Inclusion of people with disabilities, their needs and participation, into disaster management: a comparative perspective

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ABSTRACT

In the field of disaster management, not many have considered the role and needs of people with disabilities despite their number and condition. The purpose of this paper is to push for specific inclusion of people with disabilities, their needs and participation, into disaster management by studying relevant cases from Indonesia, Korea, and the USA. Qualitative content analysis was used as a major methodology by comparing three factors identified in these nations: government policies, schools and advocacy groups' efforts, and families and local communities' awareness. Three models, one from each country, were considered major takeaways from this study: the Indonesian moral inclusion, the Korean medical treatment without exclusion, and the US' extending social inclusion. In addressing the needs and participation of people with disabilities in disaster management, the following recommendations are put forward: for Indonesia, a move away from olden beliefs and misconceptions on disability (e.g. as a punishment) is imperative. In Korea, relevant fundamental laws (e.g. the Basic Act on Emergency and Safety Management) need to be revised while also studying advanced laws on the subject. For the USA, though the country is already advanced, overall improvement is still needed in terms of association with international non-governmental organizations, increase in the number of (emergency or disaster) response officials, and provision of better medical treatment.

The United Nations (UN) states that 'persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others'. This definition helps explain why working with people with disabilities may present challenges, especially to those whose orientation is unfamiliar with their needs (United Nations/Department of Public Information, 2006). Working with people with disabilities may present challenges, especially to those whose orientation is unfamiliar with their needs. Nearly 1 (about 1 billion people) out of 7 individuals (a total of 7 billion people) in the world is disabled (United Nations/Enable, 2014). This number is huge and further supports or validates the call for addressing their needs holistically. In disaster management, many stakeholders have looked into the challenges of people with disabilities

through singular or individual cases, but few have utilized a comparative perspective. In this study, a comparison of issues and concerns of people with disabilities in the international community has been taken as its major research direction.

Following Figure 1, about 10–15% of Indonesians are people with disabilities; about 5–14% of Koreans are people with disabilities; and about 17% of Americans are people with disabilities. About 2 out of 10 people with disabilities are naturally born disabilities, and 8 people with disabilities have acquired such disabilities at one point in their lives. This number indicates that a higher proportion of disabilities have been caused by dangerous environments, circumstances, and accidents compared with those naturally born with disabilities.

In terms of rescue operations for people with disabilities in Indonesia, Korea, and the USA, about 20% of them have experienced being evacuated or rescued without difficulty from sudden disaster, while 6% had no choice but to stay within affected areas. During evacuation, their biggest challenges were difficulty of climbing steps, of seeing, of communicating, and of hearing. Only 17% of them acknowledged that there were emergency operation plans (EOPs) in their communities. Yet the ratio of people with disabilities who may be evacuated without difficulty could be doubled, if early warning and subsequent action reached them in time (United Nations/International Strategy for Disaster Reduction [UN/ISDR], 2013).

For this study, we have chosen Indonesia, Korea, and the USA for the comparative review because they possess unique approaches on people with disabilities in the field of disaster management. To elaborate, Indonesia as a developing nation has begun to open its communication channel with the international community to solve challenges in the field of disaster management, particularly in addressing concerns of people with disabilities. Korea, as a newly developed nation, has not yet fully recognized the need to deal with the needs of people with disabilities in the field of disaster management. The USA, as one of the world leaders, has tried to advance (though still incomplete) the cause of people with disabilities in terms of disaster management.
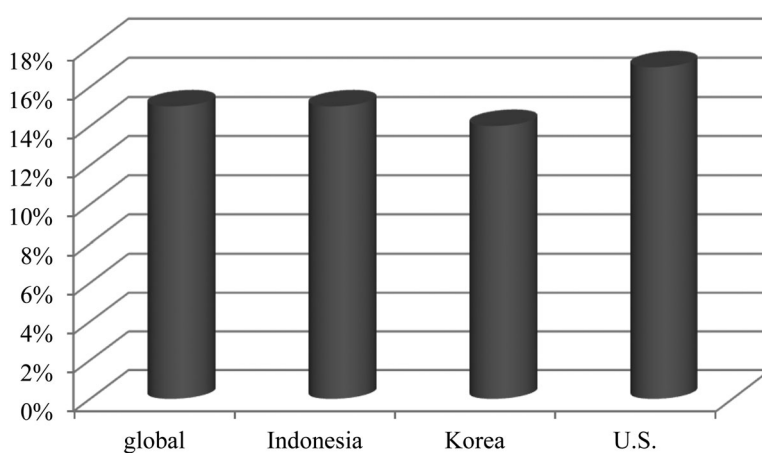
Figure 1. Ratio of people with disabilities out of the total population.
Sources: International Labour Organization [ILO] & Irish Aid (2013) and Ministry of Health and Welfare [MW] (2015).

The paper is aimed at the inclusion of people with disabilities into the field of disaster management in terms of examining their overall status in Indonesia, Korea, and the USA. By utilizing qualitative content analysis as a methodology, this paper has compared three factors: (1) government policies, (2) schools and advocacy groups' efforts, and (3) families and local communities' awareness. Three distinct traits are observed in this study and are considered as unique models for each country: (1) the Indonesian moral inclusion, (2) the Korean medical treatment without exclusion, and (3) the US extending social inclusion. In addition, the paper has emphasized the importance of nations learning from each other, based on the three models.

Theoretical background

Disabilities are a universal reality, but its exact definition varies depending on individual perspective (Altman, 2014; Kayama & Haight, 2012). In this paper, disabilities are either mental or physical impairment that limits an individual's activity. Namely, disabilities are various conditions that affect or damage individual's mental ability or physical ability. Disabilities include many types such as vision, hearing, mobility, speech, cognitive, mental, brain injury, and others. People with disabilities have special needs in terms of access to transportation, communication, safety, health maintenance, and independence.

Compared with people without disabilities, people with disabilities have been disproportionately influenced and affected during times of disasters because of their mental, physical, or socioeconomic conditions. In particular, people with disabilities have not been good at responding to disaster because of individual factors, limitations, or in combination. In general, most people with disabilities have not had the opportunity to consult or be consulted about their needs in a disastrous situation.

Similarly, people with disabilities, given their limitations, are more vulnerable to disasters or more at risk than people without disabilities are. Without preparedness or with insufficient preparedness for people with disabilities, they become defenseless to catastrophic impacts in times of disasters; they would be among those most likely to die or least likely to survive or be rescued first. In effect, people with disabilities become more helpless and challenged under such circumstances (Alexander & Sagramola, 2014; Flanagan, Gregory, Hallisey, Heitgerd, & Lewis, 2011; Hoffman, 2009). Even government support may stop or may not be sufficient to meet their needs. Unfair treatment for people with disabilities is such an undeserved reality especially during disastrous situations.

In terms of literature review, many international researchers as well as a few national scholars have tried to examine conditions around Indonesian people with disabilities to improve overall disaster management. Researchers have approached the subject using various research tools such as case studies, empirical method, international conferences, and others. However, reliable and relevant published works on people with intellectual disabilities, historical documents on their location, and others are still insufficient.

With the rise of information and communication technology, particularly social network services, and the recent devastating disasters that have happened, many individuals in Korea have shown interest on the subject and status of people with disabilities in their family or in their neighborhood. Accordingly, many researchers have started to approach Korean people with disabilities in the fields of social welfare and education. However, researchers have not paid much attention to disaster management for people with

disabilities. In fact, almost no international perspective has ever been applied to the Korean case in terms of disaster management.

In the USA, the level of research on people with disabilities has been very high. Researchers have had discussions and studies on the issue of people with disabilities in the field of disaster management. Not only emergency managers but also educators, medical doctors, nurses, volunteers, and others have been involved on the subject via specialized perspectives and approaches. Therefore, many theories or related models have been developed in the field of disaster management such as personal disaster management initiative for people with disabilities, the Behavioral Risk Factor Surveillance System, and special-needs shelters, among others (Smith & Notaro, 2009).

Despite recent research developments, no rigorous study has ever been conducted about the comparative perspectives among Indonesian, Korean, and the USA on people with disabilities in the field of disaster management (Pfeiffer et al., 2004). Individual or single cases continue to persist. A comparative study is essential to derive potential benefits and best practices from the respective countries' experiences, viewpoints, and approaches, and learn from their mistakes as well.

In a broad viewpoint, how to deal with people with disabilities is related and connected to one's culture: how society views their existence positively or negatively depending on their culture. Culture includes beliefs, customs, and ways of life of societies. Some cultures uphold that people with disabilities are as they are because that is part of their destiny. Others maintain that also as part of their destiny, people with disabilities can become as capable and can enable themselves, and overall, improve their situation (Ezenkwele & Roodsari, 2013).

Accordingly, in the field of disaster management, overcoming cultural barriers in diverse regions to push people with disabilities into the mainstream of disaster management is quite important. Without an effort to make positive changes in our culture, achieving the most effective disaster management that includes the participation and needs of people with disabilities will be difficult.

How to manage disasters has affected not only people without disabilities but also people with disabilities. However, people with disabilities have been generally overlooked in the field of disaster management, even though they are more vulnerable during times of disaster compared with people without disabilities. Therefore, people with disabilities have to be included into regional EOPs. Otherwise, the impact of disaster would be increased not only to people with disabilities but also to people without disabilities under a dynamic and complicated environment (World Health Organization et al., 2013).

When people with disabilities are included into EOPs, then they are likely to access some protective actions. Hence, they may take some actions to protect themselves against disasters. Some researchers have empirically studied that being included into EOPs may play more significant roles in protecting people with disabilities than other socioeconomic factors may (Cong, Liang, & Luo, 2014). Therefore, it is quite necessary to include people with disabilities into EOPs in the international community.

Analytical frame

The paper has utilized qualitative content analysis as a methodology. Many written or recorded texts have been selected and then analyzed to support an argument or create evidence for an argument. Although some numerical data have been used, the content

of qualitative materials has been more frequently examined. To improve the reliability of our qualitative data, an exhaustive search of related texts was done. The following keywords used in the search included 'people with disabilities', 'special needs population', 'disaster management', 'emergency management', and others via search engines such as OUP, ScienceDirect, Google Scholar, www.yahoo.com, RISS, DBpia, and KISS.

Figure 2 shows the study's analytical framework. Common comparative factors were used in the investigation of the subject in Indonesia, Korea, and the USA. Types of disabilities, government policies, significant principles, cases of functional needs, various challenges, the role of parents, and others have been included as well, as drawn from a broad range of literature review.

For this study, we invited representatives from the three countries under the support of the Center for Multi-Culture Families in Gimhae area, Korea. A meeting was held on 19 October 2014 among the representatives composed of 20 participants (7 Indonesians + 7 Americans + 6 Koreans) that included government officials, researchers, emergency managers, educators, and volunteers. Through brainstorming, we chose three comparative factors important in disaster management also for people with disabilities: (1) government policies, (2) schools and advocacy groups' efforts, and (3) families and local communities' awareness.

By utilizing these three factors, we compared how each nation has worked on disaster management for people with disabilities for the goal of including them into disaster management, following the picture at the center of the analytical frame. In particular, we characterized the models applied by each nation: the Indonesian moral inclusion, the Korean medical treatment without exclusion, and the US extending social inclusion. Based on above theoretical background, the inclusion of people with disabilities, their
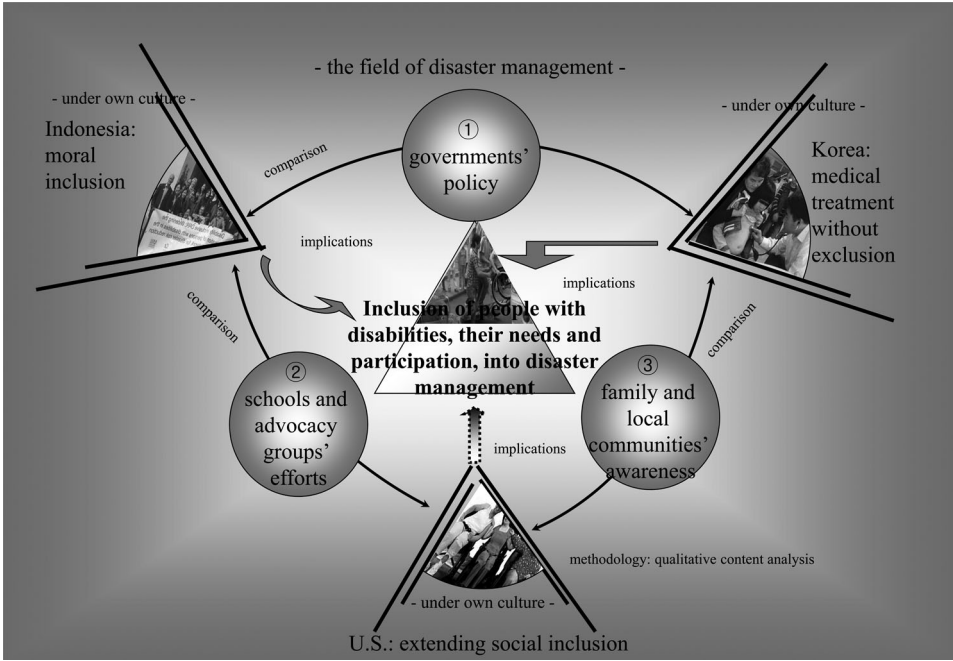

Figure 2. Analytical frame.

needs and participation, into the field of disaster management deserves to be a major part of disaster management. We looked into the three nations, the three factors or key players in each nation, and the three models, one for each nation, that have been shaped and have become part of their culture, and how they all interrelate toward addressing the needs of people with disabilities in the field of disaster management.

In the end, implications have been drawn for Indonesia, Korea, and the USA and where necessary, implications for the international field of disaster management have been suggested as well.

Indonesian moral inclusion

Government policies

International treaties and conventions continue to facilitate care for people with disabilities. In Indonesia, international support has influenced a number of collaborations and laws. Examples include the Convention on the rights of the child in 1990, the Proclamation on the full participation of and equality of treatment for people with disabilities in the Asian and Pacific regions in 1993, the Biwako millennium framework for action in 2002, and the UN convention on the rights of persons with disabilities in 2007.

Among the central government organizations, the National Coordinating Body (NCB) under the Ministry of Social Affairs has played a major role in incorporating international support into the national policy. Though incomplete, the NCB has tried to support equal rights for people with disabilities. In addition, a special law on disaster management was drafted and passed under the National Disaster Management Agency (BNPB) in 2007 to give special attention to people with disabilities during times of disaster.

Even with these efforts, the nation has failed to address appropriate alternatives for people with disabilities, especially at the local level. For example, because many regulations have not been widely enforced, various policy alternatives have not been even recognized in the frontline of disaster management. Similarly, under the local autonomy, many local governments have not succeeded in implementing related policy alternatives in their regions, due to lack of financial resources as well as related ignorance.

Schools and advocacy groups' efforts

Special schools such as Sekolah Dasar Luar Biasa or Sekolah Luar Biasa, with the support of the Ministry of Education, have played many roles in educating and training people with disabilities. For the last 10 years, special schools have worked on improving the status of people with disabilities by incorporating their needs into national development plans including educational plans. However, as for regular schools or certain levels, they have not yet admitted children with disabilities to their curriculum.

A number of non-governmental organizations (NGOs) have also worked for people with disabilities. In addition, their activities in the nation have been expanded. Many domestic NGOs have cooperated with government institutions by working on educational plans. Examples include the Indonesian Disabled People's Organisation, the Indonesian Association for the Welfare of the Deaf, the Association of Women with Disabilities, and the Indonesian Blind Union.

International NGOs have supported Indonesian people with disabilities in terms of disaster management, following Table 1. The International Red Cross and the Japan International Cooperation Agency have also provided disaster training in the country. Handicap International has pushed Indonesia to include people with disabilities into disaster management by empowering them via legislation, monitoring, and evaluation, and providing appropriate services (ILO & Irish Aid, 2013; Japan International Cooperation Agency, 2002; Suprobo, 2011).

Families and local communities' awareness

Many Indonesians have traditionally felt that they have been morally stigmatized when they have children with disabilities. For them, by giving birth to a child with disability means that every member of the family would be negatively branded by society. Consequently, people with disabilities have also become disabled by social relations. For example, people with intellectual disabilities have been put into special institutions so that the family may hide the disabled kin from society (Komardjaja, 2005).

According to the Quran, having individual disabilities is neither a punishment from Allah nor a blessing. Rather, the reality is that it is a part of human conditions. Islamic sources have not taught that disabilities are a product of God's punishment for individual sin. However, many residents, who are Muslims, have felt the fear of related stigma and the necessity of isolation regarding people with disabilities (Sheridan & Scior, 2013).

Many residents are willing to help people with disabilities during times of disaster, not on the basis of the rights of people with disabilities, but because of their compassion and empathy toward people with disabilities. On the other hand, many residents also mistakenly believe that people with disabilities cannot make a good decision for themselves during times of disaster. Thus, in general, residents have not been in favor of including people with disabilities into the field of disaster management (Wal et al., 2014).

Korean medical treatment without exclusion

Government policies

The Ministry of Health and Welfare (MW) has played diverse roles in supporting people with disabilities by providing social welfare alternatives. According to the Social Welfare Act for

Table 1. Some numerical examples of approaches to people with disabilities.

Country	Major statistics
Indonesia	• In 2014, about 65 international organizations have been listed to work for disaster management of people with disabilities • As a recent example, the UN Partnership to Promote the Rights of Persons with Disabilities (UNPRPD) has spent USD 324,747 for Indonesian people with disabilities from 2013 to 2014
Korea	• Under the National Health Insurance System, all people with disabilities have been able to get bigger reduction (10–30%) on medical cost than for people without disabilities • Many local governments have also provided medical aid for people with disabilities in their districts, such as supporting 70% of individual medical cost in Gosung-Gun in 2014
USA	• The status of people with disabilities in the field of disaster management has not evolved within a short period but over many years (at least the last 60 years) of US history, according to the FEMA • Maryland and Rhode Island have had the highest number of lawsuits (among the 51 states) on employment discrimination against people with disabilities, from 2008 to 2010

Sources: FEMA (2014), Employment and Disability Institute (2015), Independent Living Institute (2014), and MW (2015).

People with Disabilities, the MW has tried to comprehensively stipulate roles and responsibilities for related sub-institutions regarding their medical treatment. However, the MW has not been involved in directly managing disaster for people with disabilities.

The Ministry of Public Safety and Security (MPSS) is the single most comprehensive agency on disaster management in Korea. MPSS, as a government institution, has to manage various disasters for people with disabilities. MPSS (as noted in its website) also sends voice messages for the blind and does sign language for the deaf. In addition, MPSS has recently held fire evacuation drills for people with disabilities (Ministry of Government Legislation, 2014; Ministry of Public Safety and Security, 2015).

Notwithstanding, the Basic Act on Emergency and Safety Management (BAESM) has not specified anything about people with disabilities. Under the mandate of BAESM, MPSS cannot pursue certain actions without having to refer to BAESM policies. Though some regulations have been revised to improve the status of people with disabilities such as the Regulation on Fire Facility and Safety Management, the Regulation on Anti-Discrimination against People with Disabilities, and others, MPSS has not at all been able to manage disasters effectively for people with disabilities (Korea Federation of Organizations of the Disabled, 2013).

Schools and advocacy groups' efforts

Majority of people with disabilities used to stay in special schools for their education until recently, with many of them getting education from regular schools. Specifically, about 70% of people with disabilities have participated in integrated education with regular students. About 30% of people with disabilities have still taken part in special schools' programs to include kindergartens, primary schools, middle schools, and high schools (Ministry of Education, 2015).

Each school for people with disabilities has developed its own EOPs for their students and for the whole facility, but each EOP has not been comprehensive, but a partial one borne out of a negative culture. In short, many schools have not fully understood comprehensive emergency management. Many schools' EOPs have not included all kinds of disasters but only frequent or common disasters such as fires. Further, when setting up school EOPs, not all stakeholders but only some, such as teachers and medical staff, have been involved in the process. The emphasis of their EOPs is also not the entire disaster management life cycle, but only a certain phase, specifically disaster response.

An increasing number of NGOs such as the Korea Association of Persons with Physical Disabilities and the Korea Employment Security Association for the Disabled have done a number of activities for people with disabilities. Such activities were focused on improving medical treatment and related social services, such as monitoring relevant government policy, providing policy agenda, and distributing information. However, these efforts did not include any elaboration on disaster management for people with disabilities (Kim, Lee, & Lee, 2012).

Families and local communities' awareness

Many Korean families used to believe that their children with disabilities were a result of their wrongdoing in the past or punishment from the gods. Thus, many parents have

deserted their children and left them in the streets or the orphanage. This is why Korea still allows international adoption of children with disabilities. As evidence, 40 children with disabilities were adopted within Korea in 2007, while 500 children with disabilities were adopted by foreign nationals and were uprooted legally from Korea (Ahn, 2009).

As time went by, many Koreans have become more educated about disabling conditions and they realized the positive effect of appropriate medical treatment for their children with disabilities. Some of them sought surgery, therapy, and oriental and western medicine for their disabled children (Kim-Rupnow, 2003). Restrictively speaking, however, those families have not paid much attention on dealing with disaster management for their disabled children.

Many residents in the community have not viewed children with disabilities via disaster management perspective. Rather, they have approached them via medical treatment perspective, similar to the family's awareness. As a result, many residents have expressed their sympathy with people with disabilities, but they have not had opportunities to develop concrete procedures for addressing their needs during disaster management (Inagaki & Hayashi, 2013; Koo, Kim, & Kim, 2012).

The US extending social inclusion

Government policies

The Federal Emergency Management Agency (FEMA) has done efforts to have equal access for people with disabilities to its programs and activities. In doing so, the Office of Disability Integration & Coordination (ODIC) has played a central role in providing related guidance and resources. FEMA has employed Disability Integration Specialists in their Regional Offices, while hiring Disaster Integration Advisors in Joint Field Offices (2014).

The government's disaster preparedness programs have recently shown shortfalls on dealing with people with disabilities during disasters such as hurricane Andres in 1992, the 9/11 terror in 2001, and hurricane Katrina in 2005. Specifically, many critical challenges were still observed including transportation, shelter, medication, emergency information, evacuation, notification, and others, despite the Post-Katrina Emergency Management Reform Act.

State and local governments have utilized the Americans with Disabilities Act of 1990. In doing so, Regional Disability Integration Specialists have helped state and local governments manage local resources for the goal of socially including people with disabilities into the field of disaster management. In reality, however, many governments at low level have trained only few response officials, and as a result, the needs of people with disabilities were overlooked frequently (Department of Homeland Security, 2005).

Schools and advocacy groups' efforts

After related legislation, children with disabilities have been allowed to participate in the same public schools with children without disabilities. Children with disabilities also receive specialized services in self-contained classrooms or resource rooms in local school districts. Each school has set up, and then, implemented its own EOPs that include all children. Though imperfect, those schools have worked on reflecting

the special needs of children with disabilities into their EOPs (Special Education News, 2014).

Several advocacy groups and organizations such as psychiatric survivor peer-support groups and local Independent Living Centers have also pushed forward efforts toward people with disabilities. When tornadoes broke out in Birmingham, Alabama, in April 2011, the Birmingham Independent Living Center set up a working group for people with disabilities. The same center also became the shelter or haven for people with disabilities during the tornado recovery in Joplin, Missouri, in May 2011.

With the support of advocacy groups, diverse volunteers working for people with disabilities have become part of the nation's culture. Volunteers believe that disabilities are not an individual issue alone, but also a social responsibility. Many nurse volunteers provided health care for people with disabilities in shelters during hurricanes Katrina and Rita in 2005. However, many challenges still surround people with disabilities including limitations on human resources, physical environment, and patient care (Deal, Fountain, Russell-Broaddus, & Stanley-Hermanns, 2006).

Families and local communities' awareness

Many families with members who have disabilities have not known much about available services for chronic disability conditions, such as Medicare and Medicaid, or other health service providers. In addition, many families have spent much time on disaster preparedness, but have missed understanding the behavior and motivation of people with disabilities (Nehring, 2007; Uscher-Pines et al., 2009).

People with disabilities belong to the minority category, culturally. In general, the minority may be victimized by discrimination more than the majority. Thus, people with disabilities have been more exposed to discrimination in the field of disaster management compared with the majority. In addition, the number of people with disabilities has increased after experiencing disasters such as hurricane Katrina (Sastry & Gregory, 2013).

Some residents still believe in the misconception on people with disabilities in the field of disaster management. They have maintained that people with disabilities cannot take care of themselves, cannot function properly in daily life, and cannot make their own decisions on their medical needs. Because of these misconceptions, some people with disabilities have been excluded from disaster management (Bethel, Foreman, & Burke, 2011; Duran, Zou, Frew, Kwok, & Benz, 2013).

Major implications

Clearly, people with disabilities have been more vulnerable during disasters compared with people without disabilities. Among various cultural factors, the perception on the existence of disabilities has more strongly influenced the issue of people with disabilities in the field of disaster management. In addition, individual ignorance or misconception has been a leading cause of unfair treatment of people with disabilities (Drew et al., 2011). Wrong beliefs on disabilities have somehow given a 'social license' to exclude people with disabilities from the field of disaster management.

Regarding the Indonesian culture, individuals, families, and communities have taken diverse stands and actions on the situation of people with disabilities. Many Indonesians have maintained that people with disabilities have been punished by Allah due to related actions in their past or present lives.

Through awareness and education, many Koreans have realized that the causes of disabilities are diseases, accidents, or other health concerns, although some still attribute disabilities to moral punishment from the gods or related wrongdoings in the past. In other words, the majority of Koreans have started culturally to consider medical condition to be one of the causes of disabilities. Thus, many Koreans are now more willing to provide appropriate medical treatment for people with disabilities.

Many Americans have maintained that the cause of disabilities is the social environment. They believe that the matter of disabilities is not only an individual issue but also a societal concern. In particular, Americans have worked on enhancing disaster management to include the participation and the needs of people with disabilities.

Under unique regional cultures, these three nations have developed their own models on how to include the participation and needs of people with disabilities into the field of disaster management. The Indonesian model should be its moral inclusion. Morals dictate what is right and wrong in human behavior. As people, whether with disabilities or without, we should be treated fairly and our morals need to be upheld. On the basis of our morals, the needs of people with disabilities should be considered and included when working on disaster management. Olden beliefs and practices without moral basis or scientific evidence need to be abandoned or abolished. No one needs to be excluded. Therefore, the concept of moral inclusion is put forward.

The model of medical treatment without exclusion is suitable for Korea. As morals dictate our standard for right behavior, the same can be said of making available medical treatment to those in need, whether with existing disabilities or without. Administering medical care should be done fairly; no one should be deprived of care when they need it, especially when facilities and medication are at hand. Quick medical treatment without exclusion needs to be practiced, more so during times of disaster.

The term, extending social inclusion, is applicable to the US case. Disability as a social responsibility, not only as an individual concern, is an established reality. With this thinking and way of life, discrimination is likely to dissipate, and in its place, social inclusion is extended. People with disabilities can expect to be part of regular disaster management activities not only in terms of being treated medically, rescued, or assisted but also in terms of participating as decision-makers or implementers. The concept of social inclusion also fosters empowerment to people with disabilities as they work hand in hand with people without disabilities. In addition to social inclusion, the USA also needs to look into fortifying its health care program through a national health insurance system (Ahearn, Williamson, & Black, 2015; Gumus & Regan, 2015).

With the above in mind, it is necessary for the three nations to have regional or national EOPs that cover the participation and needs of people with disabilities. As disasters are not selective, they do not choose the people they affect or hit. Both people without disabilities and with disabilities would be affected. Therefore, by including not only people without disabilities but also people with disabilities into disaster management, the effect of disaster management program will be much improved via disaster prevention/mitigation, preparedness, response, and recovery (White, Fox, Rooney, & Cahill, 2007).

A true community embraces all its residents including people with disabilities. In setting up and mobilizing a disaster management program, all community resources must be tapped to enable implementation of appropriate solutions and alternatives that serve the whole community. For example, buses with wheelchair lifts would be a great addition to a community's infrastructure. This is one way to include people with disabilities into disaster management. Overall, there should be no hindrance to people with disabilities to participate in decision-making on disaster recovery efforts. To illustrate, people with hearing impairment can continue to communicate through sign language; they can also be trained to do transcription work or other tasks that can keep them as productive members of the community.

There are many learning opportunities for Indonesia, Korea, the USA, and the world on the subjects of disaster management and people with disabilities. Indonesia and Korea are two nations where there are still sectors in society that attribute disabilities to punishment from the gods from individual wrongdoings in the past. Such a belief needs to be overcome by extending people's awareness and knowledge on disabilities, also by learning from the examples of the USA. For Indonesia, the realization that fair treatment of people with disabilities is both a moral and social responsibility is a priority. The examples of Korea and USA on their provision of medical care and social inclusion, respectively, will also help advance the causes of people with disabilities, such as during rescue operations.

In Korea, the role of people with disabilities in the field of disaster management has to be specified by revising the BAESM, as it is the country's core law that covers disaster management. The MPSS needs to spearhead this undertaking similar to what the Indonesian BNPB did. In addition, Korea can also learn from how the USA has enacted and revised a series of laws toward people with disabilities by addressing related social responsibility, which is far beyond the scope of medical treatment.

Given that existing EOPs in the USA already include the needs of people with disabilities especially in the field of disaster management, the USA can continue to share their knowledge and skills to other nations (Kurniawati, Minnaert, Mangunsong, & Ahmed, 2012). For example, NGOs or volunteers in the USA may associate with Indonesian NGOs or other international NGOs to lead campaigns on getting rid of misconceptions about people with disabilities, while US local governments train more response officials. In addition, the USA may consider the Korean case specifically on providing affordable and quality medical treatment for people with disabilities via the national health insurance system.

In the process of learning from each other, individuals and organizations can talk about topics relevant to them. However, not many can openly discuss relevant or sensitive topics. To this point, it is necessary for the three nations to share information on how to deal with people with disabilities and address their needs with sensitivity (Cahill, 2008; UN/DESA & UN/ISDR, 2013). By setting up extensive international networks, the field of disaster management may exchange new policy agenda, new programs, or innovative solutions for addressing the needs and participation of people with disabilities.

Conclusion

We compared how Indonesia, Korea, and the USA have worked on including people with disabilities into the field or program of disaster management via three factors: government policies, schools and advocacy groups' efforts, and families and local communities' awareness. The major finding is that each nation's culture has shaped its own model of conduct

and action toward people with disabilities. These are the Indonesian moral inclusion, the Korean medical treatment without exclusion, and the US extending social inclusion.

In terms of the human dimension of the results, the rights of people with disabilities have not been practiced nor respected to the fullest regardless of national boundary. Because people with disabilities are a special-needs population, they are more vulnerable to disasters, and so the field of disaster management has to be even more aware of related actions needed to protect their rights. In the viewpoint of policy dimension, social justice for people with disabilities has been often disregarded in the field of disaster management. Thus, governments in the three nations studied here should approach the issue of policy agenda with a sense of urgency and with the support of various partners via effective tools including EOP, education and training, regulation, health care, and others. At the same time, such policy alternatives should be sustained in the long term.

To practice the inclusion of people with disabilities substantially into the field of disaster management, the three nations can rely on many alternatives. Among them, Indonesia has to realize that people's awareness and knowledge on the issue of disabilities evolve; it is not static. Korea needs to revise the BAESM while studying advanced laws in the international community. The USA should improve the association with international NGOs, increase the number of response officials, and provide better medical treatment to the disabled. In so doing, the impact of disaster will be decreased not only for people without disabilities but also for people with disabilities. In addition, including people with disabilities in EOPs will play a key role in managing diverse disasters in the region.

Granted that this study has sufficiently provided the analytical framework, three models, and related lessons on the three nations' approaches to inclusion of people with disabilities in the field of disaster management, further studies on each topic are recommended. At the same time, the three nations must agree to set up diverse and extensive international networks quickly with as many other nations as possible to share relevant materials, information, and practices, in particular, for the ultimate goal of international disaster management.

Disclosure statement

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