

Health Disparities in the Border Region: A Course-based Undergraduate Research Experience (CURE) with Concomitant Civic Engagement Education

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Course-based undergraduate research experiences (CUREs) seek to engage students in the authentic process of scientific discovery. Current evidence in the literature suggests that participation in CUREs results in significant increases in students' development of scientific reasoning skills and experimental design abilities. While these outcomes are noteworthy, relatively few studies have examined and assessed potential mechanisms for connecting student-initiated research endeavors within CURE contexts to the broader community. In order to address these concerns, we conducted a quasi-experimental, mixed methods study to evaluate the impact of a civic engagement-infused "Health Disparities in the Border Region" CURE on students' ($n = 17$) development of public outreach skills, researcher self-efficacy, and understanding of research-community connections. Results indicated a significant, pre-/post-semester increase in students' ability to identify and describe the relationship between components of a public health outreach plan ($p \leq 0.039$ for all analyses), as measured via the Public Health Outreach Flowchart assessment. Analysis of student responses to the Persistence in the Sciences (PITS) questionnaire further revealed a positive, pre-/post-semester shift in participants' researcher self-efficacy ($p = 0.004$), with students (68.8%) noting the importance of their research in engaging the public around relevant healthcare issues within the community.

Keywords: CURE assessment, civic engagement, public health outreach, Persistence in the Sciences

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