

Inclusive Crisis Communication During COVID-19: Lessons Learned from the Experiences of Persons with Disabilities in Makassar, Indonesia

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Abstract

Persons with disabilities (PwD) are believed to be a group that had a greater risk during the pandemic. While PwD are vulnerable to the spread of COVID-19 due to their high dependence on physical contact, a series of policies restricting public movement during the pandemic had the potential to place PwD in increasingly marginalized situations. This situation reinforces the urgency of crisis communication as one of the critical parts of the COVID-19 response to ensure that all levels and groups of society can accept and understand the flow of information. Using a qualitative approach, this research was conducted through in-depth interviews with PwD age 17-50 in the city of Makassar, Indonesia. The results of this study suggest that crisis communication during the pandemic should involve participatory communication, which focuses on collaboration with empowerment. The PwD communities need to be actively engaged during the communication process of a pandemic crisis to ensure that inclusiveness is always taken into account. During the distribution of information, the relevant health officers or the government at the regional level need to carry out more frequent socialization and special services for PwD based on the characteristics of their disabilities.

Keywords: disabilities; crisis communication; inclusive; pandemic; COVID-19; Indonesia

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Persons with disabilities (PwD) face significant challenges and heightened vulnerability when it comes to the deadly virus COVID-19. Their limited access to vital prevention and hygiene information, as highlighted by Oliver (2020), places them at a greater risk of contracting the virus. Compounding this issue are the barriers they encounter in adopting clean and healthy living behaviors, primarily due to inaccessible sanitation facilities. Furthermore, the International Disability Alliance (2020) emphasizes that some PwD rely on physical support or assistive devices like sticks, wheelchairs, and information provided in letters or braille, which necessitate tactile interaction and potentially increase their exposure to the virus. Beyond the increased risk of infection, PwD may also experience more severe symptoms of COVID-19 due to underlying respiratory health conditions associated with certain disorders. These pre-existing conditions further compromise their well-being and make them more susceptible to complications arising from the virus. Regrettably, in addition to these health concerns, PwD often encounter barriers in accessing essential healthcare services and frequently face discrimination and neglect from healthcare providers (WHO, 2020).

The spread of the COVID-19 virus is not the only threat to PwD in a pandemic. Apart from the health aspect, this crisis is also believed to have exacerbated inequality, discrimination, and violence for PwD in various other aspects such as the economy, education, social protection, and others (Goggin & Ellis, 2020). The series of policies restricting public movement during the pandemic has the potential to place PwD in increasingly isolated and marginalized situations (International Disability Alliance, 2020). During a pandemic, they have the potential to experience a higher level of difficulty in communicating or accessing information than other people in general (Xu et al., 2021). For example, the obligation to use masks affects people who are hearing impaired, because facial expressions and lip movements cannot be seen (WHO, 2020).

In addition, a number of studies have shown that groups of PwD experience difficulties when faced with emergency or crisis conditions because, at the same time, they also have to face various other problems such as poverty, discrimination, and limited access to information (Blumenshine et al., 2008). Due to their limitations, PwD require special services in order to preserve their rights as human beings (Goggin &

Ellis, 2020). Based on various studies, PwD are always the most vulnerable group in a disaster emergency or crisis (Han et al., 2017).

Additionally, rapid assessment was conducted by *Jaringan Organisasi Penyandang Disabilitas* or Organizations Network of PwD in 2020 (Pawi & Susetyo, 2022) on the impact of COVID-19 on PwD in 22 provinces across Indonesia. The study found that 80% of PwD who were economically active before the COVID pandemic experienced a decline in income. Of those who lost their income, 80% reported having difficulty meeting their daily needs. In addition, 41% of PwD have received less assistance for daily activities since the pandemic. The study also found that PwD experienced increasing difficulties accessing education and health services (Pawi & Susetyo, 2022)

Meanwhile, in Indonesia alone, there are more than 37 million PwD, and 17 million are children and the elderly (Rifai & Humaedi, 2020). The results of the Basic Health Research survey, which also refers to the WHO disability assessment instrument in 2018, showed that South Sulawesi Province had higher rates of disability than the average national rates (Milot & Wulandari, 2021). The survey revealed that 33.6% of adults aged 18-59 in South Sulawesi reported having a disability (Milot & Wulandari, 2021). Makassar, as the capital city of South Sulawesi province, also has a relatively high number of PwD compared to other regions. Referring to the Makassar City Social Service Data, in 2017, the number of PwD in Makassar was 1,715 (Karim, 2018). Therefore, the choice to focus on Makassar in this study is essential in shedding light on the experiences of PwD during the COVID-19 pandemic in a region with a relatively high number of PwD, particularly since Makassar has shown higher rates of PwD than the national average.

Additionally, data regarding the number of persons with disabilities in Makassar who were exposed to COVID-19 are not available, and this indicates that there is no special attention for the disabled group in handling COVID-19 in Makassar and suggests that these individuals may not be prioritized in the handling of the pandemic. The secretary of the Makassar City Health Service admitted that the government had neglected persons with disabilities in handling the COVID-19 pandemic. According to him, this happened because the provincial government did not

have data regarding the number of persons with disabilities who had and had not received the COVID-19 vaccination, and it was recognized that the government had failed to classify them (Hasan, 2022). As such, highlighting the case of Makassar in this study is critical in generating awareness of the experiences of PwD in this region and driving policymakers and organizations to pay more attention to this group's inclusion and well-being during crises. The situation during the COVID-19 pandemic and its implications for vulnerable groups, such as PwD, reinforces a new urgency for the study and practice of crisis communication, particularly in Makassar city.

Inclusive Crisis Communication

Effective crisis communication plays a pivotal role in shaping public sentiment and attitudes towards a crisis, as highlighted by Palma-Oliveira et al. (2021). When it comes to responding to a pandemic, the dissemination of accurate information regarding risks and protective measures to the public becomes paramount, leaving no room for exceptions or exclusions (Anson et al., 2021). Inclusivity, with its broad definition encompassing acceptance of individuals irrespective of their ethnicity, gender, ability, or other needs, is a fundamental aspect of this crisis communication framework (Brce and Kogovšek, 2020). Inclusion, in its comprehensive definition, necessitates accepting and accommodating everyone, regardless of their ethnicity, gender, health, or other specific requirements. In the context of communication, inclusivity refers to an approach that allows the participation of the greatest number of people, ensuring that no individual is left behind (Dai & Hu, 2021).

Inclusive communication aims to empower and support individuals with special needs, providing them with opportunities to utilize methods of understanding and self-expression that align with their comfort and preferences, as emphasized by Palma-Oliveira et al. (2021). This approach ensures that all individuals, regardless of their unique circumstances, are encouraged and given the necessary tools to engage in the communication process effectively. In addition, inclusive communication goes beyond simply involving diverse individuals; it encompasses a communication framework that actively incorporates all relevant parties, fostering a sense of involvement, understanding, and mutual respect (Zhang & Chen, 2020). By adopting inclusive communication practices, organizations and authorities can effectively

bridge gaps, facilitate meaningful dialogue, and cultivate an environment where diverse voices are heard and valued.

It is critical to share emergency information effectively with groups particularly vulnerable to harm, including persons with health conditions or disabilities (Heffelfinger et al., 2009). Vulnerability is defined as a condition that includes physical, social, economic, and environmental conditions that can increase the vulnerability of an individual or a community to a hazardous condition (Anson et al., 2021). Thus, the level of vulnerability is a crucial consideration in crisis communication, particularly during the COVID-19 pandemic (Anson et al., 2021). A typical crisis communication activity, for example, is to inform citizens about preparedness actions they can take to improve their response to different types of disaster risks (Anson et al., 2021). Crisis communication is the cornerstone of handling the pandemic by providing the public knowledge and understanding to suppress the virus's spread (Wieland et al., 2021).

Providing information about COVID-19, particularly concerning potential risks, modes of transmission, preventive measures, treatment services, and debunking hoaxes, should be done with a focus on offering more targeted insights into the impact of COVID-19 on vulnerable groups. (Goggin & Ellis, 2020). Furthermore, it is necessary to provide education on prevention methods tailored to specific needs and barriers.

There are three main components involved during the process of crisis communication: government-public, government-experts, and experts-public (Zhang et al., 2020). The government's role is crucial in risk governance, requiring transparency and accurate information delivery to the public (Goggin & Ellis, 2020). Crisis communication often involves uncertain information, necessitating public feedback to tailor information and meet public interests (Zhang et al., 2020). Government-expert communication is essential for risk assessment and decision-making, emphasizing the need for expert consensus and comprehensive research (Zhang et al., 2020; Wieland et al., 2021). Expert-public communication aims to bridge the knowledge gap, requiring clear and simple information delivery that reflects uncertainty (Zhang et al., 2020; Purohit & Mehta, 2020; Palma-Oliveira et al., 2021). Experts play a role in translating complex knowledge into understandable content for the public (Palma-Oliveira et al., 2021).

Meanwhile, in the process of communication, it is necessary for all actors to pay attention to effective message design. The flow of information regarding handling the pandemic must be accepted and understood by all levels and groups of society (Anson et al., 2021). In conditions of uncertainty during a disaster, such as a pandemic, the need for public information increases, particularly for PwD. Precise and accurate emergency information from trusted sources presented in various formats can help people to understand the disaster or pandemic that occurred; hence they can take the right attitude in dealing with the situation (Dai & Hu, 2021). Based on social cognitive theory as cited by Lin & Chang (2018), effective message design emphasizes clarity, accessibility, and relevance.

Accessibility means the ease with which persons with various abilities can access information as independently as possible or with minimal assistance (Zhang et al., 2020). Information and all forms of communication related to COVID-19 need to make accessibility one of the primary considerations to ensure that vulnerable groups get the optimal level of protection. Gaining access to equal information will support equal services and minimize the risk of the impact of COVID-19 (Zhang et al., 2020). Accessibility and openness increase the public's perception that they are fully aware of the risks and are partners in risk sharing. Risk communication should consist of an interactive process in which all parties are given access to multiple messages representing all relevant views (Palma-Oliveira et al., 2021). Finally, inclusive media information should be accessible to all people, with their various abilities: available in sign language, braille, straightforward language, and images (International Disability Alliance (IDA), 2020).

Hence, inclusive crisis communication ensures the active participation of all individuals, including PwD (Sherman-Morris et al., 2020). It involves making information and communication channels accessible through universal design principles, providing multiple formats, and using assistive technologies (Sherman-Morris et al., 2020). Inclusive language and visual representation should be employed to respect the dignity of PwD and promote visibility (Eikel-Pohen, 2019). Collaboration with PwD communities and organizations is also crucial, involving them in decision-making processes and communication campaigns (Dai & Hu, 2021). Tailored

information and diverse communication channels cater to the unique needs of individuals with disabilities (Fu et al., 2010).

Previous research has shown the importance of inclusive crisis communication for PwD, such as floods in Bangladesh (Alexander et al., 2012), Hurricane Katrina in 2005 (Sullivan & Häkkinen, 2006) and Hurricane Sandy in the US in 2012 (Mukasa, 2019), as well as earthquakes in Christchurch, New Zealand 2011 (Good et al., 2016). These various studies reveal that PwD are a vulnerable group amid disasters but are often neglected. However, limited attention has been given to studying crisis communication during COVID-19 specifically from the perspective of PwD. This paper aims to address this gap by focusing on the experiences of PwD in the context of developing countries, particularly Indonesia, with a specific case study of Makassar, a region in Indonesia known for its relatively high number of PwD, exceeding the national average.

There are three main research questions addressed in this study. The first is: How did persons with disabilities in Makassar access information about the COVID-19 pandemic? This question seeks to investigate the channels or sources of information that PwD use to access information about the pandemic and to determine whether these channels are accessible and equitable. Second: What challenges did persons with disabilities in Makassar face in accessing information about the COVID-19 pandemic? This question seeks to identify the specific barriers that PwD faced in accessing information during the pandemic, such as language barriers, lack of accessible information formats, or lack of appropriate assistive technology. Third: How can inclusive crisis communication strategies be improved to assist persons with disabilities in Makassar in dealing with the COVID-19 pandemic? This question aims to provide insights into how crisis communication efforts can be made more accessible, equitable, and inclusive for PwD.

Overall, this research carries significant theoretical implications and holds great importance in several aspects. First, it contributes to the field of crisis communication by highlighting the experiences of PwD during the COVID-19 pandemic. Crisis situations demand effective communication strategies to ensure the dissemination of accurate information and facilitate the well-being of all individuals,

including those with disabilities (Xu et al., 2021). This research sheds light on the specific challenges faced by PwD in Makassar during the pandemic and identifies areas where inclusive crisis communication can be improved. By focusing on this marginalized group, the study expands our understanding of how crisis communication strategies can be enhanced to address diverse needs. Second, the research underscores the significance of inclusivity and accessibility in crisis communication efforts. Additionally, its practical importance lies in guiding policymakers and practitioners toward more inclusive and accessible communication practices during crises like the COVID-19 pandemic, ultimately leading to more equitable and effective emergency responses for all members of society.

Methodology

The Object of the Study

The population of this research is persons with disabilities (PwD) of productive age (17-50 years old) in the city of Makassar whose economic status is middle to lower class. Disability is the long-term presence of physical, intellectual, mental, and/or sensory restrictions in a person, hence the person experiences obstacles in interacting with the environment and difficulties in fully and effectively participating in society (Rifai & Humaedi, 2020). A person with disabilities lives with limitations and special characteristics both physically and mentally (Millot & Wulandari, 2021). This study is limited to those with long-term physical limitations and does not involve those who experience mental and intellectual limitations. These physical limitations prevent them from interacting with the environment and fully and effectively participating in society, thus requiring special services in order to preserve their rights as human beings. By delving into the circumstances of individuals with physical disabilities within the defined age range and economic status, this study aims to shed light on the specific challenges and barriers they face in interacting with their surroundings and actively engaging in society. By narrowing the focus to physical limitations, the research seeks to address the unique needs and concerns of this particular group,

which often require specialized support and accommodations to promote their inclusion and overall well-being.

Research Method

This study used a qualitative approach with in-depth interviews as the study instrument to provide an in-depth understanding of the experiences of PwD in Makassar regarding inclusive crisis communication during the COVID-19 pandemic. The qualitative approach allowed for nuanced insights and the exploration of participants' perspectives, ensuring that their voices were central to the research findings and contributing to a comprehensive framework for understanding inclusive crisis communication. Data containing an in-depth view of the informant were collected for this research. This approach allows researchers to explore and collect in-depth information about the behavior of PwD in Makassar in accessing and sharing information about the COVID-19 pandemic, as well as to find out to what extent this information helped them in dealing with the crisis. Through a qualitative approach and a gender perspective, we also observed the daily experiences and coping strategies of persons with disabilities (both men and women) during a pandemic. The approach enabled us to view disability issues dynamically and emphasize the effects of social interaction, including oppression and social exclusion, on these vulnerable groups.

In-Depth Interviews

Semi-structured interviews were used for this study. By using this study instrument, we aimed to capture the richness and depth of their experiences and contribute to the understanding of inclusive crisis communication during COVID-19. Prior to conducting the interviews, an interview guide was developed to ensure consistency and structure in data collection. The interview guide consisted of a set of open-ended questions that explored various aspects related to crisis communication, including participants' experiences during the pandemic, their interactions with different actors involved in crisis communication, the effectiveness of communication strategies, and their recommendations for improving inclusivity.

There were documents of information conveyed to the informants prior to the interview process, namely: (1) the goals and interests of the researcher, (2)

confidentiality, (3) research procedures, and (4) preparation to start the interview. The interviews started with unstructured, open-ended questions ("How did you get information about COVID-19?"), and then moved on to more specific questions about the channels or media information they commonly accessed and the primary sources of information they used during the pandemic. We also focused on the informant's perception on the level of accessibility of information sources during the COVID-19 pandemic. This question is significant since accessibility is a necessity for persons with disabilities to access knowledge and information during the pandemic, hence the effectiveness of crisis communication depends on its accessibility.

With the informants' consent, the research team recorded detailed personal baseline information related to the informants before the interview. This information involves their demographic data, in which data were disaggregated by age, sex, disability, ethnicity, location, and type of disabilities. The interviews were conducted on October 10-15, 2022, and from a total of 10 participants invited to participate in this study, all of them agreed to be interviewed. The duration of the interview for each informant was approximately 20 minutes.

The interviews were conducted in a safe and comfortable setting based on the preferences and accessibility needs of the participants. The interviews were audio-recorded with the participants' consent, allowing for accurate capturing and later analysis of the data. Additional notes were taken to record non-verbal cues and contextual information that could enhance the analysis. The research team ensured that one or two sign language association volunteers were present during each interview to assist the research team with local sign language.

Selection of Informants

The informants in this study consisted of adults with disabilities who were registered members of two prominent organizations in South Sulawesi, namely the Indonesian Association of Persons with Disabilities (PPDI) and the Indonesian Women with Disabilities Association (HWDI). In qualitative research, the focus is on gathering in-depth and nuanced information from participants to gain insights into their experiences and perspectives. To ensure a diverse range of perspectives, we utilized a

non-probability sampling approach, specifically a convenience sampling technique. A total of 10 informants were selected based on their availability and willingness to participate. We took into consideration the representation of different genders and types of disabilities to capture a variety of experiences. Detailed information about the informants can be found in the table 1.

Table 1
Information About the Participants

Code	Type of disability	Description	Sex	Age	Marital status	Job background	Education background
Informant 1	Visually impaired	Has a partial loss of vision, which affects her ability to see and interact with the world around her	F	28	Widowed	Currently enroll in university	High school graduate
Informant 2	Physically disabled	Experiences challenges in moving around due to limitations in his ability to use his legs because of spinal cord injuries	M	46	Married	Tailor	Elementary
Informant 3	Visually impaired	Has a partial loss of vision, which affects her ability to see and interact with the world around her	F	30	Married	Massage therapist	Junior high
Informant 4	Physically disabled	Has impairments in physical functioning due to muscular dystrophy, which affects his ability to perform everyday activities such as walking and running, and requires assistive devices, such as wheelchairs, to carry out his daily tasks	M	46	Married	Technician	High school graduate
Informant 5	Visually impaired	Has total loss of vision which affects his ability to see and interact with the world around him	M	27	Married	Massage therapist	High school graduate
Informant 6	Deaf with speech impairment	Experiences both deafness and challenges with speech production. She has difficulty hearing and also struggles to understand others and needs sign language or non-verbal communication such as gestures or facial expressions	F	33	Single	Unemployed	High school graduate

Table 1
Information About the Participants (Contd.)

Code	Type of disability	Description	Sex	Age	Marital status	Job background	Education background
Informant 7	Speech impaired	Has difficulty producing speech sounds accurately, fluently, or intelligibly, which affects the clarity, rhythm, and natural flow of her spoken language	F	31	Single	Barista	High school graduate
Informant 8	Physically disabled	Experiences progressive muscle weakness, requiring assistance with certain physical tasks and mobility aids for longer distances	F	49	Married	Activist	High school graduate
Informant 9	Visually impaired	Has total loss of vision, which affects his ability to see and interact with the world around him	M	46	Married	Massage Therapist	Junior high
Informant 10	Physically disabled	Has impairments in physical functioning due to muscular dystrophy, which affects her ability to perform everyday activities such as walking and running, and requires assistive devices, such as wheelchairs, to carry out her daily tasks	F	47	Married	Tailor	Junior high

Data Analysis

The data obtained from the in-depth interviews were then analyzed using interpretative phenomenological analysis (IPA). The process of data analysis followed a structured framework that involved five stages. The first stage was reading and re-reading the collected data, which included transcripts of interviews. During this stage, we, as the researchers, familiarized ourselves with the data to gain an understanding of the experiences of PwD in Makassar during the COVID-19 pandemic. The second stage involved initial noting; we took notes on our initial observations and insights from the data. We noted down any interesting patterns, themes, or issues that emerged from the data. The third stage was developing emergent themes. Here, we started to categorize the data into themes based on the initial observations. We used codes to label key topics or concepts that were present in the data. The fourth stage involved searching for connections across emergent themes. We looked for connections between the identified themes and considered how they were related to each other. This helped us to identify the main issues that emerged from the data. The final stage was looking for patterns across cases. We compared the data of all the cases to identify common patterns or themes. This helped us to draw conclusions and make recommendations on how to improve crisis communication for PwD in Makassar.

Results

Motivation to Access Information

As stated in the research objective, this study aimed to qualitatively explore the COVID-19 crisis communication received by the informants. To initiate the study, the participants were asked to provide an account of how they have been gathering information about the pandemic. Out of the ten individuals who were interviewed, four participants, namely Informants 1, 2, 4, and 7, expressed that they were passive in seeking information about COVID-19. Their exposure to information was primarily through the media, given the extensive coverage of the issue in both traditional media and on social media platforms, making it unavoidable. For instance, Informant 2 mentioned encountering COVID-related information through social media, despite not

actively searching for it. The information just appeared on his mobile device and TV. “For example, when you open social media, there must be information related to COVID. Even though I never intentionally searched for it, it just appeared on my cellphone or TV” (Informant 2).

On the other hand, the remaining participants were quite enthusiastic about acquiring knowledge about the pandemic in Indonesia. Informant 6 mentioned that she frequently sought information as she was concerned about the increasing number of COVID-19 cases. “I was usually worried about the rising number of COVID-19 cases, so I looked for information quite often” (Informant 6).

This implies that individuals' motivation to gather information about COVID-19 varies, with some individuals being passive and others being actively engaged in seeking information. Those who were passive have various reasons, such as a lack of concern about the virus or a desire to avoid feelings of fear or anxiety associated with knowing more about the pandemic.

I guess I'm not really concerned about the virus. I mean, I know it's serious and all, but I don't want to constantly worry about it. I feel like if I actively search for information, it might make me more anxious, so I prefer to just go with the flow (Informant 1).

Informant 4, who has a physical impairment, expressed a similar sentiment: “I don't intentionally look for COVID-related information because I don't want to be afraid. Sometimes, it's better not to know every single detail and just focus on staying safe and following the guidelines.”

Difficulty in Accessibility of Information

Meanwhile, the media commonly used by informants to obtain information is TV media. For the informants, TV is considered the most accessible for all types of disabilities, including for people who are deaf, because news programs on TV are equipped with sign language interpreters. In addition to TV media, informants also obtained information through technological devices such as messaging applications (Whatsapp), social media accounts (Instagram and Facebook), and search engines (Google). Even though they have different types of disabilities, the informants could

access information from these various media, although the use of Instagram was limited to the group of young PwD. Additionally, individuals who are blind or visually impaired tend to have limited access to Instagram, as it is primarily a photo and visually-oriented social media platform. Due to the nature of Instagram's content, which heavily relies on images, individuals with visual impairments find it challenging to fully engage with the platform. As a result, their utilization of Instagram as a source of COVID-19 information is relatively limited compared to other media channels.

Interestingly, informants with visual impairments claimed to be able to communicate and access information from other platforms like Facebook, Google, or WhatsApp using their mobile phones. This is possible due to the availability of accessibility features on Android and iPhone devices. So, even though they have visual impairments, they claimed to be accustomed to accessing social media and searching for information on Google. Information about COVID-19 is usually obtained from the government through mainstream media (TV). However, news from national TV channels is mainly limited to the information that comes from the government at the national level. Most informants admitted that they still received very little information from local governments due to their limited access to information sources. It made the information they received limited, especially with regard to policies from local governments regarding the handling of COVID-19.

In addition, it is important to highlight that local governments often rely on Instagram as their primary platform to disseminate information about COVID-19. However, this visual-based social media platform poses challenges for individuals with visual impairments who rely on screen readers or other assistive technologies to access digital content. The absence of alternative text descriptions or audio-based content on Instagram, despite the platform offering these features, creates challenges for individuals with visual impairments who seek essential information from local government accounts. Furthermore, the official websites of local governments are often not regularly updated with relevant COVID-19 information. Additionally, the design and accessibility features of these websites may not be inclusive, creating barriers for individuals with disabilities to access important updates and policies related to the handling of the pandemic at the local level.

In fact, many policies regarding the handling of the pandemic are issued by regional governments, but I often missed them because there was no information on TV (Informant 10).

The limited accessibility of information from the local government during the COVID-19 pandemic poses a significant challenge for individuals with disabilities, particularly those with visual impairments and speech impairments. Local governments often have limited forms of media to communicate COVID-19 updates and policies, and these channels may not consider the specific needs of individuals with disabilities. For individuals with visual impairments, the lack of accessible media formats, such as braille, large print, or audio descriptions, makes it difficult for them to access and comprehend the information provided by local governments. Graphics and visual elements, commonly used in mainstream media, are not accessible to people with visual impairments without appropriate alternative formats. This exclusionary approach limits their understanding of local policies and guidelines related to COVID-19.

I went to the local hospital seeking information about COVID-19 updates and policies, but I felt a struggle to access the information because it was published in complicated graphics, with small fonts that were hard to read for us who have visual impairments (Informant 9).

Similarly, individuals with speech impairments face challenges in accessing local government communication channels that do not provide alternative communication methods. Without access to text-based communication tools or communication boards, individuals with speech impairments struggle to effectively communicate their needs and receive necessary health information from local authorities. The lack of accessible media formats and alternative communication methods for individuals with disabilities exacerbates the information gap between the general population and those with disabilities. It leaves individuals with visual impairments and hearing impairments at a disadvantage, making it difficult for them to stay informed about local government policies and effectively protect themselves during the pandemic.

While governments are often considered the primary source of information, medical experts were highly valued sources of information for individuals seeking answers to health-related questions during the COVID-19 pandemic. A majority of informants obtained their information from TV or through various articles on the Internet or social media. According to the informants, the medical experts featured prominently on TV programs could provide a wealth of knowledge and insights on various health-related topics. Similarly, articles written by medical experts were often shared widely on the Internet and social media, allowing individuals with disabilities to also access valuable information from the comfort of their homes.

However, the study also revealed that few informants obtained information from medical experts directly, especially when visiting health service offices. This was because informants rarely visited or checked themselves at hospitals or other health service offices. This finding highlights the need for health service providers to create more accessible and convenient channels for individuals to access information from medical experts.

I have never been to the puskesmas [local health services offices] during the pandemic because I knew it would be difficult to communicate with the officers there. Moreover, there is a requirement to wear a mask while I am deaf (Informant 6).

Discrimination in healthcare settings has a profound impact on individuals with disabilities, as highlighted by the experiences shared by Informant 6.

I remember I went to a local health service office before the pandemic, and I couldn't communicate effectively with the healthcare staff, because they didn't have any communication tools for people like me. It made it hard for me to express my symptoms and understand their instructions (Informant 6).

Not only did Informant 6 face communication barriers during her visit to a health center, but she also encountered discrimination that further exacerbated her difficulties and created reluctance to seek future medical services, even amidst the ongoing COVID-19 pandemic.

The discrimination I experienced in the healthcare setting as a person with a disability has had a lasting impact on my trust and confidence in seeking medical care. It created an environment of exclusion and made me feel unwelcome (Informant 7).

Based on the information from most of the informants, their primary source of information is actually secondary/intermediary sources such as their colleagues or their families. They admitted that as PwD, accessing information that is relevant to their needs was challenging. This is because most information is not tailored to their specific needs and requirements. Therefore, they tend to rely more on information provided by their fellow community members, as it is more likely to be in line with their needs. The study found that the use of WhatsApp service was especially helpful in this regard. Through WhatsApp groups, members of the disability community can exchange information and confirm the truth of any information regarding COVID-19. Apart from secondary sources, the study also revealed that the general public, via the Internet, broadcast WhatsApp, or social media, was another important source of information for the informants. This highlights the critical role of the Internet and social media in disseminating information to individuals with disabilities. However, informants were aware that the information found on these platforms may not always be accurate or reliable, and they have to be cautious when using these sources.

Information Disorder

Informants who were seeking information about the COVID-19 pandemic have experienced two primary issues. The first issue is that it often takes longer for information to reach them. This is because their primary source of information is usually secondary or intermediary sources. As revealed above, informants were not getting information directly from official sources, such as the government or health organizations. Instead, they were getting information from other sources, such as news outlets or social media. The problem with this is that information can sometimes be delayed or distorted as it is passed from one source to another. For example, information about the implementation of the PSBB (large-scale social restrictions) or the COVID-19 vaccine program may not reach PwD in a timely manner. This is because crisis communication efforts, such as disseminating information through official

channels, have not been maximized at the local level.

Many of these disabled friends have not been vaccinated until now because of their ignorance, and this is also because of a lack of information. It is the responsibility of local authorities to ensure that accurate and timely information about vaccine availability and eligibility is provided to everyone in the community, including those with disabilities. This information should be communicated in accessible formats, such as braille, audio, or sign language, to ensure that it reaches everyone. Healthcare providers and local authorities should provide clear and concise information about the safety and efficacy of the vaccine and address any concerns or questions that we may have (Informant 9).

In short, it is crucial that local authorities and healthcare providers make a concerted effort to provide accessible and accurate information about the COVID-19 vaccine to everyone, including PwD. This can help to ensure that everyone has equal access to the vaccine and can make informed decisions about their health.

Another disruption of information is the spread of hoaxes or fake news. All sources claimed to have received fake news regarding COVID-19, both through social media/Internet and also through short messages via WhatsApp. Initially, they were exposed to inaccurate information about the number of COVID-19 patients, and as the pandemic progressed, they encountered a baseless rumor claiming that vaccines could lead to fatalities. It is also important for the government to address any misconceptions or misinformation about the vaccine that may be preventing PwD from getting vaccinated.

When I received information that the vaccine could make us die, I was really afraid to get the vaccine. Unfortunately, some of my friends still believe in these false claims and have decided not to get vaccinated. This is concerning, because choosing not to get vaccinated may limit their access to certain opportunities, such as traveling or attending certain events. So, not only could this hoax risk our own health but it

could also make us more isolated (Informant 1).

In response to the widespread fake news, the informants admitted that they always asked their friends or family members about the information they had obtained. The government and experts, according to informants, are the most reliable and credible sources of information to convey the current information about the COVID-19 pandemic.

Personally, I was also initially afraid when I heard these rumors or false claims, but I took the time to do my research and verify the information from credible sources (Informant 1).

No Special Information

PwD who became informants admitted that they still have difficulty getting special information about the COVID-19 pandemic related to their needs, especially with their disabilities. Informants revealed that during the COVID-19 pandemic, it's essential for them to get special information to ensure that they can access and understand the measures necessary to protect themselves from the virus. Informants who rely on caregivers explained that they need additional guidance on how to protect themselves and their caregivers from the virus. This can include providing information on how to properly use personal protective equipment and how to maintain social distancing guidelines.

Additionally, this impact is felt most especially by the blind and deaf disability groups. This lack of accessibility has made it challenging for PwD to comply with COVID-19 prevention measures, which can be especially difficult for blind individuals who rely heavily on their companions to navigate their surroundings. For instance, maintaining a safe distance from others can be nearly impossible for a blind person who requires close contact with their companion for assistance. Similarly, the use of face masks has made communication more difficult for deaf individuals who rely on lip reading to understand conversations. With masks covering people's faces, it's harder for individuals who are deaf to understand what is being said, leading to increased isolation and communication barriers. Overall, the lack of accessibility to information and COVID-19 prevention measures has further marginalized PwD, making it harder

for them to fully participate in society and protect themselves from the virus.

I have a personal story to share about my experience at a mini market. I was asked to maintain a safe distance from others, which was quite challenging for me. This was because I always rely on my sibling as my assistant, who needs to be close to me for assistance. Additionally, due to my limited vision, I often need to touch surfaces to help me navigate and move around easily (Informant 1).

Furthermore, individuals with mobility impairments often encounter difficulties when accessing testing centers, vaccination sites, or healthcare facilities due to physical barriers that restrict their movement. These barriers can include inaccessible entrances, narrow hallways, and lack of appropriate equipment or assistive devices. Hence, informants with mobility impairments require specific information to ensure their access to necessary services.

I had trouble finding a testing center that was accessible for me. Many places didn't have ramps or elevators, making it impossible for me to enter the facility. It was frustrating because I needed to get tested, but the physical barriers prevented me from doing so (Informant 8).

To address these challenges, it is crucial to provide individuals with mobility impairments with detailed information about the availability of accessible facilities, transportation options, and any assistance or accommodations that can facilitate their access to healthcare services, especially related to COVID-19 healthcare. This information should be readily accessible through various communication channels, such as websites, helplines, or dedicated disability support services.

Additionally, healthcare facilities should provide comprehensive information about the accessibility features and accommodations they offer. This includes details on telehealth options, which can be a convenient alternative for individuals with mobility impairments, who may face challenges in reaching in-person appointments. Accessible appointment scheduling systems, where individuals can request specific accommodations or assistance, can also be beneficial (Informant 8).

A person with a mobility impairment emphasized the importance of having

information about accessible facilities, saying,

When I had to visit a healthcare facility, I needed to know if there were ramps, elevators, and accessible restrooms. It would have been helpful if they provided this information upfront so that I could plan my visit accordingly (Informant 2).

Moreover, healthcare providers should ensure that their staff members are trained in providing support and accommodations to individuals with mobility impairments. This can include assisting with transportation, offering mobility aids or devices, and making necessary adaptations during in-person visits. A person with a mobility impairment shared their experience, stating, "When I went to a healthcare facility, the staff didn't understand my needs. They didn't provide any assistance, and the environment wasn't accessible. I felt frustrated and excluded" (Informant 2).

Limited Understanding of COVID-19 Information

The description of information accessibility is correlated with the level of understanding among informants related to COVID-19 and its prevention efforts. All informants understand the coronavirus, the methods of transmission, and strategies to avoid transmission. However, the limitations of specific information obtained and the speed of information flow that has not been maximized also affect their level of vulnerability. Of the ten PwD interviewed in this study, one of them (Informant 6) admitted that he had tested positive for COVID-19 via a PCR test. After that, he did self-isolation at home. Meanwhile, five other people (Informants 1, 5, 8, 9, 10) also claimed to have shown symptoms of COVID-19 but never did the test because they worried, they would be isolated.

have been experiencing symptoms of illness, but I am too afraid to get tested. Additionally, I have never visited the puskesmas as I fear being isolated. As a blind person, I am unable to navigate healthcare facilities alone and require a companion for assistance. However, blind people may have unique concerns related to their disability that could increase their fear of isolation (Informant 5).

Meanwhile, the impact of the COVID-19 pandemic is not only felt in the health

aspect. All informants involved admitted to being economically affected by the ongoing pandemic. They lost their source of livelihood due to the prevailing social restrictions. Moreover, informants were aware that the pandemic's economic impact is not limited to the present but may have long-term consequences for them.

Discussions

Based on informant interviews, PwD in Makassar still find it challenging to access the latest information regarding the current condition of the pandemic and government policies, especially at the local/regional level. Despite efforts by the government to disseminate information through various media channels, the limited accessibility of these channels prevents PwD from accessing the information independently. This, in turn, results in PwD having to rely on secondary sources of information, such as family members, to stay informed about the latest developments related to COVID-19. The lack of accessibility and openness in crisis communication has resulted in PwD feeling excluded and uninformed about the risks associated with the pandemic. This can have serious consequences, as it increases the likelihood of PwD being exposed to the virus and not being able to take appropriate measures to protect themselves.

Reflecting on informants' experiences regarding crisis communication carried out by related parties during the COVID-19 pandemic, the biggest challenge is that the public is still seen as a homogeneous group. This view of the public as a homogeneous group, as stated by Purohit and Mehta (2020), is counterproductive, because different social groups have different information needs and behavior. This includes PwD with varying needs of information during the pandemic, according to the characteristics of the disability.

This impacts the government's COVID-19 handling policies, which are then deemed too accommodating to the needs of the majority of the public and neglect the difficulties and challenges faced by persons with disabilities. For example, the needs of people who are blind or deaf are ignored when there is a social restriction policy and the use of masks without a special policy that targets their needs. It has resulted in a more severe level of isolation and discrimination experienced by persons with

disabilities. It ultimately increases their vulnerability and the impact of the pandemic, as also stated by Wieland et al. (2021). For example, most informants who were blind or deaf admitted that they could not get the medical services they needed because of social distancing policies and the use of masks interfered with the mobility and communication of people who are deaf.

The life experiences of each of our informants have a strong relationship with their level of activity in accessing information, understanding, and the occurrence of changes in behavior related to the COVID-19 pandemic. This can be seen from their reluctance to seek information or treatment when experiencing symptoms of COVID-19. The experiences of discrimination that PwD have faced in various domains, including access to health services, have affected their motivation to seek information and change their behavior to prevent COVID-19. The experiences of discrimination have created barriers for PwD in accessing healthcare services and information, which has ultimately affected their willingness to seek medical care or take protective measures.

This has serious implications, as PwD are at a higher risk of contracting COVID-19 due to their underlying health conditions and limited access to healthcare services. Therefore, there is a need for efforts to address the discrimination and stigma that PwD face to ensure that they have equitable access to healthcare services and information. Moreover, the experiences of discrimination may have led to a lack of trust in the healthcare system among PwD. This lack of trust could also affect their willingness to seek information and follow protective measures to prevent COVID-19. It is therefore essential to build trust and establish a positive relationship between PwD and healthcare providers to promote effective communication and ensure that PwD feel comfortable seeking medical care and accessing information related to COVID-19. PwD and limited socio-economic resources, like our informants, tend to state that they are more passive in facing risks. It is also a challenge for risk communicators to increase the confidence of the target audience.

For this reason, the suggestion from the findings of this study is that in the crisis communication process during the pandemic, a participatory communication approach that focuses on collaboration with empowerment must be carried out. It

should be acknowledged that it is not enough for effective crisis communication to just refer to the communication mode of the majority. For this reason, the disability community needs to be actively involved during the communication process during a pandemic crisis to ensure that inclusiveness is always considered. The informants hoped there would be special services for PwD during the pandemic that accommodate their special needs. Especially in distributing information, the relevant health officers or the government at the regional level needed to carry out more frequent socialization and special services for PwD. Public feedback allows governments to adjust their emphasis on delivering information and providing information in terms of the public's interests and values; communication can be most effective when it reflects an understanding of what the public wants to know (Zhang et al., 2020). An accessible feedback mechanism needs to be implemented, because the right to voice an opinion is everyone's right. In addition, with a feedback mechanism, people who do not have access to services can be served, and the quality of service will be better (Zhang et al., 2020).

To apply the social cognitive theory (Lin & Chang, 2018) in inclusive crisis communication during COVID-19, messages should have been designed to address specific concerns and promote behavior change among PwD. For instance, messages could have emphasized the importance of hand hygiene and wearing masks, accompanied by visual aids demonstrating proper techniques for individuals with hearing impairments. Additionally, messages could have highlighted success stories of PwD who have effectively adapted to the pandemic restrictions, providing positive role models and enhancing self-efficacy. Additionally, health professionals and government officials should also establish direct lines of communication with PwD. This can involve dedicated helplines staffed by professionals trained in disability etiquette and accessible communication. Through these channels, PwD can ask questions, voice concerns, and receive personalized guidance on topics such as accessible COVID-19 testing centers or vaccination options suitable for their specific disabilities.

Applying the principles of dialogic communication theory and community-based participatory theory, inclusive crisis communication can actively involve PwD

in decision-making processes. For example, advisory committees comprising PwD representatives can be formed to provide input on crisis communication strategies. These committees can contribute to the development of accessible materials, review and provide feedback on communication campaigns, and ensure that the needs and perspectives of PwD are considered at all stages of the crisis response during a pandemic. Finally, inclusive crisis communication during COVID-19 could leverage media and technology, informed by media effects and diffusion of innovation theories. Government agencies and disability organizations can utilize social media platforms to disseminate important updates and engage with PwD. They can also collaborate with influencers or content creators, especially from their local areas and from the disability community to amplify messages and reach a wider audience. This collaboration can involve leveraging user-generated content as a strategic approach to enhancing communication efforts (Furqan et al., 2022). The concept of user-generated content aligns with the notion of involving influencers or content creators, particularly those with a local presence or from the disability community, to enhance authentic and relatable messaging, reaching a wider audience and fostering meaningful engagement.

Conclusion

In conclusion, the results of this study indicate that PwD in Makassar continue to have trouble accessing the most recent information about the COVID-19 pandemic and governmental policy, particularly at the local/regional level. This is because their local government only use a few media outlets, none of which can be independently accessed by all PwD . Hence, the informants of this study are still forced to rely on secondary sources, including family members, to access the most recent information about COVID-19. This study reveals that the most significant obstacle in crisis communication in Makassar is that the general public is still viewed as a monolithic entity. This affects the government's COVID-19 policies, which are then criticized for caving in too much to the majority's demands while ignoring the problems and obstacles encountered by PwD. Additionally, there is a significant correlation between informants' level of action in getting information, interpreting it, and changing their

behavior in response to the COVID-19 epidemic and their life experiences. The reason is that they are accustomed to experiencing discrimination, including in the area of access to healthcare. It affects their desire to alter behavior and adopt safety measures to prevent COVID-19. This study suggests inclusive crisis communication should encompass several key elements that address the needs of PwD during emergencies, in this case during the COVID-19 pandemic. These elements include proactive and targeted communication, clear and accessible information, empowerment and collaboration, sensitivity to diverse disabilities, effective message design, media and technology, and cultural sensitivity.

These findings show that the PwD community must actively be involved during the crisis communication process to ensure the principles of inclusivity are consistently taken into account. Proactive and targeted communication involves tailoring messages and reaching PwD through various channels, collaborating with disability organizations, utilizing community networks, and establishing direct lines of communication. Clear and accessible information prioritizes clarity, conciseness, and the use of multiple formats such as plain language, visual aids, sign language interpretation, and captioning. Two-way communication and feedback mechanisms create opportunities for PwD to express concerns, ask questions, and provide suggestions through helplines, email addresses, or online platforms. Empowerment and collaboration mean involving PwD in decision-making processes, planning, and evaluation, and partnering with PwD organizations to incorporate their perspectives and expertise. Sensitivity to diverse disabilities recognizes the varied communication needs of different disabilities, such as physical, sensory, cognitive, and psychosocial disabilities, and adapts communication methods, materials, and channels accordingly. In addition, the officials or the regional government needs to provide more regular socialization and specific services for PwD, especially when disseminating information.

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