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Historic and Contemporary Environmental Justice Issues among Native Americans in the Gulf Coast Region of the United States

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ABSTRACT *Settler-colonialism is founded in environmental racism, and environmental justice is foundational to all forms of decolonialization. Native American groups located in the Gulf Coast Region of the United States are particularly vulnerable to environmental justice issues such as climate change and oil spills due to their geographic location and reliance on the coastal region for economic and social resources. This study used the framework of historical oppression, resilience, and transcendence (FHORT) to explore the historic and contemporary forms of environmental injustice experienced by a Native American tribe in the Gulf Coast region of the United States. This critical ethnography analyzed a series of individual, family, and focus group semi-structured qualitative interviews with a total of 208 participants. Following the critical ethnographic method, data were interpreted through reconstructive analysis using NVivo. Findings of this study reveal the continuing impact of the BP oil spill and difficulty accessing resources following the spill, complicated by the tribe's lack of federal recognition. Additional themes include the continuing impact of coastal erosion, historical and contemporary land loss, geographic marginalization, and concerns about a loss of tribal identity when tribal members are forced to relocate. Lack of federal tribal recognition has exacerbated all of these issues for this tribe. This study supports national findings that Native American groups experience extensive historic and contemporary environmental injustices and contextualizes these findings for a Native American tribe in the Gulf Coast region of the United States. Recognizing Native American sovereignty is key to addressing the environmental justice issues described.*

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Environmental justice, defined as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and polices" (U.S. Environmental Protection Agency, 2020), has frequently been unobtainable for people of color (Singer, 2018; Tsosie, 2007; Vinyeta et al., 2016). Environmental injustice often includes disproportionate impact of environmental policies on the health and well-being of communities of color (Maantay, 2002). Issues of environmental justice and injustice are increasingly being recognized as needed areas of research and intervention among Native American tribes (Bates, 2012; Cantzler & Huynh, 2016; Crepelle, 2018a, 2018b; Fitzgerald, 2015; Maldonado, 2014; Vinyeta et al., 2016).

Environmental justice issues experienced by Native American groups are comprised of both historic events (related to settler colonialism) and contemporary events, such as increasing land loss to rising water and pollution (Billiot & Parfait, 2019; Canzler & Huynh, 2016; Vinyeta et al., 2016). Although most research focuses on current examples of environmental injustice, an exploration of settler-colonial history reveals environmental oppression is fundamental to colonialism, as Indigenous groups were pushed out of ancestral homes and pressured into relinquishing sovereignty over the land (Billiot & Parfait, 2019; Canzler & Huynh, 2016). Colonialism at its root includes an extensive history of environmental racism, and scholars have noted how environmental justice is a foundational component of decolonization, as virtually every political struggle in which Indigenous groups are engaged has environmental implications (Canzler & Huynh, 2016).

Framework of Historical Oppression, Resilience, and Transcendence

This study used the framework of historical oppression, resilience, and transcendence (FHORT; Burnette & Figley, 2017) to contextualize experiences of environmental injustice as distinct forms of historical oppression for one Gulf Coast tribe. This Native-focused framework was developed through work with the focal tribe and integrates the impact of colonization in its organizing framework (Burnette & Figley, 2017). Historical oppression is a distinct concept put forth within this framework; it includes both historical traumas (such as genocide, historical land loss, polluting of Native lands, and famine) and contemporary trauma and oppression (including current environmental injustices, concomitant health disparities, political marginalization, and discrimination). Historical

oppression helps explain and contextualize contemporary environmental injustice experiences as continuations of oppressive practices imposed for centuries (Burnette & Figley, 2017).

The FHORT was developed *with* Indigenous communities, including the focal tribe, and is helpful in situating strengths and resilience within the sociostructural causes of environmental and health inequities (Burnette & Figley, 2017; McKinley et al., 2020). This is important so as not to "blame the victim" for problems but rather to connect adverse social, environmental, and health conditions to their sociostructural causes, while acknowledging Indigenous peoples' immense strength and resilience after experiencing centuries of injustice (Burnette & Figley, 2017; McKinley et al., 2019, 2020). Resilience is viewed here as the ability of individuals, families, or communities to adapt, recover, or bounce back from challenges and hardships (Burnette & Figley, 2017). The FHORT has been used to explain and understand violence (Burnette & Figley, 2017) and health equity (McKinley et al., 2020), and it is recommended as a culturally based framework to situate inequities (McKinley et al., 2019); however, it is just beginning to be used to understand historical oppression related to environmental injustice (Burnette et al., 2019), making this a novel and innovative contribution to the field.

Because of the immense diversity in the number and types of tribes in the United States – there are more than 574 federally recognized tribes (Bureau of Indian Affairs, n.d.), more than 60 state-recognized tribes (National Conference on State Legislatures, 2015), and numerous other tribes that exist outside of either jurisdiction (U.S. Government Accountability Office, 2012) – environmental justice must be examined within the context of particular tribes. The purpose of this study was to explore the historic and contemporary environmental injustice issues experienced by a tribe in the Gulf Coast region of the United States through the lens of the FHORT. This tribe is referred to as "Coastal Tribe" to keep tribal identity confidential due to recommendations for culturally sensitive and ethical research (Burnette et al., 2014) and tribal agreements. This study was conducted to address gaps in the existing literature on the experience of environmental injustice among Native American tribes, particularly in the Gulf Coast region. The overarching research question was: How do tribal members perceive historic and contemporary environmental justice issues?

Environmental Justice and Indigenous People

Both historic and contemporary forms of environmental injustice impact the holistic well-being of Indigenous people. Indigenous people and other communities of color are more likely to be exposed to high levels of pollution and contaminants in their environment, which often have lasting negative impacts on the health of community members (Maantay, 2002). This

exposure is implicated in high rates of asthma, cancer, reproductive health issues, and lowered life expectancies (Billiot, 2017; Hoover et al., 2012; Singer, 2018). Climate change, in particular, undermines the important spiritual, social, emotional and economic relationship that connects many Native American cultural systems with the land, in addition to undermining Indigenous healing traditions (Billiot, 2017; Vinyeta et al., 2016). Loss of land also impedes the intergenerational transmission of cultural knowledge (Burnette et al., 2018, 2019; Fitzgerald, 2015). Indigenous food sovereignty is also negatively impacted when subsistence food practices are no longer available, which is harmful for Indigenous health (Burnette et al., 2018; Billiot, 2017; Billiot & Parfait, 2019; Whyte, 2016).

Frequently, the land on which Indigenous people are located is especially vulnerable to climate change and repeated natural disasters, such as flooding, hurricanes, and droughts (Burnette et al., 2019; Singer, 2018; Tsosie, 2007). Indigenous groups risk land loss on multiple fronts, including rising water and land grabs aimed at exploiting natural resources (Orta-Martinez & Finer, 2010; Sawyer, 2004; Singer, 2018; Tsosie, 2007). Oil company exploitation is a key example of both historic and contemporary oppression of Indigenous peoples, beginning in the 1920s when oil companies seized land through semi-legal and illegal tactics and continuing to the present day in accelerated land loss through canal dredging and other forms of environmental damage (Orta-Martinez & Finer, 2010; Sawyer, 2004; Tsosie, 2007). Despite the apparent salience of environmental injustices experienced by Indigenous peoples, research examining their experiences of and perspectives on these issues is limited. This study addresses this gap in the literature through a qualitative examination of historic and contemporary environmental injustice experienced by members of a tribe in the Gulf South.

Coastal Tribe

The region inhabited by Coastal Tribe is a dynamic landscape influenced by its proximity to the Gulf Coast, wetlands and bayous, large river systems, and human-made infrastructure such as canals, levees, and others related to petroleum extraction (Austin, 2006; Lambeth, 2016; Maldonado, 2014). Many Native American people in this region depend on coastal areas, swamps, and bayous for food, as well as cultural and economic resources (Bates, 2016; Johnson & Clarke, 2004; Maldonado 2014), making them particularly vulnerable to climate change (Austin, 2006; Crepelle, 2018a, 2018b; Lambeth, 2016; Maldonado, 2014). In the past century, the Gulf Coast has been impacted by multiple hurricanes, extreme flooding events, and the 2010 BP oil spill, which have negatively impacted tribal communities in the area (Burnette et al., 2019; Bailey et al., 2014).

The BP oil spill, in particular, highlights the potential for future hydrocarbon events to devastate the environment and local communities. As

one of the largest oil spill disasters in history, the BP oil spill killed 11 crewmembers and poured over 4.9 million barrels of oil into the Gulf of Mexico (Smith et al., 2011). People living in Gulf Coast areas have faced rapid and unanticipated changes to their environment and livelihoods (Fan et al., 2015). Although relatively few environmental health studies have been done following the spill, and even fewer that look specifically at the impact on Native American tribes that were affected, studies conducted with the general population or with other demographic groups indicated the spill negatively impacted self-reported mental and physical health, increased disparities related to healthcare access, and was associated with mental health issues related to displacement and unemployment in the aftermath (Cope et al., 2013; Croisant et al., 2017; Fan et al., 2015; Patel et al., 2018).

Climate change is thought to be associated with increases in the number and severity of hurricanes and other weather events in the region (Lambeth, 2016). Hurricanes and incidents of increased flooding exacerbate the impact of levee construction, dredging of canals, and oil extraction activities on coastal erosion (Austin, 2006). Recent research has shown the particular ways these adverse weather events impact the lives of Native American peoples in the region (Burnette et al., 2019).

The impact of climate disasters, such as the impact of hurricanes on those living near the Gulf, has received widespread attention; however, their impact on Native American people has received little attention (Bates, 2016; Lambeth, 2016; Maldonado, 2014; Simms, 2016). This scarce attention is concerning, given Native American tribes in this region are intricately connected with the environment for both social and economic resources, and the majority of tribes along the Gulf Coast live below sea level, placing them at high risk for flooding and land loss (Fitzgerald, 2015). While research that specifically looks at the impact of relocation on tribal identity for Native American tribes in this region is nascent (Bates, 2016; Lambeth, 2016; Maldonado, 2014), interviews with the general population in the Gulf Coast find participants are highly ambivalent about relocation and worry it will undermine social relations and individual identity, which is strongly related to sense of place (Simms, 2016).

Coastal Tribe members were forced out of their ancestral homeland in the early 1700s and pushed into the coastlands and bayous where they are now especially vulnerable to the impacts of land loss, climate change, and tropical weather events (Fitzgerald, 2015). In their new home, tribal members developed new traditions and practices centering around the water, and their lives continue to focus on and depend on this resource (Burnette et al., 2019; Billiot & Parfait, 2019; Fitzgerald, 2015). Despite a long-documented history of existence in the region, a variety of historical events and political factors contributed to the tribe being denied recognition as a federal tribe, though it is recognized at the state level (Billiot & Parfait, 2019; Crepelle, 2018a, 2018b). The federal recognition process has been criticized for being extremely expensive and time consuming, for being highly political, and for guidelines

being inconsistently applied (Crepelle, 2018a, 2018b; Fitzgerald, 2015; Fletcher, 2006).

This lack of federal recognition has severely undermined the ability of Coastal Tribe to access both state and federal resources following disasters such as Hurricane Katrina or the BP oil spill (Burnette et al., 2019; Crepelle, 2018a; Maldonado, 2014; Miller, 2003). Tribes that are not recognized at the federal level do not receive the resources and benefits allocated in federal treaty agreements (U.S. Commission on Civil Rights, 2004). Many of these tribes are concentrated in the Southeastern portion of the United States, and the majority of them lack access to land reservations (National Conference on State Legislatures, 2015; Salazar, 2016).

In addition to limiting access to needed funds and programs, lack of federal recognition has meant this tribe is denied the ability to control management of and access to land, water, and air in their community. It also limits their ability to receive funding following disasters, potential relocation following land loss, and the protection and handling of sacred sites (Burnette et al., 2019; Crepelle, 2018a; Maldonado, 2014; Miller, 2003). This is in contrast to federally recognized tribes that are usually able to regulate and control land under their jurisdiction, enacting environmental regulations they deem appropriate (Burnette et al., 2019; Crepelle, 2018a; Maldonado, 2014; Miller, 2003).

This lack of tribal sovereignty has also allowed for oil companies to target and take advantage of individual tribal members, taking their land through legal agreements that are in some cases not fully understood by tribal members (Billiot & Parfait, 2019; Crepelle, 2018a; Maldonado, 2014; Rhoan, 2010). In addition to losing land because it was held individually and not in a federal trust by the tribe, not being recognized prevented the tribe from receiving resources from BP following the oil spill because BP refused to recognize claims from state-recognized tribes (Billiot & Parfait, 2019; Crepelle, 2018a; Maldonado, 2014; Rhoan, 2010). This marginalization impairs the physical safety of tribal groups whose land tends to be located outside of the protection of the levee system, a clear example of "environmental racism" (Billiot & Parfait, 2019; Crepelle, 2018a; Rhoan, 2010). Although climate change and other environmental justice issues are increasingly impacting all tribal communities, and indeed all individuals, the lack of federal recognition has made this particular tribe especially vulnerable to its continuing effects.

Tribal members are not concentrated in one geographic area, but are spread out through the coastal region (Crepelle, 2018a; Maldonado, 2014). Many tribal members are employed in the oil or fishing industry, further complicating this tribe's relationship with the oil industry (Crepelle, 2018a; Maldonado, 2014). English is not the first language of all tribal members, and some tribal members experienced educational discrimination, where they were banned from attending either Black or White schools (Burnette et al., 2019; Bates, 2016; Crepelle, 2018a; Maldonado, 2014). Many tribal members

continue to visit traditional Indigenous healers, although this tradition is becoming less frequent. This change may be caused by environmental changes and barriers to the continued transmission of cultural knowledge (Bates, 2016; Johnson & Clark, 2004; Maldonado, 2014; Vinyeta et al., 2016). In the face of these challenges, this tribe is highly resilient, tight-knit, self-sufficient, and values and supports family and community members (Burnette et al., 2019; McKinley et al., 2019). Although tribal members are buffered from some of the most negative impacts of climate change because of strong social networks, resilience, and self-sufficiency, their lack of access to resources and sovereignty has undermined their ability to recover from environmental disasters.

Methods

Research Design

This article is part of a broader critical ethnography to identify risk and protective factors across the ecological societal, community, family and individual levels related to psychosocial disparities among Native American people (Carspecken, 1996). The method of critical ethnography was chosen because it is congruent with the FHORT, which is an extension of critical theory as outlined by Paolo Freire (Freire, 1996). It has been recommended and used in numerous studies with Native peoples as a culturally congruent decolonizing methodology (Burnette et al., 2014; McKinley et al., 2019; 2020). Critical ethnography focuses on power dynamics and centers the voices of participants, making it appropriate for the study population and purpose (Burnette et al., 2014; McKinley et al., 2019, 2020). Burnette et al.'s (2014) "Toolkit for Ethical and Culturally Sensitive Research With Indigenous Communities" was used to guide the research process, ensuring this community-based study was conducted respectfully and ethically throughout. This research was conducted with a state-recognized (but not federally recognized) tribe located near the Gulf Coast in the United States. Due to confidentiality agreements with the tribe, the tribal identity is not revealed.

Data Collection

Participants were recruited through word of mouth and by distributing fliers online and at community/tribal agencies. All participants who consented to participate in the study were interviewed, and individuals across the life course (children, adults, elders) participated. Data collection included: (a) participant observation, (b) individual interviews, (c) family interviews, and (d) focus groups. These methods engaged a total of 208 participants. All

participants were compensated for their time ($20 gift card to a local department store for individual and focus group interviews and $60 for the family during family interviews), and interviews took place where participants preferred (generally at community centers or at individuals' homes) between June 2014-July 2015. Interviews took a life-course approach (Carspecken, 1996), using a semi-structured guide with questions developed from the overarching research questions. Questions in the guide were geared to a fifth-grade education level. Questions were developed from the FHORT to understand how people responded to adversity and what contextual factors were salient. Example questions include, "Describe a hard time growing up and how your family responded to that challenge" and "What made things harder at that time?" It is important to note that although participants were not explicitly asked about their feelings or experience with environmental justice or injustice, these results inductively emerged from the data, adding to the credibility and trustworthiness of findings.

Data Analysis

Interviews were professionally transcribed before being analyzed in NVivo 11, a qualitative data analysis program. A collaborative, team-based approach was used throughout data analysis. The data analysis team included Native American and non-Native American PhD students who worked collaboratively with the Principal Investigator to enhance the project's cultural sensitivity. Reconstructive analysis, a specific type of thematic qualitative analysis rooted in critical theory, was used to interpret data. During reconstructive analysis, team members read and listened to transcripts several times to develop initial impressions of the data. Then interviews were analyzed line-by-line to develop initial hierarchical coding schemes, paying attention to both implicit and explicit meanings in the data. Team members met on a biweekly basis to compare and discuss findings. Cohen's kappa interrater reliability coefficients were extremely high (.90 or above).

Strategies for Rigor

All strategies for rigor of this particular method were upheld (Carspecken, 1996). Participants received the results summary, interview transcripts (with the exception of group interviews due to confidentiality), and the opportunity to discuss, change, or add to interpretations and results. No participant disagreed with researcher interpretations, although many participants expanded upon their previous statements in agreement with research findings. Peer debriefing occurred weekly with four research team members. Consistency checks facilitated participants' perspectives. Over half of participants were interviewed more than once. Research findings were

presented to the tribe on over 10 occasions during tribal council meetings, at trainings, during community group presentations, and during community dialogue meetings.

Results and Discussion

As coastal communities continue to experience exposure to environmental hazards due to land loss, climate change, and environmental exploitation by corporations and government agencies, research that addresses the unique experiences of vulnerable groups is needed to inform interventions and the provision of appropriate resources. Here, the specific environmental injustices experienced by a Gulf Coast Native American tribe are contextualized using the FHORT (Burnette & Figley, 2017). This framework allowed us to see the interconnections between historic forms of oppression and trauma experienced by this tribe and contemporary forms of oppression, in addition to highlighting the ways in which this tribe has expressed resilience, pride, and optimism while experiencing environmental injustice.

As Figure 1 displays, a lack of federal recognition, oil company exploitation, the BP oil spill, coastal erosion, land loss, geographic marginalization, and lack of Indigenous involvement in interventions were the most commonly mentioned forms of historical oppression participants described. Other forms of historical oppression mentioned by participants included loss of natural flood barriers, contaminated food and water, lack of self-determination in relocation, pollution, educational discrimination and environmental changes due to climate change. Lack of federal recognition, which undermines state-recognized tribes' ability to exert sovereignty over the land, including in issues of management, restoration, preservation, and resources, was especially important since this form of oppression often interacted with and compounded the effect of other forms of historic oppression. Experiences of environmental justice issues were reported across 30 individual interviews, eight focus groups, and 12 family interviews, comprising 51 total sources. The topic of environmental justice was referenced 185 times, across 51 female speakers and 17 male speakers. To preview results, the most prominent findings included: (a) continuing impact of the BP oil spill, (b) concerns about coastal erosion, (c) historical and contemporary land loss, (d) geographic marginalization, and (e) the loss of tribal identity.

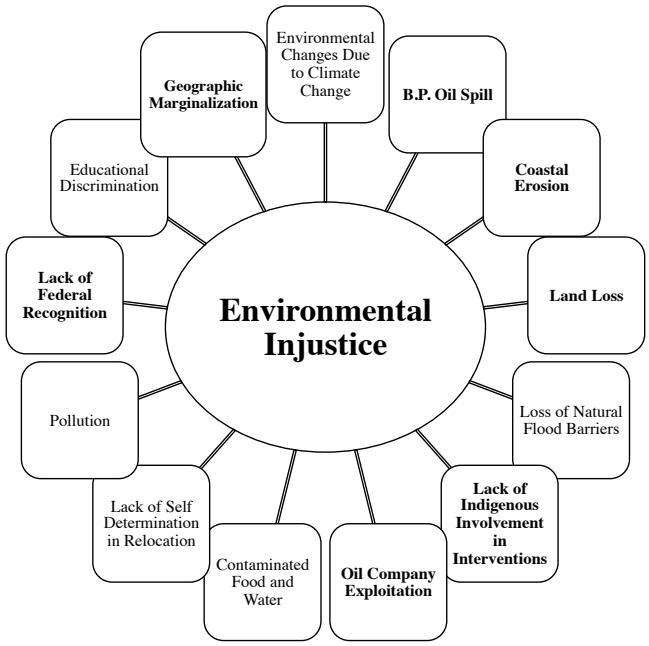

Figure 1. Forms of Historical Oppression in the Context of Environmental Injustice.

Continuing Impact of the BP Oil Spill: "I Don't Trust the Water"

The presence of oil companies has introduced an interesting juxtaposition for many tribal members. The land and environment were profoundly damaged by oil companies, yet many tribal members depended on the same companies for their employment. Tribal members have adapted to the presence of these companies by accessing these job opportunities and building up tribal economic resources. A prominent issue, however, was the continuing impact of the BP oil spill, which harmed these economic supports in the community. These economic effects were felt because a large portion of the tribe relies on the oil industry for employment/income. Additionally, tribal members were unable to eat seafood after the spill, which undermined cultural traditions and family time, especially traditions centered around food, fishing, and vacationing near water. There were persistent concerns about safety and health following the oil spill related to eating seafood, spending time on the water, and working in the oil industry on clean-up. Tribal members had ongoing concerns about litigation and frequently had difficulty accessing resources following the spill, further complicated by the tribe's lack of federal recognition and other factors.

The economic impacts of the BP oil spill were frequently mentioned by participants. Loss of jobs in the oil and seafood industry following the disaster undermined many tribal members' economic security. As one participant noted, some tribal members whose families had worked in the seafood industry for many generations had to leave the profession because of the spill:

> My Daddy trolled [fishing by trailing a line behind a boat that has been baited], and I had one brother that still trolls . . . my older brother, he fishes. . . . He used to troll, but then he got a job, because he had a family, and he got to support his family, because after the BP, it's like . . . [implied doesn't occur anymore].

The economic impacts of the BP oil spill act as a risk factor for undermining the economic resilience tribal members developed. This was particularly poignant for some tribal members who expressed pride in the work of tribal members who brought seafood to the world: "It was beautiful . . . down here. I'm proud that a lot of . . . shrimp and seafood comes from our tribal members, things like that." The damage to the seafood and fishing industry caused by the oil spill acts as a risk factor for cultural resilience and identity of tribal members.

When asked how this increased economic stress following the spill impacted family life, another participant reported "they start drinking." Continuing litigation regarding compensation following the BP oil spill also negatively impacted tribal members, and the protracted and bureaucratic process of holding institutions and companies accountable has been conceptualized as a form of trauma itself (Picou et al., 2004; Rhoan, 2010; Rung et al., 2019; Strasburger, 1999). Ongoing concerns about litigation were reported as a persistent stressor for many participants: "There is still a lot of litigation." Others noted they "were not allowed to speak about it or anything."

Participants reported additional stressors following the spill related to losing the ability to eat seafood due to increased cost or health and safety concerns about seafood consumption after the spill. From the lens of the FHORT, the ability to maintain traditional forms of subsistence living demonstrates tribal members' resilience. By preventing tribal members from continuing to engage in such practices, the BP oil spill acts as a risk factor for wellness, leading to negative physical and mental health outcomes (Burnette et al., 2018). One participant noted increased price: "The price of shrimp was sky high. They didn't have any." Participants also reported not necessarily trusting reports that the food was safe to eat:

> They say, "You can eat so many oysters, and it won't affect you. You can eat this amount of shrimp that it won't affect you. This amount of crabs, and it won't affect you," but the crabs are from the bottom.

Another participant also noted this, saying, "Now, they're saying the seafood's safe, and then you hear [the] seafood's not safe, so it's like you hear different things." Concerns about safety went beyond worries about seafood, extending to fear about drinking the water for some participants. One participant said, "I believe it's our water. I don't even drink coffee from the faucet water. I don't drink it . . . I drink bottled water because I don't trust the water." The impact of years of oil company and governmental exploitation is reflected in participant distrust of reports from these agencies (Billiot & Parfait, 2019; Rhoan, 2010). Not being able to rely on local resources of food and water is a risk factor for economic and cultural resilience in the community.

Many participants mentioned worries about the impact of the oil spill and the oil industry on participants' health. As one participant noted, "Since the oil spill and all, my health been going down [*sic*]." Another participant discussed the negative health impacts for those who worked in the oil industry during clean up and who lived in close proximity to it: "he died of cancer. He worked on a [sic] oil spill and then all these people that worked in the oil spill. . . . We counted eight people [who died], just in their limited community, with cancer. . . . This is from all spill [*sic*]."

One participant noted how they expected more events like the BP oil spill to occur because oil companies were never forced to pay the costs:

> We would be wealthier than Saudi Arabia if we had kept all of our oil royalties. We got zero. Starting in 2017, we're going to get a portion of one third of the oil royalties. We'll have to split [that] with the other coastal states. Even though we put up over 90% of the damages from producing those oil royalties. Everything that's happening to us is happening in the name of oil for America because America is addicted to oil and gas. . . . As long as they didn't have to pay the costs. The environmental costs, the social costs, the cultural costs, the tears and blood costs . . .

For this participant, oil company exploitation was expected to continue as long as U.S. energy continued to depend on oil and government remained unwilling to hold oil companies accountable for the impact of their industry on local communities.

Problems accessing resources following the oil spill were especially complicated by the tribe's lack of federal recognition, in addition to other factors:

> I would like for us to be recognized and then maybe we'd have more support of . . . you know like sometimes they have grants and stuff . . . the BP oil spill the shrimpers were really struggling, you know. We didn't have no help whatsoever, we still have to make do with what we had.

Another participant noted the particular irony of having to prove who they were following the spill, when they were not responsible for causing the damage: "That kind of upsets me too, because Native Americans were here

first. You came here, and then we have to prove to you who we are. That's kind of messed up. And then after you screwed everything up." Lack of federal recognition has undermined tribal sovereignty and has allowed for oil companies to continue to exploit the land without paying for the consequences (Billiot & Parfait, 2019; Crepelle 2018a; Maldonado, 2014; Rhoan, 2010). Being denied tribal recognition at the federal level is an acutely experienced example of historical oppression; it both allowed oil companies to operate on tribal lands that were not able to be held in trust by the tribe and created barriers in accessing resources following the BP oil spill (Billiot & Parfait, 2019; Crepelle, 2018a; Maldonado, 2014; Rhoan, 2010).

Concerns About Coastal Erosion: "By the Time the Levee's Done, They Ain't Got no More Islands"

Historic and contemporary forms of land dispossession are important forms of oppression tribal members identified. Indeed, climate change and coastal erosion have been described as the "Indigenous land dispossession of the twenty-first century" (Fitzgerald, 2015, p. 89). The disappearance of this land was facilitated by the dredging of oil canals, the creation of levee systems, the draining of wetlands and swamps, and the increasing frequency and intensity of coastal storms (Fitzgerald, 2015). These circumstances act as risk factors that impede the resilient strategies tribal members developed to adapt to and thrive in their environment. Participants noted this dramatic acceleration in coastal erosion, causes of the erosion, and worries about losing the land and not being able to pass it on to their children and grandchildren. Participants also reported seeing rapid changes to the land on which they had grown up:

> Oh I've been seeing it for 25 years, it was steady, every time I get in my boat and go, everything was different. [Parts of the land] was [*sic*] not there. [The land] started shrinking, shrinking, you go, you wait another couple of weeks, and it's gone. . . . I think if . . . building all them levees, if they took that money and go to start on the outside, not inside, go start on the outside, build a levee out there, protect [land] . . . protect that first. By the time the levee's done, they ain't [*sic*] got no more [land], they ain't [*sic*] got nothing down there. But that's engineering, that's government for you.

Tribal members have developed traditions for economic and cultural survival based upon their interaction with the environment, which are now being undermined by coastal erosion. Participants also reported feeling that solutions were not being enacted at the local or federal level, and that interventions were not using local and Indigenous knowledge about the area. As coastal erosion continues, interventions designed to mitigate its effects without including tribal members are likely to be unsuccessful (Bates, 2016; Billiot & Parfait, 2019; Crepelle, 2018a, 2018b; Maldonado, 2014). Denying

meaningful involvement in decisions about the environment is a key component of environmental injustice (U.S. Environmental Protection Agency, 2020). Being denied federal recognition is an example of historic oppression that continues to exacerbate contemporary forms of oppression by denying tribal members the sovereignty to participate meaningfully in the creation of environmental policies.

A tribal member recalled their family land now being totally submerged by water:

> They used to have wild horses. My family had a lot of cattle there. All that's under water. The woods, I mean all the thick woods. It's all gone. All the houses, there's no indication that there ever was woods or land, period. . . . Now it's just miles of water . . . miles. And if you don't go out there often, you just never know if the land's disappearing so fast. The perishing, people just don't know. I mean, we did because we're out in the water all the time . . . and we see it.

As this individual notes, tribal members are in a special position to see these environmental changes happening because of their strong connection with and time spent out in the local environment. The intergenerational transmission of knowledge about the land acts as an important protective factor for tribal members, and its integration into environmental policy may lead to more effective and culturally relevant interventions.

Because of this intimate knowledge participants had of the land, they were able to see directly the relationship between the increase in coastal erosion and the intensification in oil company dredging and drilling in the region:

> In the early 30s, they discovered [oil] so that's when they came in and started dredging all of our land. Digging, putting these navigation canals all over the place and then so, since that has happened, there's no fresh water to replenish that. They didn't block that or nothing, sort of left it open to the gulf . . . so the gulf now, the saltwater, eats up the land.

Another participant reported seeing places where tribal members used to live disappearing because of the presence of oil company infrastructure in the area:

> I mean, they had people who used to live on Bayou [name removed] they called. Uh, but the oil companies came and the like, I don't know, docks so the boats could pass, and the land, you know now the land is washed away and that's where a lot of people used to live.

These experiences are examples of contemporary land loss and displacement experienced tribal members, and act as risk factors for tribal members' economic and cultural resilience.

Historical and Contemporary Land Loss: "They Don't Tell You Anything, You Never Get a Letter, They Just Take"

Historical oppression in the form of land loss related to coastal erosion was further exacerbated by land loss due to oil company land grabs, in addition to a failure to include Indigenous leaders in decision making and self-determination. Not including Indigenous voices in environmental policy is a violation of environmental justice and is likely to lead to interventions that fail to take account of the characteristics of the local environment and the needs of inhabitants (Cantzler & Huynh, 2016; U.S. Environmental Protection Agency, 2020), in addition to being a form of contemporary oppression and a risk factor for community resilience.

Lack of recognition has exacerbated both historic land loss, when many tribal members lost their land to unscrupulous oil companies, and contemporary land loss, where individuals lose land to rising water and misinformation about land ownership and taxes. For one participant, their inability to pay caused them to lose their family land, saying, "If you don't pay your taxes, they'll take it [land] away . . . they done [*sic*] took it away." For another individual, loss of land due to government rules and regulation was directly related to historical oppression through educational discrimination resulting in a lack of formal education for many tribal members. For this participant, this gap in education was purposeful: "No, they didn't want to educate the people because they get more power. The more educated you get the more power you've got, you can learn more about the law." Mistrust in the government, a consequence of historical oppression, extended back to colonization for some participants:

> If you live in a little shack . . . and it's been in your family for 6, 7, 10 generations. The land has been there. Nobody's ever opened the succession because they didn't have money. . . . Because people didn't trust government, it was part of their natural thing. . . . The government screwed them every which way from the time the government was French. . . . It was survival, so they don't trust government easily. They didn't read or write, and they certainly didn't trust the English. They found out that they stole everything. They never found successions and probates, so nothing was ever done.

Not being able to read and write because of educational discrimination and historical oppression, in addition to a lack of federal recognition, allowed land to be stolen in some cases because tribal members were unable to prove their ownership of the land. In other instances, land was taken as part of attempts by government agencies to mitigate land loss:

> Not as . . . now they just, like they took our land for the levy and they keep taking more to build it up. They don't tell you anything, you never get a letter they just take. . . . It's for our protection, for our good so we can't say anything.

If tribal members were federally recognized, land would not be able to be seized in this manner, even as an attempt to prevent further land loss.

Finally, rising water was also responsible for contemporary loss of land:

> There's laws in [state name removed to protect tribal identity] that once the land turned into water, it becomes state property . . . it's not our bayous. . . . It once was our property because my grandfather, we own a lot of land down at our . . . I said a lot, but you know, a few acres . . . used to be our land. Well now its water so, we don't get hardly anything. I think maybe $200 in royalty a year. Where, way back in the days, it'd be $2,000 which is $10,000 today. Yeah, it's hard, and they not stopping, you know? It's just, it's so much. So many issues of injustice around here.

This participant noted the many interconnections among forms of environmental injustice experienced by tribal members. The impact of coastal erosion here is especially harmful since it not only deprives members of access to the physical land underneath the water but also denies tribal members ownership of the property itself once it is covered by water. These historic and contemporary forms of land loss undermine the economic self-sufficiency of tribal members and the transmission of important cultural traditions.

Geographic Marginalization: "We All Got Here Because We Were Kicked Out or Stormed Out, or Sold to, or Shoved Out of Someplace Else"

Inhabiting land seen as less desirable is an insidious form of historical oppression experienced by tribes. This has often led to living in areas especially vulnerable to environmental changes, which was noted as a common factor throughout the tribe's history (Fitzgerald, 2015). Tribal members identified their continued geographic marginalization throughout the tribe's history, noting that historically they were forced to relocate to the coastal and bayou areas of the region because it was less desirable land removed from city infrastructure (Fitzgerald, 2015). Currently, this marginalization continues as tribal members lose land, are unable to receive compensation, and are unable to afford to move to nearby communities where land is less vulnerable to climate change (Burnette et al., 2019; Billiot & Parfait, 2019; Fitzgerald, 2015).

Many tribal members were worried tribal identity may be lost if tribal members are forced to relocate farther away from each other and the gulf. These environmental justice issues impact tribal and family dynamics and intersect with sociodemographic factors. Participants noted most tribal members will not have the economic resources to relocate to nearby communities. One participant explicitly described the role of socioeconomic status and geographic marginalization:

> Everything is by the water. If you want to look at a person's socioeconomic status in the hierarchy, you look at how close to the water they live, and what type of water. If it's river water, fresh water, and you live next to it, you're more likely to have lighter skin and more wealth and better schools to send your kids to. If it's saltier water and its wetlands, the more likely you are to have darker skin.

Another participant noted how in the history of the tribe, members got pushed farther and farther South, and this led to the development of many of the cultural traditions, and forms of resilience and self-sufficiency seen in tribal members today:

> It's different now, but it comes and goes. Native Americans got pushed further and further and further. Because they were independent. . . . At first they were made slaves, but it was hard to keep a Native American a slave because this being their homeland, they knew how to escape. The slave owners didn't know how to get them so they created a whole subculture as well. The Native Americans from along the river who escaped, escaped down to the bayous. Of course, they became swampers and they cut trees in the swamp and they provided a service. They built businesses by providing wood and moss, and whatever. They become moss pickers and everything.

This participant described the important role of enculturation and resilience for tribal members, who demonstrated their self-reliance and ability to adapt to changing circumstances. Cultural traditions can act as an antidote to experiences of historical oppression (Burnette & Figley, 2017; Wexler et al., 2009. This same participant expressed concern that because of the important connection between the land and tribal members, loss of the land would marginalize tribal members and hurt the community:

> The more people move around, the more it changes. They start to pick up and drop different traits based on where they've relocated. The environment plays a huge role in how their culture develops. In [state name removed to protect tribal identity], once people got here we had very little to do with outsiders. . . . Down here, the people were disenfranchised. The people who settled this far down . . . doing the environmental advocacy because of all the stuff trying . . . actually, it's community advocacy, but part of our thing is if we don't have an environment, we don't have a community. . . . You see how the environment plays a role in the structure of the community, the survival of the community, or in our case, the destruction of the community. How we got here . . . the people who settled here, and have been here for generations and generations and generations. . . . Like I told you the other day, we are the least transient population in the country. We all got here because we were kicked out or stormed out, or sold to, or shoved out of someplace else.

This speaker highlighted the ability of tribal members to act resiliently in the face of hardship and to act as advocates for themselves and for their communities. Importantly, this speaker also identified how resilience is a

"fluid process" (Fleming & Ledogar, 2008). This same participant expressed pessimism that effective action would be taken to protect the land:

> There is no way on Earth they're going to save [region name removed to protect tribal identity]. It's not in the plans. It's not going to happen. We're too far from the Mississippi, too far from the [river name removed to protect tribal identity]. Sea level rise is going to be the final nail in the coffin of [region name removed to protect tribal identity] below the inter coastal canal, maybe the whole [removed to protect tribal identity]. By continuing to not honestly talk to the people of the coast and tell them, we're not going to save you. . . . They say, well, we're going to try or we're going to have this project or we're going to have that project. It is denying the people who need it the most the ability to make decisions . . .

A failure to talk honestly and openly about the real risk posed by climate change was identified as being especially dangerous by this participant because it undermines the ability of the most vulnerable individuals to protect themselves, their families, and their communities. Participants expressed concern about the impact of these environmental issues on their ability to continue to pass on cultural traditions and even their ability to continue living in proximity to other tribal members and family.

The Loss of Tribal Identity: "They're Just Throwing Them Under the Boat"

An important component of Indigenous community resilience is Indigenous cultural knowledge, values, and practices (Kirmayer et al., 2009). Connection to land and the environment are fundamental dimensions of this cultural resilience, and loss of land harms the intergenerational transmission of cultural knowledge (Burnette et al., 2018; 2019; Billiot & Parfait, 2019; Krimayer et al., 2009). Concerns that loss of land and being forced to relocate would undermine tribal identity were frequent worries among participants. Because tribal identity was often associated with the connection of many members to the seafood industry, one tribal member worried that,

> Because of the fact that we live in one of the richest estuaries in the world . . . the most renewable resource in the world is right here in your backyard. Sadly though, the world market has destroyed our prices. Twelve years ago, a shrimper could get $4 a pound for 21 to 25 to the pound shrimp. Today you might get $1.80. All the prices have dropped and people have to struggle to make a living. It's an honorable profession, but if you can't make a living, you've got to use your skills and put them where you can live.

Tribal members reported concerns about what would happen if they had to relocate, including worries they wouldn't be able to move to nearby communities:

> If communities . . . have to relocate, they're not going to relocate in [region name removed to protect tribal identity]. They won't be able to afford to, so they're going to be competing now for housing, for jobs in other parts of the state that they may be not well adjusted to adapt to. No one in the regime of the coastal restoration and protection hierarchies is actively and designing for that eventuality and funding that eventuality. They're going to wait until . . . they're just throwing them under the boat.

As Indigenous cultural resilience is frequently tied to connectedness to place, including traditional lands and environments (Kirmayer et al., 2009, many participants directly linked loss of land to loss of culture:

> We were here before the coast was. The coast moved to us, not us to it. They don't understand that by destroying the coast, and by allowing the coast to be destroyed, you're destroying a whole culture that really struggled to survive, and were brought here not in the best of circumstances.

This loss of tribal identity was a concern for participants because they viewed the connection between the environment and culture as so strong:

> It's because of the environment. The environment is part of the social structure. If you have to relocate these Native American tribal groups from [region names removed to protect tribal identity]. . . . If you have to start moving these groups, there's no way you can save the coast. . . . If they have to move north where there is no water, or not the type of wetlands that they're used to surviving in, they will survive because we're very strong, resilient people, but it will never ever be the culture that is here.

A desire to preserve the land was strongly connected with a desire to preserve tradition and the ability to pass on tribal practices to one's children.

> That this is our land, and we should do everything that we can to preserve it. I know that it's really far gone in my lifetime, but there are things that we can do to build it back up. We don't have to just let it go away. Stay strong to your roots. If your family . . . if they . . . they do pow-wows, carry that on. That's something that will die if you don't pass it on to your children.

Although acknowledging the great risk of the current environmental issues facing the tribal community, this participant also expressed hope that the tribe would be able to persevere.

These findings identify some of the key historic and contemporary environmental justice issues experienced by a Native American tribe in the Gulf Coast region of the United States. Participant responses indicate the most salient environmental justice issues faced by this tribe relate to (a) continuing impact of the BP oil spill and difficulty accessing resources, (b) concerns about coastal erosion, (c) historical and contemporary land loss, (d) geographic marginalization, and (e) the loss of tribal identity. Interpreting these findings through the FHORT allows for an exploration of both the risk

and protective factors that influence the well-being and resilience of tribal members experiencing environmental injustice. These findings indicate that historical oppression, especially in the form of a lack of federal recognition, is a major risk factor for tribal wellness and resilience in the face of environmental injustices. These findings also indicate forms of historical oppression often interact with each other, as is the case with educational discrimination and a lack of federal recognition allowing for oil company exploitation. These forms of historical oppression interact with the protective factors described previously, such as strong connections to the environment, the ability to adapt and live sustainably through subsistence living off the land, and passing down cultural traditions. These findings indicate that the ability of tribal members to bounce back and adapt from current environmental challenges may be undermined through their continued lack of federal recognition and the other forms of historical oppression they experience.

Conclusion

This research identified the environmental injustice experiences of one Native American tribe and contextualized these findings through the lens of the FHORT. The results of this study indicate this tribe is especially vulnerable to continued environmental injustices such as land loss, climate change, and oil spills due to its reliance on the land for employment, cultural, and family traditions. These findings indicate there is a pronounced need for corporations and government agencies in the area to address and take responsibility for existing environmental damages, in addition to the implementation of increased environmental regulation going forward. The results emphasize the ways in which a lack of federal recognition influences tribal members' experiences of environmental justice, acting as an additional risk factor that exacerbates the negative impacts of climate-related changes to the environment. A lack of federal recognition has exacerbated existing obstacles for tribal members in accessing needed resources following disasters such as the BP oil spill, hurricanes, and other climate-related changes to the environment. This lack of federal recognition has undermined the ability of this tribe to exercise sovereignty over their land, a key environmental injustice experienced by this tribe.

This lack of recognition has also weakened existing interventions, as they have not meaningfully included the voices of local leaders. As participants noted, tribal members are often in the best position to identify needed interventions because of their close connection to the land and ability to observe changes in real time. Cantzler and Huynh (2016) offered a useful framework for analyzing whether interventions meaningfully engage with the principles of Indigenous environmental justice. Indigenous environmental justice must entail "fair distribution of the benefits of those resources,

equitable decision making power over all matters affecting the resources, and the recognition of and respect for Indigenous peoples and their unique cultural orientations towards the natural world" (Cantzler & Huynh, 2016, p. 219). Recognizing tribal sovereignty over the land would allow for more stringent environmental regulation, as is the case for the City of Albuquerque, which must abide by the higher water quality standards put in place by the Pueblo of Isleta tribe (Crepelle, 2018b). Other tribes have used the Clean Air Act to restrict air pollution from off-reservation industries, and legal obstacles related to the Dakota Access Pipeline largely rest upon its passage over federally recognized tribal land (Crepelle, 2018b; Gilio-Whitaker, 2019).

Although these findings are extremely important for shedding light on the environmental justice issues experienced by this Gulf Coast tribe, it is important not to generalize these findings beyond this particular tribe as each tribe will have its own particular geographic and cultural context. These findings are also cross-sectional, and although our approach is congruent with the strategies outlined in critical ethnography, future research could benefit from repeat interviews over an extended period of time to explore long-term changes in greater depth. This may be particularly important when exploring issues of climate change. Future research should further explore the health impacts of environmental issues in the region, as several participants expressed concern about increasing cancer prevalence and other health problems.

These findings support national findings that Native American groups experience high levels of environmental injustice (Maldonado, 2014; Vinyeta et al., 2016) and further contextualize these findings for a Native American tribe in the Gulf Coast Region of the United States. One of the distinct contributions of this work is it expands the use of the FHORT to environmental injustice. These findings highlight that the experience of environmental justice issues and lack of federal recognition act as interacting risk factors that impact the overall well-being of tribal members. Attempts to mitigate further land loss in the region should include Native American leaders and voices and address concerns related to the loss of tribal identity associated with land loss. Considering the rapid changes occurring to the landscape, the need for action driven by Indigenous desires and knowledge is urgent.

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