Associations between Perceived Health Message Effectiveness and Attitude/Intention Change by Educational Attainment

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

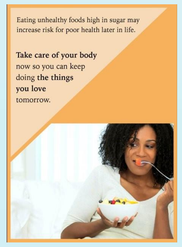
Nolasco, M., Barlow J., Brosso, S.N., Muscatell, K.A.

Introduction

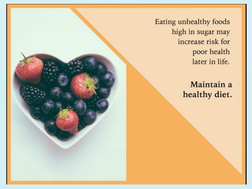
- Lower SES individuals are disproportionately affected by chronic diseases compared to their higher SES counterparts, in part because of less engagement in preventative behaviors (e.g., eating a healthy diet, exercising, and attending screenings).
- These disparities may be a result of ineffective health messages. Current health messages emphasize the personal benefits of a healthy lifestyle; however, lower SES individuals have been shown to be more social-focused and interdependent.
- This study aims to investigate the perceived effectiveness of social-focused and self-focused health messages and their influence on attitudes and intentions toward preventative behaviors across individuals with different levels of education.

Methods

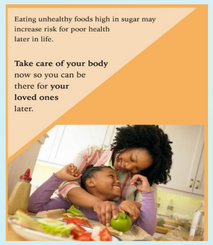
- Participants: Our sample consisted of 51 participants with ages ranging from 40-60 years old (M = 47.24, SD = 5.37). To be eligible, participants had to be a parent and be in a committed relationship. Our participants had varying levels of education.
- Procedure: Participants first completed surveys to assess their pre-study attitudes and intentions toward health behaviors. Then participants attended an imaging session where they viewed 120 health messages (40 control, 40 self-focused, 40 social-focused) during an fMRI scan. Immediately afterward, they were asked to report on their attitudes and intentions again. Lastly, they rated the perceived effectiveness of each message.
- Analysis: Multiple regression analyses were conducted to investigate whether educational attainment moderated the associations between PME of the different message types and shifts in attitudes and intentions.



Self-Focused

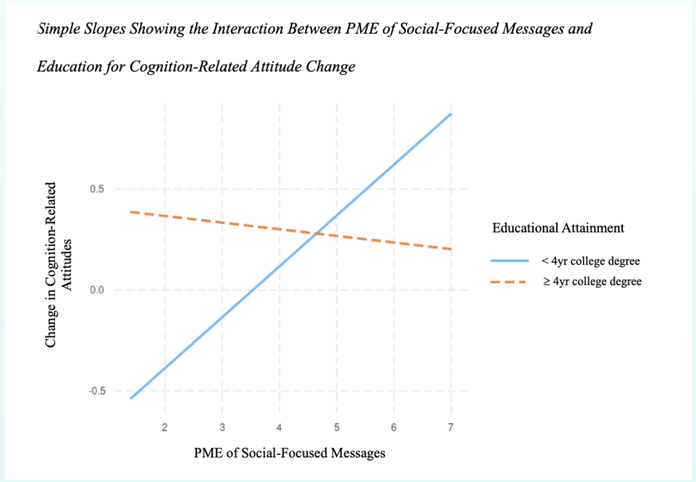


Control

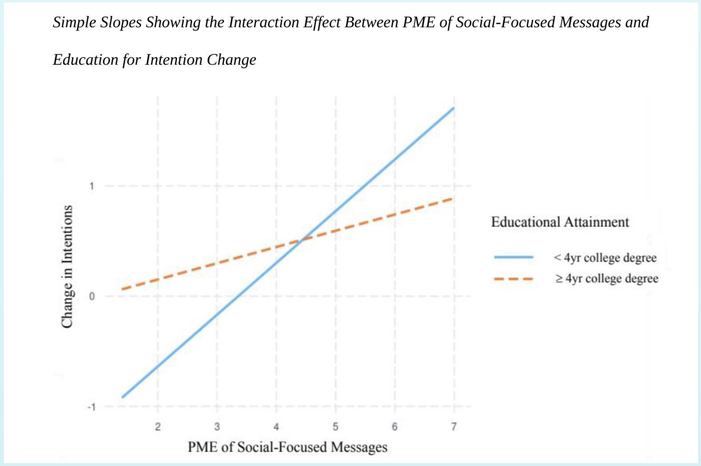


Social-Focused

Results



- For changes in cognition-related attitudes, we found a significant interaction between the PME of social-focused messages and educational attainment, b = -0.29, SE = 0.13, $t(47)$ = -2.28, $p < .05$.
- Simple slopes tests revealed that among participants with less than a 4-year college degree, the PME of social-focused messages was significantly associated with greater positive changes in attitudes related to cognition/instrumentality, b = 0.25, SE = 0.08, $t(47)$ = 3.02, $p < .001$, whereas there was not a significant association for participants with at least a 4-year college degree (p = .73).



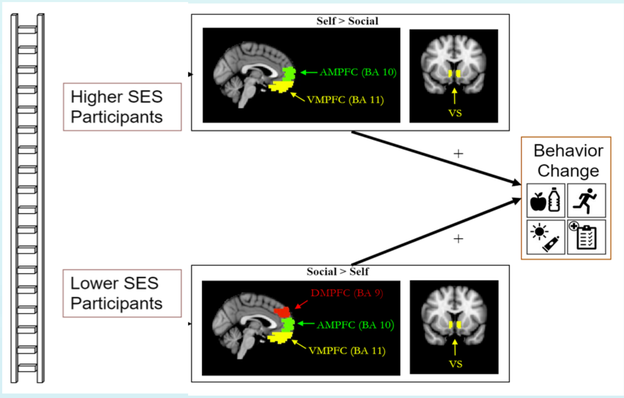
- For changes in intentions, we found a significant interaction between the PME of social-focused messages and educational attainment, b = -0.32, SE = 0.15, $t(47)$ = -2.16, $p < .05$.
- Simple slopes testes revealed that among those with less than a 4-year college degree, the PME of the social-focused messages was significantly associated with greater shifts in intentions to engage in the health behaviors, b = 0.47, SE = 0.10, $t(47)$ = 4.73, $p < .001$; however, there was not a significant association for participants with at least a 4-year college degree.

Discussion & Future Directions

- Our results suggest that for participants with less than a 4-year degree, perceived message effectiveness (PME) of social-focused messages was significantly associated with changes in cognition-related attitudes and intentions.
- Conversely, for participants with at least a 4-year degree, there were no associations with PME of social-focused messages and changes in attitudes and intentions.
- Findings from this study will help pave the way for creating more effective health messaging that can help reduce health disparities. Nevertheless, more research is required to identify what would effectively reduce health disparities in lower SES populations.

Future Directions:

- Next, we plan to analyze the fMRI data that we have collected and investigate the neural mechanisms involved in processing the different types of health messages and whether that predicts health behavior change.
- We will specifically explore neural activity in the ventral striatum and medial prefrontal cortex. Neural activity in these regions, in response to health messages, has been shown to predict downstream behavior change.



For more information, visit the Social Neuroscience and Health Lab website at https://carolinasnhlab.com/

References