Intersectionality in Public Health Research: A View From the National Institutes of Health

Jennifer Alvidrez, PhD, Gregory L. Greenwood, PhD, MPH, Tamara Lewis Johnson, MPH, MBA, and Karen L. Parker, PhD, MSW

ABOUT THE AUTHORS

Jennifer Alvidrez is with the Division of Extramural Scientific Programs, National Institute on Minority Health and Health Disparities, National Institutes of Health, Bethesda, MD. Gregory L. Greenwood is with the Division of AIDS Research, National Institute of Mental Health, National Institutes of Health. Tamara Lewis Johnson is with the Office of Disparities Research and Workforce Diversity, National Institute of Mental Health, National Institutes of Health. Karen L. Parker is with the Sexual & Gender Minority Research Office, Office of the Director, National Institutes of Health.

The mission of the National Institutes of Health (NIH) is to seek fundamental knowledge about the nature and behavior of living systems and to apply that knowledge to enhance health and reduce illness and disability. As new tools such as big data analytics, computational biology, and high throughput processes have emerged, the NIH has integrated these tools to fuel scientific advances. One tool that has become more commonly used is the theoretical framework of intersectionality, defined as how multiple marginalized or disadvantaged social statuses interact at the micro level of individuals' lived experience to reflect interlocking systems of privilege and oppression at the macro social structural level (e.g., racism, classism, colonialism, sexism, heterosexism, ableism).[1,2] Intersectionality theory, long used in other disciplines, is a relative newcomer to health research. This theory can foster a greater understanding of human health by moving beyond the biomedical model and individual-level determinants to examine the health effects resulting from the intersection of structural power dynamics, such as systemic sexism and racism.

In our roles in extramural research administration at NIH, we have seen a growth in research addressing intersectionality, as well as a lack of consensus about best practices for studying this complex construct. In this editorial, we share our views on important areas for research development that we believe will help to advance the science of intersectionality. These views were shaped in part by the numerous grant applications we have seen submitted to the NIH, where we have a first-hand opportunity to view the latest innovations and cutting-edge science, as well as gaps and limitations.

Qualitative research has shown the salience of intersectionality for populations belonging to multiple disadvantaged groups, but the experience and health effects of intersectionality have not been captured as often or as well as in quantitative studies. As such, given the necessity of this empirical work to inform policy change and intervention development, we focus here primarily on quantitative research. We also argue that although viewing research and research findings from an intersectional lens is critical, this conceptual lens must be reflected in appropriate research questions, designs, and data analysis.

The three important areas for research development that we believe will help to advance the science of intersectionality are

1. Comparative studies to empirically assess the effect of intersectional status on health,
2. Research that includes potential explanatory variables to illuminate the relationship between intersectional status and health outcomes and to identify modifiable factors to inform interventions, and
3. Research that examines intersectionality with methods, measures, and analytic approaches that can accommodate rather than reduce complexity.

COMPARATIVE STUDIES OF INTERSECTIONALITY

Many grant applications have an explicit focus on intersectionality but lack variability in the specific intersectional statuses being studied. For example, if a study seeking to understand the physical health effects of being African American and homeless included only

participants with both of these two statuses, it would be difficult to know whether or why their health status was different from that of others experiencing homelessness (e.g., other racial/ethnic minorities) or African Americans with stable housing. Also important is the examination of within-group differences that reflect additional intersectionality (e.g., in the previous example, examination of health status of African American individuals experiencing homelessness according to gender identity, sexual orientation, or disability status).

Targeted population studies remain an important component of health and health disparities research. However, when done to the exclusion of studies that allow for identification of similarities and differences across and within populations, the true effect of intersectionality remains unknown. In addition, whether intersectional populations or subgroups require different intervention strategies from other populations will be unclear.

RESEARCH WITH EXPLANATORY VARIABLES

Kilbourne et al.[3] identified three phases of health disparities research: (1) identifying disparities, (2) understanding disparities, and (3) addressing disparities.[3] Many studies that have the capacity to examine intersectionality stop at the first phase, documenting that intersectional status is associated with worse health outcomes and then speculating about the reasons afterward, without directly measuring the mechanisms or pathways that may lead to those outcomes.[4]

Documentation of health patterns and disparities related to intersectionality is still needed, particularly for understudied populations. However, researchers conducting more explanatory or mechanistic studies must directly measure hypothesized determinants or pathways, including individual-, interpersonal-, community-, and societal-level factors.[2] Obvious candidates relevant to many health topics include interpersonal and structural discrimination—such as racism, sexism, classism, homophobia, and transphobia—community-level social capital and disadvantage, educational and occupational opportunity, social support or rejection, and identity management related to expression or concealment of identities that are concealable. It is also important to understand resilience in the face of intersectional stigma and discrimination. The inclusion of modifiable risk and protective factors in such models is important to inform interventions.[5]

RESEARCH METHODS THAT ACCOMMODATE COMPLEXITY

There is increasing recognition that human health and behavior are complex and multidetermined. However, many studies on intersectionality still use a reductionistic approach to isolate the influence or association of specific factors on health outcomes (e.g., controlling for socioeconomic status and education when examining intersections between race/ethnicity and gender).[5] This runs counter to the basic tenet of intersectionality characterized by interwoven and interacting systems of oppression, which are better captured through dynamic, interactive models than by reductionistic models. However, a lack of consensus currently exists about which analytic models are the most appropriate to accommodate this complexity.[6] At a minimum, multilevel modeling approaches are needed to capture interactions of macro levels of oppression and disadvantage as well as individual-level experiences (e.g., psychosocial responses to discrimination).[6]

The interactive nature of intersectionality also may not be captured in current measurement or analysis, because intersectionality may be operationalized as merely a greater accumulation of disadvantage. Many grant applications make a compelling case for the need to study intersectionality in a nuanced way but then propose study designs and analyses that revert back to simple additive hypotheses (i.e., intersectional populations will have poorer health because they experience more discrimination). More work is needed to understand how different marginalized statuses interact. For example, among existing methods to assess for intersectional stigma,[7] contextual information is generally lacking, such as the situation or setting where stigmatization occurs and by whom (or by what structures or systems). As a result, important questions remain unanswered. For example, is it more damaging to an individual's health to experience rejection from those who share a marginalized status (e.g., a person of color experiencing homophobia in one's family or community)? Research is needed to better understand how individuals and populations experience and navigate intersecting identities in different contexts, how they seek or create social support networks, and how they cope with intersectional stigma and discrimination. Mixed-methods studies may be particularly useful to answer these types of questions.

CONCLUSIONS

Many questions about intersectionality remain unanswered, not just about its effect on health but also about how best

to conduct health research in this area. We believe that it would be premature for us as NIH representatives to prescribe specific approaches, because we believe that different methods need to be discussed, debated, and tested by researchers. Thus, it is imperative that health researchers embrace an intersectional lens and strive to identify appropriate ways to capture this phenomenon in quantitative research, to better quantify social inequalities that lead to health disparities, and to identify strategies to eliminate them. AJPH

CORRESPONDENCE

Correspondence should be sent to Jennifer Alvidrez, PhD, Division of Extramural Scientific Programs, National Institute on Minority Health and Health Disparities, National Institutes of Health, 6707 Democracy Blvd, Suite 800, Bethesda, MD 20892 (e-mail: jennifer.alvidrez@nih.gov). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

PUBLICATION INFORMATION

CONTRIBUTORS

All authors contributed equally to this editorial.

ACKNOWLEDGMENTS

CONFLICTS OF INTEREST

The authors have no conflicts of interest to disclose.

REFERENCES

1. Crenshaw K. Mapping the margins: intersectionality, identity politics, and violence against women of color. *Stanford Law Rev*. 1991;43(6):1241–1299. https://doi.org/10.2307/1229039

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. https://doi.org/10.2105/AJPH.2012.300750

3. Kilbourne AM, Switzer G, Hyman K, Crowley-Matoka M, Fine MJ. Advancing health disparities research within the health care system: a conceptual framework. *Am J Public Health*. 2006;96(12):2113–2121. https://doi.org/10.2105/AJPH.2005.077628

4. Agénor M. Future directions for incorporating intersectionality into quantitative population health research. *Am J Public Health*. 2020;110(6):803–806. https://doi.org/10.2105/AJPH.2020.305610

5. Mena E, Bolte G, ADVANCE GENDER Study Group. Intersectionality-based quantitative health research and sex/gender sensitivity: a scoping review. *Int J Equity Health*. 2019;18(1):199. https://doi.org/10.1186/s12939-019-1098-8

6. Turan JM, Elafros MA, Logie CH, et al. Challenges and opportunities in examining and addressing intersectional stigma and health. *BMC Med*. 2019;17(1):7. https://doi.org/10.1186/s12916-018-1246-9

7. 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. https://doi.org/10.1016/j.socscimed.2018.12.016