

# The Associations Between Perceived Discrimination and Sleep Quality Among College Students

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## Background

- Contemporary college students experience persistent racial and gender disparities, despite being the most educated U.S. generation (e.g., Milkman, 2017; Umaña-Taylor, 2016).
- Perceived racial discrimination has been consistently demonstrated to contribute to poor health and well-being. Specifically, discrimination has been linked to adverse health effects, such as lower self-esteem, more depressive symptoms, and sleep disruptions (e.g., Grandner et al., 2012; Slopen, Lewis, & Williams, 2016).
- Black and Latino youth report more perceived discrimination compared to other racial and ethnic groups, particularly when the discrimination is perpetrated by adults (e.g., Douglass & Umana-Taylor, 2016).
- Among all minorities, Asian youth report experiencing the highest amount of peer discrimination of all ethnic backgrounds (e.g., Thomas, Bardwell, Ancoli-Israel, Dimsdale, 2006).

### Hypotheses:

- Racial and ethnic minority students will report more discrimination and less quality sleep compared to white college students.
- Perceived discrimination will be negatively associated with perceived sleep quality and duration among young adults.

## Method

### Participants

- Data were collected from a sample of 282 undergraduate college students ranging from ages 18-25 from both the University of Arizona and Fordham University. The majority of the sample identified as White (57%,  $n = 161$ ), 12% as Hispanic, Latino, or Spanish origin, 11% as Asian, 7% as Black or African American, and 12% as multiracial/ethnic. Student participants who identified as American Indian/Alaskan Native ( $n = 1$ ) or Middle Eastern/North African ( $n = 4$ ) participants were not included in analyses given the small sample sizes.

### Procedure

- During the U.S. Presidential election in November 2016, participants were recruited online via email and on campus with flyers.
- Participants completed an initial survey and five nightly surveys regarding their feelings and stress surrounding the election. Data were also collected on income, family, and health.

### Measures

- Overall perceived discrimination:** Perceived Ethnic Discrimination Questionnaire (Brondolo et al., 2005; Contrada et al., 2001). Items were rated on a 0 (Almost never; never) to 4 (Almost always/always) scale.
- Sleep duration:** During the past month, please estimate how many hours of actual sleep you get on an average weeknight? This may be different than the number of hours you spent in bed.
- Sleep quality:** During the past month, how would you rate your sleep quality overall? This item was rated on a 1 (Very bad) to 4 (Very good) scale.

## Results

- To test our hypotheses, we (1) conducted an ANOVA to examine mean-level differences by race/ethnicity in overall perceived discrimination and sleep quality, and (2) examined the correlations among overall perceived discrimination and sleep quality.
- Contrary to our hypotheses, post-hoc tests revealed there were no significant group differences by race/ethnicity on perceived discrimination, sleep duration, or sleep quality (see Table 1).
- Consistent with hypotheses, overall discrimination had a small and negative correlation with the average number of hours slept nightly ( $r = -.255, p < .001$ ).
- Similarly, overall discrimination had a small and negative correlation with sleep quality of the past month ( $r = -.217, p < .001$ ).
- Number of hours of average nightly sleep had a strong, positive correlation with sleep quality over the past month ( $r = .481, p < .001$ ).

## Conclusions and Implications

- Consistent with prior research, reports of perceived discrimination were found to be associated with poorer quality sleep and shorter sleep duration (e.g., Grandner et al., 2012; Slopen et al., 2016).
  - In other research, stress is seen to have adverse impact on sleep quality and sleep duration. With more exposure to racist experiences, participants have been found to experience more negative thoughts, leading to more disrupted sleep (Steffen & Bowden, 2006).
- Interestingly, there were no racial/ethnic differences in sleep or perceived discrimination. This may be due to the small number of participants and underrepresented populations in the study. This finding needs to be replicated with a larger sample size in order to draw generalizable conclusions.

|                          | White<br>( $n = 161$ ) | African American<br>( $n = 21$ ) | Latino<br>( $n = 35$ ) | Asian<br>( $n = 31$ ) | Multiracial/Ethnic<br>( $n = 34$ ) | F Statistic                 |
|--------------------------|------------------------|----------------------------------|------------------------|-----------------------|------------------------------------|-----------------------------|
| Perceived Discrimination | 0.49                   | 0.51                             | 0.63                   | 0.67                  | 0.67                               | $F(4, 281) = 2.67, p < .05$ |
| Sleep Duration           | 6.80                   | 6.20                             | 6.50                   | 6.20                  | 6.60                               | $F(4, 281) = 3.16, p < .05$ |
| Sleep Quality            | 2.75                   | 2.67                             | 2.57                   | 2.71                  | 2.71                               | $F(4, 281) = 0.41, p = .80$ |

Table 1. ANOVA Results

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