The Smile Divide Project

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Abstract

This project explores how racial disparities in oral health reflect broader inequities in healthcare access and outcomes. Building on my Smile Divide project, I propose to investigate how structural barriers such as uneven access to dental professionals, gaps in insurance coverage, and limited early oral health education disproportionately harm Black communities. These barriers not only lead to higher rates of preventable dental disease but also connect to wider issues such as chronic illness, educational disruptions, and lost economic opportunities.

Through this research, I aim to evaluate how policy interventions, preventive education, and community-focused dental outreach can improve access and outcomes for historically underserved populations. By framing oral health as a critical dimension of equity in STEM and healthcare, this project highlights the urgent need for systemic change. As an aspiring dentist at Spelman College, I plan to use this work to contribute solutions that both expand access and reimagine what equity in oral healthcare can look like for Black communities.

RESEARCH RATIONALE:

This research is important because oral health disparities illustrate how inequities in healthcare extend into the Black community with lasting social and economic consequences. Beyond limited insurance coverage and workforce shortages, one significant barrier is the unequal distribution of preventive education and outreach. Many Black communities experience gaps in early oral health education, resulting in higher rates of preventable conditions like childhood cavities and oral conditions that carry into adulthood. These untreated issues contribute not only to physical pain and chronic illness but also to stigmatization, missed school or work, and reduced overall quality of life.

By centering this project on dentistry, I aim to show how structural neglect of oral health perpetuates cycles of disadvantage. Investigating solutions such as targeted community education programs, improved preventive care access, and stronger minority representation in dentistry can help reduce these inequities. This research matters because oral health is directly tied to broader health outcomes and opportunities, and addressing these disparities is essential for equity. As someone who plans to dedicate their occupation to the improvement of the Black community, I see this work as a way to uplift underserved communities while contributing to the larger conversation about justice and access in STEM and healthcare.

RESEARCH PLAN:

As the principal investigator of this project, my role will be to design, conduct, and analyze research that examines racial disparities in oral healthcare, with a focus on how systemic barriers contribute to

unequal outcomes for Black communities. Building on my Smile Divide project, which highlighted gaps in dental access and education, I will expand this work into a formal study that combines literature review, data analysis, and community engagement.

What has already been done:
The Smile Divide project provided a foundation by exploring disparities in oral health outcomes and identifying barriers such as cost, provider shortages, and limited insurance coverage. This initial work underscored the importance of framing oral health equity within the larger discussion of systemic racism in healthcare. It also established the need for more in-depth research that connects oral health disparities to broader social and economic harms.

What I intend to do:
I will deepen this project by (1) conducting a literature review on oral health disparities and systemic racism, (2) analyzing publicly available datasets from sources such as the CDC, HRSA, and NIDCR to identify patterns in oral health outcomes and access, and (3) developing a survey to capture student and community perspectives on barriers to dental care. This approach will allow me to integrate both national-level data and local lived experiences.

How I will conduct the work:

- **Phase 1 (Months 1–2):** Conduct literature review and develop project framework. • **Phase 2 (Months 3–4):** Analyze national data sources (CDC, HRSA, NIDCR) for disparities in access and outcomes.
- **Phase 3 (Months 5–6):** Design and distribute surveys to students and community members, then collect and organize responses.
- **Phase 4 (Months 7–8):** Analyze findings, synthesize data, and prepare report with policy and equity-focused recommendations.

Timeline:
This project will be completed in **eight months**, allowing for steady progress while remaining manageable alongside coursework:

- Months 1–2: Literature review and framework development.
- Months 3–4: Data collection and analysis of national reports. • Months 5–6: Survey creation, distribution, and response collection. • Months 7–8: Data synthesis, writing, and final presentations.

Through this plan, I will not only contribute to academic knowledge but also generate actionable insights to advocate for equity in dentistry. This research aims to highlight solutions that can be implemented through policy reform, educational outreach, and expanded community-based care initiatives.