"I think that's all a lie…I think It's genocide": Applying a Critical Race Praxis to Youth Perceptions of Flint Water Contamination

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Background: In April 2014, the emergency manager of Flint, Michigan switched the city's water supplier from Detroit's water department to the Flint River. The change in water source resulted in the Flint Water Crisis (FWC) in which lead (Pb) from the city's network of old pipes leached into residents' tap water. Residents of Flint reported concerns about the water to officials; however, the concerns were ignored for more than a year.

Objective: This study sought to understand how Black youth in Flint conceptualize, interpret, and respond to racism they perceive as part of the normal bureaucracy contributing to the FWC.

Methods: In 2016, we conducted four community forums with Flint youth aged 13 to 17 years. Sixty-eight youth participated with 93% self-identifying as Black. Participants completed a brief survey. We audio-recorded the forums and transcribed them verbatim. Critical Race Theory (CRT) guided the development of the interview protocol and Public Health Critical Race Praxis (PHCRP) served as an interpretive framework during qualitative data analysis. Content analyses were completed using software.

Results: Many youth viewed the FWC through a racially conscious frame. They described Flint as a Black city where historical and contemporary forms of racial stratification persist. Some described the contamination of the city's water as a form of genocide targeting Blacks.

Conclusions: The findings from this exploratory study suggest some Black youth in Flint have difficulty coping with the FWC. Those who perceive it through a racial frame attribute the crisis to racism. They feel distressed about this and other traumas (eg,

Background

On April 25, 2014, officials in charge of the water supply for the city of Flint, Michigan (MI) switched the city's water supply source from Detroit's water department to the Flint River. The lack of a corrosion inhibiter in the system resulted in lead (Pb) leaching from the aging pipes directly into the water supply.[1] Researchers who evaluated the blood lead levels of children aged ≤five years prior to vs after the switch to the Flint River (2013-2015) found that the proportion of children with elevated blood lead levels increased from 2.4% to 4.9% after the switch. Children living in more disadvantaged neighborhoods, where African Americans and Latinos live, had as high as a 6.6% increase.[2] On October 16, 2015, the city of Flint was switched back to the Detroit water system. Gov. Rick Snyder dismissed claims that the FWC involved intentional acts of racial discrimination on the part of agencies responsible for safeguarding the health of Flint's residents.[3] However, terms such as implicit bias, structural racialization, and environmental racism have been suggested as contributors to the FWC.[4]

The Center for Research on Ethnicity, Culture and Health (CRECH) at the University of Michigan received funding to explore the perspectives of Flint youth regarding the water crisis. In August 2016, the University of Michigan's School of Public Health, Flint Odyssey House – Health Awareness Center, and the Fathers and Sons Steering Committee conducted a pilot study to understand how Flint youth conceptualize, interpret, and respond

failure to address high rates of crime) they perceived as racism-related. Future research should examine the implications for specific mental health outcomes among youth.
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to perceived racism as a contributing factor for the FWC. To uncover the subtle influences of contemporary forms of racism (eg, racism is covert, ordinary, and systemic) relative to this crisis, we draw from central tenets of CRT. Principles of Critical Race Theory (CRT) and Public Health Critical Race Praxis (PHCRP) informed our guiding questions, analysis, and interpretation of the findings.[5,6] I, the lead author, have expertise in how racism functions within cultural norms, social practices, and public policies that rein-

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force racial inequity. I integrate a critical stance as a Black sociologist and the reflexivity of an outsider–within to advance knowledge addressing youth experiences of racism within the socio-ecological context of the Flint Water Crisis.[7] As we conceptualize it, racially marginalized youth have less power and fewer resources to protect them against the harmful health effects of community disasters due to structural racism than adults do. In this study, we center the voices of Flint youth who experience multiple forms of oppression as knowledge experts regarding their perceptions and experiences.[8]

METHOD

The Flint Youth Community Forums

In summer 2016, we hosted four community forums with Flint youth aged 13 to 17 years. While focus groups are designed to gather specific information and opinions from small subgroups of eligible participants, community forums involve open discussion of topics of general interest to the community among large groups of community members. Sixty-eight (youth participated, with 93% self-identifying as Black. Participants completed a brief survey and forums were audio-recorded and transcribed verbatim. The forums were conducted in four different areas of Flint to maximize coverage and provide opportunities for diverse groups of youth to participate. We used a non-random, purposive sampling strategy to recruit the youth through local churches, community organizations, and youth programs. Each participant received $10 and small gifts for agreeing to participate in the forums. The University of Michigan IRB approved the study. The forums were conducted weekdays between the hours of 1:00 PM and 3:00 PM in the communities from which the youth were recruited (Table 1). Upon conclusion of each forum, the participants were served boxed lunches. The forums were facilitated by three Black research assistants: a postdoctoral research fellow (male), a research project director (female), and a community research partner (male). The postdoctoral researcher conducted Forums 1 and Forum 4. Forum 4 had two sessions to accommodate late arriving youth who want-ed to participate. The project director conducted Forum 2 and the community partner conducted Forum 3.

Qualitative Data Analysis

An instrument was developed to guide the community forum. The questions in the community forum guide were organized around topics relating to the experiences of youth as they consider how the contaminated water influences their daily lives, where they believe the responsibility for addressing it lies, and what steps are needed to safeguard their future. Two sections of the interview protocol were informed by CRT, the sections on Reflections about the Impact of Flint's Water Issue, and Perceptions of Public Response to Flint's Water Crisis. To avoid potentially influencing responses, we did not ask any direct questions about racism causing the contamination of Flint's water, which allowed youth to express their views about racism without prompting from the research team. The nature of racism in the post-civil rights era is that it functions largely unobserved to maintain the structural inequities constructed during the legacy of more virulent forms of overt racism such as Jim Crow segregation.[9] Our research sought to understand how youth attributed racism to the FWC and how they conceptualized the normalness of racism embedded within social relations, institutions, and public policy.

Transcribed text was entered into Atlas.ti, a qualitative data software program for coding and organizing data for further analysis. Grounded theory was selected as the methodological approach for this qualitative study to establish the framework

Table 1. Forum locations and select characteristics of participants, N=68

Group ID	Forum site	Participants, n	Black	White	Other	Female	Male	Mean age, years	Mean education, years
1	Local church	18	16	2	0	3	15	15.27	9.44
2	Youth community center	17	15	1	1	9	8	14.35	9.06
3	Apartment complex community meeting room	20	20	0	0	10	10	14.45	9.05
4.1	Community partner facility meeting room	9	9	0	0	4	5	13.66	8.55
4.2	Community partner facility meeting room	4	3	0	1	2	2	14.75	9.75
	Totals	68	63	3	2	28	40	14.50	9.17

for theory construction grounded in the voices of the youth. An *in vivo* coding strategy was used to preserve participant meaning in the coded segments of the text allowing key insights to emerge from the data.[10]

Sections of coded data were then entered into a spreadsheet and compared with PHCRP's four focal areas and associated principles for analysis and interpretation.[11] The four focal areas and affiliated principles guiding this study are Focus 1: Contemporary Patterns of Racism, captures the main aspects of the prevailing system of racialization during the study's time period; Focus 2: Knowledge Production, identifies the disciplinary or cultural norms that may influence beliefs about racialized groups or race-related phenomena; Focus 3: Conceptualization and Measurement, defines the study's race-related constructs and the expected associations between them across social contexts; and Focus 4: Action, stipulates that knowledge acquired from the research be used to disrupt the reproduction of inequity. Each of the four foci is affiliated with one or more principle(s) that orients the work undertaken in each focus. The 10 prin-

ciples are: 1) race consciousness; 2) primacy of racialization; 3) race as social construct; 4) ordinariness of racism; 5) structural determinism; 6) social construction of knowledge; 7) critical approaches; 8) intersectionality; 9) disciplinary self-critique; and 10) voice. [6]

RESULTS

As shown in Table 1, 68 youth participated in the four forums; of those, 93% self-identified as Black, 4% as White and 3% as other. Participants were 41% female and 59% male with a mean age of 14.5 years and 9 years of education. We identified three main themes in the discussions in which racism emerged: the social construction of race; genocide; and genocide and internalized oppression.

Emergent Themes from the Flint Youth Community Forums Focused on Racism

Applying PHCRP as an Interpretive Lens

For the purposes of this article, we focus on results from discussions

in which participants attributed the FWC to one or more forms of racism. There were two primary themes: the social construction of race and genocide targeting Blacks. The racialization of different groups overtime is a central orienting principle guiding the interpretation of the data collected from the community forums. We used PHCRP's Focus 1 and affiliated principles to organize the findings based on Flint's legacy of structural racism and to situate the perspectives the youth shared. Like other cities (eg, Detroit, Chicago, and Cleveland), the concentration of Blacks and Latinos in Flint is in the older, poorer, and environmentally unsafe sections of the city and stem from legacies of discrimination in housing, lending, transportation, and economic development policies.[12]

Social Construction of Race

Although the youth seldomly brought up race or racism in relationship to the FWC during the forums, when race was discussed they expressed a range of perspectives and subjective interpretations of racial phenomena. In response to a question about the reasons why Flint's water was contami-

nated the following point was made: Speaker 42 [forum 1, female, Black, 15, grade 10]: Flint is always seen as a poor, Black city. Similarly, when asked if ideas about people in leadership positions have changed due to the water problems: Speaker 58 [forum 4.1, female, Black, 13, grade 8]: Some people are probably racist and don't care about us, because they think all (African Americans) are bad and kill people for no reason.

In the above quote, youth attribute the water crisis to the intersection of race and class. These youth exhibit an awareness that the interpretation of Blackness in a racially stratified society could serve as justification for the contamination of their water. First, through the diminished value ascribed to Flint as "a poor Black city" and second, from a general stigmatization of Blacks as being "all bad" associated with the city's violence. Both perceptions suggest the youth are conscious of the dominant White population's power to construct knowledge about Black communities that would explain the FWC as intentional.

Genocide

The next series of quotes appeared in the last forum, which had the smallest number of participants (n = 4). Participants in this group had arrived late for a forum already underway. To maintain the integrity of our research protocol, the youth agreed to remain for approximately 45 minutes until the earlier forum adjourned. The conversation produced surprising insights attaching the water crisis to an intentional program of genocide. During one rather emotionally charged exchange about official state-

ments on the causes for the water contamination one youth declared: Speaker 66 [forum 4.2, male, Black, 16, grade 11]: I think that's all a lie. I think it's genocide. Facilitator: So you think this was intentionally done to harm the people of Flint? Speaker 66: Um hmm. Facilitator: Why do you think it was intentionally done to harm the people of Flint? Speaker 66: Out of everybody that got [water treatment] plants and stuff in their states, why it just happen to our community? A second youth concurred: Speaker 68 [forum 4.2, male, multi-racial, 15, grade 9]: I can agree with him because like when people was looking for the Mayor or whatever, he was nowhere to be found. The idea of genocide returned when participants discussed the future of the city and their long-term plans to remain in Flint: Speaker 66 [forum 4.2, male, Black, 16, grade 11]: No. That's where I think the genocide come in at, 'cause I think they really want us to get out of Flint. Speaker 65 [forum 4.2, female, Black, 13, grade 8]: They were paying people to leave Flint, but not enough. Facilitator: So you think they want the land? Speaker 66 [forum 4.2, male, Black, 16, grade 11]: Yes. Facilitator: And they did this intentionally to get you off the land? Speaker 66 [forum 4.2, male, Black, 16, grade 11]: … That's what they want us to do, since ain't nothing changing in the water.

Genocide and Internalized Oppression

We apply the principle of structural determinism to the next series of remarks characterizing the rise in Flint's violent crime to genocide. Communi-

ties with high concentrations of poverty and lack of employment opportunities often witness an increase in crime and violent behavior. PHCRP provides researchers with a critical lens to consider how structural inequities generate oppressive social conditions that lead to within-group conflict and violence. One discussion exemplifies this phenomenon. In responding to a question about community involvement and volunteerism, the conversation turned toward Flint's high murder rate: Speaker 68 [forum 4.2, male, multi-racial, 15, grade 9]: I believe like the water got something to do with the killings too. They're not doing nothing about all the murders that happen… Facilitator: So tell me, how do you think that the water is related to the killings? …Is it because people are angry over the water… how is the killing related, in your view? Speaker 68 [forum 4.2, male, multi-racial, 15, grade 9]: Well me, I guess it's just a Black thing.

The characterization of Black culture (ie, Black thing) being somehow linked to Black-on-Black violence is particularly troubling. In spite of several attempts, the individual was unable (or unwilling) to clarify how the water was related to Flint's murder rate. When pressed further to explain the relationship, this young 15 year old relied upon a cultural deficit argument promulgated by Whites seeking to minimize the impact of structural racism on Black people. This participant uses language denoting that Blackness is a racism-related risk marker for exposure to environmental hazards and within-group violence. Another participant returned to the topic of genocide and demonstrated an ability to connect the

"killings" to a broader perspective on violence within the Black community: Speaker 66 [forum 4.2 male, Black, 16, grade 11]: I think it's that like how he was saying that they don't care, like they don't be paying attention to the killings that be going around. That's why I think it's genocide. Like they don't care if our Black community do go down. They either want it from the water or just Black-on-Black killing each other.

Urban youth living in highly segregated communities may endure multiple forms of oppression from legacies of disinvestment, aggressive policing, and limited opportunities for social mobility. Through racialization, these stressors can become internalized as psycho-social traumas if individuals believe the negative messages and stereotypes are imposed by dominant group institutions.[13] In the above discussions, these youth believe their community is under a two-pronged assault — assault from within and assault from without. Many believed that failure to address both the city's violence that disproportionately affect Blacks, especially Black youth in Flint, and the slow bureaucratic response to the FWC were due to indifference toward the suffering experienced by the Black community. The cumulative influences of structural inequities, violence, psycho-social trauma, environmental injustice and perceived racism led some participants to conclude that the only logical explanation for the racial patterns is genocide targeting Blacks/African Americans.

Discussion

PHCRP's multilevel framework can be used to examine the racialized mental trauma of man-made disasters such as the FWC among African American youth.[14,15] The conceptual lens of CRT and our use of PHCRP as an interpretive framework aid in capturing racism as an environmental stressor for youth in our study. For some, the FWC constitutes an intentional act of genocide, though not all youth understood the FWC in this manner. However, seeking out the voices of young people provides additional insights about the FWC and anti-Black racism.[16] It is possible that the incorporation of race consciousness into the research design—though not assessed using explicit questions about racism—may be useful for studying communities with high levels of racial segregation. Flint youth and their families already suffer a disproportionate burden of environmental stressors and trauma from racism, lack of employment, poverty, environmental hazards, crime and violence.[17] The additional exposure to a potent neurotoxin such as environmental lead (Pb) may present long-term adverse health effects that increase existing inequities for youth and their families.

PHCRP and Praxis

The youth in our study reported multiple stressors that may impact outcomes related to adolescent behavioral health (eg, self-efficacy, power, and resiliency). Some psychological experiences make it more difficult for youth to cope with disasters such as the FWC. These youth used a variety of coping strategies to deal with catastrophic life events such as the FWC.[18] Absent an awareness of struc-

tural racism, the strategies may be misinterpreted as socio-pathological, anti-authoritarian or criminal. Given the disproportionate criminalization of Black and Latino youth, it is conceivable that in the future health problems potentially stemming from the FWC may lead to harsher disciplinary school policies and aggressive policing of Black and Latino youth in Flint. Some racially marginalized youth may become stigmatized as aggressive or anti-social as they cope with the FWC, funneling them into the criminal justice system as opposed to mental and behavioral health treatment programs. Future research should explore whether youth who experience anger, anxiety and distress attributable to perceived racism benefit from interventions that recognize and evaluate the effects of racism-related trauma. Policymakers should be aware of the psycho-social implications of exposure to lead contaminated water and the intersections of race and health for Flint youth in designing screening procedures and protocols for treating youth traumatized by the FWC.

Study Limitations

Our study had several limitations. We intended to recruit 25 youth per forum in each of four areas of Flint. Whereas focus groups typically should involve 8 to 12 participants, the number of participants in the forums varied considerably; three of them involved approximately 20 participants.[19] Therefore, we may have missed opportunities to probe deeper when issues of race and power were raised. Because we allowed youth to choose freely whether or not to ascribe a racial identity to individuals or

groups responsible for the FWC, we were left to make such interpretation ourselves. A potential limitation is the lack of inter-rater reliability as only a single coder coded all transcripts, though this concern may be lessened somewhat by the reliance on PHCRP constructs to guide this process. This is a qualitative study; therefore, it is not possible to conclude that the reported distress was caused by the perceived racial exposures. The findings provide preliminary data for future research to estimate these associations.

Conclusion

This study applied the core tenets of PHCRP, focusing specifically on race consciousness and the principles of PHCRP's Focus 1 (ie, contemporary patterns of racism) to contextualize the salience of racism in how youth make sense out of the FWC disaster. However, as youth engaged in their own praxis in formulating plans to resist and challenge bureaucracies they see as unjust, we witnessed transformations in their narratives from the innocence of adolescence to the consciousness of social activism. Youth who are more aware of oppression and injustice are primed for interventions that promote conscious forms of resistance.[20] Activists, policymakers, educators and researchers should consider creating opportunities to involve youth in activities where they can mobilize for social justice and the promotion of social change.

Conflict of Interest
No conflicts of interest to report.

Author Contributions
Research concept and design: Muhammad, Hill De Loney, Brooks, Assari, Robinson; Acquisition of data: Muhammad, Hill De Loney, Brooks, Assari, Robinson, Caldwell; Data analysis and interpretation: Muhammad, Assari; Manuscript draft: Muhammad, Hill De Loney, Brooks, Assari, Caldwell; Statistical expertise: Muhammad; Acquisition of funding: Caldwell; Administrative, technical or material support: Caldwell, Hill De Loney, Assari, Brooks, Robinson; Supervision: Muhammad, Brooks

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