

# Improving Oral Health Behavior and Message Memory

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Cameron Brick presents his research on “Improving Oral Health Behavior and Message Memory: Matching Cultural Exposure and Message Frame” at the APS 25<sup>th</sup> Annual Convention in Washington, DC. Brick received one of the 2013 [NIDCR “Building Bridges” APS Convention Travel Awards](#).

Dental caries, gingivitis, and periodontitis are widespread health problems that increase the risk of tooth loss, stroke, and cardiovascular disease, but many Americans reject preventive behaviors such as brushing and flossing. These studies examine the benefits of congruency between an individual’s motivational orientation and the framing of persuasive health messages. People differ in whether they are motivated more to achieve positive outcomes or to avoid negative ones (Carver & White, 1994). These differences can be measured at the individual or cultural level (Hamamura & Heine, 2007). The cultural congruency effect shows that matching the gain or loss frame of an oral health message with participant culture leads to higher intentions to floss (Sherman, Uskul, & Updegraff, 2011; Uskul, Sherman, & Fitzgibbon, 2009). Expanding from research using ethnicity, we measure cultural exposure: the extent to which participants are Americanized. In Study 1, 450 nationally representative Americans were shown an oral health video containing gain- or loss-frame messages. Flossing six months later was predicted by congruency between acculturation to America and message frame, such that high cultural exposure participants flossed more after the gain-frame message, and low cultural exposure participants flossed more after the loss-frame message,  $p < .001$ . Study 2 examined how this congruency effect related to memory for culturally congruent information. 135 undergraduates read either gain- or loss-frame statements on oral health, and later completed a recall test for the statements. Cultural exposure and frame interacted to predict proportion of correct recall in the same congruency pattern,  $p = .039$ . Study 3 extended these results to an ecologically valid health message, and showed cultural congruency effects for cultural exposure as well as individual motivational orientation. These studies provide evidence from nationally representative and laboratory samples that cultural congruency increases oral health message effectiveness, and they show initial support for improved memory as a cognitive process related to health behavior change.

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