Design and Evaluation of an Interdisciplinary Health Disparities Research Curriculum

Kimberly S. Johnson, M.D., M.H.S., Kevin L. Thomas, M.D., Sandro O. Pinheiro, Ph.D., M.A., M.R.E., Laura P. Svetkey, M.D., M.H.S.

Abstract: Background: Disparities in health and healthcare are widely documented for underrepresented racial and ethnic populations across a spectrum of diseases and care settings. An evidence base for addressing racial and ethnic disparities in health and healthcare requires investigators trained to conduct health disparities research.

Objective: To increase knowledge, stimulate interest, teach skills to evaluate and conduct, and foster collaborations in health disparities research.

Design: We designed, implemented and evaluated a Health Disparities Research Curriculum (HDRC).

Participants were early-stage investigators.

Intervention: HDRC included twelve monthly sessions during 2015–2016. Instructors were mostly HDR investigators. Sessions combined didactic presentations, discussions, small group activities, and participant presentations.

Measures: Pre- and post-surveys to assess participants' perceptions of knowledge and skills.

Results: Of 21 enrollees, 13 were from under-represented groups and 14 were women. Four reported some prior training in HDR, and 12 reported currently conducting HDR.

Among the 12 participants who completed both the pre and post HDRC survey, initially the most commonly cited barriers to pursuing HDR were lack of knowledge (N = 6) and funding (N = 7). In the post-survey, the number citing lack of knowledge decreased (N = 2) and the number listing lack of funding increased (N = 9). There were increases in the number of participants reporting increased knowledge of HDR methods (pre-post: 4 vs. 8) and competence to design (3 vs. 7) and implement (2 vs. 9) HDR research.

Conclusions: The Duke HDRC augments efforts to reduce health disparities by providing training in HDR for young investigators. Our data indicate that the course was feasible, well-received, and increased perceived knowledge and competence. HDRC and similar courses may increase the quantity, quality and scope of HDR and thus move us closer to health equity.

Keywords: Health disparities ■ Research ■ Curriculum

Author affiliations: Kimberly S. Johnson, Department of Medicine, Division of Geriatrics, Duke University Medical Center, Durham, NC, USA; Kevin L. Thomas, Department of Medicine, Division of Cardiovascular Medicine, Duke University Medical Center, Duke Clinical Research Institute, Durham, NC, USA; Sandro O. Pinheiro, Department of Medicine, Division of Geriatrics, Duke University Medical Center, Durham, NC, USA; Laura P. Svetkey, Department of Medicine, Division of Nephrology, Duke University Medical Center, Durham, NC, USA

Correspondence: Laura P. Svetkey, M.D., M.H.S., Duke University Medical Center, Box 3487, Durham, NC, 27710, USA., email: laura.svetkey@dm.duke.edu

INTRODUCTION

Disparities in health and healthcare are widely documented for underrepresented racial and ethnic populations, compared to non-Hispanic white populations, across a spectrum of diseases and care settings.[1,2] An evidence base for eliminating these disparities is a national priority.[3,4] Developing the evidence base with which to address widespread health and health care disparities requires a research workforce specifically trained to study disparities.

To establish the evidence base needed to eliminate disparities and achieve health equity, we need investigators who have interest, knowledge and skills to conduct high-quality disparities research. Therefore, our Clinical and Translational Science Award (CTSA) education core established two programmatic priorities. First, we sought to diversify the research workforce by selecting at least half of the recipients of our CTSA-sponsored student (TL1) and young investigator (KL2) career development awards from underrepresented racial and ethnic groups. A diverse collection of scholars is conducive to new ideas, broad research agendas and transformative science, all of which are essential to eliminating health disparities.[5]

Second, we sought to increase the pool of investigators across the translational spectrum that is well-versed in the principles and practice of health disparities research (HDR). Many medical schools and healthcare institutions are implementing curricula in cultural competence and community engagement.[6,7] However, there are only a few programs offering research training for addressing disparities, and those that exist tend to focus on a single clinical area, such as cardiovascular disease,[8] cancer,[9,10] or methodology (e.g., community-based participatory research).[11,12] Although we suspect that not all efforts are published, it appears that there is limited framework and data supporting the feasibility and impact of a general disparities research

HEALTH DISPARITIES RESEARCH CURRICULUM

Table 1. HDRC syllabus.

Session	Topic	Overall goal	Objectives
1	Framing the conversation	Discuss key terms and provide an overview of health disparities	1. Define race and ethnicity as specified by government and funding agencies 2. Define health disparities and differences as a function of race and ethnicity 3. Discuss importance of understanding and eliminating racial/ethnic disparities in health 4. Discuss landmark Institute of Medicine Report—Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare 5. Review historical context for existence of health disparities
2	The three pillars of disparities: patient, provider, and health system	Discuss factors that may explain disparities in health outcomes.	1. Discuss patient, provider, and health system factors that may explain disparities in health outcomes 2. Formulate research questions and discuss methodological approaches to understand causes of health disparities and test interventions to reduce disparities
3	Disparities research colloquium	Educate scholars on disparities research across the translational spectrum and foster collaborations	1. Describe the prevalence, causes and severity of health disparities 2. Describe the relationship between racial and cultural attitudes and quality of care 3. Review existing HDR literature 4. Review skills needed to incorporate HDR into research agendas
4	Implicit associations	Explore the impact of unconscious bias on assessment of patients and its potential impact on clinical decision-making.	1. Describe the role that unconscious bias can play in health and health care 2. Review clinical studies that have elicited the impact of subconscious bias on health care services 3. Apply education and research models designed to address the role of unconscious bias in health care
5	Translational/basic science research	To foster an appreciation of the dynamic interplay between race as a socio-cultural construct and resulting social determinants of health, with human genetic, biological and disease-related heterogeneity.	1. Describe human disease-related biological heterogeneity as a function of the human diaspora 2. Describe population-level, individual-level, and disease tissue-level genetic and biological heterogeneity as function of both self-identified race and ancestral genotype 3. Describe the role of *trans*-disciplinary research across the full biomedical research continuum, from cells to society, in eliminating health disparities

continued…