Future Directions for Incorporating Intersectionality Into Quantitative Population Health Research

Madina Agénor, ScD, MPH

Intersectionality, an analytical approach rooted in Black feminist theory and praxis, has become more widely used in population health research. The majority of quantitative population health studies have used intersectionality as a theoretical framework to investigate how multiple social identities rather than social inequalities simultaneously influence health inequities.

Although a few researchers have developed methods to assess how multiple forms of interpersonal discrimination shape the health of multiply marginalized groups and others have called for the use of multilevel modeling to examine the role of intersecting dimensions of structural discrimination, critical qualitative, multidisciplinary, and community-based participatory research approaches are needed to more fully incorporate the core ideas of intersectionality—including social inequality, relationality, complexity, power, social context, and social justice—into quantitative population health research studies or programs.

By more comprehensively capturing and addressing the influence of intersecting structural factors, social and historical processes, and systems of power and oppression on the health of multiply marginalized individuals, quantitative population health researchers will more fully leverage intersectionality's transformational power and move one step closer to achieving social justice and health equity. (*Am J Public Health*. Published online ahead of print April 16, 2020: e1–e4. doi:10.2105/AJPH.2020.305610)

> "*Intersectionality is not simply a method for doing research but is also a tool for empowering people.*"
>
> —Collins and Bilge[1(p37)]

Since Lisa Bowleg aptly called for an intersectional approach to public health in 2012,[2] intersectionality has become a more widely used analytical framework in population health research. For example, a November 19, 2019, PubMed search of "intersectionality" yielded 747 articles relative to only 49 on November 10, 2011.[2] Although some scholars have argued that qualitative research is ideal for assessing how multiple dimensions of social inequality influence health outcomes across and within social groups,[2,3] quantitative studies can also contribute to our understanding of how intersecting social inequalities shape population health patterns.[4,5] However, the field of intersectional quantitative population health research has several limitations that must be addressed if it is to fully leverage intersectionality's transformational intent and power.[1,6,7]

After providing a brief overview of intersectionality's US history and core ideas, I discuss how quantitative population health studies can more fully incorporate intersectionality to help advance its ultimate goal of social justice.[1,6] Specifically, I examine how drawing on qualitative research as well as social science and humanities scholarship conducted using critical theoretical frameworks and methodologies can strengthen quantitative population health studies by ensuring that both the generation and interpretation of research findings are grounded in a deep and nuanced understanding of the intersecting structural factors, social and historical processes, and systems of power and oppression that shape multiply marginalized individuals' lives.[1,3,8,9]

In addition, I address how engaging communities throughout the research process, with equitable power relations among and between researchers and communities, can help quantitative population health researchers better incorporate intersectionality into their studies and, in turn, interpret, disseminate, and translate their research findings to help advance social justice and health equity.[1,7]

INTERSECTIONALITY: A BRIEF HISTORY

The term intersectionality was first coined in 1989 by Kimberlé Crenshaw in her groundbreaking critique of the reliance of anti-discrimination law, as well as feminist and antiracist discourse and politics, on a "single-axis framework" that centers either gender or racial discrimination—thus marginalizing Black women whose lives are simultaneously shaped by both sexism and racism.[10] However, as a concept, intersectionality has a much longer history in the United States, dating back to the work of Harriet Tubman, Sojourner Truth, Anna Julia Cooper, Frances E. W. Harper, Ida B. Wells, Mary Church Terrell, Josephine St. Pierre Ruffin, and many others who addressed Black women's social, economic, and political experiences in the context of slavery and Jim Crow and at the intersection of both sexism and racism in the 19th and early 20th centuries.[1,11]

Moreover, the social movements of the 1960s and 1970s played a critical role in the development of the core ideas of intersectionality in the United States. Indeed, Black women as well as Latina, Asian, and Native

ABOUT THE AUTHOR

The author is with the Department of Community Health, Tufts University, Medford, MA, and the Department of Obstetrics and Gynecology, Tufts University School of Medicine, Boston, MA.

Correspondence should be sent to Madina Agénor, ScD, MPH, Department of Community Health, Tufts University, 574 Boston Ave, Suite 211, Medford, MA 02155 (e-mail: madina.agenor@tufts.edu). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

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American women rejected race-only and gender-only frameworks and instead independently and collaboratively developed ideas, materials, and practices that centered their unique and shared lived experiences at the intersection of racism and sexism as well as economic oppression.[1,11] Of note, in 1977, the Combahee River Collective, a Black lesbian socialist feminist organization, published "A Black Feminist Statement," which was seminal in underscoring how racism, sexism, classism, and heterosexism simultaneously influenced Black women's lives.[11]

Intersectionality was institutionalized in the US academy as a concept, term, and field of study in the 1980s and 1990s by Black, Latina, and other women of color feminist scholars.[1] Since then, intersectionality has expanded into a multitude of academic disciplines, including women's, gender, and sexuality studies; media studies; history; sociology; psychology; political science; and public health.[5,7]

CORE IDEAS OF INTERSECTIONALITY

Although various definitions exist across different historical moments, academic disciplines, activist and organizing circles, and geographic locations,[12] Patricia Hill Collins and Sirma Bilge define intersectionality, which has its roots in Black feminist theory and praxis,[1,11] as "a way of understanding and analyzing the complexity in the world, in people, and in human experiences," which "are generally shaped by many factors in diverse and mutually influencing ways."[1(p2)] Across the different definitions of intersectionality, Collins and Bilge have identified six core ideas that are central to the analytic approach: social inequality, power, relationality, social context, complexity, and social justice.[5]

Specifically, social inequality refers to individuals occupying different positions in the social hierarchy and having unequal access to social and economic resources and opportunities as a result of inequitable social processes and systems, including capitalism, White supremacy, colonialism, patriarchy, and nationalism. Power refers to the diverse and mutually influencing power relations, such as sexism, racism, classism, and heterosexism, at the interpersonal and structural levels that shape individuals' social identities, social position, and lived experiences. Relationality pertains to the interplay between different types of social inequalities and systems of power that have typically been conceptualized and treated as separate.

Social context underscores the importance of place and time in shaping individuals' lived experiences, and complexity refers to the complex nature of both the world in which we live and the process of doing intersectional work. Finally, social justice, the ultimate goal of intersectionality, refers to advancing equity in the distribution of and access to social and economic opportunities and resources in society through critical practice.[1]

CURRENT APPROACHES

A review of the scientific literature (as of November 2019) suggests that most quantitative population health studies that described themselves as intersectional strived to capture three of intersectionality's six core ideas, namely social inequality, relationality, and complexity. Indeed, in recent years, several population health researchers have called for and developed methods that aim to quantify the complex interplay between multiple dimensions of social inequality and the resulting effects on population health and health inequities.[4,9,13] However, a notable limitation of the majority of studies conducted to date is their focus on the role of multiple social identities (e.g., gender, race/ethnicity, sexual orientation) rather than social inequalities (e.g., sexism, racism, heterosexism) in shaping the distribution of health outcomes between and within social groups.[4,9,14]

Moreover, whereas intersectionality emphasizes the influence of intersecting structural factors, social and historical processes, and systems of power and oppression on the lived experiences of multiply marginalized individuals,[1] the small (but growing) number of quantitative population health studies that have sought to assess the relationship between multiple forms of social inequality and health outcomes have done so by measuring interpersonal discrimination.[15,16]

Although several quantitative population health researchers have called for the use of multilevel modeling to examine how multiple forms of structural discrimination (e.g., racist, classist, sexist, heterosexist, xenophobic, and transphobic public policies, social norms, and governance practices) simultaneously influence health inequities,[9,14,17,18] a November 2019 review of the scientific literature failed to identify any quantitative population health studies that directly ascertained the role of multiple structural factors linked to interlocking systems of oppression and power—including capitalism, White supremacy, colonialism, patriarchy, and nationalism—in shaping population health patterns between and within social groups.

FUTURE DIRECTIONS

Even still, methodological approaches other than multilevel modeling are needed to fully capture intersectionality's core ideas of social inequality, relationality, and complexity—as well as power and social context—in quantitative population health studies. For example, quantitative population health researchers seeking to incorporate intersectionality's core ideas into their studies can rely on existing qualitative research conducted through critical theoretical frameworks (e.g., intersectionality, critical race theory, queer of color critique) and methodologies (e.g., critical ethnography, photovoice, critical archival studies) to frame research objectives, formulate research questions, develop data collection strategies and instruments, and interpret research findings in a manner that takes into account the complex ways in which intersecting structural factors, social and historical processes, and systems of power and oppression shape multiply marginalized individuals' lived exeperiences.[1,8]

Moreover, quantitative population health researchers interested in more fully adopting an intersectional approach can, on their own or in collaboration with qualitative researchers (depending on their training), use critical theoretical frameworks and methodologies[8] and a mixed-methods research

approach[19] to collect, analyze, and integrate new qualitative data (e.g., in-depth interviews, focus groups, participant observations, archival documents) pertaining to the influence of social inequalities on the lives of multiply marginalized people. For example, in a 2016 study, Ross and colleagues used both surveys and in-depth interviews as part of a sequential explanatory mixed-methods study to examine the role of interpersonal and structural discrimination related to bisexuality and poverty in shaping the mental health of bisexual individuals in Ontario, Canada.[20]

In addition, quantitative population health researchers interested in adopting an intersectional approach can more fully incorporate intersectionality's core ideas of social inequality, power, relationality, social context, and complexity into their studies by drawing on scholarship from the social sciences (e.g., sociology, anthropology) and humanities (e.g., history, racial/ethnic studies, and women's, gender, and sexuality studies) that incorporates intersectionality or other critical approaches. Indeed, critical scholarship from these disciplines provides rich and detailed information on the complex historical and contemporary processes through which social inequalities and power relations related to race, ethnicity, gender, sexuality, nativity, and social class, among others, interact with one another and simultaneously shape the contexts in which individuals, communities, and populations live, die, suffer, survive, and thrive.[1,3,9]

For example, Dorothy Roberts' *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty* offers a comprehensive sociological analysis of the social, economic, political, and historical processes that have shaped Black US women's reproductive health and rights throughout history. This text provides quantitative population health researchers investigating racial inequities in pregnancy and birth outcomes, contraception, and abortion among US women with the theoretical foundation necessary to frame research objectives, develop research questions, and interpret research findings pertaining to racial inequities in reproductive health in the context of gendered anti-Black racism as explicitly linked to colonialism, slavery, White supremacy, and patriarchy.[21]

Depending on their backgrounds and interests, quantitative population health investigators seeking to adopt an intersectional approach can engage with critical scholarship from the social sciences and humanities by reading relevant books and articles on their own, joining multidisciplinary reading or study groups (in person or online), or attending forums and events involving social science and humanities scholars using critical approaches.

Ultimately, the goal of intersectionality is social justice through not only critical inquiry but also critical practice. Thus, to tap into the full potential of using an intersectional approach, quantitative population health researchers aiming to incorporate intersectionality into their work must determine a priori how their research will contribute to the development of policies, programs, or practices that advance social justice and health equity among multiply marginalized social groups.

For example, at the study design phase, quantitative population health researchers using an intersectional approach should explicitly identify and actively engage with the communities, institutions, and programs that are implicated in their research and ascertain how they will collaborate with key stakeholders (e.g., community members, community-based organizations, policymakers, activists, advocates, practitioners) to disseminate and translate their research findings to transform inequitable social structures and systems of power.[1,7] Moreover, intersectionality's core ideas of social justice and power urge quantitative population health researchers who choose to use this approach to meaningfully and equitably engage multiply marginalized communities affected by the social inequalities under study as partners from the beginning of and throughout the entire research process.[1,7]

Of note, quantitative population health researchers seeking to incorporate intersectionality into their studies can draw on the principles of community-based participatory research (CBPR), which provides a collaborative approach to research that equitably involves community members and academic researchers in all phases of the process to inform action on a given population health issue and its social determinants.[22] Indeed, a CBPR approach is well aligned with intersectionality's core ideas of power and social justice and can help ensure that research questions reflect community realities and priorities, academic–community relationships are equitable, and research findings are interpreted in social and community contexts and disseminated and translated to achieve transformational social change.[22] For example, in a 2013 study, Longman Marcellin and colleagues used both intersectionality and a CBPR approach to quantitatively investigate the intersecting impact of racism and transphobia (albeit measured at the interpersonal level only) on HIV risk among transgender people of color in Ontario, Canada.[23]

Moreover, quantitative population health researchers adopting an intersectional approach should apply the core ideas of social justice and power to their own research processes, practices, and environments, including by ensuring diversity and inclusion on their research teams and fostering equitable power dynamics among research team members from different social and professional backgrounds and academic ranks.[22]

ADDRESSING POTENTIAL CHALLENGES

Throughout this commentary, I have argued that to truly adopt an intersectional approach —one that is fully aligned with intersectionality's transformational intent and power and its ultimate goal of social justice— quantitative population health studies should seek to incorporate intersectionality's six core ideas of social inequality, power, relationality, social context, complexity, and social justice, as outlined by Collins and Bilge.[1]

However, incorporating all of intersectionality's core ideas into a single study may not be possible for various reasons, including budgetary, time, data, and expertise constraints. In this case, scientists should explicitly state in their reports how intersectionality's individual core ideas were incorporated into a given study. Doing so would help foster reflexivity among quantitative population health researchers incorporating intersectionality as well as further promote transparency and analytic rigor in the

field of intersectional quantitative population health research more broadly. In addition, by clearly noting any limitations in how they applied intersectionality's core ideas in their study, authors can help other investigators identify how they can more fully incorporate intersectionality in future research and, in turn, contribute to creating a larger intersectional body of knowledge on a given population health issue.

Moreover, quantitative population health researchers who are not able to fully incorporate intersectionality into a single study can build a program of research involving multiple interrelated studies that, together, provide an intersectional analysis of a population health issue. For example, guided by intersectionality, my colleagues and I conducted focus groups with Black lesbian, bisexual, and queer women to elucidate the potential drivers of the lower odds of cervical cancer screening among Black lesbian women relative to Black heterosexual women,[24] which we observed but were not able to explain in logistic regression analyses we conducted using a large national survey.[25] The focus groups provided insights into the role of racism, classism, and heterosexism in shaping patient–provider communication among Black sexual minority women in the context of their lived and health care experiences. Together, these two studies helped us better understand sexual orientation disparities in cervical cancer screening among Black US women in the contexts of intersecting structural factors, social and historical processes, and systems of oppression and power.

Researchers who incorporate intersectionality in their larger program of research but not in an individual study can include an appendix or prepare and cite another paper outlining their research program's intersectional approach and processes in their article. Doing so would not only provide further context for their work but also contribute to transparency and analytic rigor in the field of intersectional quantitative population health research.

CONCLUSION

Fully incorporating intersectionality's core ideas of social inequality, power, relationality, social context, complexity, and social justice into a quantitative population health research study or program will require using critical qualitative research, multidisciplinary, and CBPR approaches. Indeed, by more comprehensively capturing as well as addressing the simultaneous influence of multiple dimensions of interpersonal and structural discrimination linked to intersecting systems of power and oppression on the lives of multiply marginalized people in social and historical context and in partnership with communities as part of individual studies or larger programs of research, quantitative population health researchers will more fully leverage intersectionality's transformational intent and power and move one step closer to achieving its goal of social justice and, in turn, health equity.[1,6,7] AJPH

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CONFLICTS OF INTEREST

The author reports no conflicts of interest.

REFERENCES

1. Collins PH, Bilge S. *Intersectionality*. Cambridge, England: Polity Press; 2016.

2. Bowleg L. The problem with the phrase women and minorities: intersectionality—an important theoretical framework for public health. *Am J Public Health*. 2012; 102(7):1267–1273.

3. Bowleg L. When black + lesbian + woman ≠ black lesbian woman: the methodological challenges of qualitative and quantitative intersectionality research. *Sex Roles*. 2008;59(5–6):312–325.

4. Bauer GR. Incorporating intersectionality theory into population health research methodology: challenges and the potential to advance health equity. *Soc Sci Med*. 2014;110:10–17.

5. Else-Quest NM, Hyde JS. Intersectionality in quantitative psychological research I: theoretical and epistemological issues. *Psychol Women Q*. 2016;40(2): 155–170.

6. May VM. *Pursuing Intersectionality, Unsettling Dominant Imaginaries*. New York, NY: Routledge; 2015.

7. Collins PH. Intersectionality's definitional dilemmas. *Annu Rev Sociol*. 2015; 41:1–20.

8. Bowleg L. Towards a critical health equity research stance: why epistemology and methodology matter more than qualitative methods. *Health Educ Behav*. 2017;44(5):677–684.

9. Bowleg L, Bauer GR. Invited reflection: quantifying intersectionality. *Psychol Women Q*. 2016;40(3):337–341.

10. Crenshaw K. Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. Univ Chic Leg Forum. 1989; 1989:139–167.

11. Combahee River Collective. A black feminist statement. In: Eisenstein Z, ed. *Capitalist Patriarchy and the Case for Socialist Feminism*. New York, NY: Monthly Review Press; 1978:210–218.

12. Carbado DW, Crenshaw KW, Mays VM, Tomlinson B. Intersectionality: mapping the movements of a theory. *Du Bois Rev*. 2013;10(2):303–312.

13. Else-Quest NM, Hyde JS. Intersectionality in quantitative psychological research II: methods and techniques. *Psychol Women Q*. 2016;40(3):319–336.

14. Green MA, Evans CR, Subramanian SV. Can intersectionality theory enrich population health research? *Soc Sci Med*. 2017;178:214–216.

15. Bauer GR, Scheim AI. Methods for analytic intercategorical intersectionality in quantitative research: discrimination as a mediator of health inequalities. *Soc Sci Med*. 2019;226:236–245.

16. Scheim AI, Bauer GR. The Intersectional Discrimination Index: development and validation of measures of self-reported enacted and anticipated discrimination for intercategorical analysis. *Soc Sci Med*. 2019;226:225–235.

17. Gkiouleka A, Huijts T, Beckfield J, Bambra C. Understanding the micro and macro politics of health: inequalities, intersectionality and institutions—a research agenda. *Soc Sci Med*. 2018;200: 92–98.

18. Evans CR. Reintegrating contexts into quantitative intersectional analyses of health inequalities. *Health Place*. 2019;60: 102214.

19. Grace D. *Intersectionality-Informed Mixed Methods Research: A Primer*. Burnaby, British Columbia, Canada: Institute for Intersectionality Research and Policy, Simon Fraser University; 2014.

20. Ross LE, O'Gorman L, MacLeod MA, Bauer GR, MacKay J, Robinson M. Bisexuality, poverty and mental health: a mixed methods analysis. *Soc Sci Med*. 2016; 156:64–72.

21. Roberts D. *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty*. New York, NY: Knopf Doubleday Publishing Group; 1998.

22. Israel BA, Eng E, Schulz AJ, Parker EA. Introduction to methods for CBPR for health. In: *Methods for Community-Based Participatory Research for Health*. 2nd ed. San Francisco, CA: John Wiley & Sons Inc.; 2013:4–37.

23. Longman Marcellin R, Bauer GR, Scheim AI. Intersecting impacts of transphobia and racism on HIV risk among trans persons of colour in Ontario, Canada. *Ethn Inequal Health Soc Care*. 2013;6: 97–107.

24. Agénor M, Bailey Z, Krieger N, Austin SB, Gottlieb BR. Exploring the cervical cancer screening experiences of black lesbian, bisexual, and queer women: the role of patient-provider communication. *Women Health*. 2015;55(6):717–736.

25. Agénor M, Krieger N, Austin SB, Haneuse S, Gottlieb BR. At the intersection of sexual orientation, race/ethnicity, and cervical cancer screening: assessing Pap test use disparities by sex of sexual partners among black, Latina, and white US women. *Soc Sci Med*. 2014;116: 110–118.