

Education Programs for Disaster Mental Health: Website-Based Review

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Objectives: Although a manual for a disaster medical support using Korean medicine doctors for disaster survivors has been developed, education programs for using the manual in disaster situations need to be developed. Thus, the purpose of this study was to analyze existing online education programs for disaster mental health to develop education programs for Korean medicine doctors.

Methods: We conducted website searching for disaster mental health education programs using Google. Compositions, contents, hours, methods, costs, organizers, and targets of included educational programs were analyzed qualitatively.

Results: After searching, eight websites among a total of 64 were included for the analysis. Lectures consisted of Psychological First Aid, Skills for Psychological Recovery, Self-Care, and Psychological Education after a disaster experience. Training hours for each program ranged from 30 minutes to 31 hours. All lectures were given only online. They could only be taken online. Free lectures were the most common ones. Most of them were for the general public.

Conclusions: Findings of this study provide information regarding trends of online education programs for disaster mental health. Our information could be used for developing disaster trauma response education programs for Korean medicine doctors in the future.

Key Words: Education program, Disaster, Disaster mental health, Website review

I. INTRODUCTION

Disasters include major events that can cause damage to the lives, bodies, and property of citizens, such as the destruction of dwellings or facilities, injury, illness, or threat to life, and are single or a series of sudden events or accidents that disrupt the daily functioning of community members¹⁾. Natural disasters such as floods, typhoons, droughts, forest fires, and earthquakes caused by climate change, social disasters, and epidemics, such as terrorism, accidents, wars, and nuclear disasters, have continued to occur around the world²⁾. Catastrophic events across the globe include the Haiti earthquake in 2010, Hurricane Harvey in the United States in 2017, the massive Australian bushfires in 2019, and COVID-19 in 2019. Such various forms of disasters resulted in a large number of deaths³⁾. In Korea, the number of disaster reports has significantly increased since the 1990s, including social disasters, such as the Sam Poong Department Store collapse in 1995 and the Ferry-Sewol disaster in 2014, and natural disasters such as the Pohang earthquake in 2017 and heavy rains in 2022⁴⁾. Disasters cause severe and various damages to a broad area in a short period of time, and disaster victims may have to cope with psychological trauma and physical damage for a long time.

According to the World Mental Health Survey, the prevalence of post-traumatic stress disorder in disaster situations was very high in the high-risk group for post-traumatic stress disorder (PTSD) at 44.5%⁵⁾. Acute stress disorder commonly occurs immediately following a disaster and requires active treatment to prevent it from developing into post-traumatic stress disorder. Furthermore, stressors such as complex mourning due to the death of a family member, compensation problems related to disaster recovery, and job loss can influence the development of these mental disorders⁶⁾. Major depressive disorder and sub-

stance addiction often occur in conjunction with post-traumatic stress disorder. Substance addiction can lead to risky behaviors such as car accidents and domestic violence, which can increase mortality. Disasters not only adversely affect the mental health of individuals but also worsen the mental health of community groups who indirectly complain of secondary trauma through mass media⁷⁾. Therefore, disaster mental health management is important from the perspective of public health, and systematic disaster psychological support is critical.

Disaster survivors who were subject to severe psychological stress at the early stage may experience symptoms such as physical, mental, cognitive, behavioral, and spiritual changes such as acute stress reactions⁸⁾. Extreme forms of emotion can appear and the more serious problem is that survivors are more likely to refuse therapeutic intervention or help. Therefore, considering this psychological state, disaster psychological support is needed to facilitate access to the on-site situation and increase the accessibility of survivors without any reluctance, and disaster psychological support providers need basic attitudes based on understanding and experience of disaster psychology and appropriate knowledge for response. For people who are under severe stress following a disaster, early intervention is an imperative part of disaster psychological support as intervention by trained personnel in disaster situations at an early stage yields to be highly effective⁹⁾. Moreover, even professionals with psychological intervention or experience have different understandings and approaches to disaster survivors in different situations. Thus, disaster psychological support education is not carried out after a disaster but it is necessary that personnel who have been prepared, educated, and trained are deployed before the disaster according to the situation¹⁰⁾. Prior education and training are essential because most disaster psychological support

is possible only with an integrated understanding and familiarization of the elements necessary for disaster psychological support, such as understanding of psychological trauma, psychological first aid, stabilization techniques, initial screening, various approaches to disasters, and self-exhaustion management.

The goal of disaster psychological support in disaster situations is to help individuals restore normal functioning in their communities and to minimize the occurrence of serious disaster-related mental health problems¹¹⁾. Thus, it is crucial to screen high-risk groups early and identify the level of screening and exposure to the onset of psychiatric symptoms. Moreover, a more careful approach to vulnerable populations is necessary, and the management of indirect trauma and burnout by service providers at disaster sites is crucial¹²⁾.

Disaster psychological assistance is being provided in various ways depending on the situation in each country. In particular, in the United States, ESF#8, an emergency support function administered by the U.S. Department of Health and Human Services, is implemented along with the Federal Emergency Management Agency's crisis counseling program model, a mental health service¹³⁾. In Korea, the Disaster Psychological Recovery Support Center¹⁴⁾ of the Ministry of Public Administration and Security and the National Center for Disaster and Trauma¹⁵⁾ of the Ministry of Health and Welfare are in charge of disaster psychological support. International organizations supporting disaster education include the National Child Traumatic Stress Network (NCTSN) learning center, the American Red Cross, national government agencies, non-governmental organizations, and national trauma centers.

Psychological interventions are mainly used for disaster psychological support; however, since all available resources must be administered, effective, safe, and economical non-drug non-psychological

interventions that can be used in urgent disaster scenes are required. Traditional Korean medicine treatments such as auricular acupuncture, emotional freedom techniques, and acupuncture are already being used at disaster sites around the world, and a treatment manual for doctors of Korean medicine for disaster trauma was developed in 2022 to enable systematic forms of support at disaster sites⁷⁾. Although a manual has been developed, it is necessary to educate users to use it. Hence, this study analyzed educational programs dealing with existing disaster mental health as a preliminary study for the development of disaster trauma education programs for doctors of Korean medicine¹⁶⁾.

II. RESEARCH SUBJECTS AND METHODS

1. Website searches

The search engine is Google (www.google.co.kr), which is the most used search engine on English-speaking sites, with a 91.43% share of the global search engine market¹⁷⁾. The search was conducted from July 10 to 19, 2022¹⁸⁾. Since the goal was to search for educational programs on disaster mental health, the search terms were "Disaster," "Mental health," and "psychological" as the main topics. Since the search terms were aimed at online education programs, the combined search terms including "online program," "education," and "training" were "Disaster mental health Education," "Disaster Education and Psychological," "Disaster Education Stress," "Disaster Training Mental Health," "Disaster Training Psychological," "Disaster Program Mental Health," "Disaster Program Psychological," and "Disaster Mental Online Course." Only the top 40 results by each search term have been included.

2. Literature selection process

The selection of disaster-related education sites was decided through internal discussions between two researchers (JHS and HSP). To match the disaster research with the education program to be examined in this study, the first selection was made by referring to the title and content of the sites that appear on Google, the videos of the selected sites were obtained, and the curriculum was listened to for the secondary selection. Each researcher underwent an independent screening process and selected the final site by consensus. Where there was no consensus, we sought advice from a third researcher (SHK) and finally selected sites that all three authors agreed upon¹⁹⁾. The subjects of analysis included an English-language website containing post-disaster trauma information. The website is not limited to trauma but also includes additional information about other mental illnesses. We excluded advertisements, Wikipedia, video and video pages, non-English pages, academic papers, incorrect addresses, expired educational programs, links to books, articles/news pages, and graduate or undergraduate lectures. After googling, we compared each of them and took the curriculum to ensure that no missing sites occurred, and duplicate sites were excluded. In addition, inquiry emails were sent to sites that did not have detailed training instructions.

3. Data extraction and analysis

The final selected sites were extracted by two researchers (JHS and HSP) using Excel to extract data on training content, time, method, cost, organizers, targets, etc. We compared and reviewed extracted data in the selection and exclusion of data. We consulted and agreed with a third researcher (SHK).

III. RESULTS

1. Website selection

All sites were searched through Google, and the top 40 websites were searched with eight selected keywords. After searching according to the research method, a total of 64 sites were searched by title alone. First, duplicated websites (n=26) were excluded before visiting 64 websites; subsequently, graduate and undergraduate lectures (n=10), websites that do not open (n=2), and websites that only provide pdf files (n=1) were excluded, resulting in a primary selection of 27 websites.

After reviewing the programs' table of contents and modules of the selected websites, eight websites were finally selected, excluding websites that are not disaster education programs (n=10), websites inquired by email that did not send an answer (n=2), offline education programs (n=2), websites that only provided a table of contents without educational programs (n=2), and help pages (n=1) (Fig. 1).

2. The characteristics of included training/program (Table 1)

1) Educational contents/program structure

Generally, details on the psychological first aid, self-care, psycho-education, and skills for psychological recovery were included in the educational program, and the program structure such as trauma-informed care and ethical issues in disaster varied based on each module or purpose.

Among the eight courses, four included psychological first aid (PFA) and two included skills for psychological recovery (SPR) after a disaster. Additionally, four educational programs were included for self-care in response to disasters. One program was to educate people on how to take a cultural approach to mental issues after a disaster. Finally, there

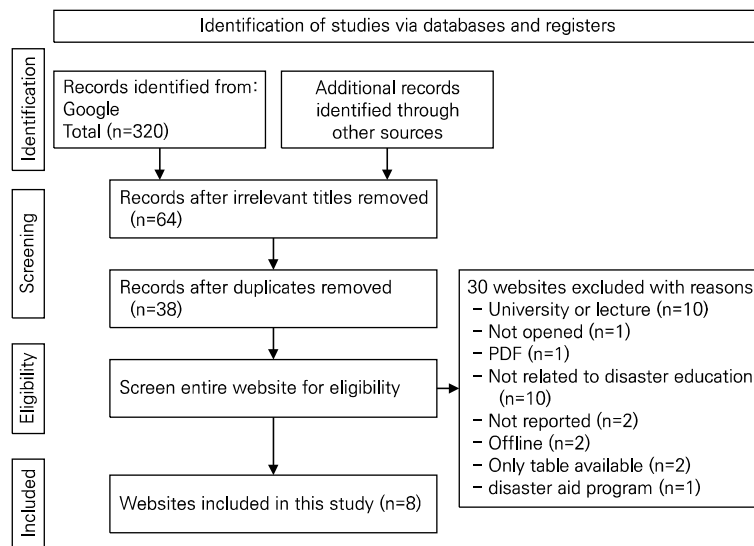


Fig. 1. Flow chart of the website selection process.

were three programs where one could practice through real-life examples or scenarios.

The program of Disaster Mental Health Training Courses, organized by the U.S. American Psychological Association (APA), is divided into Parts 1 and 2. Part 1 introduces the key concepts, knowledge, and skills to become an American Red Cross practitioner. In Part 2, the instructor encourages students to take the initiative to apply what they learn to real-world examples²⁰.

The Disaster Mental Health Training program of the Health Support Team (HST) in the U.S. consists of seven programs. The first program is regarding psycho-education according to the nature of the trauma, second concerns supporting communication and listening skills, and third is on assessing and introducing situations concerning high-risk groups. The fourth is to enable better post-disaster recovery and preparedness for disasters, and the fifth is about tools for cognitive and behavioral relaxation and stress reduction. The sixth is coping methods and strategies for vulnerable groups such as children; finally, the seventh is self-care and responsible regu-

lation of fatigue arising from empathy²¹.

The online curriculum of Australia Pheonix's Disaster Mental Health Training Program is divided into three categories: "For organizations," "For non-mental health professionals," and "For mental health professionals." They consist of "PFA," "Trauma-Informed Care," and "Vicarious Trauma" and the expert course "Trauma-focused Cognitive Behavioral Therapy." PFA allows one to practice safe and effective PFA, and trauma-informed care teaches how to raise awareness of trauma and promote safety. The Vicarious Trauma program explores organizational frameworks and essential strategies that can be implemented to optimize organizational resilience and minimize employees' risk of vicarious trauma. In the final course, Trauma-focused Cognitive Behavioral Therapy, Part 1 covers understanding of trauma and its effects; Part 2 covers understanding trauma-focused cognitive-behavioral therapy; and Part 3 covers the implementation of virtual, in vivo, and trauma-centered cognitive therapy²².

The goals of the Surviving Field Stress for First Responders program by the Agency for Toxic Sub-

Table 1. The Characteristics of Included Training/Program

Keyword	Program	Composition of the program	Time	Cost	Website URL	Organization	Target Audience	Country
Disaster mental Health Education	Disaster mental health training courses	Part 1. A self-paced, online course that introduces key concepts, knowledge, and skills required to be a Red Cross Disaster Mental Health worker Part 2. instructor-led course that provides participants with the opportunity to apply their learning to real-world examples. The course is also available online through the Red Cross.	Part 1: 60 ~90 min Part 2: 2 h	Free	https://www.apa.org/practice/programs/dmhi/dmh-trainings/disaster-mental-health-training	American Psychological Association	APA members	USA
	Disaster mental health training program	1. Psychoeducational information about the nature of trauma and responses to trauma. 2. Supportive communication and listening techniques. 3. Situational assessment and referral process information on suicide, substance use, anger and violence de-escalation, and serious mental illness, including decision-making for problems that lie outside the scope of an HST volunteer's training. 4. Promotion of resiliency and disaster preparedness. 5. Cognitive and behavioral relaxation and stress reduction tools. 6. Methods for working with children and pedagogical strategies. 7. Self-care practices and responsibly handling compassion fatigue.	Not reported	Free	https://healthsupportteam.org/	Health Support Team	1. Professionals in medical and behavioral health in a train-the trainer 2. Teachers and parents/caregivers	USA
	Disaster mental Health training program	Psychological First Aid Trauma-Informed Care Vicarious Trauma Trauma-focused Cognitive Behavioral Therapy (only professionals)	4 h 5 h 4 h 24 h	AUD \$220 AUD \$275 AUD \$220 AUD \$1072.50	https://www.phoenixaustralia.org/disaster-hub/training/	Phoenix, Australia	With no, or minimal, mental health skills training	Australia Australia Australia Australia
Disaster education stress	Surviving field stress for first responders	Introduction Segment 1: What is stress Segment 2: Stressors affecting disaster responders Segment 3: Managing first-responder stress Segment 4: Helping the public during a disaster Questions	7.36 min 15.34 min 32.27 min 28.02 min 17.02 min 12.55 min	Free	https://www.atsdr.cd.c.gov/emes/health_professionals/surviving_field_stress.html	Agency for Toxic Substances and Disease Registry	Practitioners with professional and academic levels of study First responders, fire paramedics, police and health-care providers, federal, state, and local public health, and emergency management officials	USA

Table 1. Continued 1

Keyword	Program	Composition of the program	Time	Cost	Website URL	Organization	Target Audience	Country	
Disaster training mental health	Training courses for service providers in disaster recovery	Disaster support: A. Disasters in context Disaster support: B. Level 1 early intervention Disaster support: C. Level 2 psychological strategies Disaster support: D. Ethical and professional issues in disaster response	8 CPD h 6.00 CPD h 6.00 CPD h 8 h	APS Member: \$250 APS student member: \$165 NZP&S member: \$250 Nonmember: \$375	https://psychology.org.au/event/14880 https://psychology.org.au/event/14881 https://psychology.org.au/event/14882 https://psychology.org.au/event/14883	Australian Psychological Society	New to the topic Who have some previous learning on the topic	Australia Australia Australia Australia	
		Providing psychological services to people affected by bushfires	1.5 CPD	Free (recording of webinar: 2020. 2.21)	https://psychology.org.au/event/21311		New to the topic	Australia	
	Disaster mental health counseling	Module 1	1. Goals and mission of disaster counseling 2. Stages and characteristics of disasters 3. Types of disasters and reactions 4. Disaster counseling training models 5. Culture centered disaster mental health counseling 6. Where to go from here	25 20 37 20 24	\$295	https://www.mentalhealthacademy.com.au/credential/mhc/enrol	MHA	Anyone can enroll (especially for mental health professionals)	USA
		Module 2	1. Entering communities 2. Counselor bias 3. Environmental stressors and strengths 4. Historical trauma 5. C-DMHC: goals and mission 6. Where to go from here	28 20 31 27 27 21					
Module 3		1. Deployment site arrival 2. Assessment and triage 3. Working in interdisciplinary teams 4. Clinical supervision 5. C-DMHC interventions 6. Where to go from here	26 23 15 26 31 16						
Module 4		1. The routine 2. Taking breaks 3. Interventions in the trenches 4. Compassion fatigue 5. Returning home 6. Where to go from here	29 18 25 31 34 27						

Table 1. Continued 2

Keyword	Program	Composition of the program	Time	Cost	Website URL	Organization	Target Audience	Country
Disaster Behavioral Health	Psychological First Aid (PFA) online	User Survey Module 1: Psychological first-aid overview Module 2: Delivering psychological first aid Module 3: PFA core actions 1 and 2 Module 4: PFA core action 3 Module 5: PFA core actions 4, 5, and 6 Module 6: PFA core actions 7 and 8 Module 7: Case example Module 8: Provider well-being Evaluation, post-test	25 min 25 min 45 min 25 min 45 min 45 min 45 min 30 min 25 min	Free	https://learn.nctsn.org/enro/index.php?id=596	NCTSN Learning Center	Anyone can enroll	USA
Skills for Psychological Recovery (SPR) online	Psychological Recovery (SPR) online	Introduction Lesson 1: Using skills for psychological recovery Lesson 2: Delivering skills for psychological recovery (SPR) Lesson 3: Structuring SPR visits Lesson 4: Information gathering and prioritizing assistance Lesson 5: Building problem-solving skills Lesson 6: Promoting positive actions Lesson 7: Managing reactions Lesson 8: Promoting helpful thinking Lesson 9: Rebuilding healthy social connections Summary Lesson 10: Preventing setbacks Lesson 11: Increasing motivation and delivering SPR in groups Example case	15 min 15 min 15 min 25 min 30 min 25 min 35 min 30 min 20 min 20 min 20 min	Free	https://learn.nctsn.org/enro/index.php?id=535			USA
Disaster training psychological	Psychological disaster learning series	Evaluation and certificate 1: Psychological needs during a disaster 2: PFA in disaster response 3: The four principles of PFA 4: Self-care during a disaster 5: Principles in action	30 min 30 min 30 min 30 min 30 min	Free	https://www.albertahealthservices.ca/infol/Pages/17072.aspx	Alberta Health Services	Refresher course for those who have taken PFA	Canada

HST: Health Support Team, MHA: Mental Health Academy, DMHC: disaster mental health counseling, NCTSN: National Child Traumatic Stress Network, PFA: psychological first aid.

stances and Disease Registry in the U.S. are to explain psychological stress and its common causes and effects on the mind and body; explain the social, physical, and emotional causes of first responder stress to disasters; and identify ways to cope with field-related stress and strategies to support the general public with disaster-related stress²³⁾.

Organized by the Australian Psychology Society, the training courses for service providers in disaster recovery consist of five online courses. Course A is a lecture on contextual disasters, which aims to build knowledge of the disaster environment and an understanding of the characteristics of the disaster area and provides an overview of disaster response and recovery systems²⁴⁾. Course B covers a variety of approaches designed to promote psychosocial recovery as a first step in the first few weeks of a disaster, examines the concept of PFA and community recovery models, and teaches useful approaches to disaster assistance that can be used in schools²⁵⁾. Course C introduces participants to two interventions that are useful in providing assistance to disaster survivors: disaster assistance and psychological recovery skills²⁶⁾. Course D deals with ethical and professional issues that must be managed when working in disaster-affected communities²⁷⁾. Finally, the free online course is a lecture that provides psychological services to people affected by wildfires²⁸⁾.

Organized by the Mental Health Academy (MHA) in the U.S., Disaster Mental Health Counseling is an in-depth educational program designed to provide psychological assistance to disaster-affected communities around the world and is organized into four subsections. The first introductory part provides information related to key terms and concepts about mental health that arise from a disaster. In the second part, experts explain the process and methods of preparing before entering disaster-affected areas around the world. The third module deals with

on-site activities concerning disaster-related mental health counseling. The final module is related to the process of moving to recovery and examines the limitations along with the rationale behind the cultural psychological approach, which is culture-centered disaster mental health counseling²⁹⁾.

There were two lectures on disaster-related psychological trauma at the Disaster Behavioral Health at the U.S. NCTSN Learning Center. The first is the “Psychological First Aid (PFA) Online” course consisting of eight individual modules. The course explains the overall definition of PFA, its objectives and basic principles, and its key measures and allows those to be used in real-world disaster situations. The second course is “Skills for Psychological Recovery (SPR) Online,” which aims to help survivors learn skills to cope with stress after a disaster³⁰⁾.

The “Psychological Disaster Learning Series” course offered by Alberta Health Services in Canada consists of five chapters and provides a course of study on psychological treatment for disaster victims. Each chapter describes the knowledge needed to respond to disasters. Part 1 addresses an understanding of trauma and its effects; Part 2 deals with an understanding of cognitive-behavioral therapy with a focus on trauma; and Part 3 covers the implementation of virtual, in vivo, and trauma-centered cognitive therapy. Chapter 2 explains what PFA is and how it can be used by both professionals and non-professionals. Chapter 3 introduces PFA’s four principles of action—Prepare, Look, Listen, and Link—that are helpful for responding to disasters. Chapter 4 describes the different stress responses to disaster damage and talks about managing them. Chapter 5 uses real-world scenarios to practice PFA, including real-world actions³¹⁾.

2) Training hours

The duration of each program varied from 120 mi-

minutes to 37 hours.

It takes about 3~4 hours, 37 hours and 2 hours to complete the U.S. APA program, Australian Phoenix program, and U.S. Agency for Toxic Substances and Disease Registry program, respectively. Programs hosted by the Australian Psychology Society (APS) take approximately 30 hours, while programs hosted by the MHA in the U.S. take 31 hours. Programs hosted by the NCTSN in the U.S. take approximately 10 hours, while programs hosted by Alberta Health Services in Canada take a total of 150 minutes to complete. There was one program that did not list the training hours.

Examining the lecture time of the submodules, there were 37 lectures less than 30 minutes, 19 lectures of 30~60 minutes, 1 lecture of 60~90 minutes, 1 lecture of 90~120 minutes, and 9 lectures of more than 120 minutes.

3) Teaching method

All lectures are conducted online only and can be taken online.

4) Training expenses

Free lectures were the highest in number, with six lectures, and the cost varied depending on the host country. Programs hosted in Canada were free, programs hosted by the MHA in the U.S. cost \$295, and the rest of the programs in the U.S. were free. As for the disaster education programs hosted by Phoenix in Australia, two were AUD \$220, one was AUD \$275, and one was AUD \$1072.50, depending on each content. The cost of programs hosted by the APS varied by membership: \$250, \$165, \$250, \$375 for APS members, student members, NZPSS members, and non-members, respectively.

5) Training organizers

The organizing countries for education were large-

ly divided into the U.S., Australia, and Canada. The U.S., Australia, and Canada had five, two, and one training programs, respectively. The training organizers affiliated with the U.S. are the APA, HST, Agency for Toxic Substances and Disease Registry, MHA, and NCTSN Learning Center. Additionally, the training organizer affiliated with Australia is the Phoenix and APS and with Canada is Alberta Health Services.

6) Training subject

There was a total of five programs aimed at the general public, of which one was recommended to experts. There were two programs targeted at people with medical or mental health expertise. One of them allowed teachers, guardians, and parents to take the course as well. There was one training program for initial crisis responders; fire officials; police and health care providers; federal, state, and local officials; and emergency responders. There were two programs that did not require prior knowledge of disasters or mental health but required taking prior lectures and one for the general public who had taken PFA.

IV. DISCUSSION

Disasters can affect not only an individual's mental health but also the community, both in the short and long term, destroying their sense of psychosocial well-being³². Therefore, appropriate psychological intervention during disasters is necessary, which can help to recover from the problem of psychological weakness in the long run³³. Disaster psychological support is essential for disaster damage recovery.

This study examined the current status of disaster mental health education programs provided online by using Google as a preceding study to develop a disaster trauma response education program for doctors of Korean medicine. Only online education pro-

grams were selected, with five in the U.S., two in Australia, and one in Canada. A total of eight websites were included in the study. For the selected sites, data on the organization of the educational program and training time, method, cost, organizer, and target were extracted and organized.

PFA is systematic and practical and administered for disaster mental health in the acute phase. It refers to the act of providing humane assistance to suffering people of all ages, genders, and cultures in the acute phase from the immediate aftermath of the disaster to several days³⁴⁾. PFA was developed by the NCTSN and the National Center for PTSD in connection with disaster research and response, and approximately five PFA guidelines have been developed, including one published by the World Health Organization (WHO)⁷⁾. There are five basic principles of PFA: connection, optimism, coping belief, calmness, and a sense of security, which are connected to all areas that meet basic needs and are often used in conjunction with other therapies. The specific content of PFA varies depending on the guidelines; however, in Korea, the contents of PFA from the WHO or the U.S. National Center for Post-Traumatic Stress Disorder are generally selected and followed. The basic goal of PFA is to provide physical and emotional support to the person who has experienced the disaster so that they can quickly feel secure and get out of the situation and create as much empathy as possible to build a human relationship. It also provides psycho-education to help people who have experienced a disaster recognize the kind of help they need and respond to shocks^{7,11)}.

Four programs included PFA in this study: PFA was trained at Phoenix in Australia, APS, NCTSN Learning Center in the U.S., and Alberta Health Services in Canada. The PFA of these programs is based on the principle of early intervention after a disaster to promote the psychosocial recovery of the victims of a

disaster in the acute phase immediately following a disaster, enabling safe and effective PFA. While the PFA of Phoenix in Australia and the APS addressed PFA in one part of the overall content, addressing early intervention of psychological help and the degree of safe recovery from trauma, the PFA of the NCTSN Learning Center in the U.S. has a complete module about PFA, clarifies the specific targets to support, and explains age-specific and cultural considerations when administering PFA. Alberta Health Services in Canada explains the differences between PFA and professional counseling, emphasizing that the four principles of action of PFA—Prepare, Look, Listen, and Link—are important when providing psychological support to people experiencing disasters.

Psycho-education is a curriculum that changes negative perceptions so that survivors who experience negative psychological processes after a traumatic disaster experience can overcome trauma after forming basic relationships. This is one of the stabilization techniques and also one of the processes of normalizing the response of those who have experienced a disaster³⁵⁾.

One program included psycho-education and the U.S. HST provides psychoeducational information based on traumatized nature; supports communication and listening skills; and includes a context assessment and introductory course for suicide, substance use, anger and violence, and serious mental illness, which fall under a range of problems beyond the volunteer's control³⁵⁾. Psycho-education shifts perceptions and makes things predictable by allowing disaster survivors to view the negative symptoms they experience as healthy and adaptive responses. Furthermore, there are reports that even a short psycho-education immediately after a disaster can reduce psychological shock. It has also been introduced as one of the stabilization techniques in the treatment manual for doctors of Korean medicine for

disaster trauma⁷⁾. Psycho-education corresponds to Oh Ji Sang Seung Yo Bub among Korean medicine psychotherapy, and the association of physical symptoms related to seven passions of Korean medicine³⁶⁾ can be carried out as psycho-education.

The SPR is also developed by the NCTSN and the National Center for PTSD to help people who have experienced disasters, reduce continuous suffering, and learn how to effectively cope with suffering in the short and long term. SPR is a secondary prevention approach to disaster damage compared to PFA and is founded on the premise that people will experience physical, psychological, and behavioral responses after disaster trauma. There were two programs that included SPR, a submodule of the APS and NCTSN Learning Centre in the U.S. The two programs have in common in that they both can provide SPR to disaster experiencers who have been suffering for months. They also clarify the target and period to allow SPR to be used for the right person in the right place.

The APS' SPR referred to the SPR manual from the NCTSN Learning Centre in the U.S. and explains SPR as a simple but effective psychological intervention with an evidence-based approach. The APS' SPR is based on six components: it identifies and prioritizes survivors' needs, enables disaster responders to consider different response modes to address the problems of disaster experiencers, and promotes positive activities that help normalize the mood of disaster experiencers. Furthermore, it teaches specific ways to reduce suffering, encourages survivors to think in a way that helps them live their daily lives after trauma, and helps them become part of a healthy society.

The U.S. NCTSN's SPR consists of 12 submodules and describes five intervention elements: hope, safety, calm, effectiveness in community, and bonding, unlike APS in Australia. It explains the goals of SPR as the skills of protection, prevention, improvement,

and teaching. While the collection of information about the challenges faced by disaster victims and teaching on how to use SPR technology is similar to APS, the NCTSN Learning Center has added steps to prevent disruptions in the provision of SPR technology. It summarizes how the current situations are progressing, sets realistic expectations, and plans for what might be disrupted.

The subjects for self-care can be broadly classified into two categories, and it can be applied to both disaster experience and assistance providers. For those who have experienced a disaster, the meaning of self-care is to allow survivors to manage their own psychological health, such as when medical assistance cannot be provided for a long time or in the event of a large-scale victim. This is a health management method that can be used across all periods except for emergencies immediately following a disaster, and it has the advantage in that survivors can control their discomfort and minimize unnecessary medical use.

Self-care of disaster responders is also important because disaster responders and caregivers may experience burnout and compassion fatigue when faced with negative emotions and situations due to vicarious trauma³⁷⁾. PFA training and appropriate mental preparedness can improve the personal capacity of disaster responders and promote resilience.

There were two and three programs with self-care education for disaster experiencers and responders, respectively. The U.S. HST teaches people who have experienced disasters about self-care practices and how to responsibly manage compassion fatigue. Phoenix in Australia addresses indirect trauma under the title "Vicarious Trauma" and explores organizational frameworks and essential strategies that can be implemented to optimize organizational resilience and minimize the risk of vicarious trauma for disaster responders. In this course, students learn trauma and

its effects; risk factors and signs of vicarious trauma; strategies to promote resilience and mitigate the risk of vicarious trauma; a framework for “executing, responding, and recovering;” and how to create a self-care plan. In the U.S. Agency for Toxic Substances and Disease Registry, self-care addresses stressors affecting disaster responders; explains the causes of social, physical, and emotional stress for first responders; and identifies ways to cope with field-related stress. The final module of the PFA course at the NCTSN Learning Center teaches disaster response providers how to improve their well-being so they can be mentally healthy. The final chapter at Alberta Health Services in Canada describes the different stress responses to disaster damage and discusses managing them. It shows the four signs of stress—physical, spiritual, mental, and emotional—with examples. It describes four stages in which stress can progress to illness and states that progressing into the stages of pre-disaster, reacting, distressed, and mental health problems means more risk. Stress must be managed, or it can become chronic. Subsequently, the red flags that can help determine the level of stress are explained.

The PFA also includes content on vicarious trauma and burnout for health care workers or disaster responders and includes mandatory content on self-care. While it is paramount to sympathize with the suffering of disaster survivors and support them, ensuring that medical personnel are not burned out is critical. Specifically, it can be seen that educational contents aimed at raising awareness are structured so that danger signals can be identified in advance, such as education to explain signs of stress in detail.

Disasters can occur anywhere in the world, and since all available assistance is dispatched from many countries to the disaster site, it is necessary to take into account the diversity of cultural characteristics. Organized by the MHA in the United States, Disaster

Mental Health Counseling views that individuals have different characteristics and vulnerabilities according to different cultures around the world and approaches them differently. Key topics include understanding what kind of trauma and stress have historically experienced, understanding environmental factors and strengths, and raising awareness on biases that counselors may have. In particular, the program is based on providing the world’s first cultural approach to counseling people suffering from mental problems after a disaster. The U.S. NCTSN Learning Center also offers PFA and SPR in cultural approaches, but the program that addresses cultural approaches throughout the overall process is the MHA program in the U.S.

Simulation education is an educational method that creates and reenacts virtual events and situations in advance before entering the actual field to develop problem-solving skills. This can improve the survival rate of victims by classifying the severity of damage when responders are deployed to the actual disaster site and enables them to save the patient’s life by providing first aid and initial response to the patient at the disorderly disaster scene³⁸. The U.S. APA provides instructor-led opportunities to respond to disasters in real-world disaster situations, and the U.S. NCTSN Learning Center allows students to practice with survivor examples after both PFA and SPR modules. Alberta Health Services in Canada uses real-world scenarios in the final chapter to practice PFA, including real-world actions. All three programs use real-world examples as scenarios for practice.

When responders are deployed to disaster sites, they are often caught in an ethical conflict between responsibility and their own safety. Since these ethical issues sometimes become legal issues, disaster education programs may include ethics training to strengthen disaster responders’ capacity for ethical decision-making. Course D of the APS addresses eth-

ical and professional issues that must be managed when helping disaster-affected communities. This is suitable for psychologists, counselors, and health care workers who may be caught in the dilemma of ethical issues while working in disaster-affected communities. This course covers general principles related to disaster situations, ethical dilemmas that arise in such environments, a brief overview of moral theories and reasoning, and the APS Code of Ethics. The WHO also placed great importance on ethical considerations in disaster situations, and it is imperative to implement disaster ethics education because people can experience ethical dilemmas when faced with unexpected choices in disaster situations³⁹. However, in this study, only one program addressed ethics education in disaster situations. Thus, it is suggested that a section on ethics education should be included in the development of future educational programs.

The volunteer organization providing education in this study was just one—HST in the U.S. The APA in U.S., Agency for Toxic Substances and Disease Registry, NCTSN Learning Center, and Alberta Health Services in Canada are state-sponsored, and the MHA in the U.S., Phoenix in Australia, and APS are non-profit organizations that provide disaster psychological health education programs. All state-provided educational programs were free of charge, and non-profit organizations did not offer free lectures and provided programs to train professionals with relevant specialized qualifications in the field. Upon completion of all courses in the non-profit organizations, a certificate with a validity period was granted. The state-sponsored program aimed to provide lectures and made it possible for anyone to register and attend. Lectures in non-profit organizations offered lectures to the general public; however, there were specialized courses, which differed since lecture time and cost were measured higher than lectures for

the general public. This seems to be an attempt for non-profit organizations to differentiate the general public from experts in mental psychology to provide in-depth lectures to people with basic knowledge of disaster psychological health. HST of the U.S., which is a volunteer organization, provides training to health care workers and behavioral health professionals to bring trained people, who are already interested in disaster mental health, into service.

In Korea, disaster psychological support is typically operated at the National Trauma Center under the Ministry of Health and Welfare, where training is being provided for disaster psychological support service providers. It is a state-funded educational program, and similar to the state-sponsored educational programs selected in this study, it is provided free of charge. Among the programs in this study, the non-profit organization provision programs and the volunteer organization programs provided education by distinguishing the general public from psychological and mental health professionals. However, the disaster mental health education programs of the Korean National Trauma Center were divided into beginner, intermediate, and advanced levels. Additionally, there was a separate expert intensive course from intermediate level and above that is regularly held every year, and the qualifications for taking the training are different depending on the level. In addition, the curriculum offers online and offline programs, and the online beginner course provides a general overview of disasters, ethical issues in disaster situations, and self-care methods. Unlike the educational programs covered in this study, it deals with ethical issues and seems to have considered the basis for providing services well at disaster sites by highlighting the importance of self-care.

For the beginner course, students must take the PFA mandatory education provided offline and all three courses provided online to take the intermediate

course. Offline training consists of theory and practice, and 3 hours out of a total of 6 hours consist of theory and face-to-face practice. It takes 6 hours and 40 minutes to complete the entire beginner level.

The intermediate course was only available to those who had completed the beginner course, similar to the non-profit APS program that required completion of the previous level to be eligible for the next course. The intermediate course is also offered both offline and online, and although the basic course covers stabilization techniques and guidelines for responding to each type of problem, students must complete two of the advanced courses from Problem Management Plus, Mental Health Recovery Skills Training, and Mind Program and two online courses. Response guidelines for each type of problem were 3 hours, stabilization techniques were 3 hours, Problem Management Plus was 6 hours, Mental Health Recovery Skills training was 6 hours, and Mind Program were 6 hours, and the structure of the domestic program was specific and step-by-step. The intermediate level is only available to mental health workers and those with equivalent qualifications. In the intermediate-level online course, students learn how to screen vulnerable groups at disaster sites, teamwork, and field communication. After PFA, the training program to identify various problems and learn psychological and practical aid skills for those who have experienced disasters, the SPR curriculum, and the training program to help recovery from trauma are included in the intermediate course. However, they are only conducted offline, and unlike the disaster mental health education programs selected in this study, which covered both PFA and SPR in detail, the National Trauma Center's disaster mental health education management system was centered on offline curriculum. Several programs in this study were aimed at the general public; furthermore, both the beginner online and offline

courses of the National Trauma Support Center in Korea were aimed at the general public. However, the intermediate and higher courses were focused on professionals. Advanced courses did not have online courses and were only conducted offline⁴⁰⁾.

The website-based disaster mental health program that emerged from this study first informed students about the necessity of disaster mental health care and the knowledge needed to respond to disasters through an understanding of disasters and educated them on acute approaches that can be used directly at disaster sites, such as PFA. Subsequently, various types of education were provided according to the nature of each program, such as psycho-education, psychological recovery skills, approaches according to cultural differences. They were structured to allow for the acquisition of more practical educational contents by adopting educational methods through actual simulation situations.

Based on these considerations, it is believed that the education program for doctors of Korean medicine in disaster trauma should include contents such as disaster outline, PFA, and psycho-education. Moreover, the time and method of education should be structured to reflect the ecology of the profession and become a more efficient education module. In addition, it is suggested that the actual simulated situation should be reflected in education so that the acquired knowledge can be embodied.

The following limitations of this study should be taken into account: First, the program included in this study selected only "Google" among many website portals, and we searched only the top 40 websites per keyword. Hence, it is suggested that the number of analyzed educational programs is insufficient. Second, since we aim to review current state and provide relevant informations on education programs for disaster mental health, we did not evaluate the quality of each website. Third, the website only

selects sites in English and mainly includes programs from the U.S., Australia, and Canada, which may result in omission of relevant sites from non-English speaking countries. Fourth, although the modules included almost all of the core skills used in disaster situations, such as PFA and SPR, the analyzed programs included only one ethics education program in the submodule. Considering that ethical dilemmas inevitably arise in disaster situations, it is expected that ethics education should be treated together in future disaster mental health education programs. Finally, the distinction between educational programs according to subjects was not clear. Since the nature and approach of educational programs may vary depending on the differences in the professions such as the general public or disaster mental health service providers, it is suggested that a more specific analysis of these programs is necessary in the future.

V. CONCLUSION

In this study, to understand the trend of disaster mental health education programs, we searched the Google website from July 10 to 19, 2022 and analyzed eight websites selected from the top 40 per search term, and the resulting conclusions are as follows:

1. A total of eight websites were selected.
2. The training duration of each program varied from 120 minutes to 31 hours. In the submodules, lectures of less than 30 minutes were the most common.
3. All lectures are only conducted and taken online.
4. Some courses were paid but seven courses were offered for free.
5. The numbers of the websites' training organizers were five, two, and one from U.S., Australia, and Canada, respectively.
6. Most of the lectures were aimed at the general public, while others were aimed at mental health

psychologists or specific targets.

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