

Combating the Environmental Injustice of Beauty through Implementation Science

Ami R. Zota, ScD, MS

Director of ARISE-EJ lab
Associate Professor
Department of Environmental and Occupational Health
George Washington University Milken Institute School of Public Health
Incoming Associate Professor, Columbia Mailman School of Public Health
Founding Director, Agents of Change in Environmental Justice

February 28, 2022

Black and Latinx population use more products across multiple categories



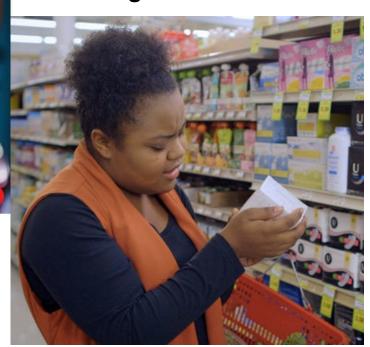
Hair products

Skin lightening creams



Cosmetics

Fragranced products, vaginal deodorants



Dodson et al., 2021 Edwards et al., unpublished Zota and Shamasunder 2018

Environmental Injustice of Beauty

White Supremacy, Patriarchy, Colonialism Racism, Sexism, Classism Internalized Racism Racialized Beauty Norms **product Use** chemical Exposures Health and Disease

Image credit:
Ahmad and Zota

Environmental Injustice of Beauty: An example

Type of discrimination	Less advantaged populations	Product use	Chemical exposures	Potential adverse outcomes
Natural hair discrimination	African American women	Chemical hair straighteners	Parabens, phthalates, siloxanes, VOCs	Uterine fibroids, breast cancer

Potential Solutions



Social Norms

Address natural hair discrimination in the workplace

Business

Greater availability of affordable, toxic-free products

Policy

Regulate chemicals in products through state and federal laws

Individual Behavior

Educational interventions

Potential Barriers

- The majority of interventions have focused on educating consumers about safer alternatives and how to choose less toxic products
- Existing education campaigns do not adequately consider costs, efficacy, or total chemical burden of switching hair routines
- No direct assessment of the impacts of market-based and policy interventions on environmental exposure and health outcomes
 - Indirect assessment of phthalate exposures over time suggest both federal policies and market-based advocacy do impact environmental exposures (Zota et al. 2014)
- Difficult to characterize the impacts of intersectional discrimination (i.e., gendered racism) on beauty rituals and even harder to intervene

Questions for Implementation Science

- How do we take a systems approach to mapping potential solutions and assessing the efficacy of those solutions?
- How do we ensure our interventions are developed through community-driven processes and explicitly consider intersectionality or interlocking systems of power and privilege?
- Do you see any low hanging fruit opportunities in this space?