Project Reach: Implementation of Evidence-Based Psychotherapy Within Integrated Healthcare for Hurricane Harvey Affected Individuals

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Introduction

On August 25, 2017, Hurricane Harvey made landfall on the central Texas coast as a Category 4 storm, measuring 280 miles wide with maximum sustained wind speeds of 130 mph (Chavez, Levenson, & Almasy, 2017). Stalling for four days over southeast Texas, Hurricane Harvey dropped upwards of 50 inches rain, resulting in catastrophic inundation and damage. To date, Hurricane Harvey is the second-costliest storm in United States (U.S.) history, after Hurricane Katrina, costing an estimated $125 billion in damages (Blake, Landsea, & Gibney, 2011; National Oceanic and Atmospheric Administration, 2018). Due to the emotional distress associated with natural disasters, the majority of individuals in the Houston community and affected areas most likely felt an impact on their mental health. For most, symptoms of distress are brief, transient, and may not require intervention. For others, symptoms can be more severe and long-lasting. If untreated, these symptoms can impede the recovery of individuals, families, and communities.

In the aftermath of Hurricane Harvey, acute emergency behavioral health services were quickly established to provide psychological first aid, assess for serious psychiatric need, and provide access to urgent prescription medication (Shah, Valles, Banu, Storch, & Goodman, 2017; Shultz & Galea, 2017). Yet, the availability and reach of such acute services is limited—often only addressing the transient or short-term symptoms of distress. Research on exposure to previous natural disasters has demonstrated that natural disasters such as hurricanes have a profound and lasting impact on the mental health of affected residents, typically exacerbating pre-existing psychiatric problems, and/or provoking new symptoms (Fergusson, Horwood, Boden, & Mulder, 2014; La Greca, Silverman, Lai, & Jaccard, 2010; Mason, Andrews, & Upton, 2010; McFarlane & Van Hooff, 2009). Despite the existence of evidence-based psychotherapeutic and pharmacological practices (EBPs) for post-disaster survivors, most individuals do not receive effective care due to limited availability of trained clinicians, costs, stigma, and logistical barriers (e.g., time, work demands, child care, and transportation). Consequently, without adequate and sustainable treatment, mental health problems are likely to persist or recur (Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012), increasing service utilization, cost, and the risk for further mental health problems (e.g., suicide, post-traumatic stress disorder (PTSD), depression, substance abuse; Insel, 2008; Kessler et al., 2008; Merikangas et al., 2011; Swendsen et al., 2010). Clearly, there is a need for approaches that address the longer-term mental health care needs of individuals affected by Hurricane Harvey.

In this paper, we describe Project Reach, an innovative multi-component assessment and treatment service, to identify and treat youth and adults who...
have been impacted by Hurricane Harvey and its aftermath. Project Reach aims to provide mental health services to individuals with a wide range of mental health difficulties who have been emotionally affected by Hurricane Harvey in the Houston community. We discuss the use of a flexible, transdiagnostic treatment approach suitable for both children and adults, as well as key steps for implementation. We also describe special considerations for the implementation of Project Reach within an integrated healthcare setting.

Project Reach: Delivering Care in a Community Health Setting
Project Reach was made possible through the Hurricane Harvey Relief Fund and was established by the Greater Houston Community Foundation, one of Houston’s leading philanthropic organizations. The purpose of the Relief Fund is to distribute grants to organizations providing assistance to the victims of Hurricane Harvey. Project Reach aims to provide integrated care in which both mental health professionals and primary care providers coordinate and facilitate the delivery of much-needed services to affected individuals within the Houston community.

Project Reach is implemented through the Harris Health System, one of the largest public health systems in the U.S. The Harris Health System cares for primarily low-income, uninsured, and Medicaid-covered clients. Services are available for all residents of Harris County and include community health centers, school-based clinics, mobile health units, a rehabilitation and specialty hospital, and two full-service hospitals. The Harris Health System provides access to an extensive network of providers and clinics and to a large population of individuals in need of mental health treatment, including many who have not previously sought out mental healthcare. Project Reach launched in July of 2018, approximately 11 months post-Hurricane Harvey. All Project Reach providers are located within multiple primary care and school-based systems—specifically locations identified as lacking behavioral health services, community areas most affected in Harris County, or both. Project Reach includes three primary components: (a) a care coordinator and referral pathway, (b) psychological services, and (c) psychiatric services.

Care Coordination and Referral. Individuals can access needed psychiatric or psychological services through two main pathways. Primary care physicians within the Harris Health System can make direct referrals of appropriate clients to treatment services. Additionally, clients can self-refer or be referred by their primary care physician to the Project Reach care coordinator. The care coordinator serves several essential functions across the project. First, the care coordinator connects clients with psychotherapy (e.g., cognitive-behavioral therapy) and psychiatric services at the available Harris Health locations. Second, the care coordinator supports communication between the primary care clinicians and Project Reach-funded psychiatrists, in order to facilitate pharmacological services to individuals in need. Finally, the care coordinator provides mental health resources and referrals for clients and external community providers. The care coordinator role described is originally
based on the Massachusetts Child Psychiatry Access Program (MCPAP) consultation model (Sarvet et al., 2010).

Once referred to Project Reach providers, clients are scheduled for an initial appointment in which they are screened for exposure to Hurricane Harvey. This includes being actively present during the storm or having been affected by its aftermath (e.g., flooding, damage or loss of property and personal belongings). Mental health problems are then assessed, including symptoms of post-traumatic stress disorder (PTSD), anxiety, depression, substance use, and behavioral problems (e.g., defiance or hyperactivity). Individuals who were not exposed to Hurricane Harvey or are not suitable for Project Reach services (e.g., do not present with the symptoms mentioned above), are referred to appropriate internal and external resources. Individuals who screen positive during the initial assessment for significant mental health concerns (i.e., anxiety/depression, posttraumatic stress, substance use, and behavioral problems) and were exposed to Hurricane Harvey are provided with the option to receive psychological and psychiatric services through Project Reach. Individuals in need of psychological services are connected with one of three trained therapists.

Psychological Treatment Services
The Unified Protocol. Project Reach provides funding for three therapists, embedded within different primary care and school-based clinics with established behavioral health services. In order to meet the needs of those exhibiting significant posttraumatic stress reactions, anxiety, depression and behavioral problems following hurricane exposure, a transdiagnostic, emotion-focused cognitive behavioral treatment is used to guide therapists delivering treatment as part of Project Reach. Therapists utilize the Unified Protocol for Transdiagnostic Treatment of Emotional Disorders for adults (UP; Barlow et al., 2017), adolescents, and children (UP-C and UP-A, respectively; Ehrenreich-May, Kennedy, et al., 2017), with training and supervision provided by the UP-C & UP-A treatment developers. The Unified Protocols are a set of evidence-based CBT protocols (Barlow et al., 2017; Ehrenreich-May, Kennedy, et al., 2017), which consist of core modules that target the common characteristics underlying anxiety, depressive, and related disorders. Therapists receive 1.5 days of expert training on the Unified Protocol, are provided protocol materials for support and guidance, and receive case consultation weekly by expert clinicians and the UP-C/UP-A treatment developers. Although a full treatment course using the Unified Protocol typically involves 16 sessions, this is not feasible for many Hurricane Harvey-affected individuals accessing Project Reach due to financial, practical, and other barriers. Therefore, therapists provide treatment informed by the principles and techniques of the Unified Protocol, rather than providing a standardized course of Unified Protocol-guided treatment.

Utilizing the Unified Protocol to inform care has several advantages, including that it (a) integrates the most effective treatment principles of empirically supported treatments; (b) applies to a range of emotional disorders (i.e., mood, anxiety, obsessive-compulsive disorder (OCD), PTSD); (c) flexibly
meets the needs of children, adults, and families; and (d) simplifies training and dissemination of EBP, which can be expected to have a significant impact on the health care system. There is increasing interest in and support for transdiagnostic approaches that focus on common psychological mechanisms that contribute to mental health problems and disorders. The transdiagnostic approach allows therapists to treat multiple disorders or problem sets using a common set of techniques or interventions. This perspective is particularly relevant in addressing psychiatric comorbidities given the high rates of comorbidity in primary care settings, as well as post-disaster research. From a general psychopathology perspective, the literature indicates that symptoms in children decrease over time (La Greca, Silverman, Vernberg, & Prinstein, 1996); however, for some, symptoms persist (McFarlane, Policansky, & Irwin, 1987). McLaughlin et al. (2009) found that 9.3% of 4 to 17-year-old children were described as experiencing a “serious emotional disturbance,” approximately 18–27 months after Hurricane Katrina, ranging from post-traumatic stress reactions to symptoms of anxiety and depression. Similarly, Bal (2008) reported severe long-term post-traumatic stress reactions among children between the ages of 8 and 15 three years after the 1999 Turkish Earthquake. With a population that is likely to be highly heterogeneous (e.g., level of disaster exposure, symptom severity, and comorbidity), transdiagnostic treatment is broad yet adequately flexible in applying to a wide range of different individual needs. Furthermore, the modular format of the Unified Protocol allows added flexibility for both the course of treatment and individual differences between clients to be taken into account (Ehrenreich-May, Rosenfield, et al., 2017). Particularly, the “dose” of each treatment element can be adapted to each client’s needs. Providing one treatment, with one set of principles to address key constructs across multiple disorders is more practical, cost-effective, and efficiently disseminated, than utilizing multiple disorder-specific protocols.

**Treatment Assessments.** Standard of care assessments are collected at each treatment session for adults and youth, which include the Patient Health Questionnaire (PHQ-9; Kroenke, Spitzer, & Williams, 2001), Generalized Anxiety Disorder Screener (GAD-7; Spitzer, Kroenke, Williams, & Löwe, 2006), Global Assessment of Functioning (GAF; Jones, Thornicroft, Coffey, & Dunn, 1995), and Clinical Global Impression scales (CGI-S and CGI-I; Guy, 1976). Each session at Harris Health System is typically 30 minutes long and can occur weekly to biweekly based on the individual’s needs. In line with standard techniques used in the UP-C/A, treatment goals are established using the ‘top problems assessment’ approach (Weisz et al., 2011) at session one and subsequently assessed at every session thereafter. Typically, in child therapy sessions, both the child and one or more parent/guardian participate in therapy and complete assessments to measure the child’s progress. Prospective barriers to treatment (e.g., cost, transportation, childcare, and work obligations) are also assessed at the initial session. Together, these standard of care assessments not only aid in outcomes measurement but are used as clinical tools by the Project Reach practitioners. Scores from these assessments allow therapists to gauge the
condition and progress of each individual and adjust treatment strategies accordingly. At the end of treatment, reasons for termination and existing barriers to treatment are also assessed.

Psychiatric Treatment Services
Within the Harris Health System’s primary care and school-based clinics, five Project Reach-funded psychiatrists provide psychiatric services to children, adolescents, and adults. Like psychological services, those in need of psychiatric services can either be identified and referred by their primary care physicians or be self-referred to the Project Reach care coordinator, who aids in organizing services with the Project Reach-funded psychiatrists operating within Harris Health. Additionally, psychiatrists are available to provide consultation services to primary care physicians and answer diagnostic or therapeutic questions. The care coordinator also serves as a direct line of communication between Project Reach-funded therapists and psychiatrists.

Treatment Assessments. Psychiatrists evaluate clients’ psychiatric needs and Harvey impact in an extended intake session (generally 40 minutes to 1 hour). Similar to psychotherapy sessions, psychiatrists administer standard of care assessments at each session to assess symptom severity and track client outcomes. Treatment goals are also established using the 'top problems assessment' approach at the initial visit and subsequently assessed at every visit thereafter. These assessments allow an empirical measure of client progress and allow psychiatrists to adjust treatment appropriately. The assessments also aid in outcomes measurement. Psychiatrists adhere to standard of care treatments by providing medication when appropriate and continuing to see clients routinely to evaluate progress and adjust medication dosages as needed.

Implementation Considerations
Using Interpretation Services. Houston is culturally and linguistically diverse, and many individuals and families involved in Project Reach are not fluent in English. To maximize access to treatment for all participants, interpreters are integrated as needed into the treatment process of Project Reach. Ideally, bilingual clinicians would be available in the client’s preferred language; however, given the need for bilingual providers outpaces availability, the use of interpreters is an effective means of addressing behavioral health care needs. Interpreter use is also suggested to be better clinical practice, as it can lessen the costs of inadequate diagnosis or referral to other suitable care options (Tribe & Lane, 2009). Previous literature on interpreter-use in mental health settings emphasizes the need for therapists to feel comfortable and be experienced in providing services through interpreters (Paone & Malott, 2008; Tribe & Lane, 2009). The use of qualified interpreters in mental healthcare can have its initial challenges, as provider-interpreter collaborations are often integral in improving quality care. Fortunately, the Harris Health System provides immediate telephonic interpretation services for as many as 150 languages, though English to Spanish translators are used most often. While telephone-based services are
easy to use and can readily provide clinicians access to interpreters, there are potential drawbacks to this method that therapists must address. Delivering sessions using an interpreter can reduce the time available during a session due to the time needed to connect with interpreter services and for the interpretation process itself. In Project Reach, interpreters are assigned on a per call basis, so establishing a continuous, ongoing relationship with a particular interpreter is a challenge. Furthermore, interpreters may vary in their ability to understand and clearly translate mental health concepts, especially when specific medical and mental health terminology is used. Therapists should be mindful of using clear and concise language and plan for shortened session times. Further, therapists should incorporate follow-up questions regularly to check-in on client understanding of the translated material. The use of telephone interpretation services has been associated with lower patient satisfaction in previous research (Wu, Leventhal, Ortiz, Gonzalez, & Forsyth, 2006), so it is particularly important for therapists to build rapport and ensure good communication with clients. Finally, therapists should be sensitive and aware of clients’ feelings towards this provider-translator approach, as some may find it more challenging or uncomfortable to discuss sensitive or emotionally disturbing information to an interpreter or person not present in the therapy room. Overall, the availability of interpreters is a great advantage, as it allows provision of treatment to underserved individuals; however, appropriate strategies must also be taken to optimize treatment when interpreters are involved.

In order to maximize communication and education, Project Reach therapists are also provided parallel forms in Spanish for most of the Unified Protocol worksheets. This allows clients to follow along with and take home handouts in their language. Furthermore, we adapted the Unified Protocol to make it compatible with Spanish-speakers, for example, playing a meditation in Spanish rather than translating an English version.

**Special Consideration of Retention Rates.** Relatively low retention is expected when delivering services to individuals affected by a significant natural disaster, due to displacement, practical barriers to accessing care, and the high stress placed on individuals affected by Hurricane Harvey. A common challenge experienced within community mental health centers is relatively high rates of no-show appointments, defined as missed clinic appointments, where the client may not notify ahead of time that he or she is unable to attend the scheduled visit. Clients who frequently miss their appointments do not receive optimal treatment, which may lead to premature termination or reduced treatment efficacy. Furthermore, missed appointments not only affect the quality of care for the individual, but can also impact the care of others in need who are waiting to be scheduled or wait-listed. In turn, this can create additional work for clinicians and administrative staff in contacting and rescheduling clients.

Thus, in anticipation of these challenges with retention, we implemented a flexible and personalized treatment delivery format suitable for children and adults, in which trained clinicians focus on teaching core transdiagnostic skills and addressing the most relevant problems of each individual. With fewer
sessions, individuals are provided essential tools for addressing concerns both in and out of session. This modular, low-intensity treatment encourages families to utilize skills acquired in session to regulate emotions and behaviors faced outside of session and provides a source of reference for future use.

**Use of a Family-Centered Approach for Younger Populations.** While most survivors are resilient in the face of a natural disaster, children and youth are especially vulnerable post-exposure and are more likely to be severely impacted compared to adults, most commonly with symptoms of anxiety, depression, and PTSD (Norris et al., 2002). Special consideration is given to meet the needs of youth by deliberately implementing a transdiagnostic treatment protocol fit for both children and adults, thus increasing the scalability and reach of services. Moreover, the intervention approach recognizes the importance of parents and caregivers and promotes parental engagement. Active parent participation in youth mental health needs is associated with improved outcomes compared to individual youth treatment (Dowell & Ogles, 2010). A parent or primary guardian is asked to attend all sessions, although the degree of involvement is clinician-determined. Parenting materials are incorporated throughout treatment, and the modular format includes optional parent-alone sessions. These sessions are used to reinforce session material and aid in the parenting of youth with behavioral health concerns. The incorporation of parents or caregivers into treatment allows for a higher degree of therapeutic alliance, and adherence to the intervention.

**Conclusion**
Project Reach aims to provide a sustainable model for integrated behavioral health service delivery for large numbers of significantly affected individuals and families following a community-wide disaster, as well as explore examples of primary care consultation and education. Project Reach offers a comprehensive approach for providing care to youths and adults with varying degrees of mental health needs and moves beyond the singular focus of disaster-related symptoms. This flexible, low-intensity intervention makes inherent sense in post-disaster communities that may lack the ability to provide sufficient intermediate and long-term mental health care. Easily replicable and adaptable to different contexts, Project Reach embeds necessary, cost-effective mental health services in established clinics that are otherwise limited in resources offered for post-disaster individuals. The successful implementation of this program will help those affected by Hurricane Harvey and form the platform for expanding integrated services that will maximize behavioral health outcomes while reducing cost. Ultimately, it is the hope that this program may serve as a statewide model in integrative behavioral health.
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