EDITORIALS AND COMMENTARIES

Methodological Challenges in Conducting Health Disparities Research

Dionne J. Jones and Aria Davis Crump

One of the fundamental methodological challenges in research is to construct a design that provides a scientifically valid fit between the problem to be investigated and the procedures selected for data collection and analysis. This challenge is particularly daunting in the study of health disparities because of the layers of complexity superimposed upon the basic scientific question by the introduction of concepts and variables that are socially constructed, imprecisely defined, and at times politically charged. A strong research design can provide an “architectural plan” or “blueprint” for research on the most difficult conceptual challenges. In this blueprint, variables must be operationally defined and carefully measured to answer the research questions objectively and accurately.

The National Institutes of Health (NIH), recognizing that huge disparities exist among population groups across a variety of health conditions, has prioritized health disparities research as an area for funding support. An NIH-wide committee on health disparities was formed in 2001 to develop a strategic plan for setting standards with the objective of eliminating health disparities in the United States. In addition, each of the twenty-seven Institutes and Centers was charged with developing its own health disparities plan. The NIH defines a health disparity population as “a population where there is a significant disparity in the overall rate of disease incidence, prevalence, morbidity, mortality or survival rates in the population as compared to the health status of the general population” (p. 7).¹

The National Institute on Drug Abuse has made significant progress in its efforts to promote research to reduce health disparities. Among these efforts was a scientific meeting on health disparities, entitled “Advancing Research to Reduce Drug Abuse and HIV/AIDS Health Disparities: Methodological Considerations” held on June 21–22, 2004 in Bethesda, Maryland. The focus of this scientific meeting was on (1) the identification of methodological innovations and strategies that have strengthened the science of drug abuse epidemiology, services, and prevention research and drug-related HIV/AIDS research and (2) the inclusion of health disparities scholars in discussions about building standards and highlighting critical directions for future research and methodological innovation on these topics.

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The articles included in this special issue of the *Journal of Urban Health* were developed from presentations made at that meeting. The articles cover a variety of areas related to research methodology. The researchers offer suggestions for conducting health disparities research and discuss challenges encountered in implementing the studies and strategies used to resolve them. Taken together, the articles address the importance of specifying a conceptual framework rooted in an understanding of the specific populations under study, developing and using appropriate measures, and knowing how to engage the population constructively in research to both further understand and intervene to reduce disparities.

The first two articles are grouped under the heading “Fundamental Considerations in the Study of Drug Abuse and HIV/AIDS Health Disparities”. In the first of these articles, Galea and Rudenstine observe that racial and ethnic disparities in health and health care are rooted in historic socioeconomic disparities that persist in the United States today. As such, they note that health disparities may be a manifestation of underlying social inequalities and represent threats to overall population health. They propose three key challenges to the study of disparities in drug use and its consequences. These are (1) patterns of drug use and misuse are complex, with different patterns of use of different drugs in different groups; (2) simple conceptions of “race/ethnicity” may fall particularly short in considering disparities in drug use patterns; and (3) the consequences of drug use are associated with drug use itself and other social/economic circumstances. In discussing these challenges, the authors suggest directions for future research.

In the second article in this grouping, Deren and colleagues identify four challenges and some associated needs in conducting research among migrant and immigrant Hispanic populations. They are (1) the need to use multilevel theoretical frameworks; (2) the need to differentiate between Hispanic sub-groups; (3) challenges to recruitment and data collection; and (4) ethical issues. The authors describe how they addressed these challenges in two studies of Hispanic immigrants and migrants in the New York area. One study focused on new immigrants from Mexico, the Dominican Republic, El Salvador, Honduras, and Guatemala and the second study on Puerto Rican drug users. Both projects incorporated qualitative and quantitative methods to study these hard-to-reach populations.

The next two articles are grouped under the heading, “Conceptual Foundations of Health Disparities Research.” In “Disentangling Race and Socioeconomic Status: A Key to Understanding Health Inequalities,” LaVeist contends that racial health disparities research is often convoluted because conceptions of race and socioeconomic status (SES) are not easily defined and separated. He highlights problems that occur when race and SES are confounded and examines the degree to which race disparities are a function of SES. Acknowledging that race and SES are correlated, LaVeist stresses that the variables are independent predictors of health status. He cautions that in designing methodologies, researchers need to be clear on their perceptions and conceptions of racial/ethnic groups so that they develop most appropriate methods for data collection, analysis, and interpretation.

In the next article on conceptual foundations, Page observes that traditionally researchers have misused the concept of culture. He proposes going beyond simplistic or historical definitions of culture that categorize and identify one’s cultural identity. Instead, emphasis should be placed on cultural processes. He recommends that in addressing culture as an issue in health disparities, researchers should focus on separating structural factors such as poverty and lack of education and cultural

factors such as beliefs about health. He supports combining qualitative and quantitative methods to facilitate understanding of cultural nuances.

The third section is “Effective Community Collaborations.” Fisher and Ball describe a tribal participatory research approach, which was developed to facilitate culturally centered prevention research in American Indian and Alaska Native communities. They discuss this approach within the broader context of community-based participatory research, an increasingly prevalent paradigm in the prevention field. They note that to produce meaningful and lasting results at the level of the community, prevention research frequently requires reevaluating the boundaries that have traditionally separated investigators from the subjects of their investigations. Thus, new tools and techniques are required to facilitate such collaborations between researchers and communities while still maintaining scientific rigor. The authors also highlight the strengths and limitations of tribal participatory research they have experienced over the past decade.

In the second article on “Effective Community Collaborations,” Stiffman shares her experiences in conducting field research with American Indian youth. Noting the competing pressures between research objectives and cultural sensitivity, Stiffman stresses the importance of building cross-cultural bridges and engaging the stakeholder communities in the research process. She acknowledges that making compromises to conform to the community’s wishes could potentially create risks to the research project. Stiffman concludes that the conflicts she encountered between ideal research requirements and cultural demands in the American Indian community were not necessarily different from issues faced by researchers in other communities.

Four articles are subsumed in the final section, “Advances in Measurement and Design in Health Disparities Research.” Fendrich and Johnson examined race differences in the concordance between self-reported marijuana and cocaine use and the results of urine and oral fluid drug testing. They also examined variation in self-report sensitivity, using the drug tests as criteria. Four theoretical explanations for cross-cultural differences in reporting validity are discussed. The utility of these theories is examined by incorporating mediating variables in regression models predicting concordance. With the possible exception of SES, none of the potential mediators had any impact on race effects. African Americans consistently had lower levels of concordance than other respondents. Methodological implications for health disparities research are discussed.

Next, in addressing the need for the adaptation of efficacious interventions for diverse and marginalized population groups, Dévieux and colleagues describe their experiences in adapting HIV primary and secondary prevention interventions for multicultural populations. The authors identify strategies they used to ensure fidelity in implementing the efficacious core components of evidence-based interventions in reducing HIV transmission and drug use behaviors. They also share some of the challenges created when cultural adaptations are made for participants with low literacy. In addition, they demonstrate the need to mediate cultural differences during the formative as well as the implementation stage of an intervention project.

In a similar vein, Pantin et al. describe strategies they used in their research to overcome challenges in designing and evaluating drug abuse and HIV prevention interventions for subgroups of Hispanic adolescents. They present a rationale for subgrouping Hispanic adolescents based on risk and protective factors profiles, rather than demographic indices. The authors note that this subgrouping method is based on intrapersonal as well as ecodevelopmental domains of risk and protection.

They elucidate methods for designing, adapting, and evaluating “flexible” interventions for use with Hispanic adolescent subgroups.

In the final article, noting that older adult minorities are an understudied group, Whitfield advocates for increased social and behavioral research with this population. This is particularly important in light of current projections of significant increases in older minority adults. With the current limited knowledge about health behaviors such as smoking, drinking, and drug use among these groups, this represents a major area for future research to advance science on the effects of substance abuse and HIV/AIDS among older minorities. Whitfield discusses issues related to recruitment, conceptualization, and methodology of future research.

NIDA-funded research includes a strong portfolio of studies addressing the problems of racial and ethnic minorities, rural dwellers, and medically underserved people in the United States. Still, the growing numbers of ethnic minorities as well as the growing international nature of our society present an imperative for scientists to address drug abuse and HIV in these populations, particularly given the devastating impact of these conditions on individuals, families, and communities. To accomplish this, the field must engage in a dialog on methodology, because the introduction of concepts, procedures, and measures developed in one context cannot be assumed to be equivalent in a different context. This set of articles by scientists who have experienced the realities of research in a variety of situations offer a stimulating next step in these discussions. The issues raised, the challenges encountered, and the various strategies used in the articles included in this supplement of the Journal should serve as a guide to others planning to engage in research on drug abuse and HIV/AIDS health disparities.

ACKNOWLEDGEMENT

We would like to thank Marsha Lillie-Blanton, Dr. PH, of the Henry J. Kaiser Family Foundation who served as facilitator of the meeting. We also acknowledge the support of the leadership of the Division of Epidemiology, Services and Prevention Research, National Institute on Drug Abuse: Wilson Compton, MD, Jack Stein, PhD, Beverly A. Pringle, PhD, Elizabeth B. Robertson, PhD, and Yonette Thomas, PhD.

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