How to talk with dying patients and their families after disasters and humanitarian crises: a review of available tools and guides for disaster responders

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Abstract

In responding to those affected by sudden onset disasters and chronic humanitarian crises, disaster responders and humanitarian aid workers will face the challenge of caring for dying patients. While medical intervention may be severely limited or constrained, bearing witness by listening and being able to compassionately communicate with such victims and their families is an important skill. This review examines the current literature on communication training and palliative care-skills for disaster workers and offers a menu of communication tools including guidelines developed for administering palliative care in non-disaster settings that can be used by both disaster responders and humanitarian aid workers.

Keywords: Palliative care in disasters, Delivering bad news, Disaster training, SPIKES protocol, Psychological first aid, Serious illness conversation

Introduction

Delivering bad news is a challenge for healthcare providers in tertiary care settings despite the ample resources available; these include consultant expertise, medications, intensive care units, and nursing care (Fallowfield and Jenkins 2004). In contrast, although palliative care is considered a standard of essential healthcare delivery in crises (The Sphere Handbook 2018), such as after a sudden onset disaster, such as an earthquake, first responders from the incoming disaster teams and aid workers have few tools and little training to help care for dying or catastrophically injured victims (Goodman and Black 2018; Nouvet et al. 2018). It is important to note that the local community provides crucial initial interventions of search and rescue, aid, and medical care (Binder and Baker 2017). These community responders will be the first to face the difficult job of caring for dying family members, friends, and neighbors. Palliative care is

defined as specialized medical care for those living with serious illness that is focused on relief of symptoms, with a goal of improving quality of life for the patient and family (CAPC Center to Advance Palliative Care 2019). How do we as responders prioritize palliative and end-of-life care with so little time and limited resources? The challenges of end-of-life care have been described in Ebola treatment centers (Dhillon et al. 2015) and other complex humanitarian crises (Marston et al. 2015; Rosoff 2010). This review describes the settings, challenges, resources, and tools to allow responders to best communicate with and comfort both families and seriously injured victims who are triaged to the expectant category either because of non-survivable injuries or because of life-limiting chronic illness in austere settings where sufficient medical care is unavailable.

Methods

A search for peer-reviewed papers from 1980 to 2019 via the Ovid MEDLINE database, followed by a PubMed search to pick up more recent papers not currently indexed, was used. In addition, references for included

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papers were crosschecked to ensure that all relevant literature was identified and included. A combination of terms describing palliative care in disasters, delivering bad news, and disaster training was used in the search. Additionally, an Internet search was done to identify current established disaster training and humanitarian training programs and the curriculums they offered to disaster responders and humanitarian aid workers. A total of 423 papers were reviewed.

For inclusion, papers must have described communication skills tools or the needs of the health professionals for such training. Knowledge and behavioral and attitudinal learning outcomes were included. Papers were excluded if not available in English or did not include an adequate description of the communication tool intervention. Any study design was eligible for review. A final 96 references of papers and websites were included in this review.

The disaster setting

Sudden onset disasters include catastrophic natural events such as earthquakes, floods, hurricanes; no-notice events like terrorist mass casualty events; emerging infectious diseases such as outbreaks; and humanitarian crises such as the displacement of large groups of people due to violent conflicts that overwhelm the local resources and infrastructures (WHO 2018a). Additionally, large displacements due to famine, drought, and economic collapse have led to chronic and escalating humanitarian crises (Abubakar et al. 2019). People who live in these challenging settings, as well as those populations in resource-limited environments such as low- and middle-income countries (LMICs), which have limited medical and social service infrastructures at baseline, are all disproportionately impacted by disasters (UNISDR 2015). There are now more people displaced than at any other recorded time and are thus more likely to have increased morbidity and mortality (UNHCR 2018). During the initial phases of such disasters, the environment is chaotic and potentially lawless and dangerous, with few resources for the victims (UNHCR 2019). In many LMICs, pre-existing laws protecting women, children, and other vulnerable populations are limited and risks for injury and violence are exacerbated by sudden onset disasters and escalating complex humanitarian crises (Morgan Banks et al. 2017). Food, shelter, medical personnel, and supplies may be scarce, and the ability to provide the normal standard of medical care is compromised. Analysis of medical needs in the initial post-disaster period documents a preponderance of disaster-related injuries in the first 2 weeks before shifting back to more routine population health needs (Cartwright et al. 2017). In the immediate post-disaster setting, there is also an exacerbation of pre-existing

conditions and patients who are chronically ill compete for limited medical resources with acutely injured victims (Goodman and Black 2015).

In the immediate aftermath of a disaster, priorities are categorized, and for the population we are examining, personal shelter and safety are immediate needs, especially for those at risk for death or serious illness (UNHCR 2019; Zhao et al. 2017). In these settings, victims needing palliative care who are catastrophically injured or dying often are not afforded ideal symptom management in the setting of privacy, dignity, and safety from further hazards or threats (Nouvet et al. 2018). Providers, to remain healthy and effective in the disaster setting, need training in order to identify and treat this particular population. This is especially pronounced with regard to cultural competency and communication, in addition to the skillsets needed for clinical work. In addition, ethical issues are pertinent to all aspects of disaster response and include five domains: triage and allocation, ethical concerns of patients and families, provider responsibilities, conduct of research, and international concerns (Biddison et al. 2014).

Triage and resource allocation

The fundamental treatment decisions in a disaster are based on triage category, which is applied at the point of disaster and can be re-assigned when transported to a higher level treatment area (Barilan et al. 2014; Caro et al. 2011). Color-coded or numbered categories indicate to providers the degree of injury and the likely resources that are needed (Table 1). Disaster triage includes "expectant management," that is, it is anticipated that the outcome for those in this category is death (Burkle 2018). Injuries vary from the lightly wounded, green color code, who can be treated and discharged, to those who must be stabilized and transported to a higher level facility, red color code, and also to those placed in the blue color code or expectant category (Alpert and Jaffe 2018; WHO/ICRC 2017). Another category of patients not listed in classic triage are those who are not injured but present for treatment to first responder field hospitals due to a lack of other resources. For instance, this group needs reproductive healthcare such as obstetrical management or has decompensated congestive heart failure, hypertensive emergency, and chronic renal failure on dialysis (Lempert and Kopp 2013). Patients are categorized as expectant when survival is not likely given the care that is available.

Standard triage categorization makes no mention of palliative care and implies that expectant patients require even less attention than those in the minimal injury (green color code) category (Wilkinson 2012; Bogucki and Jubanyik 2009). In 2018, the World Health

Table 1 Recommended triage categories in disaster or crisis

Category	Priority	Color code	Description
Immediate	1	Red	Patients whose lives are in immediate danger and require immediate treatment. Palliative care should be integrated with life-sustaining treatment as much as possible.
Expectant	2a	Blue	Patients for whom survival not possible given current care available. Palliative care is required.
Delayed	2b	Yellow	Patients whose lives are not in immediate danger, but require treatment urgently. Palliative care and/or symptom management may be needed immediately.
Minimal	3	Green	Patients with minor injuries that will eventually require treatment. Symptom management may be needed.

(Source: Adapted from WHO et al. 2018)

Organization (WHO) recommended a revision of the standard triage categorization in humanitarian emergencies and crises so that expectant patients (blue color code) are placed in category 2a and it is noted that palliative care is required (Table 1) (WHO 2018b). The Sphere Handbook has added a palliative care standard (The Sphere Handbook 2018). This states that people should have access to palliative and end-of-life care that relieves pain and suffering; maximizes the comfort, dignity, and quality of life of patients; and provides support for family members. Palliative care may also free up resources to improve survival of others (Matzo et al. 2009; Fowler-Kerry and Cunningham 2010) and may also mitigate political tensions and promote understanding (Cherny 2007). Palliative care for expectant patients includes end-of-life symptom management as well as communication skills such as delivering bad news (Smith and Aloudat 2017; Downar et al. 2010).

Current disaster training

Current disaster training and skillset development for responders occur before deployment, on site during work in a disaster setting, and through after-action briefings, and are meant for clinical and non-clinical staff, including those involved in logistics. During mass casualty events, administration, operations, and organization of the responders' work site are vital (Dudley 2013). The National Preparedness Directorate of the Department of Homeland Security (DHS) established the Homeland Security Exercise and Evaluation Program (HSEEP) in

the USA (DHS. The U.S. Department of Homeland Security 2013). The HSEEP program provides resources and tools for jurisdictions and organizations to evaluate their disaster plans, which include tabletop, and field exercises. This mandatory training focuses on organizational and infrastructure issues for disaster response and does not address the care of individual victims of disasters. Hospital disaster planning and training is another mechanism for the development of a response plan (Grock et al. 2017). Hospital personnel training in resource-limited countries such as Pakistan and Haiti has been advocated to develop a response capacity checklist and increase personnel training (Smith et al. 2010). These hospital disaster drills focus on incident command systems, managing surge capacity, and triage with little training in patient-directed communication.

Other pre-deployment training ranges from online modules and classroom seminars to complex "on-the-ground" simulations (Smith et al. 2012; Sabri and Qayyum 2006; Harvard Humanitarian Initiative (HHI) 2018a; Harvard Humanitarian Initiative (HHI) 2018b; Humanitarian 2018). The main goals of these trainings include safety and security, specific medical and survival skillsets, and team and leadership building. Importantly, training also focuses on hospital capacity, triage, and resource allocation (Smith et al. 2010; Kushner et al. 2007). In a survey of responders to the 2015 Nepali earthquake, responders working with experienced organizations received general training in humanitarian principles, while those joining ad hoc groups did not receive pre-deployment training

(Dunin-Bell 2018). Little to no time is spent on palliative care training (Smith and Aloudat 2017). While many simulations include training in negotiations with hostile host populations, these role-plays have not included delivering bad news. A nursing education curriculum has been developed on the delivery of culturally competent care to vulnerable patients and communities (including the terminally ill) during the disaster cycle as part of pre-departure and in-field training (Danna et al. 2015). On-the-job training with triage in mass casualty care has been analyzed for military operations but does not include support with difficult communications (De Jong et al. 2010). On-site training with peer-to-peer education has been instituted by aid agencies (Asgary and Jacobsen 2013). In addition, training of community volunteers has been associated with increased resilience during and after a catastrophe (Thormar et al. 2013). While the curriculum for on-site training includes didactic sessions and clinical and public health topics, there is limited skill building in communication and delivery of bad news. A training model in the non-disaster setting used simulation-based training to improve skills for end-of-life care (Brezis et al. 2017). In the workshop setting, role-play also effectively improved listening and communication skills (Jacobsen et al. 2017). Simulated patients are another tool used to train students and physicians in how to break bad news in a non-disaster setting (Vail et al. 2011).

Cultural competency training

Cultural barriers to providing good communication and health care in non-disaster settings include organizational barriers that consist of structural policies, procedures, and delivery systems that may not appropriately serve a population in the host community or country (Betancourt et al. 2003). According to the National Institutes of Health, culture is a complex mix of geographic, social, ethnic, and religious mores (National Institutes of Health (NIH) 2017). Culture includes societally accepted beliefs and behaviors (IFRC 2014). Cultural respect is important as part of comforting victims and also as part of a disaster team's diplomatic mission in a foreign land (Kelman 2012). Pre-deployment training is necessary for cultural competency (Betancourt et al. 2003).

 "Cultural competency" addresses the importance of culture, assessment of cross-cultural relations, vigilance toward the dynamics that result from cultural differences, expansion of cultural knowledge, and adaptation of services to meet culturally unique needs (Rollins and Hauck 2015). Awareness of health beliefs and behaviors is a crucial aspect of cultural competency (Lavizzo-Mourey and Mackenzie 1996). In a survey on knowledge and needs for cultural competency in disasters, 62% and 20% of nurses and 83% and 6% of nurse executives felt that training was either needed or a high priority

respectively (Danna et al. 2015). Danna et al. developed a nursing education model, "Cornerstone of cultural competency during the disaster cycle (C^3DC)," that incorporated three domains of competence in nursing: theory and scientific methods, skillful practice, and professional identity and agency. Table 2 summarizes the C^3DC and emphasizes the importance of knowledge of the disaster cycle from the pre-disaster planning, to response, and finally to recovery work. Each phase of a disaster requires a particular knowledge and skillset in talking with the affected communities and delivering bad news.

 The psychological impact of disasters on the population is associated with pre-disaster factors (experience/training, income, life events/health, job satisfaction), peri-disaster factors (exposure, peri-traumatic experiences, perceptions of safety, injury), social factors (organizational and social support), and post-disaster factors (impact on life) (Brooks et al. 2017).

 Language barriers can prevent informed information interchange. A negative consequence of poor communication skills during a crisis is the development of mistrust and potential violence against responders (Matzo et al. 2009). Table 3 summarizes issues of cultural competency important to consider when working in a foreign country.

Communicating bad news

One of the core skills of palliative care is competent communication, including clear delivery of information about prognosis and goals of care. "Bad news" is any information that alters a patient or victim's expectations of their future (Barclay et al. 2007; Ptacek and McIntosh 2009). In a disaster setting, communication of bad news to a victim or family member involves providing information about the significance of injuries, the outcomes of the injuries, and the potential for survival. Communicating bad news is relevant to other categories of triaged patients besides the expectant, for example, an injured patient who will require a significant body alteration such as an amputation or a colostomy to survive. Patients who are so severely injured as to be placed in the expectant category are usually too ill to communicate, and responders must communicate with a family member if present (Powell 2010).

 Several standard tools exist to provide clinicians with a structure for delivering bad news. We are not aware of any tools that have been adapted for delivery of bad news in the disaster setting. Many of these tools have been analyzed in the tertiary, non-disaster setting and through questionnaires have identified the need for improved training and skills (Monden et al. 2016). None of these tools have been validated. However, a review of different teaching strategies for delivering bad news

Table 2 C³DC model for disaster education

Phase of disaster	Education and training	Implications for palliative care
Prevention and mitigation	Risk reduction, disease prevention, health promotion, policy development and planning, mitigation	Understand the incidence and prevalence of life limiting diseases in the community
Preparedness	Ethical practice, legal practice and accountability, communication and information sharing, education and preparedness	Understand the existing laws and protections for vulnerable populations; educate populations about healthcare proxy designation
Response	Care of the community, care of individuals and families, psychological care, care of vulnerable populations	Training responders in communication skills and triage
Recovery	Long-term individual, family, and community recovery, building resilience	Bereavement counseling

(Source: adapted from Danna et al. 2015)

identified simulation and Objective Structured Clinical Examination (OSCE) as the best approach for trainees (Lamba et al. 2016). The new SPHERE chapter identifies palliative care as an important health intervention but does not address communication skills and delivery of bad news in particular (The Sphere Handbook 2018).

The "SPIKES" model (Table 4) was initially developed in reference to cancer patients but is applicable to a wide variety of clinical situations. This model guides the clinician through a 6-step communication process with patients (Baile et al. 2000). Step one, the Set Up, involves the clinician's preparation for the discussion. Even in an austere environment, it is crucial to strategize about ways to arrange for a more private environment, ensure the right family/community members are present, and involve an interpreter if needed.

Step 2 involves assessing Perception, which allows the clinician to ascertain the patient/family's illness understanding. This prepares the clinician to be able to fill in informational gaps and understand how the patient/family may respond when information is delivered.

Step 3 involves obtaining the patient/family's Invitation. This includes listening and speaking with cultural humility and assessing through a cultural guide, interpreter, or family members how much a patient or family wants to know about the clinical situation.

Notably, the halfway point of the SPIKES acronym is reached before the serious news is actually delivered, running counter to many clinicians' natural inclinations, particularly when pressed for time or feeling uncomfortable with the news.

In step 4, Knowledge involves delivering the bad news in concise, simple language. Warning the patient that bad news is coming may lessen the shock that can follow the disclosure of bad news (Maynard 1996) and may facilitate information processing (Greisinger et al. 1997). It is important to provide information that is at a level that the patient can understand. Avoid the use of medical jargon. When speaking through an interpreter, responders may need to have a conversation with the interpreter before meeting the patient to explain the situation and the need to be sensitive.

Table 3 Components of cultural competency

Components	Considerations	Example
Dress	1. Respectful clothing appropriate to region 2. Do host people need certain clothing to maintain their dignity?	1. Tank tops, short skirts inappropriate in Muslim country 2. Cover people with torn or absent clothing with a blanket
Language	1. What is the language? 2. How to greet people?	Learn words for hello, how are you, thank you, good bye
Gender, age, power	1. Can male responders treat and care for women? 2. Who is the community leader? 3. Who is the decision maker in the family?	1. Be aware that in some cultures, community leaders may traditionally be involved in medical decision-making 2. Identify patient preferences regarding how medical information is shared
Touching and behavior	1. What are the usual customs for touching? 2. Is it ok to hold someone's hand? 3. What are special considerations for interaction with women, children, elderly?	1. In some cultures, "thumbs up" is a rude gesture 2. Touching someone's head or face is rude in South Asia 3. Showing the soles of your feet is rude in the Middle East
Beliefs and religion	1. Who are the different ethnic and religious groups of the region? 2. What are the beliefs and practices that are important? 3. How might they understand or explain what has happened?	1. Ask if the patient would want a religious leader present at end-of-life 2. Ask about patient/family's beliefs about treatment of the body (viewing, handling, burial) after death (WHO et al. 2018)

(Source: adapted from WHO 2018b)

Table 4 SPIKES tool in the disaster setting

	Acronym	Description of steps	Example phrasing
S	Setting up the interview	--Arrange for some privacy --Involve family members (if desired) --Sit down --Make connection with the patient --Manage time constraints and interruptions	
P	Assessing the patient's perception	--Ask, tell, ask (before discussing medical findings, use open-ended questions to understand the patient/family's perception of their situation) --Allows clinician to correct misinformation and tailor the bad news to where the patient/family's understanding is	--"What is your sense of how your mother is doing?"
I	Obtaining the patient's invitation	--Ask permission before giving the news --Assess through a cultural guide /interpreter/ family members how much a patient wants to know	--"Would it be okay if I talk to you about what's happened with your mother's injuries?" -- "Is there anyone else who should be here for this conversation?"
K	Giving knowledge and information	--Give a warning shot --Give key information in concise, simple language -Stop talking	--"Unfortunately I have some difficult news to tell you." --"Because of the damage to your leg, it will require amputation above the knee." --(Pause)
E	Addressing the patient's emotion with empathic responses	--Allow for silence --Name the emotion --Align with the patient	--"You seem devastated to hear this." --"I really wish we had a treatment to save your father's life."
S	Strategy and summary	--Map out what is most important to the patient --Make a recommendation	--"Given this hard situation, what's most important right now?" --"In light of what you told me about your mother not wanting to suffer, I recommend that we give her medication to treat her pain and focus on her comfort."

(Source: adapted from Baile et al. 2000)

Table 5 Serious Illness Conversation Guide for the disaster medicine setting

Steps	Description of steps	Example phrasing
Setting up the conversation	--Introduce purpose of the conversation --Ask permission	--"I'd like to talk about what's been happening with your mother's health situation. Would that be okay?"
Assessing the prognostic awareness	--Elicit patient/family illness understanding --Explore hopes and worries	--"What is your understanding of how your wife is doing?" --"Are there things you are hoping for in terms of her health?" --"What are you worried about?"
Share worry	--Disclose condition/prognosis	--"Because of the injuries your father experienced in the earthquake, I am worried that time is quite short for him." --"I hear you are hoping that we'll be able to treat your son's cholera, and I'm worried that even with the medicine we are giving him, he may die from this."
Align	--Align with patient/family through: -"I wish" statements -Naming emotion - Exploring emotion	--"I wish we had a treatment that could fix your sister's injuries." --"It sounds like you are shocked to hear this." --"This must be so difficult to hear." --"Can you tell me more?"
Explore what is important	--Explore the patients' fears, worries, goals, sources of strength, and family support.	--"You mentioned that your mother's faith is a source of strength. Are there rituals it would be important to perform at this time?" --"Often patients have worries about dying in pain. Do you think your husband may worry about that?"
Close the conversation	--Summarize the news given --Make a recommendation --Affirm commitment to the patient and family	--"I've heard you say that your faith is very important. Keeping that in mind, I recommend that we try to find a priest who can visit as soon as possible." --"It sounds like you are worried about your mother's labored breathing. I recommend that we give her medications to ease her breathing and ensure that she is comfortable." --"We will do everything we can to help you through this difficult situation."

(Source: adapted from Ariadne Labs 2017)

Information should be provided in small chunks with frequent check-ins to make sure the patient and/or their family understands. Pausing to allow for silence after delivering the bad news is integrated into step 4.

Step 5 involves addressing the patient and family's Emotion with Empathy, allowing space for the patient and family to express anger, sadness, disbelief, and so on while validating the emotions and working to align with the patient and family.

The final step, Strategizing and Summarizing, involves exploring what may be most important to the patient in light of the difficult news. This may include things such as symptom relief, allowing family to be present at the time of death, honoring religious and cultural end-of-life traditions. Lastly, the clinician makes a recommendation for a goal-concordant plan and ensures non-abandonment.

A second communication tool is the Serious Illness Conversation Guide (Table 5). Physician and nurse training in conversations about serious illness has increased patient satisfaction about their care (Cohn 2018). Training on use of a Serious Illness Conversation Guide, developed by Ariadne Labs, includes the following components: setting up the conversation, assessing the patient's understanding of their illness, their hopes and worries, sharing prognostic information, exploring what is important to patient and family, and making a recommendation (Ariadne Labs 2017). An aim of this conversation guide is to provide a proven framework for non-palliative care clinicians to more effectively discuss with patients their preferences for end-of-life (Bernacki et al. 2015). This guide can be incorporated into training and utilized by disaster responders.

A third tool comes from the World Health Organization, which developed a guide for field workers on psychological first aid (PFA) (WHO 2018b). This document establishes basic guidelines for talking with colleagues and people of host communities (Table 6). The guide stresses respectful support and emphasizes the importance of being nonintrusive, not pressuring people to talk when they do not want to, and developing a space of safety. It is important to be aware of one's tone of voice, facial expressions, hand gestures, and body language during discussions. The principles of "look, listen, and link" apply to PFA. After establishing that the environment is safe and urgent basic needs of the people have been met, the responder can ask about needs and concerns, give information, listen, and give support. The intervention of providing basic needs is linked to the intervention of psychological first aid and referral for more in-depth counseling.

If possible, it is important to understand how much information to disclose and whom to talk to. Examination of preferences and expectations for medical disclosure of life-limiting diagnoses among patients, families, and community has only occurred in the non-disaster setting. We are unaware of studies reporting on this important issue during disasters and humanitarian crises and must look to the non-disaster literature for cultural guidance. While North American culture expects full disclosure of all medical information, in other cultures, limited information is more acceptable (Walsh et al. 1998; Fujimori and Uchitomi 2009; Orona et al. 1994). Involvement of family members in discussions also varies by culture and country. For instance, in one study, in culturally Japanese patients, 78% preferred hearing bad news with family members present, compared to 61% of Portuguese patients and 40% of Irish patients (Fujimori and Uchitomi 2009). A family-centered approach to communications is dominant in Central and South America (Blackhall et al. 1995). In a study of 150 cancer patients and their relatives and community in Albania, relatives did not want bad news disclosed to the patient (Beqiri et al. 2012). Similarly, a review of 55 publications from the Middle East about disclosure of a cancer diagnosis identified a strong reluctance by family members

Table 6 Psychological first aid

Approach	Examples
Providing practical care and support	"Are you cold? Here is a blanket"
Do not supply solutions	Do not say: "You can have another baby"; do not say: "You're young, you will marry again"
Assessing needs and concerns	Need to find family; need for shelter and food
Helping people address basic needs	Identify resources to help deliver food, water, and essential non-food items
Listening to people	"Tell me more …" "I hear you saying that …"
Comforting people	"I cannot imagine how difficult this has been." "I'm so sorry for what you are going through. I'm here to help."
Helping people connect to information, services, and social supports	Identifying resources within the community or through aid agencies
Protecting people from further harm	Be sensitive that disclosing their experience maybe re-traumatizing

(Source: adapted from WHO 2018b)

and caregivers' attitudes, to allow the patient to know their diagnosis (Khalil 2013).

Host group resilience is related to pre-disaster factors of trust and safety. One study looked at social and occupational factors predicting psychological outcomes among trauma-exposed employees (Brooks et al. 2017). Lower income was associated with post-disaster posttraumatic stress disorder (PTSD). There was no relationship of prior trauma exposure with PTSD from current sudden onset disaster experience. Additionally, social cohesiveness predicts resilience of survivors of disasters (Brockie and Miller 2017). These factors may be important for responders to understand when talking with family members of victims. One report identified that older adults with few social connections were more vulnerable during natural disasters and less likely to be rescued and receive assistance (Dynes 2006). Responders need to be alert to the potential isolation and danger to the surviving elderly spouse of a dying victim.

There are other communication tools for difficult discussions with patients with life-limiting illnesses (Table 7). These tools may be less easily used in the disaster field as they assume an ongoing relationship over time. One of the challenges for responders is the short-term nature of their relationships with victims of disasters. Ideally, the responsibility of difficult conversations rests with a hierarchy of specially trained clinicians who are ideally situated such as psychologists, physicians, and nurses. Additionally, it would be important to train opportunistic individuals such as community representatives or family members in communication skills. In the setting where it is possible to develop long-term infrastructure such as in refugee camps, communication courses and trainings should be offered.

Communication and cultural tools

Table 8 lists resources and tools to maximize communication and understanding. Physicians who have access to trained interpreters report a significantly higher quality of patient-physician communication than physicians who use other methods, such as untrained staff or family members (Baker et al. 1996). Responders trained in pastoral care and social work can effectively provide emergency palliative care (Rosoff 2010).

When sitting with the dying victim or talking with the bereaved family member, one of the important tasks for responders is to acknowledge the suffering and loss that is going on (Kleinman and Benson 2006). Beyond language and culture, bearing witness for the victim and their family has a healing element. In addition, accompaniment at the end of life is an important aspect of non-abandonment in palliative care and a basic principle of nursing training (Moreno 2019). It is important to express empathy and validate the patient and family reactions and emotions. Always allow the patient to express his fears and concerns. Responders can experience transpersonal experiences with the dying and that these experiences provide comfort to the victims (Broadhurst and Harrington 2016). Transpersonal experiences include a deep sense of identity and empathy with the victim. In addition, there is clear evidence that the long-term outcomes for children exposed to disasters are directly related to parental stress and coping (Pfefferbaum et al. 2015). If responders have on the ground resources such as social workers, early family interventions may reduce long-term PTSD.

Giving bad news is very stressful for the healthcare provider (Ptacek and McIntosh 2009). Whereas in a non-disaster setting, providers can balance bad news with maintaining hope for new treatments and this

Table 7 Tools for communication when long-term follow-up is available

ABCDE (Rabow and McPhee 1999)	A: Advance preparation—set a time, invite patient to include a support person, ask what the patient knows. B: Build a therapeutic environment/relationship—find a private, quiet place, reassure about suffering and non-abandonment. C: Communicate well—be direct, avoid jargon, allow for silence. D: Deal with patient and family reactions—listen actively, explore feelings, express empathy. E: Encourage and validate emotions—correct distortions, assess the effect of the news, address further needs, arrange follow-up.
BREAKS (Narayanan et al. 2010)	B: Background, know the background of the patient/family and understand the clinical problem. R: Rapport, build rapport, provide time. For discussion E: Explore, what does the patient know. Include other family or support with patient's permission. A: Announce, give a warning shot, then deliver the news using straightforward language. K: Kindling, address emotions. S: Summarize, give a summary of the session and set up treatment/care plans.
GUIDE (Back 2013)	G: Get ready—gather data, set up a private and quiet location, ask who needs to be at the meeting. U: Understand—ask the patient what they already know, then listen. I: Inform—deliver the news in a single sentence, then listen. D: Deepen—observe and acknowledge emotions; tolerate silence E: Equip—map out the next steps. Describe treatment options and follow-up.

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Table 8 Resources for communication

Resources	Examples
Pre-deployment research	CIA Factbook; Wikipedia, UNHCR, Sphere Handbook, WHO
Interpreters	Team member who are native speakers; recruit interpreters on the ground
Cultural guides	Recruit local leaders who will explain local customs
Religious guides	Understand the local religions
	Who are local religious leaders? Imams, rabbis, priests Team member who has interfaith chaplaincy expertize
Palliative care communication resources	Vital Talk: https://www.vitaltalk.org/resources/ (free videos teaching core techniques for disclosing serious news and other communication topics) Ariadne labs: https://www.ariadnelabs.org/resources/downloads/ (free download of Serious Illness Conversation Guide)

strategy can lessen the harshness of the news; this balance is less possible during a disaster (Vogel et al. 2009). Responders who give bad news frequently experience the strong emotions of anxiety, a burden of responsibility for the news, and fear of the recipient's anger or distress (Tesser et al. 1971). Responders also experience their own traumatic stress and compassion fatigue after caring for dying and maimed disaster victims (Lawrence 2017). Additionally, responders can be intensely emotionally connected with deceased victims and feel that they have received communications at the time of the death of the injured. Responders can develop posttraumatic stress disorder (PTSD) from their work after a sudden onset disaster (Sugino et al. 2014). In a cross-sectional study of health providers 2 months after the 2015 Nepali earthquake, the prevalence of PTSD was 21.9% (Shrestha 2015). The level of PTSD in responders can be affected by the amount of social support available (Thormar et al. 2013). It is important to have structured individual and team debriefing for responders after they return from a deployment. After-action debriefing is a standard protocol for disaster teams (FEMA 2019). Experience with debriefing after simulated disasters suggests that further programmatic development is needed to address the emotional stress of a deployment (Greco et al. 2019).

Conclusions and recommendations

The task of giving bad news is a necessity for physicians of most specialties and is often viewed as challenging and even stressful to some (Ptacek and McIntosh 2009). Communication with victims and their families after a sudden onset disaster adds multiple layers of challenge to care delivery. Many studies have identified the need for disaster management training and palliative care training (Cartwright et al. 2017; Nouvet et al. 2018; Goodman and Black 2018). The new SPHERE handbook and the recent WHO guidelines on palliative care (WHO et al. 2018) emphasize the importance of integrating physiological, psychological, and spiritual care in all nations and in the setting of humanitarian disasters. The manner in which information is discussed with patients can impact patients' satisfaction, understanding of their illness, and adjustment to the diagnosis, expected quality of life, and intentions to adhere to recommendations (Burgers et al. 2012). Providing bad news in a culturally sensitive manner adds an additional level of complexity to an already challenging encounter. While an individual's culture can strongly influence patient belief systems and utilization of care, there is an inherent danger when responders make assumptions about individuals' culture and the role it plays in their lives.

There are community resources and concrete tools to help responders communicate and comfort devastatingly injured victims. These include local cultural guides, interpreters, and religious leaders. In addition, tools such as the SPIKES sequence for discussing bad news or the Serious Illness Conversation Guide, PFA, compassionate silence and witnessing, and an understanding of transpersonal experiences can comfort victims. There is a need to more critically analyze which of these tools are best suited to a disaster setting. Team organization should include an assigned individual on the team both on the ground and in central command to gather information on the setting: which includes cultural and religious beliefs and basic language phrases. Additionally, the creation and deployment of a Triage and Scarce Resource Allocation Team to oversee and guide ethically challenging clinical decision-making during a crisis period has been proposed as part of tenets and procedures to guide triage assessment and scarce resource allocation during public health emergencies (Kushner et al. 2007). This should be considered as important as the other components such as logistic, operations, and medical surveillance (Powell et al. 2017).

Responders will also be emotionally and psychologically impacted by these experiences. Training must include education about the personal impact of the experience and the importance of the bond of communication between responder and victim. There are measures including training, social support, and attention to safety that can be taken before, during, and after disasters that can reduce stress and increase resilience of responders (Brooks et al. 2016). Overall, there has been a rapid growth of pre-deployment training and professionalization of disaster teams in the past decade (Harvard Humanitarian

Initiative (HHI) 2018a; Harvard Humanitarian Initiative (HHI) 2018b; Humanitarian 2018). The additional curriculum of communication tools, skills, and attention to the mental and emotional health of responders will be crucial to provide the essential standard of medical care after disasters (The Sphere Handbook 2018; WHO 2012). Palliative care training in general is important in disaster settings to better use limited resources, alleviate suffering of those dying, and through effective communication, improve the resiliency of surviving friends and families.

The next step is to develop a communication guide and field manual for responders and humanitarian workers that focus on communication, delivery of bad news, education and support of host community members in these skills, and protocols for support and stress reduction for disaster responders.

Abbreviations
ABCDE: Advance, Build, Communicate, Deal, Encourage; BREAKS: Background, Rapport, Explore, Announce, Kindling, Summarize; C^{3}DC: Cornerstone of cultural competency during the disaster cycle; CAPC: Center to Advance Palliative Care; CIA: Central Intelligence Agency; DHS: Department of Homeland Security; GUIDE: Get ready, Understand, Inform, Deepen, Equip; HHI: Harvard Humanitarian Initiative; HSEEP: Homeland Security Exercise and Evaluation Program; ICRC: International Committee for the Red Cross; LMICs: Low- and middle-income countries; NIH: National Institutes of Health; OSCE: Objective Structured Clinical Examination; PFA: Psychological first aid; PTSD: Posttraumatic stress disorder; SPIKES: Set-up, Perception, Invitation, Knowledge, Emotion and Empathy, Strategy and Summary; UNHCR: United Nations High Commissioner for Refugees; UNISDR: United Nations International Strategy for Disaster Reduction; WHO: World Health Organization

Availability of data and materials
All material and data are referenced from the world's literature.

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Hilarie Cranmer, MD, MPH is an emergency physician and educator working to advance practice standards for humanitarian responders. She responded during the 1999 Kosovo crisis, the 2004 tsunami in Indonesia, the 2005 US hurricanes Katrina and Rita, and the 2010 Haiti earthquake and was the Technical Advisor on Ebola for International Medical Corps during the 2014–2015 Ebola outbreak in West Africa and as Incident Commander for her teams deployed to the Philippines for 2013 Typhoon Haiyan, the 2015 Nepal Earthquake, 2016 Hurricane Matthew-affected Haiti, 2017 Hurricane-affected Houston, Puerto Rico, and Dominica, and for 2018 Hurricane-affected North Carolina, Florida, Saipan, and USNS Comfort Operation Enduring Promise for the Venezuelan Migrant crisis. As the founding director of education at the Harvard Humanitarian Initiative, Cranmer designed an innovative training program that culminates in a simulated disaster field experience, now replicated internationally. She is MGH's first director of global disaster response. She was awarded the 2015 Harvard TH Chan School of Public Health Alumni Award of Merit, its highest honor annually bestowed.
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Competing interests
The authors declare that they have no competing interests.

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