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Research Statement

The overarching aim of my research is to investigate health disparities and education disparities. I use two lines of inquiry: (1) identifying social determinants of health and education outcomes among marginalized people; and (2) examining how community and policy interventions can reduce health disparities and education disparities. Key to my research is attention to national and statewide representative and longitudinal examinations on social determinants of health and education outcomes.

My interest in the impact of social determinants on health and education outcomes began with my experiences as a researcher at one of the government’s top-producing research initiatives in South Korea. In my three years at the institution, I co-managed eighteen multi-million dollar research projects from beginning to end, including grant proposal preparation, research design, data collection and analysis, and reporting. The overarching study involved the collection of longitudinal data at 12 time points for three years to evaluate an integrated case management project involving 359 low-income families and 51 social service agencies. The findings showed increased self-reliance across three years. The research established innovative policies and service delivery systems that promoted self-reliance among marginalized families.

As a doctoral student my research projects honed in on three factors that impact health and education outcomes: neighborhood, housing stability, and race/ethnicity, in collaboration with my interdisciplinary mentors – in social work, public health, psychology, and sociology.

I conducted research on the effects of neighborhood context on health utilizing large, national or statewide representative datasets. Using a weighted log-binomial regression to calculate risk ratios for health outcomes, the studies show that neighborhood poverty, inequality, and safety are key factors influencing physical health, health behaviors, and emotional problems. The first article from the study, “The role of neighborhood economic context on physical activity among children,” was published in Preventive Medicine. In another funded ongoing study, working as a part of the Institute for Urban Policy Research & Analysis, I examine neighborhood poverty as a factor of adverse birth outcomes by using a multi-level analysis based on a large dataset derived from all birth certificates (2009-2011) in Texas.

To investigate the effects of unstable housing or homelessness on health, I conducted multiple research projects by utilizing a logistic regression and a classification and regression tree analysis. My research paid special attention to the homeless and residents in public housing because of the high prevalence of physical and mental disorders among these groups. The studies show that victimization experiences increase odds of mental disorders and that discrimination and lack of neighborhood support systems reduce odds of mental health service use. The first article from the studies, “Trauma and Posttraumatic Stress Disorder Among Homeless Young Adults,” was published in Journal of Emotional and Behavioral Disorders.
I examined social determinants of education. One of my research projects tested a 4-step sequential link from mothers’ acculturation and enculturation, to socialization messages, to parenting practices, to school readiness, and finally to academic achievement. Findings highlight the importance of mothers’ ethnic cultural knowledge and parenting skills in academic achievement among Latino children. The study, “The role of authoritative and authoritarian parenting in the early academic achievement of Latino students,” was published in Journal of Educational Psychology. In another study, using multi-group structural equation modeling, I examined the critical role of skin color in academic achievement among young Latino children. Findings show that dark-skinned Latino children have lower academic achievement compared to light-skinned ethnic peers after adjusting for sociodemographic characteristics.

My dissertation examines the role of neighborhood economic context on child health disparities through the study of economic changes in neighborhoods (i.e., census tracts) in California that occurred between 1970 and 2010 by utilizing a statewide representative dataset (individual-level) and decennial census data (neighborhood-level). I hypothesize that neighborhoods which have been historically disadvantaged are the most harmful environments for child obesity. I examine longitudinal changes in neighborhood economic context over 40 years (referred to as neighborhood economic life histories) as a factor of children’s obesity and obesity-related behaviors. In addition, to investigate the effect of the Great Recession (occurred 2008-2010) on neighborhoods and child obesity disparities, I compare neighborhood unemployment rate and homeownership rate in 2000 to those rates in 2013. Then, utilizing a weighted log-binomial regression, I examine if the changes in two neighborhood economic indicators between 2000 and 2013 explain children’s obesity-related behaviors. My findings advance knowledge regarding the dynamic “life histories” of neighborhood economic context beyond past studies which focus on only one point in time. My research will also identify types of neighborhoods which should be given high priority to improve child health and suggest interventions to create healthy communities and ultimately lower child health disparities.

My long-term goal is to use my research findings to implement community and policy interventions leading to improvements in health and education outcomes through the betterment of neighborhood environments. In order to achieve the ultimate goal of research, I am committed to filling gaps in the current literature on social determinants of health and education that can be carried out in a short period of time with limited resources, such as pilot studies and secondary analyses of existing national data. Throughout such research projects, I will enhance my research ability to design and implement community-based interventions. To support my research, I will seek funding from government and non-government organizations with missions that are compatible with my work, such as the National Institute of Health’s National Cancer Institute, the Aetna Foundation and the Horowitz Foundation. Then, I will be able to draw on expertise that I have obtained from my research to conduct a large research project. I look forward to a career in academia so that I can continue this and other lines of research through partnerships with community groups, government, and other universities and research institutes.