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Making a difference in medical trainees' attitudes toward Latino patients: A pilot study of an intervention to modify implicit and explicit attitudes

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ABSTRACT

Negative attitudes and discrimination against Latinos exist in the dominant U.S. culture and in healthcare systems, contributing to ongoing health disparities.

This article provides findings of a pilot test of *Yo Veo Salud* (I See Health), an intervention designed to positively modify attitudes toward Latinos among medical trainees. The research question was: Compared to the comparison group, did the intervention group show lower levels of implicit bias against Latinos versus Whites, and higher levels of ethnocultural empathy, healthcare empathy, and patient-centeredness?

We used a sequential cohort, post-test design to evaluate *Yo Veo Salud* with a sample of 69 medical trainees. The intervention setting was an academic medical institution in a Southeastern U.S. state with a fast-growing Latino population. The intervention was delivered, and data were collected online, between July and December of 2014.

Participants in the intervention group showed greater ethnocultural empathy, healthcare empathy, and patient-centeredness, compared to the comparison group. The implicit measure assessed four attitudinal dimensions (pleasantness, responsibility, compliance, and safety). Comparisons between our intervention and comparison groups did not find any average differences in implicit anti-Latino bias between the groups. However, in a subset analysis of White participants, White participants in the intervention group demonstrated a significantly decreased level of implicit bias in terms of pleasantness. A dose response was also founded indicating that participants involved in more parts of the intervention showed more change on all measures.

Our findings, while modest in size, provide proof of concept for *Yo Veo Salud* as a means for increasing ethno-cultural and physician empathy, and patient-centeredness among medical residents and decreasing implicit provider bias toward Latinos.

In the United States, Latino individuals face persistent inequities in accessing quality healthcare (Centers for Disease Control and Prevention [CDC], 2013; Fiscella et al., 2000). Compared with Whites, Latinos have worse access to healthcare on most access measures, including lower likelihood of having a usual source of care but higher rates of encountering barriers when seeking care (Agency for Healthcare Research and Quality [AHRQ], 2014). Compared with White adults, Latino adults are more likely to suffer

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from asthma, diabetes, HIV, obesity, and tuberculosis (CDC, 2013). Disparities also exist among children and adolescents, with Latino youth showing disproportionately high rates of alcohol use, anxiety disorders, asthma, depression, overweight/obesity, poor dental health, teenage pregnancy and child-bearing, and suicidal ideation (AHRQ, 2014; Bloom et al., 2013; CDC, 2014; Colby and Ortman, 2015; Kann et al., 2014; Lau et al., 2012; Merikangas et al., 2010; Ogden et al., 2014). Latinos of all ages were more likely to rate their health as *fair* or *poor* than Whites or African Americans (CDC, 2013).

The growing U.S. Latino population comprises 17% of the population or 55 million people (Krogstad and Lopez, 2014). Half of U.S. Latino adults are foreign-born (Fry and Passel, 2009) and more than half of Latino children have at least one parent who is an immigrant (Arbona et al., 2010). Thus, Latino immigrant and mixed-status families make up a significant portion of U.S. families, making immigration issues central life experiences for many members of the U.S. Latino population. Given these experiences, these families face stressors that can compromise health (Flores et al., 2008; Pumariega et al., 2005; Vega et al., 2009; Viruell-Fuentes, 2007).

1. Discrimination

Discrimination is a common experience among Latinos, heightened by political rhetoric equating Latino heritage with unauthorized immigration, creating an environment in which all Latinos face the "illegal" stereotype regardless of their actual status (Viruell-Fuentes et al., 2012). Physicians' explicit attitudes (i.e., thoughts in conscious awareness) influence their perceptions of Latinos as unlikely to accept responsibility for their care and more likely to be non-compliant with treatment (Mayo et al., 2007). A recent systematic review found nearly 70% of healthcare professionals had, on average, moderate levels of implicit bias (i.e., evaluations that occur automatically, without conscious awareness) against Latinos (Hall et al., 2015), similar to the rate among the general population (Nosek et al., 2007). Such bias takes root early; nursing and medical students were more likely to associate the words *noncompliance* and *risk* with Latino patients than White patients (Bean et al., 2013). Attitudes find expression in behavior, and negative attitudes toward Latinos among U.S. healthcare professionals are likely contributors to both discriminatory interactions with Latino patients and Latinos' receipt of substandard care. Patient self-reports and health record data showed Latinos received worse care than Whites on 43% of healthcare service quality indicators, including preventive services, acute treatment, and chronic disease management (AHRQ, 2014). Examples of providers' biased or discriminatory behavior toward Latinos included the following:

- dismissing or minimizing Latino patients health complaints (Cabassa et al., 2014);
- more frequently attending to the needs of White patients than Latino patients (Davies et al., 2011);
- ignoring non-English speaking Latino patients (Sanchez-Birkhead et al., 2011);
- failing to listen carefully, explain clearly, or show respect for Latino patients' input (AHRQ, 2014);
- giving priority space in the hospital to White patients even if a Latino patient appeared sicker (Davies et al., 2011); and
- allowing after-hours visiting to White families but limiting Latino families' visiting hours (Davies et al., 2011).

These types of interactions not only tarnish Latinos' relationships with providers and healthcare systems but also have detrimental effects on patient health through mistrust of providers, care interruptions, care avoidance and delays, lower treatment adherence, and poorer health status (Shavers et al., 2012). For adolescents beginning to engage with healthcare providers without their parents, these relationships are important as they set the stage for adult patient-provider relationships.

Typically labeled *diversity training*, current methods for addressing provider bias lack theoretical grounding and rigorous evaluation (Paluck and Green, 2009). Moreover, although some training programs, particularly health disciplines other than medicine (Leininger, 2002), incorporate modules aimed at increasing providers' "cultural competency," evaluations of these efforts are not found widely in the literature or lack the rigorous systematic evaluation needed to know if the modules actually change attitudes or behavior (Anderson et al., 2003). In reality, few medical schools require students to take significant course work to prepare for multi-cultural practice (Flores et al., 2000).

This article describes findings from an initial trial of an intervention, *Yo Veo Salud* (I See Health), which aimed to positively modify medical trainees' ethnocultural empathy, healthcare empathy, patient-centeredness, and implicit attitudes toward Latino patients. The intervention took place at an academic medical institution in a Southeastern U.S. state with a fast-growing Latino population.

2. Method

2.1. Sample

This study used a sequential cohort, post-test design to evaluate the intervention with a sample of 69 medical trainees at a university hospital. The comparison group ($n = 41$) consisted of pediatric medicine (Peds) residents (entering first-year and exiting third-year) and internal medicine and pediatrics (Med-Peds) residents (entering first-year and exiting fourth-year). The intervention group ($n = 28$) consisted of Peds (entering second- and third-year), Med-Peds (entering third-year) residents, and third- and fourth-year medical students. Participants' average age was 28.2 years ($SD = 2.3$), and most were female (71%). The sample was 70% White, 12% Black, 7% Asian, 7% Latino, and 4% multiracial. Most participants were U.S.-born (88%). T-tests and chi-square tests showed the intervention and comparison groups did not significantly differ in terms of age, gender, proportion of Whites, or proportion of immigrants.

All procedures were approved by the host university's Institutional Review Board and data were collected in the summer and fall of 2014. Study information was provided by the residency director and the research team. Email recruitment into the voluntary data collection followed. Participation in the intervention was strongly encouraged. Written consent was obtained from all participants, and all participants in the data collection received a gift card for their time. All participants completed an online survey and a visual sequential priming procedure. Intervention group participants had various levels of exposure to a two-part intervention. Part 1 of the intervention was a photo documentary, *Look to Reflect*, offered in two formats: four 50-min sessions that replaced morning grand rounds over 4 consecutive weeks or a one-time 2-h evening session. Part 2 was a forum in which Latino adolescents presented photographs and themes generated from a Photovoice project to medical trainees. Participants then completed an online survey. Survey data were compared on four outcomes: ethnocultural empathy, healthcare empathy, patient-centeredness, and implicit attitudes about Latinos compared to Whites.

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