


# The Impact of Health Equity Coaching on Patient's Perceptions of Cultural Competency and Communication in a Pediatric Emergency Department: An Intervention Design

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## Abstract

**Purpose:** American Indian (AI) children experience significant disparities in health-care access. As a result, they are more likely to use the emergency department (ED) for nonemergent visits than white children. In a recent study, pediatric ED providers have shown an implicit bias for white children over AI children. To combat implicit bias in an ED setting, we created a protocol for training ED providers as health equity coaches. **Methods:** The intervention took place during the fall of 2016 and was composed of 4 educational lectures, 6 to 8 hours of service learning in AI communities, and the participant's dissemination of what was learned through formal presentations and informal conversations with other ED staff. We measured the impact of this intervention on the intervention participants with a group interview at the completion of the intervention. **Results:** The findings from the group interview provide feedback on what was learned during the intervention, how it impacted providers, and feedback on the structure of the intervention. Overall ED providers reported the intervention improved awareness of their implicit bias and ways to improve communication and care for AI patients. Additional institutional policy and procedural changes are necessary to effectively and sustainably address health disparities affecting AI populations. **Conclusions:** The participating providers identified their lack of knowledge regarding AI cultures at the start of the intervention and it became clear that their knowledge, comfort, and relationships with AI communities increased as a result of this intervention.

## Keywords

clinician–patient relationship, emergency medicine, culture/diversity, pediatrics, health equity, implicit bias, American Indian, community engagement

## Introduction

American Indian (AI) children experience significant disparities in health-care access compared to non-Hispanic white (NHW) children. American Indian children are less likely to have health insurance, comprehensive primary care, and access to a usual location of care (1,2). As a consequence, AI children utilize the emergency department (ED) more often than other racial or ethnic groups (3) and are more likely to leave the ED without a complete evaluation or treatment (4). Compared to NHW children, AI children are less likely to have a personal provider and are more likely to present to the ED for nonemergent complaints (5).

The care experience in the ED is often worse for children of color and AI children than NHW children. Patients of

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color wait longer (6,7), are assigned lower acuity scores (8), and are less likely to have laboratory or radiological testing ordered (9). One possible factor leading to these discrepancies is the implicit bias of medical providers. Implicit bias is an involuntary process that unconsciously guides decision-making (10) and may impact a provider's treatment of patients (11). People are most susceptible to implicit bias when they are busy, distracted, tired, or stressed (12). Emergency department providers work under these conditions often and might be at an increased risk of acting on implicit biases. Previous research evaluating implicit attitudes among clinicians concluded that implicit bias was associated with patient-provider interaction, treatment decisions/adherence, and health outcomes (11,13).

Our research on ED utilization among AI patients has identified disparities in ED care for AI patients and other patients of color (4,9). We suspect that some of these differences are related to ED providers' implicit biases. We found in a cross-sectional survey of 5 hospital EDs that 84% of responding providers had an implicit bias for NHW children compared to AI children (14). Intervening on implicit bias is complex as these unconscious preferences often are reinforced by larger systemic biases. While there is limited evidence that cultural competence training for providers results in improved patient outcomes (15), cultural competency training has been correlated with increased patient satisfaction in a pediatric ED setting (16). The addition of service learning and community engagement to training has been used in medical and public health curriculums and found to be successful in reinforcing knowledge about health determinants, strengthening community partnerships, and encouraging empathy for the communities that health-care providers serve (17,18).

### **Research Aim**

The primary aim of this article is to describe the development of an intervention for ED providers to increase awareness of implicit bias and health disparities that impact AI patients and families. Designed for practicing providers, the intervention emphasized skills to improve communication with AI patients and families and positively impact experiences in the ED. We evaluated the intervention with a group interview to elicit feedback on the intervention's impact.

## **Intervention**

### **Study Setting**

This study was conducted in a pediatric ED in Minneapolis, Minnesota. Due to the Indian Relocation Act of 1956 and the American Indian Movement, Minneapolis is home to a diverse population of AI people from many different sovereign nations and tribal affiliations. While some AI patients receive care through Indian Health Services (IHS), many do not meet qualifications or lineage requirements for IHS

(19,20). In our population, 11.4% of patients who come to the ED and identified as AI are uninsured.

### **Design**

This intervention's educational and service learning content was delivered from a social justice perspective using consensus definitions of health disparities and health equity (21), service learning theories (22), and train-the-trainer models (23) and was informed directly by AI community members. Following the education and service learning components, participating ED providers disseminated what they learned through formal presentations and informal conversations. The decision to implement service learning was based on feedback from a series of AI community focus groups by Children's Minnesota's and previous research on disparities for AI children (8,9,14,24). The curriculum was informed by our prior research, our hospital's Advocacy Department, Diversity and Inclusion Department, AI community partners, and Children's Minnesota AI Community Liaison. Children's Minnesota's American Indian Advisory Council oversaw this work.

### **Recruitment**

Physicians, nurse practitioners, and nurses were recruited as health equity coaches from the Minneapolis ED. Participants were made aware of this opportunity through e-mail and self-selected to participate. All participants were compensated for participation.

### **Informed Consent**

We obtained Institutional Review Board (IRB) approval from Children's Minnesota and consent from all participants.

### **Lecture Topics**

The participants attended 4 educational lectures lasting 2.5 to 4 hours in duration. The lecture topics and learning objectives for each lecture are listed in Supplemental Appendix A. The material did not focus on specific tribes or cultures because that would not adequately address the concerns of the diverse AI patient population we serve. Instead, there was an emphasis on interpersonal communication to learn more about specific patients' identities and cultures, as well as an overview of the greater context of US policy and its impact on AI communities. In the final session, participants completed an activity to share and prioritize what they had learned. The information they produced as part of this session is presented in our results.

### **Service Learning**

Participants were provided with a list of AI community organizations to work with for service learning. Organizations

**Table 1.** Findings From the Final Educational Lecture.<sup>a</sup>

Themes	Selected Participant Responses
Family structures in AI communities	Extended family involved in parenting and care Family unit is not “traditional nuclear” and can have multiple care givers Aunts and uncles are more like 2nd parents
American Indian history and historical trauma	Past trauma impacts current issues Forced sterilization in 70s Generations of abuse and discrimination History of boarding school and abuse within Millions of Native Americans murdered off
Connection between mistrust of medical staff and the history of oppression	Distrust of medical professionals due to high out of home kid placement Prior abuses of American Indian children and families can lead to apprehension with seeking health care Native American/American Indian people may be very hesitant to seek out medical care because they have been mistreated/misunderstood in medical settings in the past
Institutional and structural racism present in our current health-care system	Normal values in medicine (growth charts, lab values) were developed based on what is considered normal for a group of people that did not include NA/AI people We need way more NA/AI nurses, doctors, respiratory therapists, etc, in all health-care settings in order for health-care providers to better reflect the racial makeup of people we are taking care of The demographic makeup that registration collects does not adequately define AI people

Abbreviations: AI, American Indian; NA, Native American.

<sup>a</sup>Findings are based on responses to the question, “What have you learned about the AI community and health?”

were reviewed by our AI Liaison and included the Division of Indian Work (DIW), The Minnesota Indian Women’s Resource Center (MIWRC), The Bdote Immersion School, and Baby’s Space at Little Earth. Two participants helped turnover Section 8 apartments for MIWRC, 2 assisted MIWRC with Toys for Tots organization and delivery, and 2 helped staff the DIW food shelf, and the other participant provided after-school tutoring through DIW.

### Group Interview

The 7 participants participated in a semistructured group interview after the intervention (Supplemental Appendix B). Information obtained from this group interview provided valuable context on the intervention’s meaning, possible improvements, and relevance to ED care. Participants were assured of confidentiality, so did not attach the participants’ positions to the participant response. The group interview was recorded and transcribed, and notes were taken during the interview. After the interview, research staff debriefed and then the data were analyzed by 2 members of the research team. The initial coding of the interview data was done through deductive, descriptive coding based on the interview protocol. After this coding, inductive analysis was used to identify any additional themes that emerged from the process with thematic analysis (25). Additionally, these themes were provided to the interview participants to ensure that they were accurately described and presented, a process called member checking (26).

### Information Dissemination

Participants disseminated the information they learned to ED staff in 2 ways. First, each group of providers (physicians,

nurse practitioners, and nurses) worked with their counterpart(s) to develop a presentation. Participants were required to attend all of the educational lectures. Content was reviewed by the AI Community Liaison, who was present at each of these presentations. Secondly, each participant had conversations with 3 other staff from the ED by February 1, 2017.

## Results

### Demographics

The 7 participants included 3 physicians, 2 nurse practitioners, and 2 registered nurses. Six participants identified as female and 1 as male. Six of the participants identified as NHW, and 1 participant identified as biracial, American black and white.

### Key Takeaway Messages and Next Steps

The findings in Table 1 are from the final educational lecture. The participants were given the prompt, “What have you learned about the [AI] community and health?” Participants were asked to respond with a statement on a post-it note and to paste it below the prompt. Four categories emerged from this data: recognition of different family structures in AI communities; a new understanding of the oppression, bias, and historical trauma experienced by AI families; the mistrust of the health system in AI communities; and institutionalized bias into health-care practices. During the session, participants were led through an activity to identify application(s) of their training. Many of the applications they identified were already a part of the established intervention, including sharing at staff meetings and the fellow lecture

**Table 2.** Coding Scheme With Themes and Subthemes.

Themes	Subthemes
Motivation for participation	Lack of knowledge of AI cultures Desire to address personal implicit bias Need for additional education on how to address health disparities
Educational content	Interest in learning more about AI patient experience with health care There was value in the order of topics that were presented Actively misinformed on AI history Positively impacted participants' interactions with AI patients and families Emphasis on educators and presenters that are a part of local AI communities
Service learning experience	Educational components essential to service learning Provided an opportunity for participants to face their own discomfort Service learning project should be a preestablished experience Service learning project was benefiting the participants more so than the organizations
Dissemination of information learned	Disseminating the information would be challenging Disseminating the information is important. Most successful with individuals who are receptive to these issues and willing to change Institutional policy and procedural changes are necessary
Impact of the intervention	Bias exists in all communities Responsibility to address bias Remove blame to move toward change Personal perspective changed significantly

Abbreviation: AI, American Indian.

series. One additional component they suggested was to invite speakers back to talk with the entire ED staff.

### Group Interview Findings

The purpose of this group interview was to gather feedback from participants about the content and implementation of the intervention. The major areas and associated themes are listed in Table 2.

#### Motivation for Participation

Multiple motivators for participation were mentioned in the interview. At the individual level, a personal lack of knowledge about AI cultures encouraged providers to sign up. One participant stated, "I just felt a complete blank about our Native American patients. I didn't feel like I understood anything about culture and disparities and what they experience when they come in the ED. I realized that this isn't a population I know very much about, and certainly we do see them." Another factor at the individual level was the desire to address implicit bias. Some providers had previously assessed their own bias, using the Harvard Implicit Association Test (IAT) (14). One participant shared, "... the implicit bias test. I was surprised at my results, just because I'm like, 'well, I treat everyone as their individual person as they come in the door,' and I don't think I realized... my own bias." Providers also discussed motivation from an institutional perspective. They identified the need for education on how to address disparities. One provider articulated, "I guess I felt that maybe we can make a difference. Because knowing the need is one thing, but trying to help [address the

need] is another. So I was hoping for this opportunity to actually bring on change." Additionally, providers expressed interest in learning more about AI patient experience with health care in general: "I wanted to learn more about what it's like for [AI families] on the outside, to get prescriptions filled and to get the care they need. I just wanted to know what we could be doing to make them feel better about their care."

#### Educational Content

Participants appreciated the order of the educational content. They felt it was necessary to understand topics such as power and privilege as context for health disparities. One participant reported, "after the first session I was like, 'we only have like [three] more sessions and we haven't even touched on American Indian culture yet.' So, I was a little afraid after the first one... and then I found out after the second, and the third, I really did need that first session. But I wasn't sure why I needed it until later, which is interesting to me." Providers expressed that this was new information for them and that they felt they were previously misinformed on AI history, as one participant stated, "I would say the historical reframe for all of us, I mean, as adults, we know things have been skewed and we weren't necessarily educated correctly, but all of that, the miseducation and the hurt... [this information was] very impactful."

The educational content had a positive impact on participants' interactions with AI patients and families, such as learning about the history of child removal from Native American communities. One participant reported intentionally communicating more directly with a family, in order to

let the family know that she/he had no concern for abuse. The participant shared, "I think having that background was really helpful because [there] was a Native American family where the infant had rolled off the couch when the mom turned around to get a diaper . . . You could tell she was terrified. And I mean the story fit, and she had come in right away. And I could sort of say like, 'This is an accident' . . . acknowledging that she had come in and talked to me and told me what had happened. So I think [I did] approach the situation differently than I might've before." Furthermore, participants expressed that it was crucial that they had educators and presenters who were a part of local AI communities. One participant said, "The most powerful [to hear from are] the people from those communities who say, 'Hey, I lived here, I was from here, I am from here. I'm in this tribe, I'm from this community.'"

### *Service Learning*

Participants felt strongly that the educational components of the intervention were beneficial and essential to their service learning experience. One participant stated, "I think [the service learning] is an important piece of it, but I think that they need to know the background . . . before they go into any service projects." The service learning project provided an opportunity for participants to apply what they learned and face their own uncertainties working in AI communities: "... this was 5 miles from where I live, and it was completely out of my comfort zone . . ." Participants suggested that the service learning project should be set up on behalf of participants, instead of having participants arrange it themselves. Additionally, there was an acknowledgement that the service learning project benefitted the participants more than the organizations. Since the purpose of the intervention was to impact the participants' perspective, this wasn't unexpected but it was acknowledged during the interview. One provider said, "I don't think you can be super impactful . . . I don't think really that's the point with short-term volunteering . . . I never felt like the point of it was to really fix anything or change anything. It was more to just be exposed to the community that I have never worked with before."

### *Dissemination of Information Learned*

Participants anticipated that disseminating the information would be challenging and felt the intervention would be most successful with individuals who are receptive to these issues. One participant stated,

I'm equipped to kind of reflect and share what I got out of this and change my own practice the best I can, within the system and be considerate of it . . . I don't know that I am equipped well enough to argue back, because . . . I haven't lived it, and I think it was extremely valuable to get it straight from people from my community . . . I can have conversations with people, I can

enlighten, but I don't know that I'm going to be the one to change the minds of people.

Participants felt that institutional policy and procedural changes are necessary to effectively address health disparities. One participant said, "we actually have to commit to changing policies. It's nice to talk about stuff but we need to change how we incorporate all underrepresented groups in just the day-to-day routine activities in our emergency department."

### *Impact of the Intervention*

A number of participants emphasized that learning that biases exist in all communities provided space for them to acknowledge and address their own biases. One participant said that the intervention helped her or him recognize personal bias, but also to move beyond guilt. This participant gave an example of experiencing bias while participating in the service learning project,

when I finally [got the contact for the organization] on the phone . . . the first thing she says to me, I don't know if she missed something I said or what, but she says, 'Okay, where you coming from . . . ? The jail? Where you coming from?' So she assumed . . . that I was coming to her from one of those [court-ordered] entities . . . I wasn't really offended that she did that initially, but it's just another point that there are biases everywhere.

Participant perspectives changed significantly after the intervention. One participant discussed the placement of a uniformed police officer within the ED and said,

I did a complete shift on [having a uniformed officer in the waiting area] . . . I was someone who, 6 months ago, was like, "We need a cop, I want a cop there, I don't feel safe at work." I have been talking to my [partner] and was like "I can't believe how much my opinion has shifted on this," and it's absolutely because of this [intervention] . . . we can't have a cop there. That doesn't work for families coming in, especially Native American families, with the child protection stuff, [where] it's just a barrier getting through the door.

## **Discussion**

### *Implications*

Emergency department providers who participated in this intervention reported new or increased awareness of their own implicit bias. There is evidence that health-care providers are susceptible to the same implicit biases found in the general population (27). While there are many studies that demonstrate the existence of implicit bias in medicine, there are few studies that attempt to address implicit bias (28). To our knowledge, this is the only study to address implicit

bias among health-care providers, with a focus on AI communities.

There is limited evidence on the application of interventions designed to reduce implicit bias among health-care providers. The existing research has focused on students training to be health-care providers and suggests that bias awareness strategies alone are not enough to impact behavior (29–31). However, increased awareness of bias likely is an important foundation for behavior change (32). One study found that having taken the IAT itself during medical school was a predictor of decreased racial implicit bias by the end of medical school (33). This study also found that hearing negative comments about African American patients by physicians or having a bad experience with African American physicians was significantly associated with an increase in implicit bias. Having positive experiences with African American physicians decreased implicit bias (33). Another study on unconscious bias in introductory psychology students found that having a multifaceted intervention did reduce implicit bias in an intervention group when compared to a control group (34). While providers who participated in our intervention described making positive changes to their patient interactions, future research on addressing bias among health-care providers should focus more specifically on assessing culturally competent behavior change.

Although our participants noted that the service learning portion of the intervention would have been more meaningful for them and more supportive of AI organizations had it been more structured, the service learning portion of the intervention was well-received by the participants. Other research has also found that service learning projects are beneficial. One school of public health initiated a service learning field-based curriculum and found that students reported a sense of urgency and action when they had the opportunity to focus on health disparities in community (18). Research with medical students has shown positive trends in programs to gain skills to serve underserved populations. They reported a shift in perspective and knowledge regarding stereotypes, access to health care, health determinants, and healthy behaviors (17).

### Limitations

Our small sample of participants self-selected to participate in this training program. Implementing the intervention on a larger scale, in additional settings, or requiring participation may affect the outcome. This intervention was developed to target health equity in a single ED and would require adaptation for different communities and over time.

Participant interviews highlighted limitations in the curriculum. A more organized approach to the service learning component would result in a more meaningful experience for providers and more reliable help for an organization. Participants also determined that they were not the most influential people to disseminate information they had learned to other ED staff and that speakers from the AI community

would be more effective. These are valuable considerations for organizations planning future interventions.

### Conclusions

This intervention with ED providers increased awareness of implicit bias and health disparities. Additional institutional policy and procedural changes are necessary to effectively and sustainably address health disparities affecting AI populations. There is research that demonstrates cultural competency interventions which target both the policy level and the individual level show hospital-wide improvement in implicit bias and staff diversity (35). This emphasis may result in more sustainable reductions in implicit bias and positive patient care experiences.

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### Supplemental Material

Supplemental material for this article is available online.

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