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Resilience and Coping for the Healthcare Community: A Post-disaster Group Work Intervention for Healthcare and Social Service Providers

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Introduction

This manuscript describes the Resilience and Coping for the Healthcare Providers Intervention (RCHC), a program designed to address the unique psychological needs of disaster-affected healthcare and social service providers. RCHC is a group work intervention designed to mitigate post-disaster mental health distress and amplify resilience among disaster-affected healthcare and social service providers. In this manuscript, we first discuss the impact of natural disasters on communities and the position of health care and social service providers in disaster response. We then describe common reactions to stress experienced by healthcare and social service providers after disasters. Next, we turn to an overview of interventions currently available in post-disaster communities, illustrating the lack of evidence-based interventions focused on the mental health needs of healthcare and social service providers. Following, we provide a detailed overview of the RCHC intervention, including its theoretical underpinnings, performance in a pilot evaluation study, and a description of how it is administered. Finally, we close with a discussion of future directions for research and practice in post-disaster contexts.

The Impacts of Natural Disasters on Communities

On August 25, 2017, Hurricane Harvey made landfall as a Category 4 hurricane, dropping 40–65 inches of rain in Southeast Texas and Louisiana. Harvey stalled over Southeast Texas for days, dropping more than 20 trillion gallons of rain (National Weather Service, 2018). As a result, massive flooding occurred in Houston, Beaumont, and surrounding communities. Hurricanes Irma and Maria, which struck Puerto Rico in September 2017 shortly after Harvey, devastated the island and caused a widespread humanitarian crisis for all 3.4 million residents (Zorrilla, 2017). Irma, the first of the two hurricanes, caused a partial collapse of the power system, leaving the island vulnerable for the Category 4 Maria. Maria added to the destruction, leaving the island without power, displacing thousands of its inhabitants, and leaving many with little access to basic essentials such as clean water or food (Zorrilla, 2017).

Natural disasters, such as Hurricanes Maria and Harvey, are extreme events with detrimental consequences, including destruction of community structures, disruption of social systems, major environmental

damage, and injury or death (Natural Disasters, 2008; Rottman & Shoaf, 2002). These events are occurring more frequently and with a higher intensity (Murray & Ebi, 2012). In a new report by The Intergovernmental Panel on Climate Control, global warming is projected to reach 1.5°C between the years of 2030 and 2052 (IPCC, 2018). As a result, extreme weather conditions such as heat waves, heavy precipitation, floods, increases in coastal sea levels, and droughts are likely to increase in frequency (Murray & Ebi, 2012). These events can affect entire populations by disrupting the social and physical systems in which people live in and depend on for survival (Gill, 2007). Loss of a home, devastation of a community, changes to the workplace, or injuries and deaths of family and friends are just some of the challenges people encounter during and after a disaster. It can take years to recover, which can lead to sustained chronic stress during the recovery process (Ursano, Cerise, DeMartino, Reissman, & Shear, 2006).

The Experiences of Healthcare and Social Service Providers in Disaster Response and Recovery

Disaster response and recovery are intensive efforts involving multiple systems (O'Sullivan, Kuziemy, Toal-Sullivan, & Corneil, 2013) often influenced by the pre-disaster social, cultural, environmental, economic, and institutional conditions of the community, as well as pre-disaster planning (Smith, 2012). First responders, health care, and social service providers are essential in response to natural disasters, as they provide vital services in the immediate response and over the longer term recovery (Benedek, Fullerton, & Ursano, 2007). Providers from disaster-affected communities, however, are at heightened risk for emotional distress symptoms immediately after the event and over the longer-term recovery period (Benedek et al., 2007). They provide care to others both physically and emotionally, while at the same time are often in the process of recovery and rebuilding their own lives.

In the aftermath of disasters, health care and social service providers must work in conditions of extreme stress, contending with first response and rescue operations, a higher demand for medical care, and increased needs for counseling and navigation of services (US Department of Homeland Security, 2008). These providers often do so while simultaneously coping with personal losses, injuries, and other stressors brought about by the disaster (Benedek et al., 2007). Studies of healthcare providers (e.g., physicians, nurses, physician assistants, nurse practitioners, first responders, and nursing assistants) and social service providers (e.g., social workers, case managers, mental health providers,

and residential treatment providers) consistently demonstrate that providers are not immune to the sometimes extreme and/or traumatic stress they face during times of disaster response and recovery (Bercier & Maynard, 2015; Palm, 2004). A provider's previous experiences, perception of the threat, and the depth and duration of the disaster interact to influence their behavioral and psychological responses.

These reactions, termed "the cost of caring," may include secondary traumatic stress, compassion fatigue, burnout, and vicarious trauma (Beck, 2011). While these conditions each develop in reaction to exposure to clients' experiences of trauma, each construct results in a different pattern of emotional and cognitive disruption, detailed below.

Secondary traumatic stress (STS) results from indirect exposure to a traumatic event through knowing or hearing about the trauma (Figley, 1995; Meadors, Lamson, Swanson, White, & Sira, 2010). STS is particularly high among healthcare providers, as they are often exposed to traumatized individuals. Symptoms of STS are similar to post-traumatic stress disorder (PTSD) and can result in a host of symptoms, including re-experiencing thoughts of the trauma, avoidance of trauma reminders, and increased arousal (Kanno & Giddings, 2017).

Compassion fatigue occurs when working with a high number of traumatized individuals is combined with a high level of empathy. This combination can result in a diminished capacity for empathy (Adams, Boscarino, & Figley, 2006). While CF and STS have been used interchangeably, STS is distinguished by the presence of PTSD symptoms as compared to the more general psychological or emotional symptoms involved in exposure to another individual's trauma that characterize CF (Meadors et al., 2010).

Burnout is defined as the experience of mental, emotional, and physical exhaustion from involvement in emotionally demanding careers (Mateen & Dorji, 2009). Symptoms of burnout can include emotional exhaustion, depersonalization (e.g. disengagement or uncaring attitude towards work), and reduced personal accomplishment (Halbesleben & Buckley, 2004).

Vicarious trauma (VT) occurs when the cumulative effect of working with traumatized individuals affects the cognitive schema of a provider changing how they process and perceive information (Nimmo & Huggard, 2013). Cognitive changes that may result from VT include alterations in spiritual beliefs, safety, or perception of control (Hernandez-Wolfe, Killian, Engstrom, & Gangsei, 2015).

Despite the risks of emotional distress among disaster affected providers, protective factors can reduce the likelihood these individuals will

experience secondary traumatic stress, compassion fatigue, burnout, or vicarious trauma. Protective factors can include social support, positive coping skills, and levels of perceived personal accomplishment (Brooks et al., 2015). Social support, for example, is associated with lower levels of burnout and psychological distress and increased life satisfaction (Lopes Cardozo et al., 2012). Positive coping skills such as talking, writing, or deep breathing have been shown to be inversely related with distress symptoms (Brooks et al., 2015). Perceived personal accomplishment or feelings of “giving back” have been connected to higher resiliency and lower levels of burnout or secondary traumatic stress (Chang & Taormina, 2011).

Interventions for Healthcare and Social Service Providers in Post-Disaster Settings

Considering the risk that healthcare and social service providers could develop a myriad of stress related mental health symptoms, and the role of protective factors, it is critical for well-designed, empirically supported interventions to mitigate these risks. However, few evidence-based or evidence-informed interventions have been documented in the research literature. A recent systematic review on interventions designed to address secondary traumatic stress in mental health and healthcare providers identified several individual and group models (Bercier & Maynard, 2015). The most widely used interventions include critical incident stress (CISD) or psychological debriefing (PD), psycho-education, and cognitive behavioral therapy (CBT).

CISD and PD were originally developed to reduce the likelihood of long-term distress or post-traumatic stress symptoms in providers (Deville, Gist, & Cotton, 2006). Generally conducted with providers after exposure to a traumatic event, these interventions focus on ventilation, as well as psycho-education on and the normalization of distress symptoms (Deville et al., 2006). While CISD and PD have been widely disseminated, research has indicated the interventions have neutral or negative results (Ruzek et al., 2007). CBT was designed to increase adaptive and decrease maladaptive behaviors and thoughts by modifying unhealthy beliefs or cognitions (Tolin, 2010). CBT has been shown to effectively reduce PTSD symptoms in the general public; however, there is limited evidence establishing CBT’s effectiveness in treating healthcare and social service provider distress (Haugen, Evces, & Weiss, 2012). Other types of interventions designed for healthcare and social service providers, such as Psychological First Aid (PFA), primarily function as a tool to educate responders on how to better meet the needs of the

affected community (Snider, 2011), not address the needs of the responders.

The Resilience and Coping for the Healthcare Community Intervention

The Resilience and Coping for the Healthcare Community (RCHC) intervention was designed to address the need for evidence-informed approaches to help healthcare and social service providers cope with stress and reduce the risk of adverse mental health symptoms in post-disaster contexts. Unlike the previously described training programs and treatment modalities, RCHC does not require reprocessing of the traumatic disaster such as CISD or focus on training designed solely to meet the emotional needs of the community such as PFA. Alternatively, the intervention is focused on bolstering protective factors and minimizing burnout, secondary traumatic stress, and other adverse mental health symptoms common in disaster affected providers.

The intervention approach combines psychoeducation, groupwork, and mindfulness practices to help providers build tangible individual and collective coping skills. This structure enhances its versatility, RCHC can support provider preparedness for future disasters, as well as cope with those that have currently or previously occurred.

The delivery of RCHC along with other mental health and psychosocial support services aligns with the Inter-agency Standing Committee Reference Group on Mental Health and Psychosocial Support's (IASC) guidance on multi-sectoral humanitarian agency responses in an effort to improve and protect people's psychosocial well-being and mental health during and after an emergency (2014). The IASC provides a tiered blueprint for service delivery in post-disaster settings, as outlined in Figure 1. The tiered service delivery model describes levels of psychosocial support involved in recovery efforts after a disaster. Mental health and psychosocial programs included in this model support social and psychological well-being of individuals, families and communities affected by disasters. These interventions are designed to minimize negative psychological sequelae associated with complex emergencies, such as a natural disaster (Duncan, 2004). As the pyramid illustrates, the levels of support range from information dissemination as the least intensive tier of psychological support to tailored psychiatric or psychological support being the most intensive. RCHC falls in the second tier acting as a prevention intervention tailored for the healthcare community. The tiered approach to mental health and psychosocial support programming currently underway in Houston and Puerto Rico

follows the IASC standards by offering a set of options for care providers based on need.

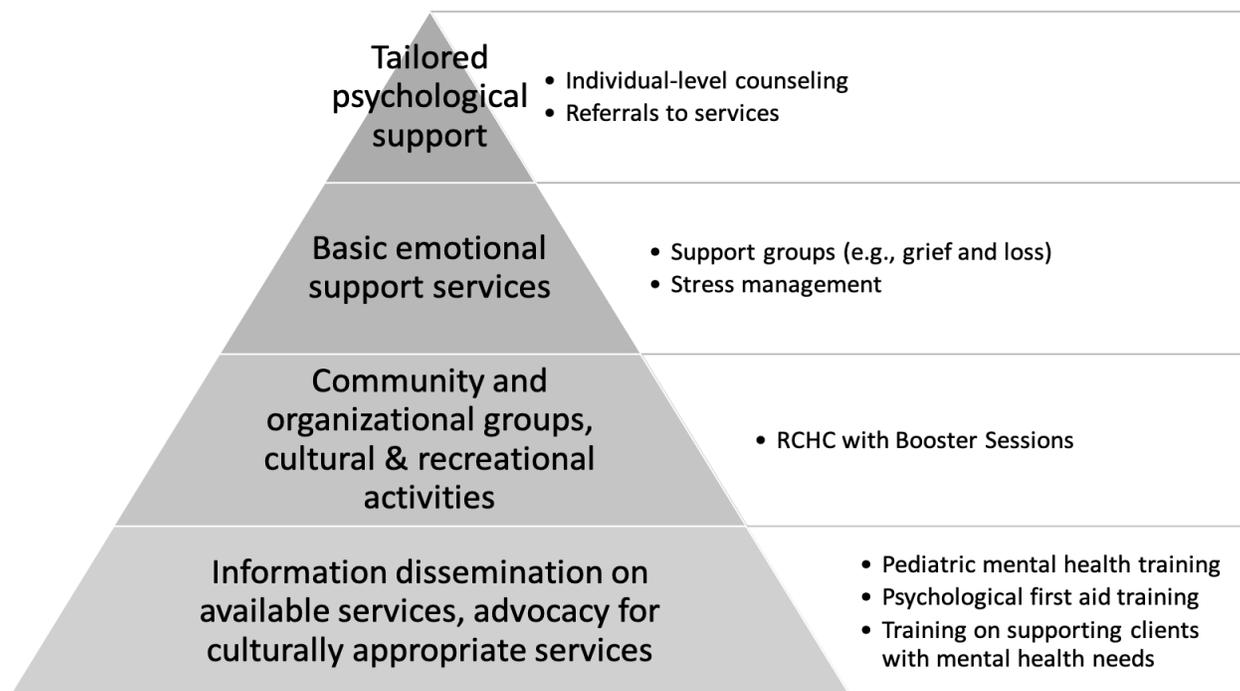


Figure 1. Tiered Mental Health and Psychosocial Support Services Being Delivered by AmeriCares post-Hurricanes Harvey and Maria, adapted from the IASC tiered blueprint (IASC, 2014)

Structure of Delivery of the RCHC Intervention

RCHC is a 3–5 hour interactive workshop containing five modules (AmeriCares, 2017), as outlined in Table 1. The modules focus on: (a) types of stress and common stress reactions, (b) how the brain reacts to severe stress and trauma, (c) healthcare providers responses to stress and trauma, (d) individual strategies to cope with stress and traumatic events, and (e) collective strategies to cope with stress and trauma. An optional module on coping with challenging workplace situations is also offered. Each module incorporates psychoeducation, interactive discussion, small group work, and individual processing. Participants are provided psycho-education on healthy coping strategies such as: physical self-care, future planning, talking to others, taking time for oneself, practicing positive thinking, taking a time out, practicing mindfulness, and identifying if external help is needed. They are then provided the

opportunity to develop strategies to integrate healthy coping into their personal and professional lives.

Table 1
Modules in the Resilience and Coping for the Healthcare Providers Intervention

Module	Content
Program and Facilitator Introduction	<ul style="list-style-type: none"> • Opening circle for participants to introduce themselves. • Facilitator provides program description and components including: open interactive learning environment, psycho-education, planning for individual and group level coping.
Module 1: Common Reactions to Stress	<ul style="list-style-type: none"> • Facilitator describes types and dimensions of stress. • Participants engage in an introspective written reflection on their stressors. • Participants are provided the opportunity to share through interactive dialogue.
Module 2: How the Brain Reacts to Severe Stress and Trauma	<ul style="list-style-type: none"> • Facilitator provides psychoeducation on psychological trauma and a brief overview of the brain's reaction to traumatic events.
Module 3: Healthcare Provider Responses to Stress & Traumatic Events	<ul style="list-style-type: none"> • Facilitator provides information about stress responses specific to the healthcare community through lecture and discussion. • Participants engage in an interactive partner activity to share experiences.
Module 4: Coping with Stress and Trauma: Individual Strategies	<ul style="list-style-type: none"> • Facilitator provides psychoeducation on individual level coping strategies. • Participants develop an individual level coping plan.
Module 5: Coping with Stress and Trauma: Collective Strategies	<ul style="list-style-type: none"> • Facilitator provides psychoeducation on a supportive workplace. • Participants collectively strategize in small groups on how they can support each other in the workplace.
Closing Activity: Mindfulness	<ul style="list-style-type: none"> • Facilitator introduces the importance of breath in reducing stress. • Facilitator reads a mindfulness narrative. • Participants engage in mindfulness exercises and discuss their reactions.
Optional Module: Strategies for Challenging Workplace Situations	<ul style="list-style-type: none"> • Participants share how they currently manage clients/patients that show signs of stress. • Facilitator presents information about providers perceptions of challenging patients and common behaviors that are challenging. • Facilitator provides behavior management strategies. • Participants practice strategies with case scenarios.
*Note: Optional module can be embedded in RCHC or	

completed as a stand-alone training.	
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In addition to the main workshop, a booster session is provided approximately one month to six weeks after initial delivery of the RCHC. The booster, which takes approximately 1–2 hours, enables participants of the RCHC to reflect on coping skills they have used since the original workshop and devise additional ways of coping. The booster session commences with an interactive activity encouraging participants to review information on types and sources of stress from the original RCHC. The facilitator then revisits coping strategies with the participants and encourages self-reflection on how they were successful or any challenges they may have had with the coping strategies. The participants are provided with additional strategies on implementing healthy coping strategies. A mindfulness activity is then offered to provide the participants with tangible skills to reduce stress. Finally, the booster revisits the collective coping plan, in which participants devise strategies on how to support each other in the workplace.

RCHC Facilitation

The RCHC Intervention is delivered via several group work techniques drawn from the fields of social work and psychology, including a psychoeducational and solution-focused approach, use of experiential and reflective learning, engagement in group problem solving, and individual and collective processing. RCHC is currently being facilitated by trained social workers, counselors, and/or psychologists who hold either a master's degree or a PhD, with two facilitators required for each session. The facilitator training protocol involves participating in a workshop on delivering the manualized RCHC intervention delivered by an experienced facilitator, followed by observation of (or participation in) an RCHC workshop, and ends with supervised delivery of an RCHC session. The current use of RCHC in areas recovering from Hurricanes Harvey and Maria includes integration of RCHC with other mental health and psychosocial support services.

Theoretical Underpinnings of RCHC

The RCHC intervention integrates several theoretical and practical concepts to counter the potential negative impact of disasters on healthcare and social service workers. Figure 1 illustrates the conceptual model. Concepts from the risk and resilience framework are incorporated to enhance both individual and organizational level protective factors that

can mitigate secondary traumatic stress burnout and other disaster related distress symptoms. The intervention utilizes action learning theory and a psychoeducational framework to guide the mechanisms of delivery. These frameworks are used to help providers build protective factors for adverse mental health outcomes such as social support and healthy coping skills.

The risk and resilience framework. Resilience is defined as the ability to adapt following exposure to a potentially adverse or traumatic event (Masten & Obradovic, 2008). RCHC incorporates the risk and resilience framework through focusing both on the acknowledgement of risk exposure (i.e., experiencing a disaster, war, violence, or abuse) and the integration of strategies to increase resilience in the provider. A core objective of the intervention is to help providers incorporate protective factors into their individual and professional life to buffer against the dual stress of being a disaster survivor and responder (Masten & Obradovic, 2006). Protective factors for healthcare and social service providers can include personal healthy coping styles (e.g., exercise, meditating), separating work and personal life, social support, and the ability to maintain realistic optimism (Cohen & Collens, 2013; Harrison & Westwood, 2009).

Organizational protective factors include promotion of discussion on the impact of the work on providers, manageable workloads, continuing education on provider stress and peer support in the workplace (Finklestein, Stein, Greene, Bronstein, & Solomon, 2015; Harrison & Westwood, 2009). RCHC puts the risk and resilience framework into action through a focus on protective factors, especially the concepts of healthy coping and social and peer support.

Healthy coping strategies. Building adaptive coping strategies is a core focus of the RCHC. Coping styles have consistently been found to reduce stress and buffer against distress symptoms (Luszczynska, Benight, & Cieslak, 2009). Adaptive coping such as acceptance, seeking emotional or instrumental support, planning, and taking care of physical health have all been found to buffer stress and trauma related symptoms (Cofini, Carbonelli, Cecilia, Binkin, & di Orio, 2015). Conversely, maladaptive coping such as denial, venting, self-blame, or behavioral disengagement are directly correlated to higher post-traumatic stress symptoms. Promotion of adaptive coping strategies are implemented during the RCHC workshop through psycho-education, self-reflection, making a “coping plan,” and discussion on how to employ healthy coping strategies into the work and home environment.

Social and peer support. RCHC also aims to build resilience among participants through incorporating exercises to build peer support.

Research has illustrated that higher stress is directly correlated with lower social support (Cohen, 2004). Moreover, a strong feeling of social connectedness greatly influences the perception of having resources available to cope with stress (Landau, 2010). Within the work environment, peer support has been documented as an effective way to guard workers from stress reactions to traumatic events (DeLongis & Holtzman, 2005). Social and peer support are incorporated in RCHC through an interactive activity where participants discuss how they are presently supporting each other in the work place and strategize additional steps they can take to enhance interpersonal and workplace support.

Delivery Frameworks

RCHC is delivered in an active-learning environment, utilizing group work, solution-focused techniques and psychoeducational strategies. By building on these frameworks for adult learning and team building, RCHC is utilizing known pathways for information delivery, skill practice, and workplace social support development.

Action learning theory. Action learning is the method of involving small groups of people to work on real-life issues and take action. In turn, this enables individual, team, and organizational learning (Marquardt & Waddill, 2004). RCHC follows core principles of action learning, including: (a) learning is acquired through action, (b) participants work on organizational and personal development, (c) learners work in peer learning groups to support each other, (d) and individuals search for answers to questions beyond expert knowledge (Marquardt & Banks, 2010). Action learning is used throughout the structure and approach of RCHC. Small groups (approximately 10–15) of social service and healthcare workers convene in a group to learn about, discuss, and devise actionable steps to address the following topics: (a) common reactions to traumatic events, (b) healthcare providers' responses to stress and trauma, (c) individual strategies for coping with stress and trauma, and (d) collective strategies for coping with stress and trauma. RCHC puts action learning theory into practice using solution focused techniques and group work.

Solution-focused techniques. RCHC utilizes solution-focused techniques to apply action learning. The solution-focused approach is used to strengthen self-efficacy (i.e., confidence) around coping strategies and to help participants take a proactive role in amplifying their individual, familial, and community strengths and resources. This collaborative approach is used to help the participants recognize any problems they may be having during disaster recovery, develop goals, and devise

solutions to meet their goals (Kim, 2008). Further, solution-focused approaches emphasize envisioning change over focusing on problems, therefore building capacity to proactively amplify participants' strengths. One example of how solution-focused techniques are used in RCHC is by having participants identify disaster or work related stressors and develop a "coping plan" to address those stressors (Americares, 2017).

Group work. RCHC uses a group practice model, which allows for within-group dialogue. The group practice model employs action learning through the use of small groups that encourage participants to work on both individual and organizational strategies (Lukens & McFarlane, 2004). For example, during the discussion on collective strategies to cope with stress and trauma, participants are divided into small (3–4 individuals) peer groups to identify, what is working well in their organization during the disaster recovery; and what additional steps may be taken to enhance peer and organizational support. The objective of group practice in RCHC is to reduce isolation and serve as a forum for recognizing and normalizing experiences and response patterns among participants (Americares, 2017).

Psychoeducation. Psychoeducation in RCHC uses a competence-based approach, stressing health, collaboration, coping and empowerment (Howard & Goelitz, 2004; Lukens & McFarlane, 2004). The lead facilitator of RCHC provides psychoeducational information to the participants on common reactions to a traumatic event and the stress they may experience during the recovery period (Americares, 2017). By providing psychoeducation on common reactions to stress and trauma, participants can discuss and normalize their experiences, as well as gain knowledge about the processes affecting their well-being (Powell & Yuma-Guerrero, 2016). Additionally, practical approaches are provided to expand capacities of healthcare and social service professionals to support their patients, colleagues, themselves, and their families.

The History of RCHC

The RCHC was originally developed at the request of Federally Qualified Health Centers (FQHCs) that were seeing the effects of stress and burnout on their employees following Hurricane Sandy in 2012. Many of these providers had experienced the dual stress of direct exposure to the disaster combined with aiding in recovery for the affected community. The intervention was first pilot tested with first responders, disaster case managers and health care providers after a fertilizer plant explosion in West, Texas.

From that experience, a manualized intervention that incorporated participants' feedback was developed and tested in FQHCs in New York and New Jersey that were impacted by Hurricane Sandy. This intervention demonstrated significant positive benefit on knowledge and social support from baseline to three-week follow-up, as well as positive feedback from participants in a mixed-methods evaluation study, (n = 69) (Powell, Yuma-Guerrero, 2016). Since that time, RCHC has also been delivered in typhoon-affected Saipan in 2015, flood-affected Shreveport, LA in 2017, and hurricane-affected regions in Texas and Puerto Rico in 2017 and 2018. The RCHC manual was revised in 2017 to incorporate initial study results and feedback from participants and colleagues (Americares, 2017).

Current Implementation of RCHC

The intervention is currently being delivered as part of Americares' Mental Health and Psychosocial Services responses to Hurricane Harvey in Southeast Texas and Hurricane Maria in Puerto Rico, with an estimated 9,000 individuals expected to receive services in calendar years 2018 and 2019. In the weeks after Harvey and Maria, the developers of RCHC traveled to areas hardest hit by the hurricanes. Meetings with healthcare providers in these areas indicated a strong need for safety net healthcare providers to receive additional support. Stories of being stranded on a roof, trapped in the water during the flood, losing a home, and loss of significant others, were among some of the experiences described by healthcare workers. These discussions uncovered an expressed need for support during the recovery. Moreover, it was noted many organizations that provided support to health care providers came immediately after the disaster, focusing on crisis counseling but not providing care over the long term.

Discussion and Future Directions

Healthcare and social service providers are integral to providing services to families when a disaster occurs. However, they face high exposure to both acute and chronic stressors, sometimes traumatic, and may experience simultaneous personal loss. Supporting healthcare and social service providers in coping with the stress associated with disaster recovery could help improve the quality and speed of disaster recovery processes.

RCHC is a theoretically grounded intervention that addresses an essential need for services for healthcare and social service providers in post-disaster contexts where there is a tremendous need to promote well-being and reduce burnout, especially in communities where there are

shortages of such providers. The intervention integrates well with other mental and emotional health support programs being delivered by non-profits and non-governmental agencies in post-disaster settings. RCHC has demonstrated positive benefit in one mixed-methods evaluation study conducted in New York and New Jersey following Hurricane Sandy (Powell & Yuma-Guerrero, 2016). A currently ongoing set of quasi-experimental studies is evaluating the effectiveness of the RCHC post-hurricane in Southeast Texas and Puerto Rico where it is being delivered in Spanish.

RCHC and other programs to support healthcare and social service providers should be tested for effectiveness as a preparedness and retention strategy, building beyond the post-disaster context. In addition, it is critical for these types of intervention to be culturally and linguistically adapted and retested when delivering other contexts.

While RCHC helps to address the gap in psychoeducational interventions addressing the emotional needs of disaster affected providers, it cannot be considered a one-size-fits-all approach. Some providers, for example, may experience more significant distress symptoms than others, requiring on-going tailored psychological support. Therefore, RCHC facilitators must be well-trained in providing immediate crisis counseling and referrals in the event a participant needs additional support. The RCHC falls in the second tier of the IASC's tiered blueprint of post-disaster support services; as such, it is intended primarily to build protective factors through psychoeducational strategies. Individuals who exhibit more severe reactions to trauma must be referred to higher tiers of treatment, and those referral pathways should be specified prior to the delivery of RCHC.

The RCHC is designed for healthcare and social service providers, however, it may also be of benefit to consider extending similar methods to other essential helping professions, such as teachers, who face similar stressors. Supporting and retaining healthcare and social service providers is an essential component of preparing for, and responding to, an increasing risk of disasters. RCHC is one promising avenue for such work, and it falls to social science and mental health researchers to continue to develop evidence-informed interventions.

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