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<https://escholarship.org/uc/item/1tm046kb>

Journal

Journal of Community Psychology, 49(1)

ISSN

0090-4392

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Publication Date

2021

DOI

10.1002/jcop.22442

Peer reviewed

Después de la tormenta: Collective trauma following Hurricane Maria in a northeastern Puerto Rican community in the United States

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Abstract

Hurricane Maria was the largest disaster in Puerto Rico's history, affecting Puerto Rican communities throughout the United States. We conducted focus groups using a grounded theory approach with adults displaced from Puerto Rico to a northeastern community 12 ($n = 5$) and 17 months ($n = 7$) postdisaster. Key informant interviews were also conducted with nine community advocates working with displaced hurricane survivors. Emerging themes reflect narrative and social identity processes following collective trauma. Findings emphasize the need for timely and long-term disaster responses that build on community strengths without leaving communities to cope on their own. We discuss how incorporating group storytelling in postdisaster research is a culturally sensitive practice that can promote resiliency among survivors.

KEYWORDS

collective trauma, disaster, Latino, narrative storytelling, posttraumatic stress

1 | INTRODUCTION

In September 2017, Hurricane Maria devastated the archipelago of Puerto Rico, resulting in tremendous human and structural losses. Collective trauma refers to a catastrophic event experienced by a group such as Maria, a Category 5 hurricane and the largest disaster in Puerto Rico's history. At the individual-level, hurricane survivors are at risk for mental and physical health difficulties, including posttraumatic stress disorder (PTSD; Davidson,

Price, McCauley, & Ruggiero, 2013; Norris et al., 2002; Perilla, Norris, & Lavizzo, 2002). In the case of PTSD, natural stress responses may lead to intrusive reexperiencing through nightmares or flashbacks, depressed mood, and heightened states of arousal (World Health Organization, 2018). These symptoms enact their own storm on the mind and body and occur in the context of broader family and community stressors. Community psychology's emphasis on social justice and multiple levels of analysis offer a useful frame for the study of collective trauma among marginalized Latino communities (Davidson et al., 2013; Hobfoll & Lilly, 1993; Ibañez et al., 2003; Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008; Trickett, 1995).

Disasters like hurricanes wreak havoc not only on the individual biological system, but also on relationships, families, and whole communities (Davidson et al., 2013; Felix, You, & Canino, 2015). While often framed as singular events, the aftermath of hurricanes includes continued loss of life, interrupted resources, and ongoing crisis as communities attempt to rebuild amidst a state of uncertainty and grief (Hobfoll & Lilly, 1993). Even when individuals do not directly experience a disaster, they may be at risk for developing trauma-related mental health difficulties based on cultural identity or family ties (Ai et al., 2011; Smith et al., 2014). Both direct and secondary trauma are psychological phenomenon that is important for understanding the long-term needs of communities receiving individuals and families displaced by the disaster.

In some communities, official reports can be misleading to the broader public and lead to feelings of distrust within affected communities. In the case of Hurricane Maria, the official death count was initially reported as 64; however, it was eventually revealed that the official estimate surpassed 4645 deaths (Kishore et al., 2018). The importance of the Puerto Rican diaspora in hurricane recovery efforts became clear following Hurricane Maria. For community members in the mainland United States (US), advocacy frequently extended beyond practical assistance to include active resistance of prejudice and bias stemming from Puerto Rico's colonial status (Rodríguez-Díaz, 2018). In the words of Lloréns (2018, p. 159) "the diaspora has become the island's most indispensable ally."

According to the conservation of resources theory, loss in the context of disaster goes beyond the tangible losses of homes, cars, and other possessions to include social conditions, relationships, and personal characteristics like loss of self-esteem or sense of efficacy (Hobfoll & Lilly, 1993). The experience of displacement and integration into new communities for Puerto Rican Hurricane survivors is unique due to Puerto Rico's colonial history and cultural differences between Puerto Rico and other regions of the US. Scholars have outlined the ways that colonialism is a form of oppression that complicates Puerto Rican identity development and the emotional tapestry of Puerto Rican communities (Varas-Díaz & Serrano-García, 2003). Similarly, disasters like hurricanes can influence the social identity and psychological-emotional processes underlying a sense of community (Krause & Montenegro, 2017). Thus, collective trauma is exasperated by both oppressive social forces and loss of community through displacement.

To our knowledge, no studies have examined the policy and practice needs of communities affected by Puerto Rican hurricanes in the northeast US, despite the fact that the states receiving high numbers of displaced hurricane survivors like New York and Connecticut are culturally distinct from other high-receiving states in the south, like Florida. Disaster research has also been lacking in specific Latino cultural groups. Unique among Latino groups in the US, communities receiving displaced Puerto Rican hurricane survivors do so in the context of broader sociopolitical challenges tied to colonialism. For instance, shortly following Hurricane Maria, in a national survey nearly half of Americans reported that they did not know that Puerto Ricans were US citizens (Morning Consult, 2017). Likewise, during this same period, there was a debate at the national level regarding the delivery of federal assistance to Puerto Rico following the hurricane, while this debate did not extend to other regions of the US affected during the same hurricane season (Duhart, 2019). While interest in the community response to collective trauma is not new, more research is needed emphasizing the long-term processes of disaster recovery and strategies to promote healing and resilience in Puerto Rican communities, particularly as the diaspora is projected to grow (Meléndez & Hinojosa, 2017). Collective disasters influence cultural landscapes, and also bring attention to chronic inequities in health, health care access, and other structural health risks (Rodríguez-Díaz, 2018).

1.1 | Ethnic disparities in postdisaster community health

In the US, research indicates particular risk for negative psychological outcomes (such as posttraumatic stress) when a disaster occurs in the context of existing social stressors like poverty and discrimination (Galea, Tracy, Norris, & Coffey, 2008; Mills, Edmondson, & Park, 2007; Norris et al., 2002; Perilla et al., 2002). For instance, following Hurricanes Ike (2008), Katrina (2005), and Rita (2005), African American and Latino community members were more likely to report loss of basic services like electricity, water, and transportation than their non-Hispanic White counterparts; in turn, these stressors were associated with an increased risk of developing posttraumatic symptoms (Mills et al., 2007). To illustrate similar stressors in the 30 days following Hurricane Maria, less than a quarter (21%) of Puerto Rico's residents had access to power, 69% of residents had working water service, and 61% of cellular towers were restored (Federal Emergency Management Agency [FEMA], 2019). These stressors often accompany varied perceptions of the quality of government and local response. For instance, among racial/ethnic minority hurricane survivors in the US, perceived quality of government response predicted posttraumatic symptoms (Rhodes & Tran, 2012). These previous studies highlight a need for more research that explores the impact of disasters among members of marginalized cultural groups. As social support is a protective factor following community disaster (e.g., Kaniasty & Norris, 2000), it is also important to explore family and community impact, as these risks for posttraumatic symptoms seem to extend to Latino and African American disaster volunteers and social networks of survivors (Ai et al., 2011).

1.2 | Community impact and response following collective trauma

Puerto Ricans in the US are part of transnational communities that may be separated by cultural or political borders, potentially limiting the ability of systems to respond in times of crisis (Aranda, 2003; LeBrón & Viruell-Fuentes, 2019; Rodríguez, 1997). Even when individuals do not experience a disaster directly, they may be at risk for developing trauma-related mental health difficulties based on cultural identity or family ties (Ai et al., 2011; Smith et al., 2014). In the immediate aftermath of Hurricane Maria, family members living in the mainland US reported anxious uncertainty about the safety and well-being of relatives in Puerto Rico. With Puerto Rico's electrical grid destroyed, means of communication between relatives on the island and mainland were interrupted (FEMA, 2019; Newkirk, 2017). Consequently, families were encouraged to email the island's disaster relief team and to call a local radio station to assist in locating relatives (Madan, 2017).

These events underscore the need for research examining the experiences of culture-specific communities affected by the disaster, particularly as studies with Latino communities paint a nuanced picture concerning the role of social support as a risk and resilience factor (Viruell-Fuentes & Schulz, 2009). For instance, research suggests Latino individuals show a preference for seeking help from family over formal supports in response to community and family trauma (Kaniasty & Norris, 2000; Serrata et al., 2017). However, this preference may not be entirely attributable to the frequently emphasized cultural value of *familismo* (centrality of family). Rather, help-seeking preferences may be influenced by systemic issues like access to linguistically appropriate resources and discrimination (Ibañez et al., 2003; Rodriguez, Macias, Perez-Garcia, Landeros, & Martinez, 2018; Serrata et al., 2017). In turn, stressors like discrimination have been found to exacerbate existing disparities in mental health and health outcomes (LeBrón et al., 2020; Lopez, LeBrón, Graham, & Grogan-Kaylor, 2016).

Stressors like discrimination and lack of resources also permeate broader communities, including individuals in one's social network indirectly affected by the disaster. Although Latino adults in the US have demonstrated comfort in help-seeking following a disaster (Ibañez et al., 2003; Kaniasty & Norris, 2000), Latino residents who survived Hurricane Andrew received less emotional and practical support from their social networks than their White and African American counterparts in the months following the initial crisis (Kaniasty & Norris, 2000). Kaniasty & Norris (2000) suggest resource depletion in families and communities as one possible explanation for these findings, noting this does not fully explain a shortage of emotional support. Since that time, research has accumulated to show that postdisaster stress has

the potential to negatively impact the mental health of support networks (Ai et al., 2011; Messiah et al., 2016; Smith et al., 2014).

Despite the risks for posttraumatic stress among those directly and indirectly affected by the disaster, studies also reveal the potential for community resilience and posttraumatic growth, characterized by adjustment and positive psychological change following a disaster (Norris et al., 2008; Rhodes & Tran, 2012; Wlodarczyk, Basabe, Páez, Amutio et al., 2016; Wlodarczyk, Basabe, Páez, Reyes et al., 2016). Perceptions of displaced Puerto Rican individuals and receiving communities in the aftermath of Hurricane Maria can provide important insights into recovery processes. Qualitative research provides a means of growing culture-specific knowledge while engaging communities in narrative processes that promote adaptation to new or altered communities affected by disaster.

The purpose of the current study is to build on the literature on collective trauma and practice by examining needs within a Puerto Rican community in Connecticut following the devastation of Hurricane Maria in Puerto Rico in 2017. Health disparities and disaster researchers have begun to explore storytelling and other forms of narrative inquiry as a means to capture community needs as well as strengths (LeBrón et al., 2014). Narrative inquiry, particularly in a group storytelling format, is proposed to promote healing through the reframing of traumatic events and is aligned with community psychology values of wellness and sense of community (Clandinin & Connelly, 2004; Kargillis, Kako, & Gillham, 2014).

Conducted in collaboration with mental health practitioners, community members, and advocates situated in a predominantly Latino neighborhood in Greater New Haven, Connecticut, the study was guided by the following research questions: How can the use of narrative storytelling with survivors and practitioners following socio-natural disasters inform practice? What are the identified needs, barriers, and strengths that inform policy advocacy and practice within Puerto Rican communities?

2 | METHODS

To address the research questions, we conducted key informant interviews with practitioners and focus groups with Puerto Rican community members displaced from the island who relocated to the Fair Haven neighborhood of New Haven, Connecticut. New Haven is a coastal city in south-central Connecticut with an estimated total population of 130,418, with Hispanic/Latino residents representing 30% of the New Haven population (U. S. Census Bureau, 2018). The area of greater New Haven is rich in its ethnic and racial diversity and has a well-documented immigrant influence with an estimated one in eight immigrant residents (Buchanan & Abraham, 2015). The Fair Haven neighborhood was selected as it is recognized for its concentration of established Puerto Rican families as well as recently arrived Spanish-speaking evacuees. Data collection occurred between March 2018 to February 2019 following approval by the University of New Haven Institutional Review Board (IRB) in 2018.

2.1 | Participants

Community practitioners participating in individual interviews ($n = 9$) were recruited via email and phone using a snowball sampling methodology (Patton, 1990). The inclusion criteria included being 18 years of age or older and working with an organization serving individuals displaced by the hurricane and located in or near the Fair Haven community. Community practitioners held varied roles, including mental and physical health providers, educators, or community advocates. We use the term practitioner broadly in this paper. Participant descriptions are presented in the aggregate according to IRB-approved protocol and to protect the privacy of professionals working within a relatively small community of Latino-serving organizations and schools. Practitioners included eight women and two men who ranged in age from 30 to 65 years. Tenure within organizations ranged from 7 months to 13 years. Practitioners reflected a range of racial, ethnic,

and cultural backgrounds. Five identified as Puerto Rican or of Puerto Rican descent, three identified as Latino or of mixed ethnicity, and two identified as White or of European descent, having lived or worked within Spanish-speaking communities in Puerto Rico and the US. Community practitioner interviews were conducted at participants' offices or meeting rooms within the organization.

For focus group discussions, inclusion criteria were that individuals identified as Puerto Rican and resided in New Haven, Connecticut. Focus group participants were recruited through partnerships with a local school and a community-based organization serving Puerto Rican families. Staff and a bilingual researcher contacted prospective participants displaced by the hurricane by phone to invite them to participate in the study. At the time of the study, focus group participants ranged from 33 to 64 years of age, with a mean age of 40 years. Three of the twelve focus group participants were born in Puerto Rico, while nine reported being born in the mainland US. Many Puerto Ricans born on the mainland often travel back and forth to the island in a migration pattern known as circular migration and allowing residence in two places (Acevedo, 2004). All 12 participants identified as Puerto Rican and reported living in Puerto Rico for a duration that ranged from 20 to 64 years. The highest levels of education achieved by participants varied; three completed schooling until the fourth grade, five attended high school, and four attended a university. Half ($n = 6$) of the focus group participants were unemployed and not attending school, while the remaining six were taking classes or involved in volunteer programs. At the time of the focus group, most (10 participants) were currently living with family and two were staying in a local shelter. Of the 12 participants, 8 evacuated to the mainland with their children. A reference list of focus group participants is not provided, as it was difficult to accurately discern which focus group participants were speaking when transcribing the focus group.

2.2 | Data collection

Behavioral health medical providers, educators, and community advocates participated in one-on-one key informant interviews that ranged in length from 34 to 80 min and were conducted privately in their offices. Key informant interviews were conducted in English and Spanish by faculty members from Community Psychology (Macias) and Public Health (LeBrón), as well as a trained Community Psychology graduate student (Taylor). Demographic information was collected from practitioners before or after the interview.

A licensed Psychologist (Silva) fluent in English and Spanish facilitated both focus groups. Focus groups were conducted in community spaces and drinks and refreshments were provided. The first focus group was held at a local library in a private room. The second focus group was held in a resource center room at the elementary school on the same block. At least one additional member of the research team was present during focus group discussions to take field notes on nonverbal observations.

The first focus group was held in September 2018, the week of the first anniversary of the storm, while the second group was held in February 2019. The key informant and focus group interview guides were designed to first elicit narratives or stories about Hurricane Maria (e.g., "Tell me what happened on September 20th, 2017."). Like key informants, focus group participants were also asked open-ended questions about the Puerto Rican community broadly; perceived changes in the local Puerto Rican community following Hurricane Maria; health-related needs; barriers and facilitators to accessing health-promoting resources (e.g., health care, housing); community strengths; and a vision for the future. Rather than monetary incentives, food, and refreshments were offered to all participants. Participants also received a bag of Puerto Rican coffee as an expression of gratitude for their time and participation. We conducted data analysis throughout the data collection process and revised the interview guide to elicit deeper insights into the grounded theoretical findings (Charmaz, 2005).

2.3 | Analysis

All interviews and focus groups were digitally recorded and transcribed verbatim. Following transcription, emergent themes were identified using a descriptive, grounded-theory approach. Each member of the research team shared initial impressions and made changes to the interview guide to validate themes and identify new themes in subsequent interviews and groups (Charmaz, 2008). These preliminary descriptive analyses informed the development of a codebook. The first and second authors met regularly to conduct open coding, develop and refine the codebook, and resolve discrepancies in coding with the assistance of NVivo 12 qualitative data analysis software. Interrater reliability statistics were calculated using NVivo 12 and showed substantial interrater agreement between the two coders at $\kappa = 0.7$ level or higher.

2.4 | Authors' positionality

This qualitative inquiry involved an interdisciplinary team whose scholarship and practice focuses on community-based approaches to understanding and addressing factors that shape the health and well-being of Latino communities in the US. The concept for the study emerged from discussions among a licensed bilingual/bicultural (English–Spanish) Clinical Psychologist, a Public Health researcher, and a Clinical-Community Psychologist as a follow-up to conferences and training with an emphasis on research and action in marginalized communities. To position themselves concerning the present study, the research team (including graduate student researchers with interests in Latino health promotion) reflected on their professional and personal perspectives relevant to the research questions and process (Morrow, 2005). The principal investigators identify as Puerto Rican (second author) and Mexican–American (first and last author), and their observations of the impact of the hurricane on clients, local systems, as well as their own families and communities influenced the research questions and method. Importantly, given their diverse experiences as Latina women living and working in diverse areas of the US (California, Connecticut, Georgia, and Texas), the qualitative approach was selected to enhance understanding of the experiences of Latino subgroups in the US situated in distinct sociopolitical settings.

3 | RESULTS

Displaced survivors of Hurricane Maria provided testimony on the collective experience of witnessing the Category 5 hurricane. *Community loss*, both material and symbolic, was a prominent theme. Krause and Montenegro (2017), provide a useful framework for themes of collective and community stress at the psychological and cultural level. In total, Krause and Montenegro (2017) conceptualize community as comprised of seven dimensions: social identity, psychological–emotional, relational, action, spatial and temporal, motivational, and cultural. While all dimensions are interrelated and relevant to the present study of collective trauma, for the purposes of this analysis we focus on the psychological–emotional and social identity dimensions of community. With regard to the *psychological–emotional* dimension of community, group narratives were contrasted by sadness (12 months, community sample) and affability (17 months). Psychological, posttraumatic symptoms reported by participants included varying degrees of helplessness, stress, and anxiety experienced firsthand or observed within social networks and in practice. In terms of the *social-identity* dimension of community, displaced individuals described increased awareness of social inequities and a need for compassionate support, something that by their account was at times lacking in their interactions with formal support systems and the receiving community. Themes of collective response, including *coming together* to help community members in transition, were captured in every interview and focus group. Narrative accounts of Hurricane Maria, community response, and needs posthurricane are presented in detail below. Pseudonyms are used to protect the privacy of participants.

3.1 | Remembering “a monster”: Narratives of Hurricane Maria

When asked about their experiences with Hurricane Maria, displaced survivors 12 and 17 months after the storm shared vivid descriptions of the devastation of the storm. Words such as “terrible,” “horrible,” “nightmare,” and “como un monstruo” (like a monster) were used by Puerto Rican hurricane survivors to describe the storm, conveying the terror, fear, and stress of witnessing the storm firsthand. Displaced participants described material damage such as homes collapsing on themselves, doors ripping from houses, and large trees ripped from the ground at the roots. Traumatic events are often encoded at the sensory level, and many participants noted the horror-inducing sound of Hurricane winds from the unprecedented Category 5 storm. Residents of Puerto Rico are accustomed to tropical storms and hurricanes, but when comparing Maria to Hugo and Jorge, “Sofia” (Focus group #2) explained: “*Es que ese ruido del Huracán fue horrible, nunca en mi vida había escuchado algo tan, tan fuerte como eso*” (The sound of the hurricane was horrible, never in my life have I heard something so, so strong like that).

Even those individuals who were able to wait out the hurricane with family in structures designed to withstand hurricanes witnessed significant structural damage, reporting acute stress, sleeplessness, and feelings of shock and terror. For example, “Daniela” (Focus group #2) described experiencing the storm from a high-rise building (English translation follows):

But my father's house was made of wood. We were scared that, well, if they passed the hurricane there, their house would go or something. My house was next to a ravine. And then we went to [my sister's apartment] and it was constructed for that, for hurricanes, even though there was glass [windows], it was constructed for that. So, from there we saw everything. Everything. Well it was horrible. And so, in my sister's apartment fell, a tube fell, and the tube broke the glass of one of the doors. We didn't sleep at all. Her apartment was three floors and the first floor completely flooded. My daughter, my nephews were on the second floor the entire time. We, like her, [were] taking out water, water, water the entire time. We were like that for almost 24 hours. Until we saw in the morning, when everything was over, we said let's see if we can find some breakfast, like a bakery or something. When we left the building, we saw everything, and all that thing, like she said the trees [uprooted]. Yes, horrible, horrible.

As illustrated in the above quote, surviving the hurricane involved active coping with physical damage to homes to remove water and maintain safety. Families also coped with an overwhelming sense of hopelessness and horror as the storm passed over. For instance, “Andrea” (Focus group #1) described how as the storm progressed, it began to consume her home: “*La calle estaba en mi cuarto por los vientos por estar sacando agua. Y porque yo no quería ver a mi suegra descontrolada. Que ella, fue terrible. No me quedan palabras*” (The street was in my room because of the winds I was taking out water. And because I didn't want to see my mother-in-law lose control. That she, it was terrible. I have no words). For this participant, the boundary between home and the hurricane broke down as the outside elements entered the spaces where families relax, eat, and sleep. Also alluded to in this quote is the concern for and impact on family, discussed next.

3.2 | Family system and community stress

The family was emphasized in both survivor and practitioner narratives, many of whom described stress on family roles in the immediate aftermath and months following the storm. Several parents described their children's fear of witnessing the storm. For instance, “Andrea” (Focus group #1) recalled her child's reaction to finding water entering the home: “*Cuando toco el piso dijo me ahogo. Dijo mami, me hago. Y después el agua estaba ya entrando a la casa*” (When he touched the floor he said, I'm drowning. He said, mommy, I'm drowning. And after, the water was coming inside the house).

Beyond the immeasurable loss of home and community, families were also faced with difficult family decisions. One mother talked about the need to return to Puerto Rico so her child could visit his father. A community educator, "Lee" (Key Stakeholder Interview) described this account from an elementary-aged student whose family was displaced after the storm:

And they had to make a lot of like really horrible, hard decisions about who is going to come and who is going to stay, and I hear her talk about like how everything was just, like grandfather had this beautiful garden and now it's just all like gross and disgusting and horrible and destroyed. It sounds like there's been a lot of feelings of loss and there was definitely some short-term feelings of despair, and definitely feelings around sort of, like transition is challenging, just to juggle.

Here, the interviewee discusses how displaced children are not only affected by the loss of their own homes, but also those losses within their extended family and community. The destruction of family homes and a grandfather's garden reflects the trauma dealt with family systems both material and symbolic, as many families have rich histories tied to physical spaces in Puerto Rico. The emotional toll of the disaster was quickly followed by a need to adjust to a new community and culture. According to participants, extended family on the mainland were also faced with the symbolic loss of family homes and cultural landmarks, as well as concern about the status of family and friends in the areas directly affected by the storm. Added financial and housing stress was placed on households receiving displaced family members. When families are forced to choose among options that are all less than ideal, decisions may be followed by feelings of guilt, uncertainty, and sadness. As will be discussed in later sections, despite these challenges family units and communities were mobilized by the storm to share what resources they had and take action to help others in need.

3.3 | Psychological and emotional dimensions of collective trauma

Group narratives reflect the psychological processes of reexperiencing and avoidance characteristics of displaced hurricane survivors. For instance, one displaced resident, "Frankie" (Focus group #1) described reactions characteristic of a flashback: "*Bueno anoche estaban dando un especial y yo lo empecé a ver y lo cambié porque me puse, me transporte y mira, cada vez que yo oigo cosas así me [llora]*" (Well last night they were giving a special [on TV] and I started watching but then I changed it because I was transported and look every time I hear things like that [crying]).

Themes of posttraumatic stress and ongoing loss among community members were captured in all but one key informant interview. Stressors identified by participants included substance use problems, hopelessness, suicidal ideation, depression, and anxiety. Several parents in focus groups and one community advocate described ongoing fear of rain and winds as a common experience among the children.

Words only communicate part of the story. Observations of focus groups conducted with survivors also underscore the importance of nonverbal data in trauma research. In the first focus group, every participant became tearful while recounting experiences of the storm. In contrast, in the second focus group, laughing characterized group narratives. This incongruity between emotional expression and stories of tremendous trauma and loss was acknowledged by one participant in the second focus group. This survivor remarked, "*uno se rie ahora*" (one laughs now), and shared with the group that while pregnant, the storm filled her home with water, destroying her children's clothing and the baby's crib and playpen. Accumulated water and accompanying mosquitos forced her to leave: "*O sea como dicen perdí todo, todo, todo*" (I mean, like they say I lost everything, everything, everything). It may be that the anniversary of the storm influenced the tone of the first focus group, while members of the second group, held nearly 18 months after the storm, may have felt more familiar with one another given their shared roles as parents in the same school system. Regardless of the level of familiarity, shared emotional connection

appeared to give unspoken permission and facilitate storytelling and catharsis. When one participant cried, others began to cry, and when one laughed, others in the group also smiled and laughed. Similarly, at the community and family levels, the needs of significant others and children were viewed as intrinsically tied to one's own well-being. One woman captured this sentiment when she said "*Mi esposo ya está cayendo en la depresión. Si él cae, yo caigo*" (My husband is already falling into depression. If he falls, I fall). These present concerns, months after the storm, and initial transition to a new community show how emotional difficulties can persist well after the initial loss and transition.

3.4 | Perceptions of community needs and barriers to service

Focus group participants shared a desire for less barriers to talk about and connect around their experiences. For instance, when asked about community needs, "Marla" (Focus group #1) responded, "*Sí. Más charlas y eso. Ayuda mucho.*" (Yes. More talks like [this]. It helps a lot). Another displaced survivor (Focus group #2) described the importance of connecting with others, for instance, when seeking FEMA assistance:

There, right there, everyone talking, I don't know, like so natural, well, we began to communicate and talk to each other about the things that had happened to them in different towns. Because that was, basically all the towns of Puerto Rico. And while we were communicating it was [others interject in agreement] like that, right? We got to know each other more.

Another participant (Focus group #1) echoed this value of bringing together trauma survivors with the shared experience of being displaced: "*Me gustaría más programas que sean así reunidos*" (I would like more programs that bring us together). Positive transformation and catharsis may be supported through a shared narrative, both for one's own healing and the benefit of educating others in research and practice. One survivor (Focus group #1) tied the importance of wanting to be heard by professionals to their experience of the focus group: "*Lo que uno está pasando. Porque ahora lo estamos comentando aquí porque es una charla pero una persona que tú te sientas y te oiga y una persona [llorando] una persona que te ayude o te oiga, a ella, a él*" (What one is going through. Because now we are commenting here because it is a talk but a person that you sit and hear you and a person [crying] a person who helps you or hears you, her, him).

Language, of course, is intrinsically tied to the storytelling process and art of listening. Community-based organizations and centers with Spanish-speaking staff, versus translators, were highly valued by displaced participants. In the second focus group, displaced survivors reported that connecting with other Latinos like individuals of Guatemalan, Dominican, and Mexican origin through community programming also provided opportunities to share and listen to different kinds of challenges facing different Latino cultural groups in the US. One displaced mother noted that she valued the bilingual education available to children on the east coast.

Related to this basic human need for emotional support, a number of structural barriers were identified by practitioners in communities receiving displaced Puerto Rican residents. Frequently mentioned barriers were long waitlists and limited resources and staff for mental health services. A need for more culturally and the linguistically competent staff was the most frequently mentioned barrier to recovery among both community practitioners and displaced survivors. Importantly, for focus group participants, Spanish language abilities, and cultural competence were not viewed as mutually exclusive. As one participant noted, there is a need for greater culture-specific services, because "*muchas veces se equivocan o no entienden lo que uno quiere decir con la cosa*" (many times [they] make a mistake or they don't understand what one wants to say with the thing). Empathy and concern were identified as desirable characteristics that were at times lacking in survivors' interactions with formal systems and mainland communities.

3.5 | Coming together: Puerto Rican identity in the aftermath of Maria

Despite the tragedy and the challenges presented by disaster, both mainland participants and hurricane survivors noted a heightened sense of responsibility and solidarity within the Puerto Rican community. Cultural identity formation in the face of inadequate government response emerged in response to the disaster; both focus group participants and practitioners spoke directly to Puerto Rico's colonial status and unequal treatment when discussing government response to the hurricane and uncertainty about the future. One community practitioner described her mother, a hurricane survivor, as being numb and like a "zombie" after coming to the mainland. "Isabella" (key informant) tied this to her own growing consciousness of the broader context of social injustice affecting Puerto Ricans in the US:

[Puerto Rican] people thought they were gonna die. There was water coming into their houses, there was mud coming into their houses, and then when I saw it in person when I saw the houses in the mountains, when I saw the suffering of the people and these are American citizens, how can you do that? I mean shame on Washington. You know I'm very passionate about that, I just never knew. I always thought that I was treated equally and that opened my eyes. No, we're not. We're not treated equally by the federal government.

Despite delays in government aid reported by participants, including lack of water, food, and other basic needs, residents revealed strengths of the local Puerto Rican community in the response to the devastation of the island. Individuals and families helped neighbors in the ways they could, including sharing supplies that had been sent from the mainland: "Yo tengo mis hermanas por acá y me mandaban cajas de lámparas, velas y toallas que se usan y me llegaba la caja y a cada vecino le daba una velita. Bueno te digo que hasta mis hijas me dicen "Salvation Army". Porque es que yo ayudo a todo el mundo" (I have my sisters over here and they sent me boxes of lamps, candles, and towels and I would get the box and I gave each neighbor a candle. Well I'm telling you that my daughters call me "Salvation Army". Because I help everyone). Sharing light with other members of one's community during a time of darkness exemplifies the broader Puerto Rican community response to this sociocultural disaster. Mainland community members often contributed to aid not only for their own family members but for a network of neighbors and friends in Puerto Rican communities.

Community practitioners and advocates also described the ways local Connecticut residents came together in support of Puerto Rico. Latino community clinics formed support groups for both displaced and established residents affected by the hurricane. Community-based agencies and churches worked to coordinate drives, connect families, and help displaced survivors access housing, health, and vocational services. Participants described the unique needs of Hurricane survivors displaced from warm climates. Often arriving with little clothing, displaced survivors were in need of not only winter jackets but shoes and other basic cold-weather essentials. One participant described how a local auto dealer waived some of the requirements for leasing a vehicle so family members could have transportation for work. These strengths in community response stood in stark contrast to perceptions of a muted government response and the limited ability to existing systems to support the Puerto Rican community.

4 | DISCUSSION

The purpose of this study was to use narrative storytelling methodology to inform community practice with Puerto Rican communities affected by Hurricane Maria, a natural disaster characterized by a protracted period of limited government support and significant migration of Puerto Ricans from the island to the US mainland. Similar to past research, this study lends support for narrative storytelling as a way to support healing postdisaster (Clandinin &

Connelly, 2004; Kargillis et al., 2014). Findings support the notion that group narratives go beyond the verbal landscape of collective trauma, allowing group members to express a range of emotional responses to sociocultural catastrophe. The opportunity to join with others who have shared in trauma can have a tremendous impact in processing and resolving grief, and storytelling has been described as a relational activity that has the power to bind people into a shared consciousness and promote healing (Caddick, Phoenix, & Smith, 2015; Norris et al., 2008; Rosenthal, 2003). At the individual level, some trauma narratives in this study were detailed and expressive, while others were characterized by brevity and focused on a few words reflective of fear and despair. For survivors of Hurricane Maria, the group storytelling process demonstrated the potential to capture the dialectic of emotional expression relative to responses of numbing/avoidance, or in the words of one focus group participant, having “no words” (Cloitre et al., 2009; Comas-Díaz, 2006).

A novel finding with respect to the literature on storytelling and trauma is the marked difference in two focus groups with respect to nonverbal aspects of storytelling; one group was characterized by positive affect (laughing), and the other by sadness and grief (crying). Findings align with research and practice that emphasizes the cathartic potential of *testimonio* (testimony), described as a culturally sensitive “verbal healing journey” (Comas-Díaz, 2006, p. 443), allowing people to share their traumatic experiences with an emphasis on the individual and communal effects (Comas-Díaz, 2006). Similar to the present study, other researchers have identified both positive and negative expressions tied to Puerto Rican nationality, like pride and shame (Varas-Díaz & Serrano-García, 2003). In the postdisaster context, inequities in response sensed by community members and in treatment after displacement can lead to despair and disbelief, disrupting one's sense of belonging. It may be that sociocultural disasters like Hurricane Maria produce an emotional aftershock as marginalized groups become aware of disparities in response, discrimination, and preexisting social problems.

Despite these challenges, all participants in this study remarked on the strength of the collective response of local community members. This finding corresponds to other disaster studies that show communal coping, such as reappraisal of events or talking with family, as linked to posttraumatic growth and reduction in PTSD symptoms (Smith et al., 2014; Włodarczyk, Basabe, Páez, Reyes et al., 2016). Fostering a sense of pride and collective efficacy to provide practical aid for one's own community may also promote healthy identity development postdisaster (Varas-Díaz & Serrano-García, 2003). Still, Puerto Rican community members continue to be at risk for posttraumatic stress, and cultural identity development may be influenced by secondary or vicarious trauma and what has been referred to as “identity trauma” within distinct cultural groups (American Counseling Association, 2019; Kira, 2010; Smith et al., 2014). In the case of the Puerto Rican diaspora, findings from this study underscore the fact that social and political narratives undermine the healing process and recovery. Social barriers to resources, like discrimination, language barriers, and calling into question one's citizen status can result in the continued loss of objects, conditions, and personal resources (Hobfoll & Lilly, 1993).

There are several implications for practice based on the findings from this study. Puerto Ricans are at risk for concurrent social stressors given their marginalized status (Aranda & Rivera, 2016; Williams, Metzger, Leins, & DeLapp, 2018). Thus, community needs can be framed in terms of developmental and cumulative risk for posttraumatic symptoms (Cloitre et al., 2009). Hurricane survivors expressed the need for providers with warmth, humanity, and heart. They identified needs for more bilingual staff and improved communication among organizations serving similarly affected communities. Key informants interviewed for this study identified cultural-specific support groups as one form of community response to meet the need of a diaspora increasingly affected by disasters. While practitioners recognize the importance of their presence in the rebuilding process, a major barrier identified by practitioners for formal responses to collective trauma is limited resources, including a shortage of time and bilingual staff. Training lay community health workers or *promotoras de salud* is one way to engage vulnerable communities in trauma response and prevention, particularly when trust in other institutions may be undermined, resources are scarce, and/or when language and other structural factors may be a barrier to services (Serrata, Macias, Rosales, Rodriguez, & Perilla, 2015). Community outreach and development of mutual support groups in Latino-serving organizations and schools can similarly address the need for greater mental health support in

Puerto Rican communities in the northeast US postdisaster. Bilingual education may be a particularly important resource for displaced families with children navigating transition and recovery, with classroom assignments providing a means for narrative expression.

Community psychologists and social workers can advocate for community healing in practice. Incorporating resources based on narrative storytelling in meetings, trainings, and community-based settings may help increase awareness, empathy, and compassion among care providers and the broader community, a need identified by participants in this study. Similar to this study, Sou and Webber (2019) documented the ways structural and environmental damage disrupt a sense of belonging and home among residents of Puerto Rico following Hurricane Maria. Sou (2019a) developed a graphic novella summarizing research findings on Hurricane Maria's emotional and structural impact. A Spanish version is also available (Sou, 2019b).

This study highlights the voices and experiences of a small number of individuals living or working within a Puerto Rican community in the northeast US and may not generalize to other communities impacted by Hurricane Maria. Not unlike other disaster-specific research, this study is limited by its reliance on self-reported accounts after the hurricane initially passed over Puerto Rico. Mental health stigma may also impact the willingness and way that participants discuss mental health and the emotional consequences of living through this kind of disaster. This could contribute both to underreporting to formal supports and underreporting of symptoms in community focus groups. Findings also bring attention to the stress that displacement can bring to social support systems. More research is needed to inform practice and increase awareness of secondary trauma in mainland Puerto Rican communities; particularly as hosting displaced survivors of natural disasters is associated with increased risk for mental health difficulties like depression (Messiah et al., 2016). Future research would also benefit from exploring how social workers and community psychologists can incorporate group storytelling into practice. Culture-specific storytelling groups have the potential to support social identity processes by taking into consideration the transnational experience of Puerto Rican families (Aranda, 2003).

In closing, the present study adds to the emerging literature on collective trauma within Puerto Rican and other cultural-specific groups, providing guidance to practitioners working with Puerto Rican communities in the aftermath of Hurricane Maria and future disasters. Focus groups with displaced survivors of Hurricane Maria highlight the need for continued compassionate and culturally relevant support in practice following this unprecedented disaster. At the time of this writing, the second anniversary of Hurricane Maria has passed. Since September of 2017, communities have organized to protest unjust conditions, responses to the hurricane, and other social issues affecting the islands. In addition to serving as frontline supports, community practitioners often hold the privilege of partnering with communities in empowerment-building initiatives and giving voice to the process of recreating identities and families in the context of social, economic, political, and environmental strain.

ACKNOWLEDGEMENTS

The authors would like to thank the staff from the Connecticut Mental Health Center and Fair Haven Community Health Care for participating in this study. The authors would also like to thank JUNTA for Progressive Action, the Fair Haven Library, and local educators who supported this study by hosting interviews and focus groups. The authors express our deepest gratitude to the interview and focus group participants for their time and sharing their stories. Finally, the authors thank the University of New Haven, the Program in Public Health, and the Department of Chicano/Latino Studies at the University of California, Irvine for their support. Conclusions reported here are those of the authors and do not necessarily reflect those of participating or funding organizations.

PEER REVIEW

The peer review history for this article is available at <https://publons.com/publon/10.1002/jcop.22442>.

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How to cite this article: Macias RL, LeBrón A, Taylor K, Silva M. Después de la tormenta: Collective trauma following Hurricane Maria in a northeastern Puerto Rican community in the United States. *J Community Psychol.* 2020;1–15. <https://doi.org/10.1002/jcop.22442>