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Contemporary Rural Social Work Journal

Volume 11 | Number 1 Article 1

2019

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Leininger, Monika and Havig, Kirsten (2019) "Promoting Environmental Justice Research and Practice for Social Workers in a Rural State: Methodology and Findings of a Pilot Qualitative Study," *Contemporary Rural Social Work Journal*: Vol. 11 : No. 1 , Article 1.
Available at: https://digitalcommons.murraystate.edu/crsw/vol11/iss1/1

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Cover Page Footnote

The authors would like to acknowledge the research support provided for this study by the University of Wyoming Division of Social Work.

This feature article is available in Contemporary Rural Social Work Journal: https://digitalcommons.murraystate.edu/crsw/vol11/iss1/1

Promoting Environmental Justice Research and Practice for Social Workers in a Rural State: Methodology and Findings of a Pilot Qualitative Study

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Abstract. Environmental justice work is an emerging field of practice that recognizes the interrelationship between social, economic, racial, gender, and environmental injustice and the impact social workers can have for policy and practice. Despite inclusion of environmental justice knowledge and practice as critical elements of ethical social work, little research exists on the topic in the professional knowledge base. Additionally, little research exists to date that specifically examines environmental justice knowledge and practice in a rural area. This pilot study examines awareness and knowledge of environmental justice issues and practice amongst licensed social workers in a rural western state using focus group methodology. Findings of this pilot study are discussed, with implications for social work practice, education, policy work, and research rooted in rural settings. A second of the two-fold purpose of this article is to present the qualitative methodology utilized in hopes of building more pathways for the development of environmental justice knowledge through social work research.

Keywords: Environmental justice, social work research, focus groups, rural social work

Environmental justice (EJ) is a human rights issue and emergent area of social work practice globally and at the national, state, local, and tribal levels in the United States. EJ has recently come to the forefront of the social work profession in the face of climate change, pollution, the degradation of the earth and its natural resources, and their impact for vulnerable people. Justice may sometimes be most easily defined as the absence of injustice, and as such EJ reflects a vision in which no person or group is disproportionately negatively impacted by environmental degradation (Sen & Chakrabarti, 2010). Building on the foundation of the ecological perspective (Dylan, 2015; Teixeira & Krings 2015), and well in line with existing goals of social and economic, the social work profession has cemented its commitment to EJ in standards and policies governing ethical practice and social work education (Council on Social Work Education, 2015). Environmental justice is a critical element in the larger promotion of social justice, and social workers are well positioned to help people who have been victims of environmental hazards or are in danger of exposure but need more tools for application in practice. Little research exists to date that specifically addresses social workers' knowledge or practice pertaining to environmental justice as this ethical imperative is implemented. This article offers a methodology and pilot findings for such research, specifically situated in a rural and frontier-classified western U.S. state. Our aim is to promote further research in this critical area of social work practice to inform education, policy, and the pathways with which the profession can be empowered to make an impact.

Defining Environmental Justice

According to the United States Environmental Protection Administration ([EPA]; n.d.), environmental justice occurs as both outcome and process as both fair treatment and meaningful involvement of all people in creating and implementing environmental protections and other policies, highlighting the importance of inclusion. The active participation of all stakeholders, with emphasis on protecting access and rights for vulnerable people is as critical an element to EJ as the policy changes and equal protections those stakeholders seek (Deacon & Baxter, 2013) EJ has evolved from true grassroots beginnings to a presence in governmental, nonprofit, and educational sectors. Defined early in the movement by Chavis (1987), environmental justice work is concerned with the disproportionate burden of environmental hazards for vulnerable groups, including racial minorities and low-income people, and collective efforts for change. Environmental degradation (i.e. air, soil, and water pollution) can result in adverse health impacts, lifestyle interruption, and furthered economic instability for individuals, families, and communities (Hanson, 2007; Middleton, 2003; Mohai & Bryant, 1992; Pastor & Morello-Frosch, 2018; Pfeifer, 2016; & Sicotte, 2009). Such hazards are largely preventable; however, due to a lack of environmental protections and attention to the connections with social and economic inequity, vulnerable populations suffer disproportionate negative impacts (Sen & Chakrabarti, 2010). Bullard further defines EJ in the 21st century as a movement that, "challenges toxic colonialism, environmental racism, the international toxics trade, economic blackmail, corporate welfare, and human rights violations at home and abroad" (2005, p. 42).

A critical concept for understanding the disproportionate impact of environmental hazards is the concept of environmental racism, or the intentional targeting of communities of color for wastes disposal sites and polluting industrial facilities (Bullard, 2004; Chavis, 1987). In the first national study to investigate ethnicities and the proximity to hazardous wastes Chavis found "the percentages of people of color in the zip code proved to be the best predictor of where commercial hazardous waste facilities were located," (1987, p. 8). Following a lawsuit in Houston, Texas, sociologist Robert Bullard (2000) was able to link hazardous facility positioning with historical patterns of segregation and disenfranchisement in the southern United States. Native American lands have increasingly become targets for hazardous land uses such as dumpsites, nuclear and weapons testing facilities, and resource extraction (Indian Country Media Network, 2017; Vickery & Hunter, 2015). Further, those who live in poverty are more likely to live in industrialized neighborhoods, rural and isolated areas, as well as low-income housing typically placed in the areas with the lowest property value. Using United States Census Bureau and EPA data sets Mennis (2002) utilized geographic information systems to examine such patterns and found that socioeconomic status decreased with proximity to hazardous facilities. These dynamics situate environmental justice squarely in the realm of anti-oppressive social work.

A human rights perspective is an important lens for social justice work, and this holds true in the realm of environmental justice. The Office of the United Nations High Commissioner for Human Rights adopted a resolution promoting the promotion of EJ as a human rights issue in 2011, highlighting the connections between government decision-making and natural disasters for both the health of the planet for people. The United Nations Environment Programme (n.d.) outlines the substantive rights of all people including the right to a safe, clean, healthy and

sustainable environment, equal protection under the law and protection from discrimination as well as the right to freedom from threats, arrest, intimidation and violence when engaging EJ issues by way of process participation, accurate information, and equal access. In addition, the United Nations environmental programming clearly connects a web of human rights concerns that are also the purview of social work including poverty, gender equality, sustainability, climate action, civil rights, and the rights of indigenous peoples.

Defining Environmental Justice for Social Work

More recently defined for social work, environmental justice is an area of practice that rests on the connection between race and socioeconomic status with environmental risk and harm (Jarvis, 2013). As such, these are issues indivisible from those of social inequity, and fall squarely within the realm of social work, from the micro (i.e. casework with a family impacted by environmental health hazards) to the macro (i.e. activism and policy advocacy). Environmental justice work has implications in other arenas of social work including health (Middleton, 2003), child development (Stephens, 1996), aging (Pastor & Morello-Frosch, 2018), labor rights (Pfeifer, 2016), support for agricultural communities (Hanson, 2007), civil rights (Huang, 2012), and work with specific populations such as Native Americans (Holifield, 2012; Vickery & Hunter, 2015).

Dominelli (2013a) highlights how environmental knowledge applied in practice gives social workers a truly holistic perspective on the person-in-environment. She goes on to define "Green Social Work" as "intervening to protect the environment and enhance people's wellbeing by integrating the interdependencies between people, their socio-cultural, economic and physical environments that addresses prevailing structural inequalities and unequal distribution of power and resources," (Dominelli, 2013a, p. 8). A model of environmental justice for the social work profession is proposed wherein professional focus lies at the intersection of oppression, structural inequality, and environmental degradation (Dominelli, 2013b). Not only on a clinical level can social workers respond to individual distress by assessing their clients' health in relation to their environment, but they also have the capacity to act as advocates, mobilizers, organizers, resource providers, and lobbyists to educate policymakers (Teixeira & Krings, 2015). These models for environmental justice provided the theoretical framework for this exploratory study.

Existing Knowledge of Social Workers and Environmental Justice

To date, there have been a multitude of studies that focus on the connection between the environment, socioeconomic status and an individual's health and wellbeing (Chavis, 1987; Bullard, 2000; Holifield, 2012; Middleton, 2003; Mohai & Bryant, 1992), while only a handful of studies have explored and evaluated social workers' awareness and perceptions of issues of environmental justice (Cureton, 2012; Nesmith & Smyth, 2015; Shaw, 2011). Cureton's (2012) study looked at environmental health awareness along the east coast and southern states. The study found that 56% of responding social workers received concerns about the environment from their clients related to issues of chemical exposure, water pollution, access to clean air, and noise pollution. Nesmith and Smyth's (2015) study was conducted in Midwestern states and focused on the requirement that environmental justice be integrated into social work education. The study found that the majority of participants believe that social workers should receive

education on combating environmental justice issues and should be prepared to address these issues in their professional practice. The study also expressed social workers frustration that they wanted to be able to work with clients on psychological mental health issues but spent much of their time and energy getting them safe drinking water, healthy food, or residences away from other toxins (Nesmith & Smyth, 2015). Shaw's (2011) study explored Californian members of National Association of Social Workers (NASW) and found that out of 971 respondents, 90% believed that the natural environment should be discussed in social work education, and 71% of respondents reported that they had a client facing environmental justice issues at some point in their relationship with them.

Environmental Justice in a Rural Context

Definitions of rurality and rural social work continue to evolve, and debates continue about distinctions from other types of practice (Daly, 2010). The rural context of the state in which this study was conducted makes it unique from those examining urban issues and responses. According to the United States Department of Agriculture (2010), most of the state is classified as level 1 frontier and remote (FAR) area, defined by living 60 minutes or more from an urban center of 50,000 or more people. The majority of the state's population is too low to even be considered rural, with only four of its 23 counties not meeting the Frontier and Remote requirements (United States Department of Agriculture, 2010). The nature of environmental justice concerns and theories of how injustice occurs in rural areas are different from those experienced in urban settings (Sicotte, 2009). As such, processes developed in and for urban settings may not be relevant to the rural context and require targeted research and development in their own right (Vance, 2017). One factor that is critical in assessing and responding to environmental injustices in rural settings is economic, and in turn going beyond population density and other rurality measures to account for industry and localized socioeconomic considerations. In reference to a case example involving the impact of corporate hog farming for rural communities, Davenport and Davenport (1999) discuss the complicated and potentially opposing stances for social workers in seeking to consider economic benefits to a community of industry and assess other costs and benefits, generally while situated in the communities themselves. As a result, careful consideration of how to define problems and plan strategies must be so contextualized.

The state in which this research was conducted is highly reliant on the petroleum extraction industry for both jobs and the financial solvency of the state itself. Such reliance can complicate social workers' efforts to assess and intervene with environmental justice issues when they may be seen as threatening to community and interpersonal relationships, livelihoods, and the economy of the state. It is also a state that derives over a billion dollars annually from tourism in its seven national parks, hosting over seven million visitors a year (United States National Parks Service, 2019). Issues of consumption, impact to the natural environment from solid waste, and burdens on local communities can result in environmental injustices, particularly when coupled with the competing economic and labor interests (Meletis & Campbell, 2009).

Also important to understanding environmental justice in a rural setting is a consideration of the decisions of many policymakers seek to place toxic facilities in areas with low population density to proactive efforts to manage the risk associated with these facilities (Diaz, 2016). This

principle is utilitarian in the sense that the greatest burden is experienced by the least amount of people. But, while this seems to make sense to locate facilities away from the majority, this principle increases the number of facilities in some rural areas that are highly correlated with poverty (Diaz, 2016). This means that the groups that live on the outskirts of town, in the areas with the lowest property values are more likely to be situated next to industrial projects. Coupled with unmet service needs and a shortage of social work providers in profoundly rural and frontier regions such as the site of this research study, low-income and isolated residents remain at risk in absence of protective intervention.

The purpose of this article is two-fold. First, we present the findings of a pilot study aimed at exploring licensed social workers' awareness of environmental justice issues and practice behaviors in a rural state. The pilot study offers findings on which to continue to build this area of social work knowledge. Additionally, and equally important, we offer a framework for future research focused on social workers' knowledge and practice related to environmental justice. A challenge in designing and implementing the study was the lack of previous research on which to situate the study; an important element in building this area of knowledge will be repeated studies and use of varying methodologies and we hope to contribute to that process. Overall, this article offers insight into both methods and findings that will add to the growing landscape of environmental justice practice knowledge, with an emphasis on rural practice.

Method

This study utilized qualitative methodology via a series of focus groups in a rural western state. An exploratory research design allowed the researchers to assess, analyze, and review qualitative data from social workers to determine whether their needs are being met and observe trends in the ways social workers integrate environmental justice in their practice. The intention of the study was to gather information, based on lived experiences of participants and to answer the research questions posed above. With this exploratory aim, the study was guided by the following research questions:

1. How do licensed social workers perceive and understand environmental justice issues?;

2. How do licensed social workers integrate environmental justice-related issues into practice?; and

3. What supports and barriers do participants perceive that impact the integration of environmental justice into practice?

Sampling

Sampling was direct and purposive by reaching out to participants through the state's Mental Health Professionals Licensing Board roster of licensed clinical social workers (LCSW). All social workers on the roster were contacted via email and informed about the study (see Table 1). A total of 535 social workers were contacted during this process. Focus groups were then formed based on the response rate within a geographical area. Based on those responses, three in-person focus groups were held as well as one group online using Zoom video

conferencing technology in order to accommodate the rural nature of the state. Focus groups consisted of two to three participants for a total of nine participants (N=9). The study also employed snowball sampling via a request to participants to share information about the study with appropriate potential participants within their network.

Data Collection

Focus groups are a method used to reveal people's thoughts, perceptions, and experiences in relation to a topic of interest (Fortune, Reid, & Miller, 2013). Each focus group was held in a private meeting room at a local library in the chosen geographical area, with exception of the online group. The groups lasted approximately 60 to 90 minutes and were guided by semi-structured, open-ended interview questions (Table 1). Demographic information collected included questions on gender, ethnicity, age and years practicing social work.

Table 1

Focus Group Questions

1.	What is your area of practice?
2.	To the best of your abilities, define environmental justice.
3.	How do you practice environmental justice in your work?
4.	What populations are most impacted by environmental injustices?
5.	How have you advocated for environmental justice issues on a community or policy level?
6.	What barriers and challenges are in the way of you implementing environmental justice into your practice?
7.	What would help increase your understanding of environmental justice?
8.	Summarize your awareness and knowledge of environmental justice issues.
9.	Do you have any questions that weren't asked that you would like to have answered on the topic?

Data Analysis

The qualitative data obtained from the focus groups were analyzed by the researcher to observe trends and identify key themes to understand the current state of practice as well as barriers and supports impacting that practice. Focus group discussions were transcribed verbatim and the data were coded for emergent themes. Data were then furthered organized into themes related to social work education and practice. In addition to the knowledge drawn from the data, the pilot study allowed the researchers to test the questions and methods, which may be replicated in this state and other rural areas to build on the initial findings.

Results

Demographic Characteristics of Population

Demographic characteristics of participants are presented in Table 2. The majority of the study population was female (n=8, 88.8%) which is in line with the national labor statistics averaging that the profession of social work is dominated (82.5%) by females (Bureau of Labor Statistics, 2017). Of the participants, 100% identified themselves as Caucasian/White which is

consistent with the demographic information of the state as a predominantly white population of 92.8% (United States Census Bureau, 2016). Age ranges for participants were between 31 to 66 with the mean average being 49 years. Years practicing social work ranged from four years to 48 years with a mean of 23 years.

Table 2.

Participant Demographics

Sex (N = 9)	
Male	1 (11.1%)
Female	8 (88.8%)
Mean Age	49.1
Mean Years in Practice	22.9

Participant Definitions of Environmental Justice

Focus groups started with the prompt, "To the best of your abilities, define what environmental justice is." Participants were overall familiar with the topic with an awareness that environmental justices included: (1) Access to basic resources; (2) Impact on vulnerable and disenfranchised populations (power and powerlessness); and (3) Connection of the environment to health issues (Table 3).

Table 3

Participant Definitions of Environmental Justice

Theme	Representative participant responses
Access to basic resources	"I think of equality of opportunity or access to those very basic things like water".
Impact on vulnerable and disenfranchised populations; power and powerlessness	"It's rural, uneducated people because they are not tuned in and they're not necessarily paying attention. So they can be convinced it's fine more easily"
	"I also thing that people get taken advantage of too. We could frack on your land, here's all this money, and they need the money."
	"Anyone who is low income and no access to information."
	"Environmental justice is that people, corporations or companies, will take advantage of people who don't have a lot of power or money."
	"It's the use of our environment in a way that's respectful, renewable, not being trashed because, exploiting and the profit end."
Connection of the environment to health	"Environmental justice is just like with healthcare, we don't do preventative. We wait until everybody is super sick and then take action instead of looking at it early on"
	"That's probably why there's a rise in cancer"
	"I remember when I worked with a client on a dream…there was this huge garbage heap and she was at the top of it…we talked about environmental stuff and the impact on her subconscious"

Participant Awareness of Examples and Incidents of Environmental Injustice

Further prompts were used to elicit responses about participants' awareness of environmental justice issues specific to the state in which this research was conducted. The facilitator asked. "What environmental justice issues do you think we might have in [state]?" All participants were able to identify certain environmental problems that may have an impact on disenfranchised or marginalized people. Subthemes consisted of: (1) Water contamination; (2) Oil and gas drilling; (3) Orphan sites and pollution; and (4) Air contamination. Overall, the location of social workers had little impact on whether the participants were able to identify their overall understanding of the phenomena of environmental justice. However, the diversity of the focus group locations aided in gathering a breadth of data within discussions about the awareness of specific environmental justice issues to the location (Table 4). Participants were able to identify issues of environmental injustice throughout the state, such as: air pollution in several counties, orphan and cleanup sites, and a well-known groundwater contamination case.

Table 4

Participant Awareness of Examples and Incidents of Environmental Injustice

Theme	Representative participant responses
Water contamination	"I know of drilling for natural gas in the northern part of the state…people don't have clean water anymore, they were lighting it on fire from the faucets."
	"There was a documentary about [a town in the state]. A short feature where they were lighting water on fire."
	"The water wells in west [city] became contaminated because their septic systems were leaking into their wells."
Oil and gas drilling	"For a year or two, [public school] was closed for natural gas issue or leak."
	"If you've ever driven through [county] at night, they've had so much oil and gas drilling that their gas fields look like Christmas trees all across the environment. I think it impacts the people there."
	"30 miles from [city] they frack, and they destroy all of these wells, you can't even shower because it goes through your skin. So, the property values have been completely depleted."
Orphan sites and pollution	"There was a Superfund site, with the Susquehanna mill tailings from the uranium mines, buried on the reservation, about 20 years ago they started digging them up and reburying them properly."
	"The old yttrium and tie plant was a Superfund site and it had to be cleaned up."
Air contamination	"Air quality in [rural town] at times has been as bad as being in the middle of a city just because the air just sits in the basin where the [natural gas] field is and it doesn't move out. At times of the year it inverts and so all the pollution that's coming out is staying in there and you would drive into there, the whole horizon looked brown."

The Role of Environmental Justice in Social Work Practice

To assess the integration of environmental justice thinking across levels of social work practice, participants were asked about their experience in social work and the prevalence of client concerns related to environmental issues as well as about their involvement in mezzo and macro-level work. The facilitator asked about participants' activities in making their cities protected from environmental hazards and advocating for equal access to resources and elevated quality of life. The facilitator asked, "How do you practice environmental justice in your work?" Further questions emerged such as "Have you ever had a client bring up an environmental concern or have you ever assessed a client for stuff to do with their environment?" Most participants responded that they had not had a client bring up an environmental issue; however, several participants responded that they have seen client's that did not have access to clean water or other amenities. Themes were: (1) No role in practice; (2) Acting in response to client basic needs through micro-level social work; 3) Client empowerment work; and 4) Advocacy (Table 5).

Table 5

The Role of Environmental Justice in Social Work Practice

Theme	Representative participant responses
No role	"Because my job is in mental health, its more sterile, you're just talking with people right on this very cognitive level by not considering their environments much."
	"We just respond to what's brought to us. If something happened to where people started saying, 'hey, this is affecting us', we would find a way to help them."
	"Personally, I haven't been advocating for anything."
	"I haven't really done any advocacy. Pretty passive."
Acting in response to client basic needs through micro-level social work	"Some clients did live in trailers that were just terrible. They didn't have running water, they didn't have good management of sewage in that regard."
	"My lofty goals about therapeutic intervention are scaled down to, how do we get clean water? How do we get clean air? How do we get sewage taken care of for these folks?"
Client empowerment	"I help this person learn communication skills, so they can first help themselves. OK, this is a problem for you, I'm not going to take care of this problem for you, but, how can you?"
	"I've taught communication skills and advocating for themselves, learning how to communicate what you need and what you need to do."
Advocacy	"I chair a clean water task group, we've been able to influence our city council and the city planning commission to not [prioritize] put toxic waste over our water supply."
	"My husband and I testified on a bill about powerplant siting."
	"I've signed petitions but nothing else."

Perceived Barriers to Integration of Environmental Justice into Practice

Next the facilitator asked the focus groups about challenges in implementing environmental justice awareness and knowledge into their practice. One goal of this question was to understand why the prominent social work discourse is lacking in its education around environmental justice issues. The groups were asked, "What barriers and challenges are in the way of you implementing environmental justice into your practice?" Distinguishing themes emerged such as: (1) Perceived lack of relevance to work; (2) The cultural impact of extraction industries in the state; and (3) Lack of education and tools for practice (Table 6).

Table 6

Perceived Barriers to Integration of Environmental Justice into Social Work Practice

Theme	Representative participant responses
Lack of perceived relevance to work	"Most kids are worried about where their next meal is and how to be safe at home at night, that's what's most important…not their environment."
	"I don't think it's a question social workers can even entertain thinking about because we're just working on stabilizing people and keeping them out of the hospital, or not killing themselves, or cutting themselves, or beating their spouse. That's the best we can do when they're barely able to get food on the table."
Cultural impact of extraction industries in the state	"There's a huge narrative in our state where oil and gas is good because its good for our economy. We just accept the narrative that oil is king, gas is king, and that's what our state need. I feel like that's a huge obstacle."
	"We have had people at times concerned about what we were teaching in our schools about anti-coal and anti-gas and all that kind of stuff."
Lack of education and tools for practice	"In graduate school environmental justice probably wasn't ever brought up." "This is not part of my MSW education at all. I went to a conference that environmental justice was being introduced as a possible competency or practice behavior and I remember thinking in the moment, oh my gosh, another thing for social workers to be competent at."
	"I think having concrete ways to incorporate that into individual work. Like questions to ask or ways to think about it."

Improving Social Work Practice around Environmental Justice

The majority of participants expressed interest in learning more about this topic and understanding how it could become increasingly relevant in social work practice. When asking the focus groups about, "What would help increase your understanding of environmental justice?" Participant recommendations emerged such as increasing learning opportunities, both in social work education programs as well as through continuing education and collaborative conferences and workshops. Lastly, the need for individual assessment tools that operationalize and facilitate assessment was noted as important for increasing practice behaviors focused on environmental justice.

Discussion

Many of the participants' responses reflected knowledge and awareness around environmental justice, how issues of environmental justice arise, the prevalence of these issues with low-income and disenfranchised people, and how these issues could negatively impact their client's wellbeing. Social workers in the study identified key themes throughout the data collection process that reflect important components of existing environmental justice frameworks.

Defining Environmental Justice for Social Work

The findings related to defining environmental justice paralleled many of the definitions provided within the initial literature review. Participants recognized that environmental injustice is a standpoint that recognizes that economically disadvantaged groups and minority populations are unequally affected by environmental hazards in comparison to other social groups. They also communicated perceptions around the role of corporate power and greed in driving issues of environmental injustice. Notably, participants also defined that environmental injustices can manifest as physical or chemical pollution in air, water, and soils which furthermore impacts the health of these disenfranchised populations, in line with prior findings (Beaubier & Nussbaum, 2008). Cureton (2012) found that about 50% of social workers had an awareness of the connection between environmental exposure and their client's health. Some of the current participants identified cancer rates, healthcare problems, and cognitive disruption due to environmental hazards.

As explored in Nesmith and Smyth's (2015) study, the authors identified ten key environmental justice concerns; the social workers in the current study were able to identify eight out of the ten in Nesmith and Smyth's study. The participants in the current study identified unsafe drinking water, air pollution, industrial waste and mining or fracking, food deserts, pesticide use, unsafe play areas, and extreme natural disasters as environmental justice concerns. Participants in the current study also shared their knowledge about local environmental justice issues such as oil and gas leaks, clean-up sites, and large contaminated areas across the state and within their communities. This knowledge is key in recognizing the role of social workers role in identifying and responding to environmental justice. Social work practitioners can apply environmental justice work to their local communities and identify groups that may need help or assistance.

Environmental Justice in Practice

Unlike other studies presented within the literature review, a majority of the clinical social workers in the current study had never had a client report an issue related to their natural environment. In Nesmith and Smyth's (2015) study, 71% of respondents reported that they had a client facing environmental justice issues. Most participants in the current study shared that if their clients were facing issues of environmental justice, it was likely to be related to their limited access to clean and running water, management of sewage and waste, or electricity for their homes. However, none of the participants reported that they regularly or initially screen

their clients for issues of environmental justice or ask questions about whether their clients are being impacted by pollution or other environmental hazards.

Cureton (2012) found that 36% of social workers in her study indicated that they advocate for the environmental health of their clients. Furthermore, 54% of the social workers in Cureton's study encourage their clients to exercise their environmental rights. Participants in the current study noted that they had done some community organizing such as testifying at meetings, involvement with task force groups, or petition signing, but the participants primarily viewed their role as empowering clients with communication skills. Participants largely defined their role as acting on an individual, client-level as case managers, counselors, and resource liaisons. Regarding direct social work practice settings, some research participants reported lack of relevance of environmental issues to their clients. Participants noted difficulties in prioritizing EJ issues in terms of their time as well as their ability to communicate its salience to clients in the face of safety issues, substance abuse, poverty, or whatever immediate issues are at hand. A question that bears greater examination is whether clients are not experiencing issues of environmental justice, or are they not reporting these issues because they are not asked or made aware of them. A better understanding of the experiences and awareness of client populations including those of low-income, minority status, or rural location would enhance social workers' awareness of the impact of environmental issues and the ability to respond, not only in research, but in the context of client assessment. To do this, social workers can include environmental concerns in traditional biopsychosocial assessment; the person-in-environment perspective guides such assessment and can be expanded to include attention to clients' physical environment. Additionally, tools such as the ecomap may also be easily adapted to attend to the impact of environmental hazards for client wellbeing.

One standardized tool has been developed in California specifically to measure environmental impact to individuals and families. The CalEnviroScreen, now in its third version, provides the state with a method of assessing hazard vulnerability and effect (California Office of Environmental Health Hazard Assessment [OEHHA], 2017; Greenfield, Rajan, & McKone, 2017). In addition to accounting for the existence of environmental hazards, the tool includes socioeconomic indicators including sensitive population indicators such as low birth weight, as well as educational attainment, low-income housing, linguistic isolation, poverty and unemployment (OEHHA, 2017). Use of the tool allows for community-level assessment of impact and in turn is utilized for the allocation of resources to high need areas. In their multivariate analysis of the CalEnviroScreen 3.0, Greenfield, Rajan, & McKone's (2017) findings not only support the use of the tool for use in areas with high environmental exposure and population vulnerability, but also suggested that, compared to exposure to environmental pollutants, socioeconomic status likely has greater impact on the overall burden of disease for impacted individuals. These findings undergird the importance of environmental justice concerns and the connection to social work, and provide a model for the assessment of community-level impacts that aims for a cumulative accounting and that is valid across rural and urban environments.

The CalEnviroScreen, described above provides a method of assessing cumulative environmental hazard vulnerability and impact assessment (OEHHA, 2017). It also offers a psychometrically sound model for the development of similar tools tailored to the state or region

of use, with local input and appropriate cultural considerations. Such screening is mandated in California, but to date such policy-based efforts for statewide collection of data that maps environmental impacts with socioeconomic and or vulnerability indicators are rare. Despite this, informal and organizational-level efforts can be made by social workers to include some elements of a screening tool like CalEnviroScan 3.0 in assessment.

Importance for Rural and Frontier Areas

Keller (2012) calls for greater visibility of rural concerns and attention to local perspectives in understanding the history of and contemporary framework for environmental justice work. As proposed by Daly (2010), rural social work practice can perhaps be best defined as existing on a continuum with rather than being dichotomous to urban practice, yet the importance of situating practice in the culture and adapting to context remains. This perspective informs our reflections on the finding of this study; while it holds true for any social work intervention, rural EJ work must first be situated in the local environment and undertaken with an attitude of cultural humility. It also requires heightened attention to dual relationships, conflicts, and ethical dilemmas that come with work in small communities.

Social workers can advocate for municipal level ordinances should be implemented such as improving control on existing industrial facilities such as zoning regulations, hours of operation, truck routes and noise control (New Jersey Department of Environmental Protection, n.d). Additionally, social workers can advocate for enacting greater setback distances from oil and gas wells and identifying priority areas for cleanup and remediation. Other municipal efforts could include evaluating master plans to ensure sustainable community planning, water use and infrastructure improvements such as incentivizing businesses for renewable resource use. Social workers can be leaders in educating community members about these issues, lobbying their elected representatives, and empowering clients to testify and share their personal stories about how gaps in state regulations have afflicted their wellbeing. Statewide policies should enforce the need for scientific environmental and risk assessments prior to approval and construction of new infrastructure. Social workers can be gatekeepers in these projects by representing the voices of marginalized and disenfranchised groups and protecting vulnerable areas. Social worker should also hold their officials accountable by backing conflict of interest rules and making sure they are defined and upheld within the state legislature.

A barrier identified by participants in this study relates to the power of extraction industry and its impact for perceptions of environmental issues and responses. A culture of silence about or support for employers within the industry is evident in the responses and indicates the complexity of environmental justice work in this context. This finding reflects similar concerns noted by Sicotte (2009) about the power differential present in areas where people rely on potentially dangerous industry for work, potentially impacting the ability to take on a leadership role on a community-organizing level. However, also skilled at the practice of cultural sensitivity and a client-centered approach, social workers can utilize community organizing, coalition-building, framing strategies, and strategic planning skills toward EJ goals (Androff, Fike, & Rorke, 2017). The informal networks and tight-knit relationships already inherent to rural settings can be foundational to social work efforts toward change. In addition, due to the complexity of environmental justice concerns and solutions, coalition-building skills are key to

involving the inter-professional knowledge and skills necessary to support community action around these issues. In sum, social workers already possess the key practice knowledge and skills needed to intervene on behalf of environmental concerns impacting individuals, families, and communities (Teixeira & Krings 2015).

Often applied to rural practice, a generalist model involving familiar processes of engagement, assessment, intervention, and evaluation can guide social workers' EJ efforts and bridge important gaps between the lived experiences of individuals and families with community work, organizational leadership, and policy advocacy. Major strengths of rural communities include the importance and strength of relationships and the informal networks and resources they support and are supported by (Daly, 2010; Larson & Dearmont, 2002; Martinez, 2000). A strengths-based approach is invaluable to social work in rural communities and for justice work.

Environmental Justice in Social Work Education

Nesmith and Smyth (2015) found that content on environmental justice was not a significant part of social workers' education as well as a lack of adequate training necessary to identify or assess environmental hazards and impacts. This was also consistent with the research performed in the current study, in which the social workers in the focus groups agreed that they have also not received sufficient information on environmental justice issues in their social work education to feel confident in implementing this into their practice. Such preparation is critical and can be moved forward through multidisciplinary partnerships also an existing area of strength for social work (Jarvis, 2013).

In exploring pathways for improvement of environmental justice in social work practice, the majority of the current study's participants who primarily work in clinical settings agree that the topic of environmental justice is compelling to them. However, participants said they would need additional training such as workshops, presentations, and other learning opportunities through continuing education credits to integrate environmental justice into their practice. Other participants felt that the best way to implement environmental justice into their practice would be access to an individual assessment tool that could be used at the time of client intake to allow for standardized screening for relevant conditions and indicators. In the study conducted by Shaw (2011), the participants gave an overwhelming majority answer of 90% to wanting to include environmental justice education in the social work curriculum. Contrastingly, in the current study, participants were not as enthusiastic about this option and showed favor of increased educational opportunities following graduation such as continuing education credits.

Social work theories like ecological systems theory are being expanded to include discourse on the potentially harmful mental and physical effects of pollution and environmental hazards to create a more encompassing assessment of the individual client. Education around these central social work theories should include focus on the framework of ecofeminism that not only recognizes the importance of an individual's environment, but also conceptualizes how the subordinate classes of society are more vulnerable to oppression, domination, and exploitation of their communities. As noted by Dylan (2015), social work education can lead the profession from a focus on purely theoretical perspectives on environmental justice to action and integration of this aim across practice levels and settings.

Continuing education for professional licensure and community-level lifelong learning opportunities should be a focus of social work educators and practitioners. As a new area of practice, EJ is less likely to have been included in social work education for those who completed a degree prior to its delineation in policy (CSWE, 2015). As such, continuing education is the only pathway for many practicing social workers. Social work educators need not only to infuse EJ content in regular curriculum but can also develop and offer professional development opportunities to practitioners. In rural areas, utilization of distance learning, web-based modules, and other electronic communication are important pathways for overcoming challenges posed by geography and weather. Additionally, proactive efforts to develop and sustain field practicum placement for students in EJ settings should be made.

Research Implications

As noted, a primary purpose of this article is to offer methodological strategies for ongoing research into environmental justice in social work. Previous studies noted here have employed quantitative survey methodology which we utilized as a conceptual foundation for this qualitative approach. In hopes of creating pathways to future research, the methods and lessons learned during the process of completing the study can be enlightening to others. This and other studies should be replicated and built upon in order to develop a robust social work literature focused on environmental justice practice.

While there are clear limitations to the finding of this pilot study, in addition to the methods, it presents a jumping-off point for future studies that include inquiry into the relationship between human rights, economic factors, social justice, social work, and environmental justice. Participants within the study reveal that they are lacking educational training, direct practice opportunities, as well as cultural conflicts when it comes to integrating this framework. Future studies, both qualitative and quantitative, could be performed to better understand the nature of these barriers in the state, and to a reach a diverse and widespread study population in order to help share needed educational and training materials. Further research opportunities could also include the probing of social workers' perceived attitudes when asking questions about their client's environment and their proximity to mineral extraction infrastructure. Several participants noted that they do not ask about their client's environment in fear to appear as anti-energy industry.

Lastly, efforts to enhance EJ-focused social work, research in rural settings must attend to issues of race and class. In particular, in states such as the one where this research was conducted, considered attention must be given to Native populations whether on or outside of reservation settings. Despite the important connections between environmental justice, indigenous people's rights, and racial disparity, little information exists in the literature that specifically relates to the experiences and environmental needs of Native American people (Vickery & Hunter, 2015).

Study Limitations

This was a pilot study with a small sample size, even for a rural state. However, due to the paucity of literature and insights gained from the data we believe it offers information

valuable to the professions' efforts to move EJ forward. This study has several additional limitations of note. The use of the Mental Health Licensing Board roster for sampling limited the study population to only licensed social workers, mostly in clinical practice. Therefore, our sample is not transferable beyond the participants. In terms of trustworthiness of the data, true credibility cannot be confirmed because the researchers did not use triangulation of data, different investigators, methodological variation, and different theoretical lenses through which to see and understand the phenomenon (Pitney, 2004). The sample was also homogenous in terms of gender and race, and we were unable to recruit participants who identify as Native American or who practice with Native people or on the reservation located in the state.

Conclusions

Environmental justice is a key area of focus for social work practice with and on behalf of vulnerable individuals and communities. To meet this new professional imperative, social workers need evidence-based information and tools to guide practice, an educational foundation that prepares them to understand and develop responses to environmental justice concerns, and more research to better illuminate the connections between environmental and social, economic, and racial justice. The nature of environmental justice concerns, processes, and solutions may vary for rural vs. urban populations, so localized knowledge building is also key as we move forward in operationalizing this area of practice. More comprehensive social work education is needed as well as continuing education opportunities for social workers in the field using a variety of delivery mechanisms to facilitate rural access. More research into EJ practice broadly as well as specifically in rural contexts is critical for this vision. It is our hope that this article will be useful to other researchers and educators in conceptualizing future aims and methodologies.

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