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A Meta-Synthesis on the Experiences of Persons with Disabilities towards Disaster Preparedness

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Abstract: ***In times of disaster, it is essential to consider the experiences and preparedness of persons with disabilities. This study provided a meta-synthesis of disaster experiences and preparedness of people with disabilities. Eighteen (18) out of 504 studies were chosen based on the inclusion and exclusion criteria. The quality of the selected articles was assessed using the Critical Appraisal Skills Programme (CASP) and arranged using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram. The synthesized data were analyzed using Clark and Braun's six-step thematic analysis, and have resulted in twelve (12) themes, namely: increased vulnerability and marginalization, inaccessible formats of information limit mobility and awareness, initiatives are transparent, dependency on people, post-disaster services are not inclusive, disaster creates injuries and disabilities, participation in planning is limited, unfamiliarity results in limited awareness, initiatives improve preparedness, plans are developed for them rather than by them, preparation is costly, and develops self-made strategy for survival. In conclusion, the preparation and participation of people with disabilities in disaster risk reduction and management are limited. It is recommended that disaster risk reduction training and planning be inclusive for people with disabilities.***

Keywords: Disasters, Experiences, Preparedness, Persons with Disability, Meta-synthesis

I. INTRODUCTION

During disasters, people with disabilities (PWDs) are among the most susceptible and negatively affected sectors. They represent 15% of the world's population (roughly one billion people), making them the largest minority group on the globe (IFRC, 2007b; World Health Organization & The World Bank, 2011). They face societal and environmental barriers like access to information every day (IASC, 2018). PWDs have a risk of dying two to four times that of the general population during a disaster, and an additional 6% of disaster victims end up with a disability (UNESCAP, 2017). They are among the minority who experience the highest degree of socio-economic marginalization. In times of crisis, marginalized people are much more at risk due to factors like their lack of access to efficient monitoring and early-warning systems and medical services (IASC,2018), difficulties when sheltering (Twigg et al., 2011), and post-disaster vulnerability (Phibbs et al., 2015

Globally, 198.8 million people were impacted by natural catastrophes annually between 2008 and 2017 (CRED, 2018). In 137 nations, 85.57 percent of the disabled individuals polled said they had not taken part in their communities' existing disaster management and risk reduction procedures. People with disabilities suffer due to a range of factors including exclusion from decision-making processes, often poor living conditions, inadequate infrastructure, income inequality or undiversified sources of income, and limited access to basic services, especially education and information as stated by the United Nations (UNISDR, 2015). All these factors pile up to cause negative results for many people with disabilities who are encountering disasters.

The United Nations published the findings of a survey they conducted with over 5,000 persons with disabilities from 137 countries in 2013, it concluded that during disasters, only 20.6% believe that they could evacuate instantly without experiencing difficulty, while 38.1% believe they might experience some level of difficulty with evacuating, 34.93% may experience a lot of difficulty with evacuating, and 6.3% state that they would not be able to evacuate at all. In the same survey, 85.57% of respondents state they haven't taken part in their communities' disaster management and risk reduction initiatives. They have essentially been left out of the planning and decision-making for these operations. According to 72.20% of respondents, they do not have disaster preparedness strategies for themself. As of the remainder who do have a personal disaster preparedness plan, family support has been noted as being the most major element. Additionally, 50.94% of respondents said they would like to take part in community relief efforts. Finally, only 14.29% of participants claim to be aware of a national disaster risk reduction strategy in their country. (UNISDR, 2014)

Conventions and agreements at the international level have acknowledged the value of disaster risk reduction (DRR) for individuals with disabilities. Articles 32 and 11 of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) (UN 2006) acknowledges that global programs for people with disabilities should be inclusive and easily available, and stress that states parties shall take, in conformity with their international obligations, including international humanitarian law and human rights treaties law, all measures necessary to ensure the protection and safety of persons with disabilities during risk situations including the occurrence of natural disasters. Along this is the International Disaster Risk Reduction framework, the Incheon Strategy by UNESCAP (2013–2022), which has established the first set of regionally acknowledged, disability-inclusive development objectives. One of its 10 objectives was to ensure inclusive disaster risk reduction and management (DiDRR) for people with disabilities, and the Sendai Framework for DRR (2015-2030), which emphasizes that disability should not be seen as an "add-on" to present DRR techniques, but that inclusion in disaster risk reduction planning is a human right that requires full implementation.

The World Health Organization (WHO) and more developed countries have made digital information more accessible. Efforts are made, for example, utilizing captioning or a sign language interpretation, but still, actions are insufficient (Bista, 2020). In DRR policy and procedure, PWDs are generally ignored, disregarded, and unacknowledged (Gartrell and Hoban, 2013; Zayas et al., 2017). The International Federation of Red Cross and Red Crescent Societies (2007) acknowledged that persons with disabilities are "ignored or excluded at all levels of disaster preparedness, mitigation, and intervention". They are disproportionately impacted by disasters because preparedness, response, and recovery efforts do not take their needs into account. (Bista, 2020)

There are barriers that are strongly rooted in Disaster Risk Reduction regulations and practices. Typically, DRR actors don't have the necessary experience and capacity to implement Disaster Inclusive Risk Reduction (DiDRR). (World Health Organization, 2011; Hunt et al., 2015; Zayas et al., 2017; Robinson and Kani, 2014.). People affected by disasters, according to Engelman and Deardorff (2012), have an essential part in disaster mitigation and response, yet, international aid organizations and their regional and local governments frequently disregard their knowledge.

In order to lessen their vulnerability and risk in disaster, this research seeks to synthesize the experiences and preparedness of people with disabilities in disasters. It aims to address the following questions: (1) What are the experiences of people with disabilities during disasters? (2) How prepared are people with disabilities in dealing with disasters? and (3) What would be the most effective initiative in disaster risk reduction preparedness planning for individuals with disabilities?

II. METHODOLOGY

A meta-analysis was conducted to synthesize data regarding the disaster experiences and preparedness of persons with disabilities. The design followed Sandelowski and Barroso's approach (2007). This involved three steps: (i) selecting published papers to include, (ii) quality review and data extraction, and (iii) summarizing and synthesizing.

A. Search Strategy

The published papers concerning the lived experiences on disaster preparedness of persons with disabilities through Publish or Perish software via Google Scholar and Scopus were located using a scholarly electronic database. All studies published between 2015 and 2022 that were related to this study were reviewed. The Publish or Perish Software employed terms such as disaster preparedness, lived experiences, and people with disabilities. For screening the remaining research, the CASP checklist or the Critical Appraisal Skills Programme was also utilized.

B. Selection/inclusion Criteria

The studies included in this review were chosen and checked based on the following: articles must not have duplication, must be reported in English, must have sources, must have citations, must be around the year 2015-2022, must have fitting abstract, must undergo intensive screening, and must fit using the CASP checklist or the Critical Appraisal Skills Programme.

III. DATA ANALYSIS

The studies were examined and contrasted using thematic analysis in conformity with Clark and Braun's protocol (2017). The six-step thematic analysis methodology was utilized to revise this. These included 1) becoming informed with the research articles or studies where the emerging themes were noted; 2) producing codes by gathering data common to each code; 3) searching for themes by collecting relevant data for each theme; 4) reviewing themes by constructing a thematic map; 5) explaining and classifying themes that clearly specify the emerging themes; and 6) developing the report by discussing the study's analysis and implications.

IV. RESULTS AND DISCUSSION

The final collection of eighteen (18) research studies were conducted in Asia (15), Australia (3), Oceania (2), and Africa (1).

A. Search Result

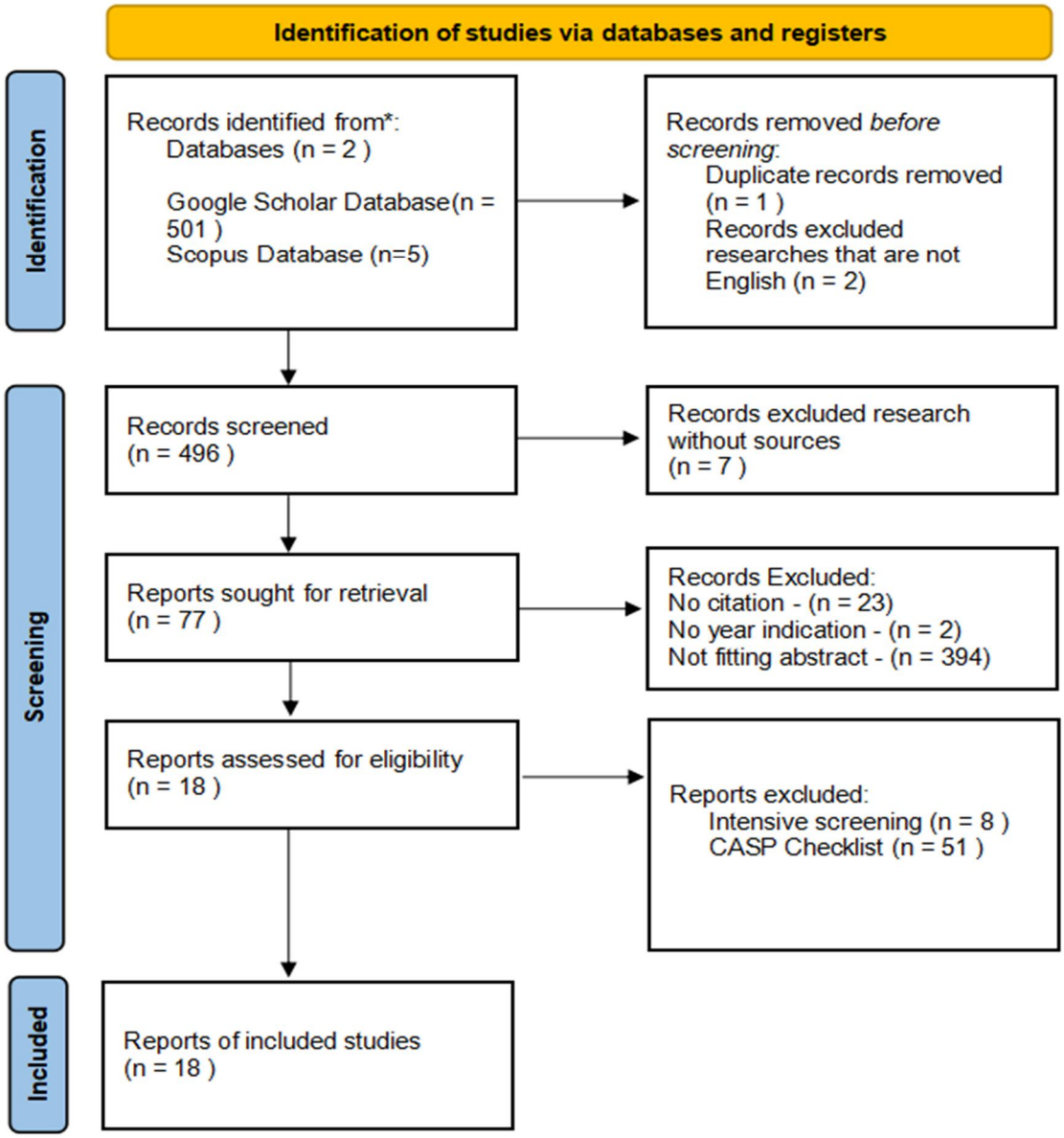

Figure 1 illustrates the results of the search conducted to select the papers for inclusion in the meta-analysis.

Using the PRISMA Flow Diagram, there have been three (3) processes involved in the selection of research papers. The three stages consist of: Identification, Screening, and Included.

In the identification stage, five hundred one (501) studies were published in Google Scholar and five (5) studies were published in the Scopus database, for a total of five hundred six (506) studies on the initial screening using Publish or Perish software. One (1) study was eliminated due to a duplicate in Scopus and Google Scholar, and two (2) studies were eliminated as they were not written in English, leaving with five hundred three (503) studies at the identification stage. The screening stage contains three different sub-stages. Seven (7) papers were removed from the first sub-stage due to the unavailability of sources, leaving a total of four hundred ninety-six (496) studies.

On the second sub-stage, twenty-three (23) studies were eliminated because they did not meet one of the inclusion criteria, which was the citation; two (2) studies were eliminated because it has no year indication; and an additional three hundred ninety-four (394) studies were eliminated because their abstracts did not meet the requirements of the researchers, this resulted in seventy-Seven (77) studies. On the third sub-stage, eight (8) studies were eliminated after re-reading and re-screening, and fifty-one (51) studies were also omitted because they did not match the criteria using the CASP checklists, leaving eighteen (18) studies in total.

Table 1 provided below is the summary and characteristics of the final 18 studies used in the meta-analysis.

No.	Author	Year	Setting	Design	Publication Type	Experience during disaster	Factors contributing to disaster preparedness
1	Leilani, C., Nick, C., Emma, C., Dale, D. H., & Karlee, J.	2019	Australia, Philippines	Qualitative	Book	• Experience some degree of marginalization and isolation. • Media-mediated updates are not available to everyone. • Great reliance on family and social networks. • Early warnings are delivered in an inaccessible format. • The lack of proper support in daily life has increased passivity among PWDs. • Emergency response strategy is not inclusive. • Some degree of support is evident.	• No appropriate training. • Due to low levels of education and literacy, they are less likely to understand risk alerts. • DRR movements have started. • Plans are developed with low levels of efficacy • Little to no support during an emergency situation. • Limited risk awareness and preparedness • A disconnect between DRR stakeholders and PWDs. • Lack of resources.
2	Natano, E., Amelia, T., Masoud, M., & Tamara, M.	2020	Tuvalu	Qualitative	Research Report	• Great reliance on family and social networks. • Evacuation issues. • Early warnings are delivered in an inaccessible format. • Barriers differ according to disability and disaster. • Disasters may result in disabilities.	• No appropriate training. • DRR efforts have started. • Limited risk awareness and preparedness • A disconnect between DRR stakeholders and PWDs. • Motivated by religious belief. • Preparing is costly.
3	Baker, S., Reeve, M., Marella, M., Roubin, D., Caleb, N., & Brown, T.	2017	Vanuatu	Quantitative	Research Report	• Loss or damage of ATs compromised mobility. • Experience some degree of marginalization and isolation. • Injuries • Disasters may result in disabilities • Post-disaster services are not inclusive	• No appropriate training. • Limited risk awareness and preparedness. • Less likely to understand risk alerts due to low levels of education and literacy.

4	Mylene, B., Pauline, K., Liezel, C., Rowena, A., Bérengère, G., & Julie, H.	2015	Leyte, Philippines	Qualitative	Journal Article	• Experience some degree of marginalization and isolation. • Injuries • Disasters may result in disabilities. • Evacuation issues. • Loss or damage of ATs compromised mobility. • Use of assistive devices during post-disaster.	• DRR efforts have started.
5	Layton, N., Mont, D., Puli, L., Calvo, I., Shae, K., Tebbutt, E., Hill, K. D., Callaway, L., Hiscock, D., Manlapaz, A., Groenewegen, I., & Sidiqi, M.	2021	Melbourne, Australia	Qualitative	Journal Article	• Inclusive Technologies • Essentials are not prioritized • Loss or damage of ATs compromised mobility • Great reliance on family and social networks. • Need for assistive devices. • Assistive programs • Accessible public transport	• Excluded from pandemic response
6	Mirian, W.	2017	Albay, Philippines	Qualitative	Research Report	• Left behind. • Experience some degree of marginalization and isolation. • Injuries • Disasters may result in disabilities.	• Participation in DRR planning is limited. • No appropriate training. • Little to no support during an emergency situation. • Developed own survival techniques.
7	Takayama, K.	2017	Japan	Exploratory	Journal Article	• Early warnings are delivered in inaccessible format • Emergency response strategy is not inclusive. • Experience some degree of marginalization and isolation. • Media-mediated updates are not available to everyone. • Post-disaster services are not inclusive • Some degree of support is evident.	• A disconnect between DRR stakeholders and PWDs. • DRR efforts have started.
8	Dominic, S., Mary, K. A., Ibrahim, A. M., & Chukwuemeka, E. J.	2020	Nigeria	Qualitative	Journal Article	• Socioeconomic consequences. • Requires more support. • Increased vulnerability	• Support from caregivers.

9	Islam, S., Mondal, S. H. & Kabir, M. H. M.	2018	Bangladesh	Cross-sectional	Journal Article	• Great reliance on family and social networks. • Post-disaster services are not inclusive • Evacuation issues • Some degree of support is evident.	• No appropriate training. • Media-mediated updates. • Little to no support during an emergency situation. • Limited risk awareness and preparedness • A disconnect between DRR stakeholders and PWDs.
10	Smriti, P. Saugat, K., & Madhusudan, S.	2021	Nepal	Qualitative	Journal Article	• Experience some degree of marginalization and isolation. • Lack of availability of transportation to health facilities ○ • Early warnings are delivered in inaccessible format. • Post disaster services are not inclusive • inaccessibility to education	• DRR efforts have started. • A disconnect between DRR stakeholders and PWDs. • Lack of resources.
11	Hannah, Z.	2019	Brisbane, Australia	Mixed-methods	Dissertation	• Health effects/issues • Impact of natural hazards	• DRR efforts have started • Situational preparedness • Basic needs preparedness • Psychological preparedness as a coping mechanism • Resiliency, awareness and preparedness
12	Zahra, A. D., Hesam, S., & Aidin, A.	2016	Iran	Qualitative	Journal Article	• Health effects/issues • Medication-related problems due to natural disaster • Lower disaster preparedness • Evacuation issues • Plans are developed with low levels of efficacy • Great reliance on family and social networks. • Experience some degree of marginalization and isolation. • Limited access to medical services.	• Limited risk awareness and preparedness • Preparedness and planning depend on well-being • No appropriate training • Preparing is costly • DRR efforts have started. • A disconnect between DRR stakeholders and PWDs.
13	Audrey C. C., Hương, T. T. B., Linh, T. N., Phục,	2020	Vietnam	Qualitative	Journal Article	• Impact of natural hazards • Evacuation issues	• A disconnect between DRR stakeholders and PWDs

	K. N., Thanh, H. T. N., & Diễm, P. N. P.					• Media-mediated updates are not available to everyone	• No appropriate training • Limited risk awareness and preparedness • Lack of resources • Less likely to understand risk alerts due to low levels of education and literacy
14	Asio, J.M.R.	2020	Central Luzon, Philippines	Descriptive	Journal Article	• Emergency response strategy is not inclusive • Experience some degree of marginalization and isolation	• Resiliency, awareness and preparedness • Media-mediated updates
15	Marisol, D. A., Imelda M. SM., & Eden V. E.,	2020	Philippines	Descriptive	Research Report	• Impact of natural hazards • Injuries • Emergency response strategy is not inclusive • Post-disaster services are not inclusive	• Resiliency, awareness, and preparedness • No appropriate of training • Plans are developed with low levels of efficacy
16	Maurya, V.	2019	Patna, India	descriptive	Journal Article	• Persons vulnerability affects building preparedness and resilience • Experience some degree of marginalization, vulnerability and isolation. • Exposures to risk in people with disabilities • Health issues •	• Limited access to services, evacuation and dependency • Addressing resiliency grasped by the community.
17	Ricardo, T. B.	2016	Philippines	descriptive	Journal Article	• Experience some degree of marginalization and isolation • Level of damages	• Poverty hinders preparedness • Resiliency, awareness and preparedness • Addressing resiliency grasped by the community.
18	Asio, J.M.R.	2020	Central Luzon, Philippines	Descriptive Correlation	Journal Article	• Level of damages • Some degree of support is evident.	• Resiliency, awareness and preparedness

The concluding set of 18 studies comprised twelve (12) journal articles, four (4) research reports, one (1) dissertation, and one (1) book. The researches used were conducted in Asia (12), Australia (3), Oceania (2), and Africa (2). Data were collected and analyzed using thematic analysis.

The eighteen (18) studies produced twelve (12) themes within two (2) categories (Experiences of Persons with disabilities during disasters, Factors Contributing to Disaster Preparedness)

V. LIVED EXPERIENCES OF PERSONS WITH DISABILITIES DURING DISASTERS

1) *Theme 1: Increased vulnerability and marginalization*

Persons with disabilities encounter various types and levels of barriers during disasters, depending on their disability. In a three-year data from the England Community Life Survey (CLS, 2016 to 2019), They are shown to experience higher degrees of seclusion, decreased perceived social support and separation, when compared with people without disability. Individuals with disabilities have limited access regarding evacuation shelter information and actual shelters than individuals without disabilities (Baker et al.,2018). Despite their distinct backgrounds, the deaf and the blind have been marginalized by language barriers and inadequate availability of information on dangers and risk-mitigation strategies. In the case of an emergency or natural disaster, people confront a twofold challenge: not being able to extend their support needs to emergency managers caused by insufficient transparency of information provided during times of disaster (Leilani et al., 2017). The majority of individuals with disabilities reported being susceptible to extreme winds, storm surges, flooding, and drought. Those who require specific medical care on a daily basis have suffered as a result of rehabilitation center closures or capacity reductions (Bettger et al., 2020). The lack of adequate daily support has created passivity among PWDs. The COVID-19 pandemic also revealed flaws in the healthcare system that put disabled individuals at danger of neglect and cruelty. Despite several efforts to safeguard their rights and equality, they continue to suffer disproportionately during conflicts, natural disasters, and pandemics (Smriti et al., 2021). Organizations and their humanitarian assistance groups with regional and national authorities often dismiss information (Emma et al., 2018).

2) *Theme 2: Inaccessible formats of information limit mobility and awareness*

In times of disaster, being informed is important. People with disabilities need to be informed in a different manner that takes their abilities into consideration. The majority of PWD testimony claim that information is inaccessible in various formats during disasters. Individuals who are blind or have impaired vision are unable to access information presented in charts or graphs. Similarly, deaf people will not understand health instructions presented on television unless they are supported by captioning or sign language interpreters (Smriti et al., 2021). Closed captioning, which came out in 1992, the widespread use of the internet, and the arrival of mobile phones have all made it easier for many people who are hearing impaired to get emergency information, but not all (Leilani et al., 2017). Those who have hearing impairments may lack access to all the details given to the hearing population, including audio warnings, mainstream media, and relief supports designated for hearing victims. A cell phone is an essential means of assistance and communication from dependable family members (Kota Takayama, 2017). Individuals who are deaf and hard-of-hearing have fewer venues and platforms that are recognized to advocate for heightened access. (Calgaro et al., 2013). It was discovered that people with disabilities had extra losses and unmet needs, such as the loss of assistive devices (ATs) and lack of accessibility to disability-specific services, such as rehabilitation programs (Baker et al.,2018). Losing mobility aids during a disaster can make it harder to get around on one's own. In a research study based on data collected from the Philippines after Typhoon Haiyan, Mylene Beneigni et al. (2018), stores that sold assistance devices (AT) (orthopedic standard wheelchairs, canes, crutches, and walkers) were also greatly damaged post-disaster. As a result, people were left more vulnerable when they lost a prosthetic limb, hearing aid, or set of glasses after a natural disaster. While the experience of exclusion may have been comparable, the consequences of exclusion for AT users were heightened (Layton et al., 2021).

3) *Theme 3: Initiatives are transparent*

The movements of the stakeholders are visible toward helping persons with disability in emergencies most especially during a disaster. Support from the government is visible, such as psychological therapies, community announcements, medical treatments, transit information, and peer group support for hearing-impaired victims who do not have access to sign language interpretation (Takayama, 2017). The Get Ready Deaf Community NSW7 follow-up project was essential to the implementation of one of the project's fundamental principles — the development of Deaf Liaison Officers (DLOs). DLOs communicated with emergency services through connections who are Deaf and hard of hearing to provide details on the availability and cultural relevance of various services. In addition, they promoted programs and services provided by emergency services groups and provided d/Deaf individuals with emergency preparedness information and seminars (Roberts, 2018). Some Deaf organizations donated financial aid and assistance after Hurricane Katrina because of the lack of supplies intended for the Deaf population by relief agencies (Takayama, 2017). In accordance with the WHO, International Classification of Function (ICF), participants reported engaging in a wide variety of activities, all of which were made possible by a combination of personal support, environmental enablers, and AT. A study done by Layton et al. (2021) demonstrates that during the pandemic, people utilized a variety of supports, such as environmental facilitators including access to public transport and access to workplaces as well as houses; visual supports, such as

corrective lenses, equipment used for braille writing, software for screen reading, and tactile markers; self-care products, such support for bathing; supports for communication, such as computers that are adapted and boards for communication; therapeutic and academic supports; and devices for assistive mobility, such as prosthetics, bike, and aids for walking.

4) Theme 4: Dependency on people

Social relationships are an essential source of support. In the absence of adequate support and funding, PWDs (regardless of the type of their handicap) significantly relied on family, friends, and charitable organizations for assistance before, during, and after potentially dangerous situations. The lack of reliable social networks leaves people with limited alternatives for response and recovery, which intensifies their susceptibility, social isolation, and economic insecurity (Leilani C et al., 2017). People who are physically challenged, blind, or have several disabilities need help getting to emergency shelters. Additionally, they require sufficient lead time and early notice before the tragedy strikes (Alexander, 2015). During the Tuvalu disaster, some participants felt that information supplied to PwDs should be adapted to their relationship and disability, especially for physically challenged, deaf, and blind individuals. For PwDs, incorrect details or improper communication might be difficult and confusing (Elisala et al., 2020). One study shows that the most common type of help during the covid 19 pandemic was help from people, whether it was paid or not, like from family (Layton et al., 2021).

5) Theme 5: Post-disaster services are not inclusive

PWDs' needs are often poorly addressed during the post-disaster relief efforts. Some disaster relief programs like medical treatments, emergency information services, and rehabilitation services are insufficiently inclusive to address the well-being and safety of those with disabilities. According to Baker et al. (2018), built environment accessibility was cited by adults with disabilities as a hindrance to every service and activity, and it was the most frequently cited barrier for a variety of services (shelter supplies, distribution of food, safe water to drink, comfort rooms, rehabilitation programs, community involvement, social and religious activities, transportation). Inaccessible medical facilities and unwelcoming medical staff frequently prohibit people with disabilities from receiving the same level of care as people without disabilities (Paudel, 2016).

6) Theme 6: Disaster creates injuries and disabilities

Natural disasters can result in an increase of injuries and disabilities that creates a new generation of individuals with disabilities. Long-term health impacts and hazards from disaster exposure include substance misuse, sleeplessness, phobias, forgetfulness, and anxiety (including Generalized Anxiety Disorder). Other researchers have found that the signs of Post Traumatic Stress Disorder (PTSD), mental diseases, or psychological distress are often present in people who are repeatedly exposed to crisis circumstances and persist for a long time following exposure (Liu et al., 2016). Stress disorders, hyperarousal, depression, and occasionally suicide are some of the health impacts, in addition to other mental diseases.

VI. FACTORS CONTRIBUTING TO DISASTER PREPAREDNESS

1) Theme 7: Participation in planning is limited

According to the Yokohama Strategy (1994), disaster risk reduction must be systematically integrated with advancement policies and planning. Other important ways to lessen the effects of disasters in any society are to be ready for them and have a plan for what to do when they happen (Alfieri et al., 2012). There is a lot of evidence that well-planned DRR strategies have cut down on casualties and economic damage in the history of global disasters. These strategies and readiness measures shouldn't be put together randomly, in pieces, or in a way that doesn't work well with other plans for development. Strategies for emergency preparedness are made with the level of danger and risk, as well as the needs and characteristics of vulnerable community stakeholders like emergency workers, hospitals, schools, and campgrounds, in consciousness (Golnaraghi, 2012).

2) Theme 8: Unfamiliarity results in limited awareness

The local government unit does not play a significant role in the principle of incorporating disaster programs in the community, which further results in a lack of awareness and disaster risk reduction assimilation into the built environment. Individuals', family members experience a great challenge as a survivor or a casualty. According to Chan et al. (2016)'s analysis, the cultural paradigm of disaster in Hong Kong is low, and little preparation has taken place at the individual or household levels. Rahman (2019) demonstrated that younger people have more awareness about disaster awareness and preparedness than older people, and that less

educated people are more inclined to be unprepared than more informed individuals. Antronico et al. (2019) demonstrated that there is a communication gap between experts and people seeing as there is a need for state communities and specialists to disseminate the culture of risk awareness and increase citizens' safety levels.

3) Theme 9: Initiatives improve preparedness.

To deal with the ever-changing phase of disaster and climate change, the people and the government must collaborate (Sou.,2019, Jigyasu., 2016, Ray., 2017). Educating local community members in isolated places about disaster risk reduction management and developing a strong and committed DRRM executive committee manpower in the coordination of local and city DRRM can transform innovations in search and rescue missions, along with transparency and proper governance of funds before, during, and after a disaster or catastrophe (Fayazi et al., 2017, Torabi et al., 2017)

4) Theme 10: Plans are developed for them

Despite their heightened need for emergency evacuation, people with disabilities often do not have evacuation preparations. The effectiveness of preparedness measures, particularly for persons with disabilities, has not received much analysis or research (Engelman et al., 2013). There is little to no communication support, particularly in the areas of education and emergencies. The assistance requirements of deaf persons prior to, during, and after a hazard occurrence are poorly known to and understood by DRR actors and emergency services. This happens because health services, support networks, rehabilitation programs, job possibilities, etc. are not available or are interrupted. They were dissatisfied with the amenities and support provided by those shelters. This is due to insufficient infrastructure, inadequate teacher preparation, a lack of teaching-learning resources, and most importantly, a lack of mobility and communication aids. (Serajul et al., 2022)

5) Theme 11: Preparation is costly

The availability of ambulances and other forms of transportation to reach medical institutions was poor for those with disabilities, and others suffered from the disruption of their home treatment sessions. PWD who require specific medical care on a regular schedule have suffered as a result of rehabilitation clinics closing or having less capacity. Because they are unemployed, people with disabilities believe that disaster preparedness is a difficult problem because they can't be ready in time before a crisis. (Med Sci, 2021) According to data, 90% of people are unemployed. This has negative effects on dependence, access to resources, and evacuation throughout a disaster. Individuals with disabilities may be more dependent on other family members or community members to meet their daily basic needs, making them more at risk if the levels of supportive infrastructure and social interactions are low. This is similar to older people who are more vulnerable to disasters. This is essential in the country of the Philippines, where poverty and natural disasters feed off one another. (Wachinger et al., 2013) Disasters, which frequently deplete the meager resources the impoverished have, perpetuate them in poverty by making them more susceptible to them (World Bank, 2001).

6) Theme 12: Develops self-made strategies for survival

Due to their firsthand experiences on the ground, PWDs have created their own tools and survival strategies (UNISDR, 2015). Situational readiness, which entails preparing the house physically for the upcoming disaster or disaster season, is frequently emphasized in disaster preparedness guidelines and policies. Easy access to drinking water, first aid supplies, cans of food and medicine, candles, and particular requirements for young children, the elderly, and individuals with disabilities are just a few examples (Bryan., 2005, Rowell, 2003, Reser, 2005 Twigg, 2004). Prior to a crisis, psychological readiness may help people predict, name, and control their emotions, which will help them control their emotional reactions and use better coping techniques. The quest for elements that can support and promote a cascade of protective characteristics during and after exposure to adversity has been sparked by the understanding of resilience as a process of constructive adaptation. It seems that the household respondents are becoming more conscious of the importance of catastrophe preparedness. Espina and Teng-Calleja (2015) observed comparable findings among locals in the Philippine cities of Tacloban and Metro Manila. They claimed that people are becoming more aware of how the community may help prevent calamities. Additionally, they are offering protection through their prayers.

VII. CONCLUSIONS AND RECOMMENDATIONS

People with disabilities have varying disaster experiences depending on the nature of their condition and where they are from. It indicated that efforts are apparent, but the majority of them are insufficient to protect people from disasters. As a result, their susceptibility and reliance on others increases.

Most of them are not active in disaster risk reduction planning spaces and their awareness of disaster readiness is limited. As a result, they develop their own survival strategy. This research suggests that a disaster inclusive risk reduction plan (DiDRR) should be developed or redeveloped by PWDs not for PWDs. DRR strategies and practices must include PWDs more fully at all stages, from development to implementation. PWDs should be prepared to work and research on DiDRR in order to develop a more comprehensive and inclusive DRR approach that considers their unique challenges and needs. Including PWDs as agents, actors, and contributors in DiDRR planning will raise their understanding of disaster risks, develop cultural understanding among those people around who do not have disabilities, and create a more supportive environment for DiDRR. People with disabilities have historically hampered full inclusion in society, but disability is not the barrier. Instead, society and perpetrators have created barriers by taking inadequate steps to develop and implement an inclusive disaster effort for PWDs. This study suggests that the government, non-governmental organizations, and communities continue to aid in disaster preparedness by addressing the factors that contribute to preparedness as well as the barriers and problems they experience.

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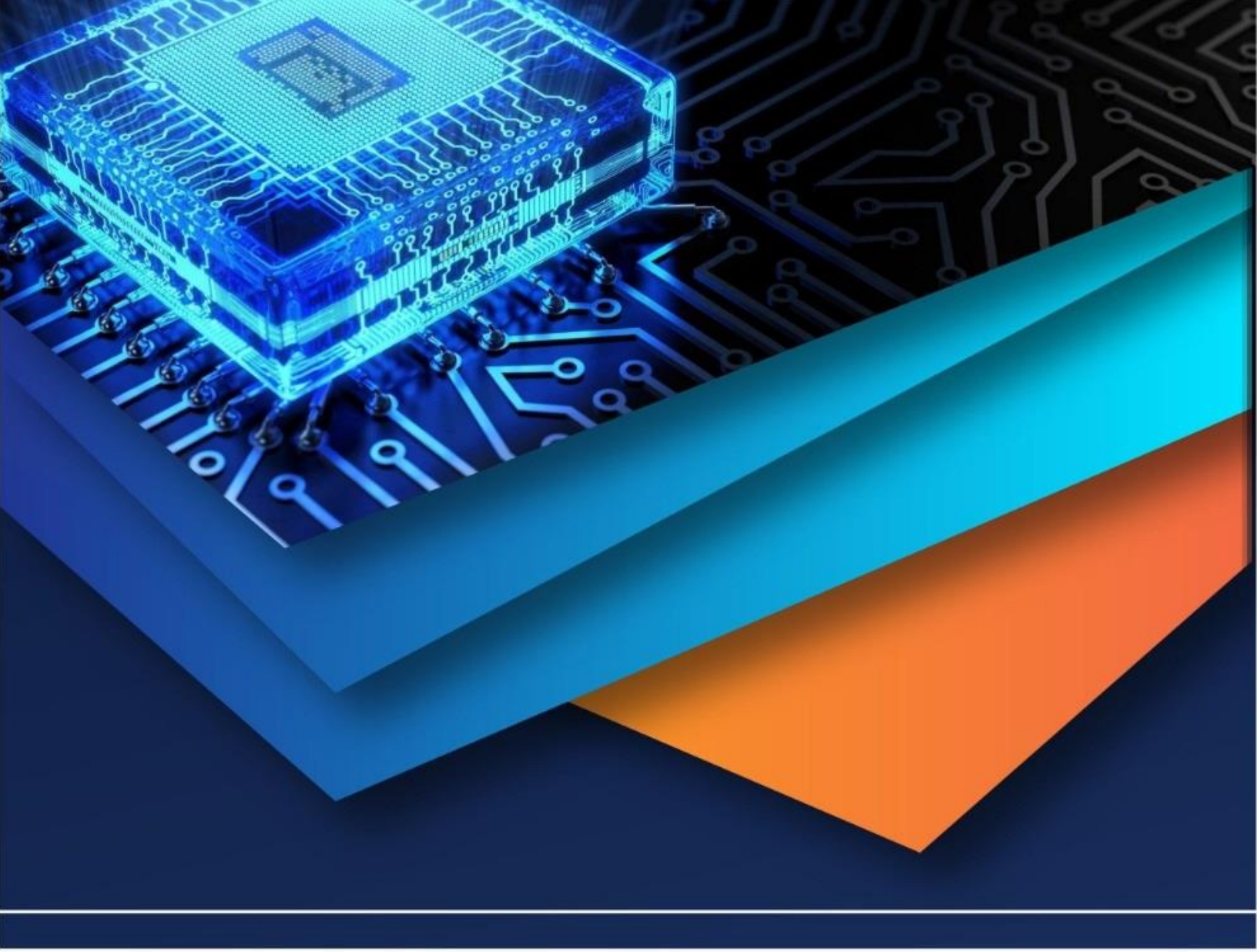

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