Overview of Qualitative Methods in Research With Diverse Populations

Making Research Reflect the Population

Anna M. Nápoles-Springer, PhD,† and Anita L. Stewart, PhD*‡*

Key Words: qualitative research, race, ethnicity, health disparities

(*Med Care* 2006;44: S5–S9)

Shifting population dynamics in the United States challenge investigators to modify existing research paradigms to reflect the needs of an increasingly diverse society. Mainstream approaches for conducting research in the United States have largely ignored the perspectives of ethnic minority groups, with researchers effectively excluding large segments of the population from participating in clinical and behavioral research. With the 1993 National Institutes of Health Revitalization Act mandating the inclusion of minorities and women in research, scientists have had little time to develop systematically tested methods for conducting research with diverse cultural groups. The result is that much of the literature on health care, health promotion, and health outcomes may not apply to these segments of the population, leaving us with limited evidence as to how to improve the health of these groups.

These research limitations have important ramifications for our ability to address the pressing need to eliminate disparities in health and health care.[1,2] Health policy initiatives aimed at eliminating health disparities have recommended an increased understanding of the mechanisms and processes that drive these disparities in order to design appropriate interventions. Accordingly, it is increasingly advocated that researchers obtain and incorporate input from communities on potential causes of disparities and on possible interventions.[3] In practice, this requires moving research out of the academic setting and into the community, and collaborating with community representatives in all phases of a research project.[3,4–7] However, how do we operationalize the integration of communities in research?

Conducting research that occurs in and for communities is incongruous in many ways with established research methods.[8,9] For example, implementing interventions in community settings presents numerous challenges related to informed consent processes,[10] ethical issues,[11] and outcomes and evaluation measures.[9,12] Various facets of an intervention demonstrated to be effective under controlled conditions may need to be modified based on resource constraints and preferences of community organizations and members.[8,13] Randomized clinical trials, the gold standard of research methods because they provide the strongest evidence of efficacy, are difficult to conduct in community settings. Additionally, principles of randomization are not always well accepted by minority community groups and tend to be viewed as unethical, exploitative, and inequitable.[14] Optimal approaches would blend scientific integrity and quality with sensitivity to community-level factors and the contextual reality of those living with poorer health.

Kagawa-Singer refers to traditional research approaches as "eurocentric" and monocultural.[15] Such research tends to assume a homogenous target population and the role of culture is seldom addressed. In addition, minority health researchers are seldom included on research teams, and community residents are rarely hired as research staff. To maximize the likelihood that the methods are appropriate, effective, and sensitive to cultural differences, we must deliberately augment the research process. Kagawa-Singer articulates an "expanded paradigm" in which the research process is restructured to increase its cultural sensitivity.[15] The expanded paradigm includes 7 steps: articulation of the research question, theory development, design and methods, measurement and translation, implementation, interpretation, and dissemination. At each stage, additional considerations are described when working with ethnic minority communities.

Our experiences conducting research in ethnic populations and training clinical researchers to work with ethnically diverse groups have led us to a set of similar principles. For us, qualitative methods have served a critical function in adapting research methods for use in multicultural contexts. To introduce

---

From the *Center for Aging in Diverse Communities and Medical Effectiveness Research Center, the †Division of General Internal Medicine, Department of Medicine, and the ‡Institute for Health & Aging, University of California San Francisco, San Francisco, California.

Supported by grant no. P30-AG15272 under the Resource Centers for Minority Aging Research program of the National Institute on Aging, the National Institute of Nursing Research, and the National Center on Minority Health and Health Disparities, National Institutes of Health, and grant no. P01 HS10856 under the Excellence Centers to Eliminate Ethnic/Racial Disparities (EXCEED) program of the Agency for Healthcare Research and Quality.

Reprints: Anna M. Nápoles-Springer, PhD, University of California San Francisco, 3333 California Street, Suite 335, San Francisco, CA 94118-1944. E-mail: anna.napoles-springer@ucsf.edu.

ISSN: 0025-7079/06/4400-0005

TABLE 1. Framework of Augmented Research Methods for Use in Health Disparities Research Illustrating the Contribution of Qualitative Methods

Research Step in Mainstream Research	Additional Specialized Issues in Health Disparities Research	Contribution of Qualitative Methods
1. Articulation of the research question(s), intervention(s), and study design: Statement of problem is typically derived from prior research	Identify the most salient community concerns and needs regarding health to drive the research questions Design interventions to be responsive to community issues, inclusive of community perspectives, and tailored to be appropriate to cultural beliefs and values Focus interventions and research on preventable factors that can lead to change	Methods for obtaining community input and increasing cultural awareness of researchers include focus groups, expert panels, town hall meetings, community advisory boards, and needs assessments; ethnographic approaches can be used in the planning process[6]
2. Development of the theoretical or conceptual framework: Conceptual frameworks form the foundation for the research questions and are typically driven by theoretical models and pertinent literature; there are numerous conceptual frameworks of determinants of health; scientists attempt to uncover new directions through scientific studies	Most mainstream theoretical frameworks of determinants of health will need to be expanded and tailored to identify potential mechanisms by which health disparities occur Many theories of motivation and behavior are "eurocentric"; thus, we need broader theories[15] We may need new concepts that can explain disparities in health or variations in health within race/ethnic groups	Methods for developing appropriate conceptual frameworks are similar to those for developing research questions in step 1; in addition, methods include the active participation of cultural experts, ethnographic studies, and individual or group in-depth interviews[23] The process of deconstructing race/ethnicity is a process of developing appropriate, relevant conceptual frameworks[24] Can query subjects as to their perceptions of the causes and consequences of various phenomena[16] New concepts may be put forth such as racial socialization[24]
3. Definition of the concepts: Concepts in health and healthcare research tend to be well developed in mainstream populations	Many concepts will not be adequately or appropriately defined for some ethnic groups; some concepts may be missing and need development The dimensionality or structure of some concepts may need to be explored and respecified To compare scores across racial or ethnic groups requires that the concepts have the same meaning and interpretation across all groups	Focus groups and in-depth interviews can be used to explore concepts from the perspective of minority and lower socioeconomic status individuals; random probe techniques can help reformulate concept dimensionality "Interpretive equivalence" includes conceptual, concept, and semantic equivalence, for example[23]
4. Measurement and translation: a) Identify, critique, and choose measures: well-tested measures that meet basic psychometric criteria are available "off the shelf" for many concepts that meet basic psychometric criteria; b) Develop new measures; c) Pretest measures: for well-tested, off-the-shelf measures, preliminary cognitive interviewing and a small pretest of procedures will usually be adequate	One needs to know that the measures selected meet basic psychometric criteria in the diverse groups of interest; for measures that are to be compared across diverse racial/ethnic groups, one needs to know that measures are conceptually and psychometrically equivalent across the diverse groups; however, few measures have been tested thoroughly in diverse groups For well-developed, off-the-shelf measures that have been used to some extent in nonwhite populations, cognitive interviewing of approximately 10–15 people per racial/ethnic or language subgroup may be sufficient; for measures that are being developed or newer measures, cognitive interviewing of more persons is warranted If the research involves languages other than English, one needs to know whether the measures have been translated, and if so, whether rigorous methods were used; for measures that have not been translated, rigorous methods are needed before administering surveys If the research involves persons with lower levels of education or low literacy, one needs to know that the reading level of the measures and data collection procedures is appropriate The process of assuring measurement equivalence is ongoing[16]	State-of-the-art forward and backward translation methods, although recommended, may be insufficient[23] To assure good questions that will be understood by the target population, focus groups and other methods can help obtain consensus across the spectrum of diversity[23] Assess the readability of potential measures before selection Pretest measures among community members with characteristics similar to the final sample[25] Interaction analysis can be used to expand the application of cognitive interviewing methods in testing of items[25]

(*Continued*)

TABLE 1. (*Continued*)

Research Step in Mainstream Research	Additional Specialized Issues in Health Disparities Research	Contribution of Qualitative Methods
5. Recruitment: Identification of sampling frame, development of recruitment methods, creation of informed consent protocols and forms	Recruitment needs to represent adequately the populations (eg, minority, lower socioeconomic status persons) affected disproportionately by a condition or illness Time is needed to build trust and establish community ties if research involves recruiting from local communities Appropriate recruitment methods need to be determined for each diverse group; methods to overcome the barriers to research participation must be developed Need to assure culturally sensitive methods of initial contact; personal contact and word of mouth are more effective than letters or flyers; use of ethnically and language-matched recruitment staff is optimal; may need to obtain approval of family members before accessing respondent Use multiple recruitment methods, monitor progress regularly, and adjust accordingly When ethnicity information is not available or is unreliable, need to take into account additional time and cost to identify minorities in survey research Exclusion criteria need to be examined in terms of their impact on recruitment of ethnically diverse groups Informed consent raises special issues when including minority and/or vulnerable groups, including potential insensitivity of standard informed consent (legalistic, imposing) and readability and comprehensibility of standard forms and protocols; address issues of distrust with clear and complete explanations of the benefits and risks of participation and exactly what participation entails; pretesting consent forms is recommended	Community members can provide information on methods most likely to reach their community, on suggestions for maximizing benefits to community, and can be used to help with recruitment (community workers); researchers can obtain input through focus groups and community advisory groups; cognitive pretest interviews of recruitment materials and messages can help in designing optimal methods Community members can provide their perspective on forms, protocols, and procedures; suggest alternative ways that will keep the door open for potential participants; can involve focus groups and cognitive interviewing of consent documents
6. Data collection: Primary data collection of self-reports usually occurs through mailed questionnaires, telephone interviews, etc.	Standard methods may be inappropriate for persons with limited English proficiency and limited literacy; in-person or telephone interviews may be preferred to accommodate issues of literacy and clarity of instructions Staff should be knowledgeable about the cultures of those being recruited and the need to use culturally sensitive methods of data collection; matching of interviewers and respondents on ethnicity, culture, and language to the extent possible is recommended Provide clear instructions; some ethnic or immigrant groups may not be familiar with standard research methods	Can imbed open-ended questions and random probes within a structured survey to obtain qualitative information about survey responses and study topics Can obtain perspectives of diverse groups even in the structured interview phase through random probes
7. Examine quality of measurement of self-report measures: Conduct basic psychometric analyses (missing data, variability, reliability) for standard measures; use confirmatory factor analysis to see if same factor structure is obtained as in original measurement	Conduct basic psychometric tests *within each group* to assure that minimal criteria are observed in each group Confirmatory factor analysis can determine if the same factor structure is obtained as in the original measurement If sample size permits, can test measures for factorial invariance across all ethnic and/or language groups to be compared in a health disparity study; requires advanced psychometric techniques such as confirmatory factor analysis compared across groups, and large sample sizes within each group Conceptual adequacy and equivalence can continue to be assessed through the use of qualitative methods integrated into structured surveys	Can solicit input from community experts through focus groups or in-depth interviews as to why specific items performed poorly in certain groups; culturally sensitive research guides appropriate analytic steps

(*Continued*)

TABLE 1. (*Continued*)

Research Step in Mainstream Research	Additional Specialized Issues in Health Disparities Research	Contribution of Qualitative Methods
8. Analysis and interpretation: Standard statistical analyses; research team interprets and writes up results for publication	Need to consider the implications for how to get results translated into practice Specifically identify next steps for reducing health disparities Analytic issues may differ when attempting to predict disparities; one may need to test interactions of race/ethnicity by certain variables to determine if correlates of poor health vary by race/ethnicity; this can involve stratifying analyses by ethnicity and social class One may need to examine mediators and moderators to test mechanisms of health disparities; analyses should model and test hypothesized causal pathways, whenever possible Discussion of results should address how results benefit community of interest and the next steps to improve health of community members	Interpretation should be discussed with the community of interest; communities may share alternative perspectives and interpretations of data based on membership in diverse groups
9. Dissemination of results: Typical dissemination is publication in peer-reviewed professional journals and presentations at professional meetings	One needs to reach a diverse audience to assure that all communities represented in the research understand the results and their implications To sustain trust, disseminate results in communities where participants live, in many forms to assure that they are received; can include community forums and presentations, media, and written materials Take the extra time to identify next steps in research, interventions, and policy changes that might be undertaken as a result of the findings Involve stakeholders in the process for effective change Consider publishing crosscultural modifications as part of methods	Work with communities to disseminate results as broadly as possible through town hall meetings and public forums Work with communities to identify how results can be translated into policy or programmatic changes

the qualitative section of this special issue, we elaborate on Kagawa-Singer's expanded paradigm by summarizing the traditional steps in the research process and for each step, indicating additional issues involved in adapting traditional methods to a cultural context. The purpose of these adaptations is to maximize the relevance and enhance the validity of research (Table 1). We also describe in the table the application of qualitative methods at each step to address the special issues involved in health disparities research.

In essence, qualitative methods provide the access points for communities to be welcomed, to enter, and to actively engage in the research undertaking. They are the vehicle through which we listen to the perspectives and address the concerns of our diverse society. These access points must be integrated throughout the research process for research to reflect reality. Communities can participate not simply at the point of measurement or concept development, but also in the framing of appropriate questions, approaches, findings, and implications.

As socially conscious researchers, we are challenged to develop creative strategies that enhance the cultural relevance of our research. The assumption is that this increases the validity of our findings, an assumption that must be empirically supported, as indicated by Krause[16] in his commentary to this section. Using qualitative approaches, what McHorney[17] refers to as "qualitative discovery methods" can help improve conceptual frameworks of health. We propose that using such approaches may also be the key to critical discoveries about mechanisms leading to health disparities. These discoveries may suggest interventions that may not have been identified without the critical "listening to the community" that occurs when we creatively use qualitative methods. Time will tell.

These qualitative methods articles comprise the perspectives of leading researchers in the field of health disparities and minority health research. The methods described here address many of the access points at which qualitative methods can enhance our research. What is special about this set of articles is that they reflect the breadth of approaches to examine conceptual, measurement, and methodological challenges and reflect the firsthand experiences of researchers conducting research in diverse populations. A notable theme in these articles is the flexibility and adaptability of different qualitative approaches for conducting crosscultural research. As Krause[16] points out, the use of multiple qualitative methods allows us to synthesize or "triangulate" our research findings, building much-needed empiric support for identifying future research efforts to eliminate disparities. We hope that after reviewing the work of these outstanding researchers, readers are left with creative ideas for applying an array of qualitative methods in their own work. Researchers can embrace these methods as opportunities to gain insights into the factors potentially contributing to health disparities by including communities in identifying and addressing them. These approaches just might help us redefine the problems, identify new measures, and lead to novel findings that allow us to make progress toward the *Healthy People 2010* goals of eliminating health disparities in the United States. It is a long, labor-intensive road, but from our perspective, the potential gains far outweigh the costs associated with expanding our research approaches. Ultimately, our solutions to health disparities are only as creative and effective as our research methods.

Health policy initiatives aimed at eliminating health disparities in the United States have resulted in an increased focus on community-based approaches and interventions.[18–20] Although evidence of the existence of health disparities has been accumulating recently, we have far to go in understanding the mechanisms and processes that drive these differences. Part of the reason for our slow progress may be that research methods have largely focused on individual-level and nonspecific determinants of health disparities. Using explanatory variables such as ethnicity, years of education, and gender tell us little about how to improve health outcomes. There remains a strong imperative to deconstruct these broad constructs to identify underlying factors and processes that are amenable to change, issues that are of particular relevance for studies of health disparities.[12,18,21,22] The elimination of health disparities is an ambitious endeavor and researchers motivated to work in this area must engage communities to arrive at solutions.

REFERENCES

1. Smedley BD, Stith AY, Nelson AR, eds. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcar*e. Washington, DC: National Academy Press; 2003.
2. US Department of Health and Human Services. *Healthy People 2010*, 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. US Government Printing Office; November 2000.
3. Cooper LA, Hill MN, Powe NR. Designing and evaluating interventions to eliminate racial and ethnic disparities in health care. *J Gen Intern Med*. 2002;17:477–486.
4. Fitzgibbon ML, Prewitt TE, Blackman LR, et al. Quantitative assessment of recruitment efforts for prevention trials in two diverse black populations. *Prev Med*. 1998;27:838–845.
5. Gritz ER, Berman BA, Bennett G Task Group II report: recruitment through schools and churches. In: Becker DM, Hill DR, Jackson JS, et al, eds. *Health Behavior Research in Minority Populations: Access, Design, and Implementation*. Bethesda, MD: National Institutes of Health; 1992:79–89.
6. Johnson KM, Arfken CL. Individual recruitment strategies in minority-focused research. In: Becker DM, Hill DR, Jackson JS, et al, eds. *Health Behavior Research in Minority Populations: Access, Design and Implementation*. Bethesda, MD: National Institutes of Health; 1992:24–29.
7. Rand C, Mebane-Sims I, Doak L Task Group I report: individual recruitment. In: Becker DM, Hill DR, Jackson JS, et al, eds. *Health Behavior Research in Minority Populations: Access, Design, and Implementation*. Bethesda, MD: National Institutes of Health; 1992:75–78.
8. Green LW, Mercer SL. Can public health researchers and agencies reconcile the push from funding bodies and the pull from communities? *Am J Public Health*. 2001;91:1926–1928.
9. Israel BA, Lichtenstein R, Lantz P, et al. The Detroit Community-Academic Urban Research Center: development, implementation, and evaluation. *J Public Health Manag Pract*. 2001;7:1–19.
10. Strauss RP, Sengupta S, Crouse-Quinn S, et al. The role of community advisory boards: involving communities in the informed consent process. *Am J Public Health*. 2001;91:1938–1943.
11. Macaulay AC, Delormier T, McComber AM, et al. Participatory research with native community of Kahnawake creates innovative code of research ethics. *Can J Public Health*. 1998;89:105–108.
12. Morgan LM. Community participation in health: perpetual allure, persistent challenge. *Health Policy Plan*. 2001;16:221–230.
13. Wallerstein N. A participatory evaluation model for healthier communities: developing indicators for New Mexico. *Public Health Rep*. 2000;115:199–204.
14. Quigley D, Handy D, Goble R, et al. Participatory research strategies in nuclear risk management for native communities. *J Health Commun*. 2000;5:305–331.
15. Kagawa-Singer M. Improving the validity and generalizability of studies with underserved US populations expanding the research paradigm. *Ann Epidemiol*. 2000;10(suppl):S92–S103.
16. Krause N. The use of qualitative methods to improve quantitative measures of health-related constructs. *Med Care*. 2006;44(Suppl 3): S34–S38.
17. McHorney CA. Ten recommendations for advancing patient-centered outcomes measurement for older persons. *Ann Intern Med*. 2003;139: 403–409.
18. Green LW. From research to best practices in other settings and populations. *Am J Public Health*. 2001;25:165–178.
19. Lantz RD, Viruell-Fuentes E, Israel BA, et al. Can communities and academia work together on public health research? Evaluation results from a community-based participatory research partnership in Detroit. *J Urban Health*. 2001;78:495–507.
20. Olden K, Guthrie J, Newton S. A bold new direction for environmental health research. *Am J Public Health*. 2001;91:1964–1967.
21. Flaskerud JH, Winslow BJ. Conceptualizing vulnerable populations health-related research. *Nurs Res*. 1998;47:69–78.
22. Israel BA, Checkoway B, Schulz AJ, et al. Health education and community empowerment: conceptualizing and measuring perceptions of individual organizational and community control. *Health Educ Q*. 1994;21:149–170.
23. Johnson TP. Methods and frameworks for crosscultural measurement. *Med Care*. 2006;44(Suppl 3):S17–S20.
24. Manly JJ. Deconstructing race and ethnicity: implications for measurement of health outcomes. *Med Care*. 2006;44(Suppl 3):S10–S16.
25. Nápoles-Springer AM, Santoyo-Olsson J, O'Brien H, et al. Using cognitive interviews to develop surveys in diverse populations. *Med Care*. 2006; 44(Suppl 3):S21–S30.