

Racial Discrimination and Similarities in Types of Food Consumption Across Two Studies

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Introduction

- Racial discrimination has been linked to health disparities and poor health outcomes (Carter et al., 2017).
- Health behaviors may partly account for this relationship.
- Previous research has consistently shown that discrimination is associated with increased consumption of cigarettes and alcohol.
- A limited body of laboratory and field research has shown relations of discrimination to food consumption.
- Gaps in knowledge remain.
 - Previous studies have been unclear if timing of discrimination affects health behavior (Danyluck et al., 2020).
 - The types of food consumption investigated have been limited.
 - Comparisons across racial/ethnic cultural groups have not been conducted.
- Our aim is to investigate whether lifetime and/or past week discrimination impacts overall food consumption, healthy, and unhealthy consumption.

Methods

- A combined sample of 435 individuals were selected to participate in the two studies.
- Study 1 Sample: Participants included 142 individuals. The sample was ethnically and racially diverse. The individuals were recruited from a New York City community medical center.
- Study 2 sample: Participants included 294 individuals. All participants identified as Native American (AI/AN). The individuals were recruited from community events and/or by word of mouth in Colorado.

Measures

- Perceptions of **Lifetime and Past Week Discrimination** were assesed using the *Brief Perceived Ethnic Discrimination Questionnaire - Community Version* (PEDQ-CV; Blair et al. 2020)
 - Example: *Brief Lifetime PEDQ*:: “Because of your Ethnicity/ Race, have others actually hurt you or tried to hurt you (eg. kicked or hit you)?” “Because of your Ethnicity/ Race, have you been treated unfairly by co-workers or classmates?”
 - Example *Brief Past Week PEDQ*: “This past week how often did someone treat you unfairly because of your ethnicity/ race?”
- **Food Consumption** we assessed for dietary health habits, including the number of days a week participants ate various food items.(Teufel-Shone NI, Jiang L, Beals J, et al., 2015)
 - *Healthy foods* included: fruits, vegetables, whole grains, lean poultry, fish, low-fat foods, nuts and legumes.
 - *Unhealthy foods* included: high-fat, fried, salty and/or sugary food, and foods containing red meat.
 - *Overall consumption* was the mean across all items.
- **Covariates** included *demographic variables*: age, gender, race/ethnicity, marital status and, education level

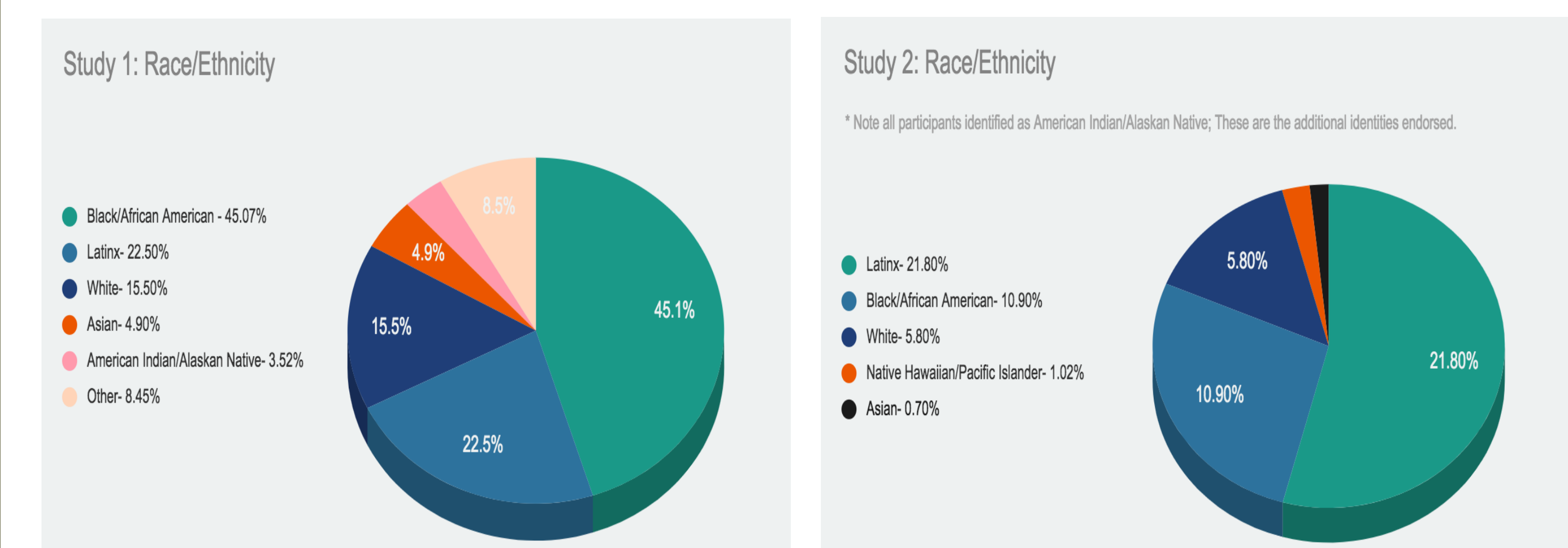
Recent, more than lifetime, discrimination is significantly associated with overall food consumption in two studies.



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Results

Multiple regression analyses were performed on the combined sample to investigate the Sample, Discrimination and Sample X Discrimination effects on overall consumption, unhealthy consumption and healthy consumption. Analyses were adjusted for age, gender, marital status, race, and education.

- Regression analyses indicated lifetime discrimination was significantly positively associated with overall consumption and unhealthy consumption, but not healthy consumption. In each analysis, the interactions of Lifetime Discrimination X Sample were not significant.

Interactions of Sample (Diverse vs. Native American) X Lifetime Discrimination on Consumption

| | Overall Consumption | | | Unhealthy Food Consumption | | | Healthy Food Consumption | | |
|----------------------------------|---------------------|------|-----------------------------|----------------------------|------|-----------------------------|--------------------------|------|------------------------------|
| Variable | B (SE) | b | t, p, 95% CI | B(SE) | b | t, p, 95% CI | B(SE) | B | t, p, 95% CI |
| Lifetime Discrimination | .21(.09) | .23 | 2.29, p = .022, (.03, .39) | .22(.11) | .19 | 1.99, p = .048, (.002, .43) | .20(.12) | .18 | 1.72, p = .086, (-.03, .43) |
| Lifetime Discrimination X Sample | -.11(.10) | -.11 | -1.07, p = .287, (.31, .09) | -.07(.12) | -.05 | -.54, p = .588, (.31, .18) | -.17(.13) | -.13 | -1.31, p = .191, (-.43, .09) |

- Regression analyses indicated Past Week discrimination was significantly positively associated with overall consumption, unhealthy consumption, and healthy consumption.

Interactions of Sample (Diverse vs. Native American) X Past Week Discrimination on Consumption

| | Overall Consumption | | | Unhealthy Food Consumption | | | Healthy Food Consumption | | |
|-----------------------------------|---------------------|------|------------------------------|----------------------------|------|------------------------------|--------------------------|------|------------------------------|
| Variable | B (SE) | b | t, p, 95% CI | B(SE) | B | t, p, 95% CI | B(SE) | B | t, p, 95% CI |
| Past Week Discrimination | .20(.06) | .29 | 3.64, p = .0003, (.09, .31) | .22(.07) | .25 | 3.24, p = .002, (.08, .35) | .20(.08) | .24 | 2.64, p = .009, (.05, .32) |
| Past Week Discrimination X Sample | -.11(.08) | -.13 | -1.58, p = .116, (-.24, .03) | -.10(.08) | -.09 | -1.18, p = .237, (-.26, .06) | -.12(.09) | -.12 | -1.43, p = .153, (-.29, .05) |

- When both Past Week and Lifetime Discrimination were entered simultaneously into the equation predicting overall consumption, only the effects of Past Week discrimination remained significant

- Past Week Discrimination was significantly association with healthy consumption only when Lifetime Discrimination was included in the equation (B = .20(SE = .08), b = .24, t = 2.64, p = .009)

Discussion

- Timing matters: recent discrimination may increase consumption of all types of food; whereas lifetime exposure may effect unhealthy consumption.
- Future research should examine mediators of discrimination timing and consumption type.

Limitations: Our study consisted of a convenience sample, self-reported discrimination and consumption measures. The cross sectional design limts our ability to evaluate how discrimination changes eating over time.