

The Silent Journey: Exploring the Readiness of Deaf Students in Emergencies

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ABSTRACT

Deaf people belong to the vulnerable group. Disaster readiness of the Deaf, remains a critical gap in both policy and practice. This study explores the experiences of deaf individuals in relation to emergency preparedness through a qualitative case study design, employing thematic analysis with open, axial, and selective coding. The concept of “readiness” is the central theme that serves as the “igniting factor to fuel up to goals to be safe in times of emergency. There were nine major themes that has emerged with subthemes highlighting barriers and coping mechanisms. Lip reading, sign language, and visual gestural communication were used to draw information during the interview. The findings reveal that Deaf individuals face significant communication challenges during emergencies, limited institutional support, and often depend on self-reliance and peer collaboration to ensure safety. Despite existing disaster preparedness programs, inclusivity remains superficial and compliance-based. Recent literature reinforces the need for disability-sensitive frameworks, accessible drills, and government accountability in policy enforcement. Implications highlight the urgency of integrating sign language, visual communication systems, and tailored training into community and institutional preparedness plans. This study provides a foundation for policymakers, educators, and health professionals to design inclusive, sustainable strategies that empower deaf individuals in disaster contexts.

Keywords: Deaf community, Emergency readiness, Disability inclusion, Disaster risk reduction

INTRODUCTION

Emergencies or disasters are unanticipated or unwanted events that pose a great risk among people with disability. Persons with disabilities like the elderly are highly susceptible to change impacts and emergencies. The extent of asking for assistance, especially in emergencies entails immediate response. The World Health Organization (WHO) estimated that there are about one billion people all over the world who are having such conditions manifesting varied forms of disabilities. About 70 million people have hearing impairment worldwide (Guo et al., 2024). It is observed that people with disabilities are the most vulnerable group to be affected by this disastrous event that ranks first in the list of casualties and injuries. One factor in considering a person with a disability is the presence of an impairment that hinders them from the functional norms (Swift, 2021).

The Philippines ranks first among the countries most prone to calamities based on the World Risk Index of 2023 (Alburo-Cañete et al., 2024). The increasing frequency and impact of emergencies in the country is alarming. This phenomenon does not choose or exempt anybody from being affected. It encompasses all things, regardless of age, sex, religion, race, wealth, societal position, and location. This suggests that nobody is freed from it. The imperative of emphasizing it is to make everyone vigilant at all times.

Cebu City is one of the most densely populated cities in the country. It is also confronted with various risks and hazards that may lead to an emergency or disaster, including strong typhoons, coastal flooding, and

seismic threats from the Central Cebu Fault System. For instance, a field survey of Typhoon Rai (Odette) revealed the severe flooding and infrastructure damages that affected Cebu in December 2021 (Esteban et al., 2022; (Tecson et al., 2025). Moreover, a 2023 assessment of the Cebu City Government's disaster management noted challenges in implementing effective Prevention, Preparedness, Response, and Recovery strategies during the same typhoon, further highlighting the city's vulnerability (Cantillas & Viray, 2023).

While these studies provide valuable insights into hazard impacts and governance responses, they do not address the experiences and readiness of vulnerable subgroups such as the Deaf. The problem of how Deaf students respond to such situations is a great ordeal. The challenge does not lie only in the community, but in how these students become independent and reliable individuals ready in times of disaster as individuals who can be assets to the community who save lives rather than liabilities.

In response to the need, the study was designed to draw an in-depth understanding of the preparedness and readiness of Deaf students. As a teacher advocate for the Deaf, the researcher aims to raise awareness and serve as a catalyst to involve them in proper disaster and emergency preparedness. This research intends to shed light to the public the unique needs of these individuals especially during emergencies by providing suitable early warning system devices, and drills appropriate for them that can impact their existing practices. Hence, the saying goes, prevention is better than any cure.

Legal Basis

This study is mainly anchored on the Republic Act No. 10121 "An Act Strengthening Disaster Risk Reduction Management System, providing for the National Disaster Risk Reduction and Management Framework and Institutionalizing the National Disaster Risk Reduction and Management Plan in the Philippines" otherwise known as the "Philippine Disaster Risk Reduction and Management Act of 2010". This law provides a comprehensive framework for disaster reduction management (DRRM) in the Philippines. It also emphasizes the inclusive policies that involve all sectors of society, including PWDs, in disaster preparedness and response efforts. Under the Rights and Privileges of Disabled Persons, Section 2, n, it is stipulated the policy declarations for Inclusive DRR that

"Develop and strengthen the capacities of vulnerable and marginalized groups (women, children, elderly, persons with disabilities, and ethnic minorities) to mitigate, prepare for, respond to, and recover from the effects of disasters"

Persons with disability specifically Deaf individuals should be given equal opportunities to take part in disaster management in responding to emergencies. Because of the limited chances or opportunity of these vulnerable group of people like the Deaf population, the Government needs to strengthen this legislation and provide inclusive opportunities for the Deaf population to be trained and participate in disaster risk reduction activities.

Significance of the Study

The study was conducted to explore the readiness of the Deaf students in emergencies. By understanding their nature and responses, this research can supply valuable information to the Disaster Risk Reduction Management Council through the Department of Education, stakeholders, and sectors concerned regarding their existing practices in response to emergencies so that they will be guided accordingly in the future on what enhancement, modification and accommodation to the programs and policies that will made to address the multifaceted needs. Specifically, this study will be of particular significance to special needs education teachers, and special needs education centers or schools as it may guide them in creating a modified disaster risk reduction management plan. Lastly, the findings of the study will encourage the general public to become advocates by supporting them through maximizing their potential in responding to emergencies.

Objectives of the Study

The study aimed to explore the readiness of Deaf students during emergencies.

It specifically aims to answer the following questions:

1. What is the current living condition of every key informant?
2. What are the issues and problems encountered by Deaf students?
3. What are the experiences of Deaf students during emergencies and disasters?
4. What is the level of readiness of Deaf students during emergencies?

RESEARCH METHODOLOGY

Research Design

This study employed the case study method. The design emphasizes a detailed contextual analysis of the experiences of the informants. It also provides a detailed profile of an event, condition, or situation within its real-life context. Case studies often explore and investigate contemporary life phenomena through a thorough and limited number of events or conditions in the past and their relationships particularly valuable when the boundaries between the phenomenon and the context are not clearly evident, making it suitable for exploring the complex realities faced by Deaf students during emergencies (Hassan, 2023).

To analyze the data, the study utilized a thematic analysis approach, which systematically identifies, organizes, and interprets patterns of meaning (themes) within qualitative data. Thematic analysis was conducted through a structured coding process. Initially, open coding was applied to break down the interview transcripts into smaller meaning units, capturing all possible ideas expressed by the participants. These codes were then grouped through axial coding, which established connections between categories and subcategories to highlight relationships among the data. Finally, selective coding was used to refine and integrate the themes, ensuring they represented the core insights of the participants' experiences.

This layered coding process reinforced the rigor and credibility of the analysis by moving from raw data toward coherent themes. It also allowed the voices of Deaf students to be represented authentically, as their personal accounts were carefully examined, compared, and validated against emerging patterns. Through this process, the study was able to generate overarching themes and corresponding subthemes that reflect accessibility, social inclusion, communication and language, emergency awareness, support systems, and psychological readiness in times of emergency.

Environment

The study was conducted within the confines of the intellectual institution that caters to students with special needs in Cebu City. Geographically, the city is located on the mid-eastern side of the island of Cebu. Specifically, the study was conducted in a Special Needs Education Center in Cebu City. The said school is one of the best schools in the city in terms of special needs education. The school houses various disabilities where one of which is hearing impairment or hard of hearing. The school is one of the centers in the city that offers Junior and Senior High Schools for the Deaf.

Key Informants and Sampling Technique

The eligible informants of the study were selectively chosen through the purposive sampling. The researcher to selected representatives that meet the inclusion criteria among Deaf students. The informants were selected based on the following criteria: Deaf, bonafide students, and voluntarily consented to participate in the study. The number of informants was based on the attainment of data saturation

The study employed a purposive sampling method. This type of sampling technique is used to assess prospective candidates suitable for the nature of the study from a target group that fits in to the given criteria. The number of informants was determined based on the principle of data saturation. The researcher initially identified several potential informants; however, after interviewing five Deaf students, it became evident that no new themes, ideas, or insights were emerging. This repetition of responses across informants indicated that additional interviews were unlikely to contribute further to answering the research questions. Thus, five informants were considered sufficient for this case study, as qualitative research values depth and richness of data over large sample sizes.

Through the intentional selection of informants, the researcher was able to gather a detailed and in-depth understanding about their experiences and on how they the informants responded to an emergency.

Instrument

This study utilized a semi-structured open-ended question guide prepared by the researcher. It was formulated based on previous studies of people with disabilities about how they manage things during a disaster and how to reduce casualties. The entire concept of the guide question is fitted to the level needs of the Deaf students. The instrumentation entirely consists of observational system, interview, and reviews of responses.

Data Gathering Procedure

Upon the approval of the study, the researcher submitted a transmittal letter to division office stating the intent to conduct the study at the said Special Needs Education Center. Attached to it is the assent form, and consent form. The documents submitted go through a series of verifications and validation by the research and ethics committee of the division office. The approval to conduct the study was noted by the Public Schools District Supervisor and the final approval was signed by Schools Division Superintendent. When the letter was approved, the Special Needs Education Teacher handling students with Deaf was given a copy of the letter to formally inform them regarding the study.

To determine as to whether who qualifies for the study, the researcher made a thorough review of the background of each informant based on the information presented by the special needs' education teacher. The qualified p informants undergo a series of validations. It also specifies the Deaf students, according to the degree of hearing loss based on the diagnostics as a requirement for their admission in the class. The results presented pointed out five Deaf students.

To obtain an intensive amount of information from the informants, a one-on-one interview using various communication means like lip reading, sign language and visual gestural communication was utilized by the researcher with the help of the Special Needs Education Teacher. This data has illustrated the outcome patterns of the informants based on his or her experience on emergency situation and the continuous journey for survival. In order to avoid biases, the researcher decided to conduct a closed-door interview between the students assisted with an interpreter. After gathering the necessary information, the answers of each informant were arranged accordingly.

Data Analysis

The data analysis in this study followed a case study framework supported by a structured thematic analysis approach. All data gathered from the interviews were first interpreted from sign language into written transcripts. The transcription process was carefully validated by the researcher to ensure accuracy and authenticity of the informants' responses.

The analysis progressed through a three-phase coding process to methodically identify and polish the emerging insights: In the open coding phase, the texts were initially broken down into smaller meaning units, with codes assigned to significant words, phrases, or expressions that captured the informants' lived

experiences. This stage ensured that all possible viewpoints were recognized without prematurely narrowing the data. During the axial coding, the initial codes were then examined for patterns, linkages, and overlaps. Related codes were collected together into categories that highlighted shared concepts, such as preparedness, accessibility of resources, communication barriers, and emotional responses. This process revealed the relationships among different aspects of the participants' experiences. Lastly, selective coding, the categories were synthesized into broader themes and subthemes that captured the core meanings of the data. The refinement process accentuated connections across participants' narratives, allowing the themes to represent both individual and collective experiences (Alnsour, 2022; Bizuneh, 2022).

Through this methodical coding and theme development, the study identified overarching themes and subthemes that illustrate the readiness, challenges, and coping strategies of Deaf students during emergency situations. This rigorous method not only ensured data saturation as no new insights emerged after five informants but also enhanced the credibility, trustworthiness, and reproducibility of the findings (Dianastiti et al., 2024)

Role of the Investigator

The researcher conducted a face-to-face with the identified respondents. Before the interview, the researcher will explain the study in full detail and let them sign the informed consent and assent form. The researcher also facilitated the interview, interpreted the sign language recordings, gathered the responses, and transcribed it.

Method of Verification

The data collection phase of the study was an interview phase of the researcher with the informants. A video recorder was used to document the entire process for review and interpretation in the data analysis. The researcher also wrote the non-verbal cues and observations during the field interview as supplementary data. With the data at hand, the researcher interpreted the recorded video of the sign language and transcribed it without considering their judgments, and from the transcriptions, comparing similar statements and findings.

The similar findings of the key informants were the basis to reach data saturation. During the fifth interview, responses became consistent with previously gathered data, and no substantially new codes or categories emerged. This convergence confirmed that the sample size was adequate to capture the range of experiences relevant to the study (Hancock et al., 2021). The lack of any new emerging data is evidence that saturation had been achieved, ensuring the reliability of the thematic patterns identified.

Ethical Consideration

Respect for human dignity was given importance in this study as a vital contemporary research ethics. The researcher ensured to safeguard the interests of the informant's right to self-determination and right to full disclosure.

The informed consent was given to the parents of the key informant together with the assent form and was signed before the interview and made sure that the study was fully understood. The informed consent enclosed the nature of the participation and the certainty and confidentiality of the disclosed data. A copy of the consent form was given to the informant and the other was kept for documentation purposes. The data gathered was stored in password-protected storage, and coding was used to represent the informant. After an exhaustive review and consolidation of data, all data will be deleted. The written, and printed data will be shredded and video recordings will be erased in the storage device.

Specifically, the key informants with their parents' guidance can withdraw at any time without repercussions. They were informed of the minimal risks of the study, such as the discomfort of disclosing personal information and issues and challenges during emergencies. They were also told that the interview would take

25 to 35 minutes of their time to gather the necessary data. Thus, the result will promote a better understanding of how ready the Deaf students are during emergencies or disasters.

RESULTS AND DISCUSSION

Digging the Roots: Profile of the Key Informants

The researcher reached data saturation after interviewing five key informants and supported by the observation of their parents and teachers. The interview data was interpreted from sign language to written words, transcribed, and analyzed. At the same time, the parent's and teacher's interviews were transcribed, translated, and analyzed. Shown below is the profile of the informants using a pseudonym for anonymity and maintain confidentiality.

The following are the brief descriptions of the five informants who had been part of the study.

Jane (pseudonym) is 23-year-old student of the said school, she is supposedly a college graduate by now, but because of her hearing impairment she was retained at the current level and was not able to pursue college. She had been in the same school for almost 13 years. Like any other Deaf child, the grandparents noticed that as she grows old, she cannot utter any word but just mumble sounds at the age of six and when she entered grade one at the age of seven, the teacher noticed that she is not responding to any sounds or voices that can be normally heard by the human ear. She advised the parents to have their child to be sought for a consultation. They find out that she had been suffering from an ear disease that may eventually lead to possible hearing loss as stated by the doctor.

She was typically accompanied by his brother and sister to school. In one instance, they felt that the ground is shaking. Objects were moving and some debris and materials from the constructed classroom fall. She wanted to say something but nobody understood her even her brother and sister. Communication for her was really a struggle on how she would understand and be able to understand other people.

Abdul (pseudonym) is nineteen-year-old student of the said school. He is supposed to be a college student by now but because of his disability he is still in high school. He had been in the same school for almost 6 years. Financial constraints experienced by the family made his parents not to decide on matters regarding his condition.

He was riding with his father in a motorcycle on his way to school. He noticed that few meters away from his school a crowd of people were running from one place to the other and his father diverted to another route. He asked his father what happened but with limited knowledge about sign language his father only say danger. After everything was in place, he went back to school and asked on what had happened, he found out that the pawnshop was being robbed by armed men. Luckily, his father noticed it and led him to a safe place.

Zany (pseudonym) is a seventeen-year-old Deaf student. She is the youngest among the class Grade 8 of the said school. She is supposedly to be the senior high school student but because of such difficulties in hearing, she was retained at the current level. It was her grandparents who noticed her condition first when they called her but she remained still without any response. They thought that she might have the same disorder as her cousin or maybe have the disease coming from her cousin who happened to have autism.

She was still in her third grade when she experienced a typhoon. She left the house unnoticed where she was at her neighbor's house playing when the typhoon started. Her family was looking for her at that time, fortunately, she was able to hide in a sturdy structure near their house that saved her from the disastrous storm and protected her from the flying debris.

Alfie (pseudonym) is a twenty-year-old deaf student. He is known as the "Brainy Einstein." He was in the eleventh grade when he experienced with full awareness an incident that had happened in the school. It was a bomb threat wherein everybody on the campus had been instructed to leave their post and classes.

Unfortunately, Deaf students stayed in their classrooms. Their inability to hear the ringing of the bell and alarm made them stay as if nothing had happened. The good thing is that it was a false alarm.

Greta (pseudonym) is nineteen old and the counterpart of Alfie, an intelligent girl in the class. She was able to experience the bomb wherein they were left behind as well because they were not able to see the hand sign of their teacher. Everybody was panicking at that time as they tried to move out of the school. Being an observant student, she leads her classmates out of the room. Her disability hinders her from hearing the ringing of the bell and alarm making them continue their conversation.

Theme 1: Accessibility

Accessibility emerged as one of the most unrelenting concerns raised by Deaf students during emergencies. Informants consistently highlighted the difficulty of accessing timely and precise information because most of these were spoken announcements. The limited accessible formats of these information such as in sign language, captions, or visual alerts and the lack of inclusive communication systems resulted in feelings of detachment, frustration, and vulnerability during critical moments. Recent research demonstrates that Deaf and Hard-of-Hearing communities have unequal access to earthquake early warning systems and preparedness experiences, which interrupts their ability to respond effectively (Cooper et al., 2024). Furthermore, the absence of sign language interpreters during disaster information broadcasts continues to exacerbate information gaps (Fauziyah & Jannah, 2022).

Subtheme 1.1: Information Inaccessibility

Informants expressed their frustration over their inability to access vital information during emergencies. For instance, one informant stated, “I feel bad because I can’t access the information” (Informant 1). This highlights the general communication barriers that deaf individuals face in contexts where information is delivered primarily through auditory means. Recent studies confirmed that inaccessible emergency communication remains a continuing issue for the deaf community worldwide, especially in low-resource contexts (Abou-Abdallah & Lamymman, 2021). Moreover, research emphasizes that equitable access to information is a human right and a prerequisite for inclusive disaster risk reduction (WHO, 2023). Policymakers must implement a compulsory real-time captioning, visual alert systems, and sign language interpretation in all emergency announcements.

Subtheme 1.2: Barriers in Emergency Communication

Another informant shared, “Being a deaf person, I have a hard time understanding hearing people on what they are saying and talking about” (Informant 2). This reflects that the communication blocks that arise in moments of crisis when oral instructions dominate. Lillywhite and Wolbring (2022) found that disaster preparedness protocols often neglect linguistic diversity, leaving persons with disabilities at higher risk. Emergency management systems must adopt disability-inclusive communication models, ensuring that first responders are trained to use basic sign language or visual prompts.

Subtheme 1.3: Neglect and Exclusion

Feelings of disregard were also evident among the informant: “As a deaf student, I am used to being ignored” (Informant 4) and “I ignore what is happening” (Informant 3). This disparity of exclusion continues to happen specially in access to life-saving information. This aligns with WHO’s call for disability-inclusive preparedness frameworks (WHO, 2023). Schools and local governments must institutionalize inclusive emergency drills that specifically integrate deaf and hard-of-hearing students.

Subtheme 1.4: Mutual Lack of Understanding

The participant’s remark, “I don’t care what hearing people say because I’m deaf and they don’t know how to communicate to the deaf like me and they don’t understand sign language too” (Informant 5), reveals not

only the difficulty of interaction but also the emotional distance and also underscores the communication gap between Deaf individuals and their hearing peers, reflecting a sense of frustration and disengagement. Cagalitan et al. (2023) highlights that communication barriers in mainstream schools often lead to social disengagement among Deaf learners, reinforcing exclusion within educational settings. Similarly, Lillywhite and Wolbring (2022) emphasize that accessibility is not just a technical issue but also a social one, where the absence of mutual effort to bridge communication divides fosters inequality and prevents meaningful inclusion.

Theme 2: Social Inclusion

Social inclusion plays an important role in shaping the experiences of Deaf students during emergencies. Beyond physical safety, emergencies highlight the social dimensions of inclusion and exclusion within communities. The narratives revealed that Deaf students often face social seclusion, and limited participation in group activities, which extend into emergency situations. When excluded from communication channels, Deaf students may also feel excluded socially, reinforcing a cycle of marginalization.

Subtheme 2.1: Peer Exclusion

Despite having hearing peers, participants reported persistent communication gaps: “I have many hearing friends but they cannot understand me” (Informant 1). Bizuneh (2022) highlight that inclusive peer networks improve resilience among deaf youth, but misinterpretations often weaken social bonds. Schools ought to develop peer-sensitivity training programs to link communication divides between deaf and hearing students.

Subtheme 2.2: Exclusion Preparedness

During the conduct of drills or in times of emergency situations, students often experience partial understanding and limited engagement, which negatively affects their sense of belonging. “During the earthquake, my hearing friends told me to do the earthquake drill but I hardly understood them which made me feel that I didn’t belong to the group.” (Informant 2). Research accentuates those inclusive practices such as ensuring accessibility in drills, peer support, and recognition of Deaf individuals’ unique needs that can significantly improve both social integration and preparedness outcomes (Istiarsyah et al., 2023). Social inclusion provides people with disabilities with a sense of belonging and confidence, which in turn strengthens resilience and cooperation during crises (Chang et al., 2023). Moreover, when hearing peers and communities actively engage Deaf students, for instance by learning sign language or ensuring impartial participation, the risks of isolation and passive involvement in emergency response are considerably reduced.

Subtheme 2.3: Conditional Acceptance

The experience shared by Informant 5, “Even though I am deaf I always spend time with my hearing friends in our barangay because I am the only one who cannot hear. They always include me in games and other activities that I can do,” illustrates a form of conditional acceptance, where Deaf students are welcomed in some activities but remain excluded from others due to communication and structural barriers. Ghoniem et al. (2025) sheds further light on this phenomenon that deaf student inclusion in education emphasizes that frequent and meaningful contact between deaf students and their hearing peers but inclusion remains superficial when interactions lack depth or consistency.

Subtheme 2.4: Passive Participation

Another participant described passive participation: “When my hearing friend invited me, I only observed things and tried to appreciate what they did but I cannot fully understand them” (Inf. 4). This echoes Alanazi (2021) and Alshutwi et al. (2020) claim that deaf learners often continue physically present in group activities but are socially disconnected. Teachers must create structured group activities that guarantee active participation of deaf students, promoting genuine inclusion.

Theme 3: Communication and Language

Effective communication is vital during emergencies and disasters. Deaf students highlighted significant challenges in exchanging information with hearing individuals during emergencies, including miscommunication, delays in assistance, and reliance on facial cues or written notes, which can compromise safety. These experiences demonstrate that language barriers are not merely inconvenient but can pose serious risks during crises.

Subtheme 3.1: Miscommunication and Delayed Response

In emergencies, deaf participants reported that communication with hearing individuals was difficult: “During emergencies communication is important, I realize that it’s hard to talk to a hearing person,” (Informant 2). Berube (2022) and Cooper et al. (2024) argued that bilingual approaches (sign and written language) significantly reduce miscommunication in crisis contexts. Training first responders in basic sign language and using bilingual signage will improve emergency response efficiency.

Subtheme 3.2: Bridging Communication Gaps

The sentiment expressed by Informant 3, “Communication is a great means to understand each other deaf learn to write but hearing must understand sign language also,” captures the core idea that mutual understanding centers on shared communication modes. Deaf and hearing participants collaboratively shaped solutions underscore the importance of mutual communication tools in fostering inclusion and dignity for Deaf learners (Chen et al., 2025).

Subtheme 3.3 Non-Verbal and Visual Cues

Deaf informants rely profoundly on facial expressions and visual cues: “I cannot hear what they say but their faces tell a lot” (Informant 4). Lucas et al. (2023) and Lumando et al. (2024) confirms that visual aids, captioning, and body language are crucial in enhancing communication for deaf communities. Public institutions must adopt multi-sensory communication strategies to ensure inclusivity in both routine and crisis communication.

Subtheme 3.4 Misinterpretation Risk

Informant 5’s observation, “I agree with the other deaf that I find it hard to communicate to hearing people sometimes they can’t understand my writings and my sign,” reflects the complex risk of misinterpretation that arises from using written communication or sign language in emergency contexts. Communication breakdowns are not isolated missteps, but structural hazards with real consequences (Wilson-Menzfeld et al., 2024). Similarly, written notes and lipreading are considered inferior to proper interpretation (Sanchez, 2025).

Theme 4: Emergency Awareness

Emergency awareness among Deaf students reflects a combination of self-taught knowledge, sensory observation, and media-based learning. Participants reported recognizing environmental cues such as ground shaking, strong winds, or unusual sounds, as well as learning from television, family guidance, and personal observation, which informed their responses during disasters. These informal methods highlight a reliance on non-traditional learning and adaptive strategies, as formal emergency information is often inaccessible.

Subtheme 4.1: Environmental and Observational Awareness

Participants demonstrated heightened environmental awareness: “I can tell when there’s an earthquake” (Informant 1) and “I’m aware of my surroundings” (Informant 5). Muchtar et al. (2021) and Tenerife et al. (2021) found that deaf individuals often develop stronger observational skills as compensatory mechanisms

for auditory limitations. Disaster preparedness training should recognize and formalize observational awareness as a survival skill for deaf individuals.

Subtheme 4.2: Informal Knowledge Acquisition

Media and informal sources shaped participants' preparedness: "I've learned from watching television" (Informant 4). Goswami and Ahmad (2025) and Mellifont et al. (2025) argue that while informal learning plays a role, formal disaster education is essential to ensure comprehensive preparedness. Governments and schools must institutionalize disability-inclusive disaster education, moving beyond reliance on informal knowledge.

Subtheme 4.3: Learned Experience and Secondary Sources

Informants revealed that their knowledge of emergencies was condensed from two key channels: direct personal experiences and indirect learning through secondary sources such as media and community information. These complementary forms of awareness provided Deaf students with practical survival strategies. One participant shared: "I'm aware of different emergencies, like earthquakes, typhoons, and fires. I know that earthquakes can cause buildings to collapse, so it's important to find a safe place to hide. During typhoons, I stay away from windows and doors to avoid flying debris." (Informant 2). Another participant emphasized the role of secondary sources in shaping their preparedness: "I've learned from watching television that heavy rain can lead to flooding. I know that the river near our house can cause flooding, so I need to go to a higher place, if necessary," (Informant 4). This finding resonates with disaster resilience literature, which emphasizes that both direct lived experiences and secondary information channels shape disaster awareness and response behaviors (Sun et al., 2024).

Theme 5: Impact of Emergencies

Emergencies significantly disrupt the lives of deaf students, highlighting both their vulnerabilities and resilience. The absence of accessible communication channels often intensifies feelings of fear, confusion, and exclusion, while also shaping how they respond and cope in crisis situations. This theme captures the psychosocial distress, reliance on others, and adaptive strategies that emerge during emergencies, emphasizing the critical need for inclusive disaster preparedness and support systems tailored to the unique needs of the deaf community.

Subtheme 5.1: Psychosocial Distress

Feelings of isolation, neglect, and frustration are common due to communication barriers during emergencies. One informant shared: "I feel isolated and alone during emergencies because I can't communicate with other people even with my own family," (Informant 2). This highlights the emotional burden and heightened vulnerability of Deaf individuals when effective communication is absent. Studies have shown that communication barriers during crises often lead to psychosocial distress, anxiety, and feelings of neglect, particularly among persons with disabilities (Lillywhite & Wolbring, 2022; Guarinello et al., 2022). Inaccessible communication not only restricts access to lifesaving information but also contributes to feelings of exclusion and helplessness in emergency contexts (Wu et al., 2021).

Subtheme 5.2: Reliance on Others

Deaf students often depend on family, peers, or community members for vital information and assistance during emergencies. One informant explained: "I've relied on my family and close friends who cared for me to help me stay informed and safe during emergencies," (Informant 4). Recent studies confirm that individuals with hearing impairments frequently rely on their families or close networks to interpret warnings, navigate safety procedures, and manage stress during disasters (Luft, 2022). While family reliance ensures some level of safety, it also underscores the lack of independent access to critical emergency

communication, which can place Deaf individuals at risk if support networks are unavailable (Alshutwi et al., 2020).

Subtheme 5.3: Need for Preparedness Plans

Deaf students emphasized the importance of structured emergency preparedness plans that specifically account for their communication and accessibility needs. One informant shared: "It's nice to have emergency plans... so that a deaf person like me can be saved and go away from danger," (Informant 5) This reflects the absence of disability-sensitive emergency plans that leaves Deaf individuals highly vulnerable during crises; stressing the urgency for inclusive preparedness planning (Alburo-Cañete et al., 2024).

Subtheme 5.4: Communication Gap and Ineffective Response

The significant communication challenges during emergencies, emphasizing the difficulty of understanding warnings and safety instructions. As one informant stated: "It's really difficult for me to understand on what's going on during emergencies when you can't hear the announcements or sirens." (Informant 1) In addition to missed alerts, participants expressed frustration when responders lacked the skills or training to communicate effectively: There is a strong feeling of frustration when emergency responders don't know how to communicate with people who are deaf." (Informant 3). These accounts mirror findings that accessible alerts, absence of interpreters, insufficient training among first responders and weaknesses in inclusive communication systems exacerbate the risk of delayed or ineffective responses, particularly for vulnerable groups such as the Deaf community (Esteban et al., 2023).

Theme 6: Resilience Amidst Adversity

Despite the barriers deaf students encounter, they demonstrate a remarkable resilience in navigating emergencies. Their capacity to adjust through resourcefulness, peer teamwork, and alternative communication approaches reflects their strength in overcoming systemic exclusion. This theme emphasizes how resilience reinforced by supportive networks, inclusive practices, and community solidarity, enabling deaf students to cope and thrive even in the face of adversity.

Subtheme 6.1: Adaptive Strategies

Deaf students demonstrated resourcefulness and creativity in overcoming communication barriers during emergencies. One informant shared: "It was challenging to communicate with classmates and hearing friends during the earthquake, but I managed to get their attention by waving my arms and using sign language," (Informant 2). This illustrates how Deaf individuals rely on instinctive and visual strategies such as gestures, body language, and sign communication to compensate for the lack of accessible information. Such findings align with Xing et al. (2022) that Deaf develop adaptive strategies to ensure survival when formal communication systems exclude them. Similarly, Esteban et al. (2023) emphasizes that they rely on improvised strategies when inclusive emergency mechanisms are unavailable. Scholars argue that effective disaster management, accessible communication systems and universal design must move beyond individual coping mechanisms principles to reduce reliance on improvisation (Lillywhite & Wolbring, 2022).

Subtheme 6.2: Community Contribution and Resourcefulness

Collaboration within the deaf community allows students to demonstrate resilience to support each other and others during crises. One informant shared: "Despite the difficulties I faced during the flood, I was able to help my family and neighbors by using my skills in sign language to communicate and coordinate efforts with other deaf people who can understand my gestures." (Informant 3). Another expressed: "It was challenging to communicate with classmates and hearing friends during the earthquake, but I managed to get their attention by waving my arms and using sign language," (Informant 2). These statements highlight how Deaf individuals actively participate in disaster response through non-verbal communication, improvisation, and problem-solving skills. This supports the finding of a Deaf-led organizations have mobilized their own

community responses from mainstream disaster communication channels due to exclusion (Cooper et al., 2021). Integrating their contributions into disaster planning not only fosters inclusivity but also reinforces community resilience as a whole.

Subtheme 6.3: Personal Growth

Deaf students described their emergency experiences as catalysts for personal development, highlighting resilience, preparedness, and confidence. One informant reflected: “The experience of overcoming danger during the emergency has made me stronger and more resilient... I am more prepared to face challenges in the future.” (Informant 5) This narrative illustrates how traumatic or high-stress situations can foster post-traumatic growth. Recent studies confirm that resilience and growth are critical psychological resources enabling individuals to adapt positively after crises (Gori et al., 2020). Similarly, people with disabilities often emerge from disasters with improved problem-solving skills, stronger self-efficacy, and heightened awareness of preparedness (Kisira et al., 2022). Recognizing Deaf students’ growth highlights their individuality on how they develop greater coping skills, adaptability, and future readiness after surviving adverse events

Subtheme 6.3: Collective Resilience

Deaf students emphasized the importance of community solidarity in navigating emergencies. “I felt support during the emergency, as people from my deaf community came together to help each other to assist us,” (Informant 4). This highlights the collective resilience that emerges when communities, especially marginalized groups, mobilize mutual aid and social support during crises. Research shows that resilience is a collective process rather than an individual attribute. Hall et al. (2023) contended that strong social ties and community networks significantly enhance disaster survival and recovery. In the same way, Atmaja and Kim (2023) note that collective resilience within vulnerable groups fosters both emotional stability and practical assistance.

Theme 7: Emergency Preparedness

Emergency preparedness is an imperative factor in ensuring the safety and well-being of deaf students during crises. Nevertheless, gaps in training, early warning systems, and inclusive educational drills often leave them at greater risk compared to their hearing peers. This theme underscores the importance of preparing the Deaf with the knowledge, tools, and inclusive sustenance essential to respond effectively to emergencies, while also highlighting the role of schools, families, and communities in strengthening preparedness measures.

Subtheme 7.1: Psychological Uncertainty and Lack of Confidence

Deaf students expressed psychological uncertainty when confronted with emergencies, often characterized by heightened anxiety, fear, and limited confidence in their ability to respond effectively. One informant verbalized: “I still feel unprepared for unexpected challenges like emergencies. I'm concerned about my ability to communicate effectively during a crisis and to ensure my safety and the safety of others especially my family.” (Informant 1) Similarly, another student highlighted a lack of confidence in making the right decisions: “I still feel unsure about what to do during emergency real-life situation. I'm worried that I might panic or make the wrong decisions,” (Informant 2). These accounts reflect how insufficient training, communication barriers, and lack of inclusive preparedness strategies heighten psychological distress among deaf students. These individuals with disabilities, often experience heightened psychological vulnerability due to systemic exclusion from training and communication channels (Nguyen-Trung et al., 2025). Likewise, Zhai and Lee (2024) emphasized that interventions must address both practical skills and emotional resilience to reduce uncertainty and build confidence in crisis response. Thus, psychological uncertainty requires tailored emergency drills, inclusive communication systems, and psychosocial support.

Subtheme 7.2: Limited Training & Informal Preparedness

Deaf students revealed that their preparedness strategies often stemmed from informal learning, such as observation and personal initiative, rather than structured training. One informant stated: “I’ve learned a lot about emergency preparedness by observing others and paying attention to news reports. I also try to stay informed about local weather conditions and potential hazards by reading article and books,” (Informant 4). This highlights a gap in formal training opportunities, leaving them to be reliant. Current studies emphasized that appropriate disaster preparedness is inaccessible to people with disabilities which may be inconsistent and insufficient in actual crisis scenarios (Zhai & Lee, 2024). Likewise, the claim was further reaffirmed that the absence of inclusive training programs fosters inequality in disaster readiness (Rofiah & Sudiraharja, 2025). Perhaps, the establishment of formal preparedness education will bridge the knowledge gap and empower the Deaf with reliable, actionable skills.

Subtheme 7.3: Emerging Readiness

Despite feelings of fear and vulnerability, some deaf students demonstrated emerging readiness by staying calm and assisting others during emergencies. One informant claimed: “I felt scared and overwhelmed during the fire, but I was able to stay calm and help others,” (Informant 5). This reflects the capacity of deaf students to interpret learned experiences and coping strategies into practical action under pressure. The emerging readiness often develops from repeated exposure to risks, and informal learning (Amirsadat et al., 2023). This claim was further reaffirmed by Oraiz and Oraiz (2025) that in order to become active contributors to community resilience when provided with opportunities for engagement and practice.

Theme 8: Parental Perspective

Parents play a fundamental role in safeguarding and supporting deaf students during emergencies. Their perspectives often reflect both concern over the communication barriers their children face and the proactive measures they take to bridge these gaps. This theme emphasizes how parents become key advocates, protectors, and sources of information, while also highlighting the emotional and logistical challenges they encounter in ensuring their children’s safety and preparedness.

Subtheme 8.1: Perceived Vulnerability

Parents of deaf students often expressed concerns regarding their children’s dependence, vulnerability, and lack of independent preparedness during emergencies. One parent emphasized, “My child isn’t ready for emergencies because I can’t fully rely on them to act independently,” (Parent 1). Another parent shared observations of their child’s difficulty managing unexpected events: “Based on my observation, even though he’s been taught on how to avoid untoward incidents, he still can’t help but be affected. He still can’t handle it when unfortunate things happen. If he can’t even avoid broken plates, how much more so if he’s caught in a disaster?” (Parent 3). Such perceptions often lead to overprotective behaviors, with parents doubting their children’s readiness: “As a parent of a child with special needs, from what I’ve observed, my child isn’t prepared for emergencies that would happen,” (Parent 2). These accounts highlight how parental perceptions of vulnerability may strengthen dependence, limiting opportunities for deaf students to practice preparedness skills. Recent studies confirm that parents of children with disabilities often adopt protective roles, stemming from fears of harm and limited confidence in their child’s autonomy (Riviwanto et al., 2021). Furthermore, Gresdahl et al. (2025) argue that overprotection, while rooted in care, can inadvertently hinder the development of self-efficacy in children with special needs, especially during emergencies.

Subtheme 8.2: Observed Competence

While some parents expressed concerns about vulnerability, others highlighted their children’s reliability and capacity to act responsibly during emergencies. One parent reflected a sense of trust and reliance on their deaf child: “For me, I can rely on Dodong because... he helped me and made me feel at ease.” (Parent 4) Another parent described their child’s proactive response during a local emergency: “I’ve also observed that

this child is quite observant of his surroundings. During the fire incident in our place, he moved out of the place and actively helped our neighbor by fetching water. However, because he's deaf, there's always that uncertainty about how he'll react to different emergencies, as each situation requires a unique response." (Parent 5) These accounts illustrate that deaf students are not merely passive dependents but can demonstrate adaptive skills, situational awareness, and resilience during crises. Recent studies emphasized that children with disabilities, when provided with opportunities and support, can demonstrate leadership, responsibility, and effective responses during disasters (McConkey et al., 2023). Corroborating the study of Spencer and Thompson (2024), notes that parental acknowledgment plays a crucial role in strengthening children's self-efficacy and preparedness behaviors.

Theme 9: Teacher's Perspective

Teachers hold a vital role in shaping the emergency preparedness and response of deaf students within educational settings. Their perspectives often highlight both the opportunities and challenges of creating inclusive safety protocols, ranging from the limitations of available resources to the importance of tailored communication strategies. This theme underscores how teachers' awareness, training, and commitment to inclusion directly influence the ability of deaf students to respond effectively during emergencies.

Subtheme 9.1: Partial Readiness

Teachers observed that deaf students have developed some level of preparedness for emergencies, yet they remain only partially ready. One teacher noted: "While our deaf students have made significant progress... there is still room for improvement." (Teacher 1) This highlights the ongoing breach between awareness and full preparedness, suggesting that while students have gained knowledge and skills, they still require structured training, reinforcement, and inclusive drills to achieve confidence and independence in crisis situations. Research confirms that partial readiness is common among deaf and hard-of-hearing students, as preparedness is often shaped by inconsistent access to information and limited inclusion in mainstream emergency programs (Shakespeare et al., 2021). Furthermore, studies show that educational interventions and repeated practice are essential to build the self-efficacy and adaptive capacity of students with disabilities during disasters (Katsetsiadou et al., 2023).

Subtheme 9.2: Inclusive Planning & Experiential Learning

Teachers stressed the importance of inclusive emergency planning and experiential learning to warrant that Deaf student are not left behind during crises. One teacher shared: "It's important to ensure that our emergency plans and drills are accessible to all students, including those who are deaf." (Teacher 2). Another teacher further highlighted: "Regular emergency preparedness drills are vital for all students, but they are especially important for deaf students. These drills help them practice their emergency response skills and build confidence in their ability to stay safe." (Teacher 5) These statements underscore the role of practical, hands-on experiences in building readiness. Recent studies affirm that inclusive emergency drills and accessible planning significantly improve the preparedness and resilience of students with disabilities by fostering familiarity with emergency routines and reducing panic (Goswami & Ahmad, 2025). Similarly, community-based disaster education research stresses that active participation and repeated practice are more effective than passive instruction in shaping behavioral responses (Gavari-Starkie et al., 2021). Thus, combining Deaf students into inclusive, experiential preparedness programs promotes a culture of safety for the entire school community.

Subtheme 9.3: Communication Barriers

Teachers recognized that communication remains one of the most critical challenges for deaf students during emergencies. One teacher described: "Deaf students may face unique challenges during emergencies due to communication barriers. It's crucial to have a plan in place for how to communicate with them effectively, such as using written messages or visual aids," (Teacher 3). These places of interest the crucial need for accessible communication strategies that ensure safety and inclusion. Recent studies show that

communication gaps significantly increase vulnerability for deaf individuals, especially in high-risk situations where real-time updates are vital (Lillywhite & Wolbring, 2022). Researchers further stress that visual and multimodal communication tools—such as captioning, sign language interpretation, and pictograms—are essential for equitable emergency response (Abou-Abdallah & Lamyman, 2021).

Subtheme 9.4: Individualized Support

Teachers emphasized the importance of personalized strategies in supporting deaf students during emergencies. As one teacher explained: "Building strong relationships with deaf students is essential for their safety and well-being during emergencies. By understanding their individual needs and preferences, we can provide them with the support they need," (Teacher 4). This underscores the need for individualized support systems tailored to the unique needs of each deaf student. Recent studies confirm that effective emergency preparedness for deaf learners requires person-centered approaches that account for differences in communication skills, coping mechanisms, and social support networks (Mohanty & Mishra, 2020). Similarly, Oraiz and Oraiz (2025b) stresses that trust-based teacher-student relationships enhance communication, confidence, and responsiveness, especially in crisis situations.

The teacher informants highlight several key dimensions in disaster response and recognize the strides of the Deaf students' preparedness during emergencies which remains a work in progress. Experiential learning is evident among the Deaf that go beyond traditional drills can meaningfully strengthen understanding and retention. Without targeted and inclusive instruction, Deaf students may continue to be unprepared for emergency situations despite their best efforts. Ensuring their safety does not only require awareness but also the adaptation of those protocols that is suitable for their communication needs and boost their sensory strengths. The use of sign language, visual aids, and concerted interpretation in mainstream classrooms significantly enhances Deaf students' participation and understanding, especially during emergencies. The results affirmed that inclusive, experiential instruction is vital to build confidence, ensures safety, and enables to realize equitable preparedness (Villarente et al., 2025). Overall, disaster preparedness is directed towards life preservation and to facilitate a faster and coordinated response during emergencies. On the contrary despite awareness or anticipation of disasters and actual emergency preparedness it turned out to demonstrate a low yield and suggest for a critical need for an effective program to reduce risk and vulnerability (Suyadi et al., 2020).

CONCLUSIONS

In the light of the accounts of the informants, it verified that emergency readiness amplify the previously existing vulnerabilities of Deaf individuals, particularly due to the absence of accessible communication systems, modified strategies and appropriate warning devices. The absence did not only delay the response and increases physical risks but also intensifies emotional distress and feelings of seclusion. The evidence reinforces that inclusivity in emergency planning is not merely an ethical obligation but a core component of effective public safety.

RECOMMENDATIONS

Based on the accounts of the informants of the study, it is recommended that disaster risk reduction management or emergency management agencies, local government units, and community organizations should adopt Deaf-inclusive disaster preparedness measures. These should include the integration of visual warning systems, sign language interpreters, clear written instructions, and regular drills designed with Deaf participation. The utilization of an Inclusive Early Warning Systems (EWS) and Priority Evacuation Assistance (PEA) for Deaf students. Additionally, fostering partnerships between emergency responders and Deaf advocacy groups can ensure that plans underwent continuous improvement process are relevant, tested, and responsive to the unique communication needs of the Deaf community.

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APPENDIX

Coding Matrix of Deaf Students' Experiences on Emergency Preparedness			
Raw Data (Informant Quote)	Open Coding	Axial Coding (Category)	Selective Coding (Theme)
"I feel bad because I can't access the information about the phenomenon for, I don't understand what they are talking about regarding the event or emergency" (Informant 1)	Difficulty accessing verbal info	Information Inaccessibility	Accessibility
"Being a deaf person, I have a hard time understanding hearing people on what they are saying and talking about, I want to know what they are talking about the emergency that is going on." (Informant 2)	Struggle in understanding announcements	Barriers in Emergency Communication	Accessibility
"I ignore what is happening because I don't understand hearing people for what they are talking about." (Informant 3)	Detachment due to lack of comprehension	Neglect and exclusion during Emergencies	Accessibility
"As a deaf student, I am used to being ignored whether there is a typhoon, earthquake and other emergencies for they always think that I can't help them for I am special." (Informant 4)	Feeling neglected	Neglect and exclusion during Emergencies	Accessibility
"I don't care what hearing people say because I'm deaf and they don't know how to communicate to the deaf like me and they don't understand sign language too" (Informant 5)	Communication gap	Mutual Lack of Understanding	Accessibility
"I have many hearing friends but they cannot understand me, sometimes they laugh at me so I decided not to join them." (Informant 1)	Misunderstanding by peers	Peer Exclusion	Social Inclusion
"During the earthquake, my hearing friends told me to do the earthquake drill but I hardly understood them which made me feel that I didn't belong to the group." (Informant 2)	Communication and Language	Exclusion in Preparedness	Social Inclusion
"As a deaf, I usually find my own space and try to learn things on my own even with my brother and sister for they ignore or do not understand my sign language." (Informant 3)	Isolation at home/community	Social Seclusion	Social Inclusion
"When my hearing friend who happens to be an SK of our barangay, invited me to join their training on disaster I only observed things and tried to appreciate what they did but I cannot fully understand them yet I enjoyed the group of young people." (Informant 4)	Limited Engagement	Passive participation	Social Inclusion
"Even though I am deaf I always spend time with my hearing friends in our barangay because I am the only one who cannot hear. They always include me in games and other activities that I can do." (Informant 5)	Partial inclusion	Conditional Acceptance	Social Inclusion
"I had a hard time understanding the hearing people and communicating with them, they don't	Miscommunication	Inability to Convey Needs	Communication & Language

understand my sign language too.” (Informant 1)			
“During emergencies communication is important, I realize that it’s hard to talk to a hearing person, it delays the help that I need” (Informant 2)	Delayed help	Critical Delay	Communication & Language
“Communication is a great means to understand each other deaf learn to write but hearing must understand sign language also.” (Informant 3)	Need for mutual learning	Bridging Communication Gaps	Communication & Language
“I cannot hear what they say but their faces tell a lot that something is wrong, through that I understand what they are communicating about.” (Informant 4)	Reliance on facial/visual cues	Non-Verbal Communication	Communication & Language
“I agree with the other deaf that I find it hard to communicate to hearing people sometimes they can't understand my writings and my sign.” (Informant 5)	Writing/sign misunderstood	Misinterpretation Risk	Communication & Language
"I can tell when there's an earthquake because I feel the ground shaking and the walls moving. I also notice strange noises and objects falling. When there's a typhoon, I can feel the strong winds and see the downpour of rain. I know it's important to stay indoors and away from windows during these emergencies." (Informant 1)	Sensory awareness	Environmental Awareness	Emergency Awareness
"I'm aware of different emergencies, like earthquakes, typhoons, and fires. I know that earthquakes can cause buildings to collapse, so it's important to find a safe place to hide. During typhoons, I stay away from windows and doors to avoid flying debris." (Informant 2)	Self-taught awareness	Learned Experience	Emergency Awareness
"I may not know all the facts and information about every type of emergency but I'm aware of the basic signs and how to respond. I also know that during a fire, one must evacuate quickly and in a safe place. During a flood, I know to stay away from flooded areas and to avoid standing water." (Informant 3)	Basic knowledge	Informal Awareness	Emergency Awareness
"I've learned from watching television that heavy rain can lead to flooding. I know that the river near our house can cause flooding, so I need to go to a higher place if necessary." (Informant 4)	Media-based learning	Secondary Sources	Emergency Awareness
"I'm am aware of my surroundings, especially when weather is bad. If there is heavy rain there's a risk of landslides, and I avoid going outside.” (Informant 5)	Observation of risks	Observational Awareness	Emergency Awareness
"It's really difficult for me to understand on what's going on during emergencies when you can't hear the announcements or sirens." (Informant 1)	Lack of auditory alerts	Communication Gap	Impact of Emergencies
"I feel isolated and alone during emergencies	Emotional isolation	Psychosocial	Impact of

because I can't communicate with other people even with my own family." (Informant 2)		Distress	Emergencies
"There is a strong feeling of frustration when emergency responders don't know how to communicate with people who are deaf." (Informant 3)	Frustration with responders	Ineffective Response	Impact of Emergencies
"I've relied on my family and close friends who cared for me to help me stay informed and safe during emergencies." (Informant 4)	Dependence on family	Reliance on Others	Impact of Emergencies
"It's nice to have emergency plans on what to do during a disaster so that a deaf person like me can be saved and go away from danger." (Informant 5)	Desire for inclusion	Need for Preparedness Plans	Impact of Emergencies
"Even though I couldn't hear the warnings or announcements, I relied on my instincts and the visual cues around me to stay safe during the typhoon." (Informant 1)	Instinct-based safety	Adaptive Strategies	Resilience amidst Adversity
"It was challenging to communicate with classmates and hearing friends during the earthquake, but I managed to get their attention by waving my arms and using sign language." (Informant 2)	Alternative communication	Resourcefulness	Resilience amidst Adversity
"Despite the difficulties I faced during the flood, I was able to help my family and neighbors by using my skills in sign language to communicate and coordinate efforts with other deaf people who can understand my gestures." (Informant 3)	Helping via sign	Community Contribution	Resilience amidst Adversity
"I felt support during the emergency, as people from my deaf community came together to help each other to assist us." (Informant 4)	Solidarity	Collective Resilience	Resilience amidst Adversity
"The experience of overcoming danger during the emergency has made me stronger and more resilient. Now that I understand my abilities and limitations. I am more prepared to face challenges in the future." (Informant 5)	Strength through crisis	Personal Growth	Resilience amidst Adversity
"I still feel unprepared for unexpected challenges like emergencies. I'm concerned about my ability to communicate effectively during a crisis and to ensure my safety and the safety of others especially my family." (Informant 1)	Lack of readiness	Psychological Uncertainty	Emergency Preparedness
"I still feel unsure about what to do during emergency real-life situation. I'm worried that I might panic or make the wrong decisions." (Informant 2)	Anxiety in emergencies	Lack of Confidence	Emergency Preparedness
"I know that natural disasters like typhoons and tsunamis can be dangerous, but I'm not sure what specific steps I should take to protect myself and my family. I need more information and training on emergency preparedness." (Informant 3)	Lack of procedural knowledge	Limited Training	Emergency Preparedness
"I've learned a lot about emergency preparedness	Self-learning	Informal	Emergency

by observing others and paying attention to news reports. I also try to stay informed about local weather conditions and potential hazards by reading article and books." (Informant 4)		Preparedness	Preparedness
"I felt scared and overwhelmed during the fire, but I was able to stay calm and help others. I learned that even in difficult situations, it's important to remain focused and take action to put off the fire." (Informant 5)	Coping in crisis	Emerging Readiness	Emergency Preparedness
"Di pa jud andam ang akong anak kung adunay katalagman kay di nako na masaligan na siya siya ra kay wala pajud na siyay boot." Translation: "My child isn't ready for emergencies because I can't fully rely on them to act independently. She still lacks initiative." (Parent 1)	Lack of initiative	Dependence on Parents	Parental Point of View
"Isip ginikan sa usa ka bata nga naay kakulian, sa akong nakita di jud siya ready kung adunay mga emergency na mahitabo." Translation: "As a parent of a child with special needs, from what I've observed, my child isn't prepared for emergencies that would happen." (Parent 2)	Perceived unpreparedness	Overprotection	Parental Point of View
"Sa akong nakita, bisag gitudloan siya unsaon paglikay, di jud mada, di pajud niya kaya kung adunay mga di nindot na panghitabo kay di gani sila kalikay sa nabuak naga plato unsaon nalang kung maigo sa katalagman?" Translation: "Based on my observation, even though he's been taught on how to avoid untoward incidents, he still can't help but be affected. He still can't handle it when unfortunate things happen. If he can't even avoid broken plates, how much more so if he's caught in a disaster?" (Parent 3)	Limited coping skills	Vulnerability	Parental Point of View
"Para nako kay masaligan nako si dodong kay siya raman gabantay sa iya mga igsoon, bisag bungol siya kabalo raman siya katong nay bagyu, sunog og naglinog sa amoa nakatabang jud siya nako para magaan gaan ako paminaw anang panahona" Translation: "For me, I can rely on Dodong because he's the one who always looks after his siblings. Even though he's deaf, he knows when there's a typhoon, fire, or earthquake. During those times of emergency, he helped me and made me feel at ease." (Parent 4)	Reliable in crisis	Responsibility	Parental Point of View
"Sa ako nakita kani sad na bata maayu pod ni siya mo tan-aw sa iya palibot kay katong adunay sunog niplayu siya sa lugar sa sunog og nitabang sa among silingan pag kawus og tubig. Pero mao	Active and observant	Responsiveness	Parental Point of View

<p>lage na kay bungol di pod kumpyansa jud kay lain lain katalagman lahi sad ang pagsulbad niini.”</p> <p>Translation: "I've also observed that this child is quite observant of his surroundings. During the fire incident in our place, he moved out of the place and actively helped our neighbor by fetching water. However, because he's deaf, there's always that uncertainty about how he'll react to different emergencies, as each situation requires a unique response." (Parent 5)</p>			
<p>"While our deaf students have made significant progress in emergency preparedness, there is still room for improvement in their understanding of visual cues and emergency protocols. Providing more hands-on training and simulations can help them develop the necessary skills." (Teacher 1)</p>	Uneven preparedness	Partial Readiness	Teacher's Perspective
<p>"It's important to ensure that our emergency plans and drills are accessible to all students, including those who are deaf. This means using visual aids, sign language interpreters, and providing clear written instructions." (Teacher 2)</p>	Accessibility of drills	Inclusive Planning	Teacher's Perspective
<p>"Deaf students may face unique challenges during emergencies due to communication barriers. It's crucial to have a plan in place for how to communicate with them effectively, such as using written messages or visual aids." (Teacher 3)</p>	Unique challenges	Communication Barriers	Teacher's Perspective
<p>"Building strong relationships with deaf students is essential for their safety and well-being during emergencies. By understanding their individual needs and preferences, we can provide them with the support they need." (Teacher 4)</p>	Understanding needs	Individualized Support	Teacher's Perspective
<p>"Regular emergency preparedness drills are vital for all students, but they are especially important for deaf students. These drills help them practice their emergency response skills and build confidence in their ability to stay safe." (Teacher 5)</p>	Importance of practice	Experiential Learning	Teacher's Perspective