstream emergency planning strategies emphasize infrastructure resilience and hazard mitigation, they frequently overlook the lived experiences of marginalized populations, who face systemic barriers to disaster preparedness, response, and recovery (Cutter, 2016; Fothergill & Peek, 2004; Peacock et al., 2014). A growing body of research demonstrates that pre-existing disparities in housing stability, healthcare access, income, and social mobility exacerbate disaster vulnerability among racialized and socioeconomically disadvantaged communities (Thomas et al., 2020; Wisner et al., 2004). Despite recognition of these disparities, disaster preparedness remains overwhelmingly technocratic, often shaped by top-down policies that fail to incorporate the perspectives and needs of those most at risk (Tierney, 2019). These limitations are especially acute in urban areas facing seismic risk, where communities already struggling with economic precarity and institutional distrust face heightened risks from infrastructure failures, delayed emergency response, and limited access to recovery resources (Hung et al., 2021). Addressing these inequities requires a paradigm shift in disaster resilience frameworks, moving beyond physical mitigation strategies to policies that explicitly

account for systemic barriers to preparedness and response. Disaster vulnerability is not solely a function of hazard exposure but is shaped by deep-seated socioeconomic and political structures that determine access to protective resources and decision-making power (Cutter et al., 2003). The social vulnerability framework (Cutter, 2016) provides a critical lens for understanding how historical marginalization, racial inequality, and economic disparities create disproportionate disaster risks. Studies have shown that racial minorities, low-income households, individuals with disabilities, and non-English speakers experience limited access to risk communication, exclusion from disaster planning, and barriers to emergency assistance and recovery funding (Fothergill & Peek, 2004; O'Brien et al., 2018). For example, research on Hurricane Katrina revealed that Black communities and low-income households faced higher mortality rates, slower government response times, and increased displacement compared to wealthier and predominantly white neighborhoods (Adams et al., 2011; FEMA, 2023). Similar disparities have been documented in wildfires, hurricanes, and earthquake recovery efforts, yet empirical research remains scarce on how marginalized populations perceive and navigate disaster preparedness frameworks in urban seismic risk areas (Peacock et al., 2014).

Portland, Oregon, offers a critical urban case study for examining these inequities due to its high seismic risk and ongoing resilience initiatives. The Cascadia Subduction Zone (CSZ) has the potential to generate a magnitude 9.0+ earthquake, which could devastate critical infrastructure and severely disrupt emergency response operations (Kohler et al., 2017; Wood, 2007). In recognition of this threat, local and state agencies have invested in large-scale mitigation projects, such as a seismically reinforced runway at Portland International Airport (PDX) to facilitate post-disaster aid distribution (Multi-Hazard Mitigation Council, 2021). However, while such infrastructure projects are crucial for maintaining regional recovery efforts, they fail to address the social dimensions of disaster preparedness, particularly the systemic barriers marginalized communities face in accessing emergency services and recovery resources (Swope & Hernández, 2019; Farah et al., 2022). Despite growing awareness of these inequities, qualitative research remains scarce on how at-risk urban residents experience and interpret disaster preparedness policies.

To address this gap, this study employs a qualitative approach to examine how historically marginalized communities in Portland engage with disaster preparedness frameworks, navigate systemic barriers, and perceive their access to emergency resources in the context of an anticipated CSZ earthquake. Specifically, it seeks to understand how structural inequalities shape perceptions of vulnerability and what institutional obstacles exist within disaster planning frameworks. By centering community voices, this research aims to bridge the disconnect between resilience policy and the lived realities of those most at risk. The study is guided by the following research question: How do racialized and socioeconomically disadvantaged communities in Portland perceive their vulnerabilities and barriers within existing earthquake preparedness frameworks, and how can these insights inform more equitable and inclusive urban disaster planning?

Unlike traditional disaster preparedness studies that focus primarily on hazard exposure and infrastructure resilience, this research foregrounds the intersection of social justice and disaster response. By documenting firsthand experiences, it highlights procedural inequities embedded in emergency management policies and proposes strategies to promote inclusive disaster planning. The findings have direct implications for policymakers, emergency response agencies, and community organizations working to enhance disaster resilience. By identifying structural gaps in preparedness efforts, this study contributes to the development of policies that ensure equitable access to emergency resources, improve risk communication strategies, and strengthen community-driven disaster planning (Gaillard & Mercer, 2013; Thomas et al., 2020). Ultimately, the study offers grounded insights to inform more equitable approaches to urban disaster management by centering social vulnerability, community perspectives, and the often-overlooked barriers faced by marginalized populations in disaster planning and recovery.

2. Methodology

This paper is based on a qualitative study using a phenomenological approach to examine and document the perceptions of diverse members of the community in Portland and surrounding areas about the potential impacts of an earthquake in the Pacific Northwest on their lives and their expected level of access to emergency services in such a situation. After receiving Institutional Review Board approval from Portland State University (IRB # 217199-18) and employing maximum variation sampling, the study engaged a diverse group of participants from different sociodemographic backgrounds. Participants self-identified as being part of the racialized and minoritized communities, members of the LGBTQ2S groups, individuals living in multi-generational homes, immigrants and refugees, communities with lower socioeconomic statuses, individuals living with mental or physical disabilities, older adult communities, single parents, families with young children or children with special needs, and groups having jobs that could be most impacted by an earthquake (e.g. employees at the transportation sectors).

Study participants were selected from a pool of individuals ($n=72$) who had completed a demographic screening survey for this study and consented electronically to be contacted for an interview. After contacting those who completed the study screening survey, 45 respondents, including 36 community members and nine key informants, agreed and consented electronically to participate in a recorded Zoom interview with the research team. Interviews were in English and recorded. The duration of interviews varied in length from 10 to 43 minutes, with an average length of 20 minutes. During the interviews participants were prompted to discuss their backgrounds, their perspectives about the impacts of an earthquake on their lives, and their perception about access to emergency services in case of an earthquake.

No identifiable data were collected during the interviews. Any identifying information shared by participants was redacted during transcription. Audio recordings were retained solely to ensure transcript accuracy and were deleted upon completion of the transcription process. Transcripts were analyzed using reflexive thematic analysis (Braun & Clarke, 2006). The initial analysis of transcripts was inductive and involved the research team reading and re-reading the content and discussing observations and possible topics, followed by independent open coding of approximately 10 transcripts by two researchers. The research team then discussed the codes and inclusion/exclusion criteria to establish a codebook. Each interview was then independently coded by two members of the research team using the study codebook. Codes were merged by another member of the research team to create themes. Themes were discussed with the research team and at least two quotes were selected to support each of the themes for this study. Any disagreements after independent coding and theme creation were resolved through group meetings. Negative case analysis, peer debriefing, and member checking were used to enhance rigor.

3. Results

The demographic composition of the 45 study participants shows the diversity of the sample. Participants were predominantly female (57.8%, $n=26$), while slightly more than one-third (35.6%, $n=16$) identified as male. A smaller group of participants self-identified as transgender male (4.4%, $n=2$) and non-binary (2.2%, $n=1$). In terms of age distribution, approximately half of the participants were young adults, including ages between 18 and 25 (24.4%, $n=11$) and 26 and 30 (24.4%, $n=11$). The largest segments of the participants were holding bachelor's (35.6%, $n=16$) and associate (24.4%, $n=11$) degrees at the time of the interview. From a racial and ethnic perspective, those self-identifying as Black/African American (26.7%, $n=12$) and White/European American (20%, $n=9$) were the two largest racial groups, followed by Asian Americans (15.6%, $n=7$), Latinx/Hispanics (13.3%, $n=6$), and multi-racial (11.1%, $n=5$) participants (Table 1).

Table 1. Demographic characteristics of the participants.

Demographic Characteristics	Subgroups	Distribution in Percentage (Numbers of Participants)
Gender	Female	57.8% (26)
	Male	35.6% (16)
	Transgender female	0% (0)
	Transgender male	4.4% (2)
	Non-binary	2.2% (1)
Age range	18-25	24.4% (11)
	26-30	24.4% (11)
	31-35	13.3% (6)
	36-40	8.9% (4)
	41-45	4.4% (2)
	45-50	8.9% (4)
	51-55	6.7% (3)
	56-60	6.7% (3)
	66-70	0% (0)
	71-75	0% (0)
	76-80	2.2% (1)
	81 and older	0% (0)
Level of education	Trade school	4.4% (2)
	Associate Degree	24.4% (11)
	Bachelor’s Degree	35.6% (16)
	Master’s Degree	6.7% (3)
	Doctoral Degree	8.9% (4)
	Prefer not to answer	6.7% (3)
	Missing data	13.3% (6)
Race	White or European American	20.0% (9)
	Native Hawaiian or Other Pacific Islander	2.2% (1)
	American Indian or Alaska Native	0% (0)
	Asian American	15.6% (7)
	Black or African American	26.7% (12)
	Latinx or Hispanic	13.3% (6)
	Multi-racial	11.1% (5)
	Other	2.2% (1)
	Missing data	8.9% (4)

Four main themes emerged from the analysis of the qualitative data based on the transcribed interviews: (1) An earthquake could exacerbate service gaps for specific groups; (2) The privilege of mobility: Uneven paths of access to emergency services; (3) Delays in recovery can harm specific groups more than others; and (4) Concerns about the inclusiveness and trust.

Natural Disasters May Exacerbate Existing Service Gaps for Specific Groups

Several participants in our study highlighted pre-existing service gaps in the region, with housing being a primary concern. Interviewees expressed fears that the current challenges, including the houseless crisis, could escalate rapidly in the aftermath of an earthquake. A key informant noted, “If we had a lot of people displaced from their homes with needs to accommodate, I think it's definitely beyond our current capacity in the region.” She elaborated on the city’s existing struggles to provide shelter for the houseless population, stating, “It's a stretch for us even now if you look just a few weeks ago with the winter weather that hit during the holidays. The ability to not only find

facilities but find enough equipment supplies and staff to meet the needs and that's predominantly to meet the needs of the houseless, the existing houseless population." Another community member expressed deep concerns about the housing situation in Portland, explaining:

"Any large earthquake will devastate the housing situation in the area, which is already very much strained, so, you know, we don't have additional capacity, people are struggling to find rental space even if they can pay, and so that's going to make a long-term impact for people who see Portland, Oregon as their home, because housing crisis will explode. It's already kind of popping up, but it will explode basically."

Participants also voiced concerns that gaps in service provision for groups with specific needs, including older adults, individuals on the autism spectrum, and vulnerable groups needing health care services, may worsen in the event of an emergency. A key informant working with older adults said, "I had an experience just last week where I was helping one of our folks who was going through the Medicaid Long-Term Care application process... it was a nightmare because she didn't really understand what the person was asking on the phone." Another key informant explained: "We often just use very high-level words when we're creating messaging that it's just not going to work for certain disabilities... when you're talking about say someone with autism in an earthquake situation, the earthquake itself is going to put people in a very escalated state of crisis."

A further concern was the existing gaps in healthcare, with one informant remarking, "There are significant gaps in care, and so in part, because of those gaps in care, people are cycling through hospitals pretty regularly to get some of those needs met." They further expressed concern that in the event of an emergency vulnerable populations who currently rely on services from multiple sources to survive might not receive the same level of attention and explained, "I just think there's a lot of people that struggle to take care of themselves as it is, and the laws basically allow things to happen to continue to stay the way they are for those folks, and they are going to continue to be sort of struggling to get by, especially folks with, like, severe mental illness, and- and there's not going to be folks there that are necessarily going to be able to be that support."

The Privilege of Mobility Creates Unequal Access to Emergency Services

Narratives of participants presented mobility as a privilege. Several interviewees mentioned that their first choice in an emergency would be to leave the state and stay with family members or friends outside of the earthquake-impact areas. Participants also frame the ability to leave the state or fly out as a privilege. For instance, one of the interviewees said "It would, it be cool if I could fly out. I mean I try to save money for that, but I don't know what it would be like." They further explained that plane tickets could be expensive and wondered if there would be additional support for low-income individuals: "Please try to prioritize those who can't even afford- I don't know if it's even possible for them to prioritize getting people low-income out or bringing aid to them first." Another interviewee told us that they will consider going to Mexico in case of an earthquake as the situation in the United States might be hard and in Mexico, they will have a support network:

"My family is in- is from Mexico as well, so maybe even just go over there if I lost my home, because over there we also have a house. My family- my family has a house and I have a lot of support over there, but in this state, I don't know. If everyone was impacted from my family, I don't feel like we would make it, we would be okay. It would be hard."

Participants also highlighted the challenges related to personal mobility, emphasizing that not everyone can easily leave their familiar living spaces and stay elsewhere, including a shelter. An interviewee living with cerebral palsy explained that they rely on caregivers and would prefer to stay with their boyfriend rather than in a shelter if an earthquake occurred. They further explained, "Disabled folks, we have a history of being left behind when there's- when there's emergency preparedness issues." A key informant working on disability equity with the government explained that the city does not have the resources necessary to evacuate people with limited mobility. She said: "Buses [which] have spots for people with mobility disabilities [are limited]. So, if we had to do a mass evacuation, earthquake or even like [evacuation due to] fire, we really wouldn't be able to

provide evacuation vehicles for people with mobility disabilities." Another key informant working with vulnerable groups in Portland explained that it is vital for their clients to be able to reach them regularly, she told our interviewer: "The first question people usually ask me when I call them is are you guys open and are you going to be opening soon?" She also added that most of the clients they serve do not drive and rely on public transportation to reach them and receive services; she said: "Many of our folks don't drive and so you're entirely reliant on public transportation." She added that in emergency planning it is important to make sure that help is reaching these people. She also expressed concerns that "those communities that have historically been marginalized" ended up having limited access to "information" about services or resources.

Participants in our study also discussed the emotional toll of being separated from loved ones with limited mobility and the fear of not being able to reach them in times of need. Several interviewees expressed concern about older adults in their families or social networks who have limited mobility and may require assistance. One participant expressed concern for her grandmother, who lives with her aunt: "My grandmother who is not physically can- she cannot walk because she's 98 years old and my aunt can't carry her." She added that she commutes regularly to provide care for her mother, aunt, and grandmother. She explained, "So, not seeing them [my mother, aunt, and grandmother] having that devastation will be really- impact a lot because they're very vulnerable." Similarly, another community member expressed concerns about older adults in her social network, fearing they may not be able to leave their homes, find help, or stay in a shelter in case of an earthquake:

"I don't think my mom could [live in a shelter]. She's a little bit older, ..., and I know, like, my grandma would need, like, her medicine to be refrigerated... she has a hard time, like, walking, ... She takes, like, different medicine, ... I have a friend, like, family friend, ... her mom doesn't speak a lot of English, so if something like an earthquake were to happen, like, she would struggle to, like, find help around."

Delays in Recovery Efforts Disproportionately Impact Vulnerable Populations

When answering a question about the aftermath of a major seismic event, participants discussed how an earthquake can have far-reaching and disproportionate impacts on certain segments of the population, exacerbating existing vulnerabilities and inequities. For instance, an interviewee living with disability expressed concern about access to services being impacted for a while similar to the situation during the COVID-19. He said: "With COVID, you know, your- the offices shut down for a while, too, so those would be my concerns, is like the government welfare systems for people and myself... A lot of the disabled people in my community and myself, in general we joke that, like, being disabled is, like, a job because we have a lot of chronic pain and- and different things." A community member working with children with specific needs explained that many parents are not trained or well-equipped to support the learning needs of their children with specific needs. She compared the situation with the lockdown during the COVID-19 pandemic and explained that while some children could catch up with their education online with support from parents, delays in recovery after an earthquake will put the growth and progress of children with specific needs at risk. She further added:

"The kiddos that I work with, the families that I work with, they will be impacted ... especially the disability kids that they...they have to have this particular kind of education, because we modify everything ... the parents are not qualified to do so. It's not like a normal neurotypical kid where the mom and the dad will be able to educate them. We have special tools. We are trained to teach them ... So that would worry me, too, I would say, "oh what's going to happen to my — my — the kids that I serve?"

There were also concerns about people working in service sectors or the transportation industry and how far and long their work would be impacted by a major earthquake. An Asian American woman self-identifying as living in an immigrant low-income family expressed concern about finding a job after an earthquake and said, "I mean, how long it would take for the whole city to

recover ... where can I find a job or what type of job opportunities are there if I lost the current one?" A community member working in the transportation industry emphasized the importance of a functional airport for the survival of businesses after an earthquake. He noted, "businesses will not survive" without a functional airport after an earthquake. He explained, "the airport is not earthquake resistant, it could really affect economy, because the airport is an avenue for goods moving in and out of the Port ... it will directly affect the economy in an event after of an earthquake."

Small business owners also voiced concern about delays in recovery after an earthquake. In this context, an African American woman self-identifying as a refugee explained "I do a lot of trading online ... and it—airport do bring those goods to me too, so it [an earthquake] will affect me a lot, I will not be able to cater for my children anymore like that, and financially I'll not be okay." A single mother with a part-time job as a hairdresser said "I think it really affects me... I do home services I go to people's houses and do their hair... I'm a single mother. So, in this situation [after an earthquake], if I'm unable to travel that distance it hinders my business and it will affect me- it's been a really hard providing for the two children." She further explained:

"Firstly, I don't really earn a lot. Okay, my income is very small. When the situation is like this if I'm unable to go out for businesses, I might start experiencing starvation—I told you earlier I am a single mother... the disadvantages I will have in that situation is that I won't be able to go my—do my normal work schedule like normal, and this will bring a great effect in me not being able to take care for my two kids. So, I think it really affects me, that one of the more important disadvantages is that it will affect me financially."

Persistent Concerns Exist Around Inclusiveness and Trust in Disaster Management

Several interviewees expressed concerns about potential racial discrimination in disaster planning and management. A key informant explained that disaster management planning and the design of governmental services are typically led by middle-class Whites, adding that is why, "It's very hard for people from a different cultural background to always access government services."

In this context, a community member participant voiced concerns about equity in healthcare services during emergencies, stating: "Concerning healthcare... considering my Black origin I might have issues with discrimination, and I don't have enough money to get the best and proper healthcare so I think will be a little bit separation and segregation so that will be the first thing I would look out for and that will be the first issue I'll have." Another community participant shared with our interviewer: "I am a Black American and my wife is Latino so first of all I think staying in the camp won't be that easy because already we are not in the camp and we already facing discrimination so imagine being in a place that you are being controlled. And I feel they'll be little bit biased in of operation which I'm very sure that should occur."

A participant working in a manufacturing company remarked: "You know discrimination applies to us as well. So having to, you know, get shelter or get preferential treatment during a situation like that [earthquake] would quite be difficult for me as a Black American." Similarly, another participant noted: "Well I'm a Black lady and... there's gonna be discrimination. Even when items have been shared you won't get equal compared to what the Whites get."

Concerns about the immigration status and language access were also discussed. One participant candidly shared their apprehension, stating, "I'm an immigrant I'm a Muslim-born I'm married to my husband... If an earthquake happens based on my social position my race my religion, I'm a little bit afraid that I might be discriminated because I'm an immigrant." A participant from the immigrant community mentioned: "It will be very important to have people who be able to speak other languages other than English. I know-Yes, I know a lot of- you know, we can use our kids or, you know, some people can- you know, their kids can help them, but, you know, in some situations, like, you need to know what to do, it's important you have- do it in your own language."

Trust to seek assistance during crises was also discussed by participants. Key informants talked about hesitancy to share personal information or accept assistance among immigrant communities, often stemming from fears of ulterior motives or future consequences. One of the key informants wondered if having recognized legal documents by the government would matter in accessing

services. She said “The fear of leaving if they're undocumented... They're not going to want to be at any list because of that and so those are the people that are also going to stay behind and struggle.” The following remark from one of the key informants also attests to this concern: “Even in this pandemic, you know as we tried to offer client assistance particularly those that... there was still that fear of like well but if I accept the money is there a tracking kind of system in the end.” Related to the topic of trust, another participant articulated:

“I think there's a critically important key piece here to say- when those tried and true kind of pathways between government and the community are not meeting everybody where and how do we kind of reach out to folks who either aren't in the system don't trust the system are getting misinformation about the system- you know or really just have a need for education and training around what services and what supports are there for them.”

4. Discussion

The findings from this study highlight the multifaceted challenges and vulnerabilities faced by diverse populations in the aftermath of a major earthquake. The study reveals that existing service gaps, particularly in housing and healthcare, are likely to worsen after an earthquake in Oregon. Participants expressed significant concerns about the region's ability to accommodate displaced populations by an earthquake, especially those already struggling with homelessness. The findings suggest that the current infrastructure is insufficient to support a large-scale displacement event, reinforcing the need for disaster preparedness plans that specifically address the needs of vulnerable populations. This is consistent with previous research that underscores the heightened risks faced by populations with limited access to resources during disasters (Fothergill & Peek, 2004).

Mobility was identified as a critical factor in determining access to emergency services, with multiple participants highlighting it as a privilege or a barrier. Whether due to financial limitations, physical or medical conditions, or age-related restrictions, participants expressed concern about how these factors could limit access to emergency and recovery services. This theme applies not only to the immediate challenges of obtaining services but also to the prolonged difficulties of isolation during the recovery phase. Those with the means to leave the state or fly out of the impacted areas indicated that it would be their preferred option, while those without such resources feared being left behind. These findings highlight the importance of addressing disparities in mobility by ensuring that emergency services and evacuation plans are inclusive of individuals with varying levels of physical ability and access to transportation, including those with disabilities and older adults. This finding aligns with previous studies documenting the challenges faced by populations with limited mobility and warning statistics about their vulnerability during disasters (Smith et al., 2018). For instance, following Hurricane Katrina, nearly 75% of the deceased were adults aged 60 and above (Adams et al., 2011).

The potential delays in recovery following a seismic event were a major concern among participants, particularly for those working in the service sectors or small businesses. As underscored by the economic cost-benefit analysis of the resilient runway project for PDX by the NIBS, a functional airport in the aftermath of an earthquake would play a critical role in mitigating these delays (Multi-Hazard Mitigation Council, 2021). By ensuring that large aircraft can continue to operate, the runway would facilitate the rapid transportation of essential personnel, supplies, and equipment, enabling quicker reoccupation of homes and businesses, which is vital for economic recovery. Participants expressed concern that without such infrastructure, the slow recovery process would disproportionately harm vulnerable populations, thereby exacerbating existing inequalities.

The study also brings to light the pervasive concerns about racial discrimination and the lack of trust in disaster planning and management. Participants, particularly those from racial and ethnic minorities, voiced fears of inequitable treatment during emergencies, reflecting broader societal issues of systemic racism. The distrust in government-led disaster management efforts, especially among immigrant communities, underscores the need for more inclusive and culturally responsive approaches to disaster preparedness. Ensuring that disaster response plans are developed with the

input of diverse communities, and that they directly address the specific concerns of these groups, is crucial for building trust and achieving equitable outcomes.

5. Limitations

While this study provides valuable insights into the potential impacts of a seismic event on diverse populations, it is not without limitations. The sample size, though diverse, was relatively small, and the convenience sampling prevents the ability to generalize the findings to a broader population. Documented narratives through the semi-structured interviews were based on self-reported data and responses could not be fact-checked. Future research should aim to include larger and more representative samples and examine the long-term impacts of disaster recovery on marginalized communities.

6. Conclusion and Implications

The findings from this study highlight the urgent need for disaster preparedness plans that are inclusive, equitable, and responsive to the lived realities of marginalized population. This includes ensuring that evacuation plans accommodate individuals with limited mobility and that emergency services are accessible to all, regardless of socioeconomic status. Findings also suggest that there is a need for a more equitable distribution of resources during recovery efforts, with particular attention to those who are economically disadvantaged. Results also highlight the importance of infrastructure for rapid recovery, including an earthquake-resilient runway. However, physical infrastructure alone is insufficient. Building trust with marginalized communities is essential for effective disaster response. This can be achieved by involving these communities in the planning process, integrating their insights into preparedness frameworks, and developing culturally responsive communication strategies.

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