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A Qualitative Review of Barriers and Facilitators Identified While Implementing the Native Students Together Against Negative Decisions Curriculum in a Multisite Dissemination and Implementation Study

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Abstract

Culturally-adapted evidence-based programs (EBPs) are needed to promote healthy behaviors among Native teens and young adults. Little is known about the facilitators and barriers of implementing and sustaining EBPs in Native communities. This paper aims to identify those factors described by educators who implemented the Native Students Together Against Negative Decisions (STAND) curriculum. Methods. We conducted qualitative, semi-structured interviews with 44 Native STAND educators from 48 sites throughout the United States. We used a modified grounded theory approach to explore barriers, facilitators, and sustainability factors related to implementing Native STAND. Results. We learned that disruptions to staffing, coordination, and organizational factors were the most common barriers. Factors that improved implementation success included: tailoring the program to local needs/constraints, having a supportive Project Manager, improved fidelity due to check-in calls, and participation in summer training. Factors that improved sustainability included: access to needed infrastructure, administrative support, community support, and student interest. Discussion. The delivery of Native STAND was further improved by person-to-person communication and resource sharing across sites. Sustaining EBPs in AI/AN settings requires culturally-tailored technical assistance, sufficient implementation funds for materials and staffing, and a community of peer educators to inspire forward progress. Conclusion. EBPs that reflect the needs and experiences of American Indian and Alaska Native (AI/AN) youth are necessary to address systemic inequities in adolescent health outcomes. The Native STAND Dissemination and Implementation study is among the first to assess facilitators and barriers to program delivery in diverse AI/AN settings.

Keywords

American Indian or Native American, evaluation, general terms, implementation science, place, population groups, qualitative methods, school-based health promotion

American Indian and Alaska Native (AI/AN or Native) youth represent a thriving population in the United States, with more than 2.1 million AI/ANs under 24 years old (Center for Native American Youth [CNAY], 2016). Although rich in history, language, culture, kinship, and connection, systemic inequities create conditions that place AI/AN youth at greater risk for exposure to violence, unhealthy relationships, sexually transmitted infections (STIs), and teen pregnancy (King Bowes et al., 2018). As a result, AI/AN young adults (ages 15–24) are among the most at-risk population in the United States for poor health outcomes (CNAY, 2016).

Evidence-based programs (EBPs) are emerging as key tools to reverse health inequities, yet several factors prevent their widespread use in AI/AN communities (Sacca et al.,

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2022). To be effective, EBPs must reflect youth's cultural values, competencies, and language (Shegog et al., 2017) while engaging AI/AN youth in program delivery (Reinhardt et al., 2008). Adapting and evaluating EBPs is an intensive process that requires long-standing involvement with AI/AN communities, the inclusion of AI/AN researchers and staff, and the adaptation of evidence-based models and frameworks while retaining core components to maintain program fidelity and impact (Alvidrez et al., 2019; Kumpfer et al., 2002). Another challenge noted by researchers hindering the broad scale-up of EBPs is the mismatch between the rigorous study demands required when testing evidence-based interventions and the priorities of Indigenous communities (Savaya et al., 2008). Research methods used to evaluate EBPs have been viewed by some as conflicting with preferred research practices in AI/AN communities—resulting in limited sample sizes, less rigorous study designs that produced limited "evidence" of effectiveness, logistical issues, turnover, and distrust of colonial systems (Walker et al., 2015). Previous research on EBPs designed for AI/AN youth point to unique barriers and facilitators that could affect their sustainability when broadly disseminated (Markham et al., 2016) due in part to the geographic, cultural, and political diversity that exists across AI/AN communities (Blue Bird Jernigan, 2010).

Researchers and funding agencies are now turning to Dissemination and Implementation research (D&I) to overcome barriers to program adoption in community settings. Despite the growing popularity of this approach, few studies testing D&I methods have been conducted in AI/AN settings (Sacca et al., 2022). Although challenging, D&I research in Indigenous settings has the potential to improve EBP delivery, a critical step to improving population health for AI/ANs (Blue Bird Jernigan, 2010; Blue Bird Jernigan et al., 2020; Kaholokula et al., 2014). Additional research is needed to identify the most effective methods that can be employed to maximize EBP adoption, fidelity, and sustainability in Indian Country and Alaska (LaVeaux & Christopher, 2009).

Native STAND D&I Study

Native Students Together Against Negative Decisions (Native STAND) is a cultural adaptation of the STAND intervention, a 28-session teen peer educator training program based on the Diffusion of Innovations Theory and the Transtheoretical Model (Smith & DiClemente, 2000). Native STAND is a comprehensive sexual health curriculum for Native high school students supporting healthy decision-making through interactive discussions and activities that promote self-esteem, goals and values, team building, negotiation and refusal skills, and effective communication. The 90-min lessons contain stories from Tribal communities that ground learning in cultural teachings. Curriculum implementation is flexible, allowing educators to adjust the lesson plans to local settings and constraints while including local guest speakers and traditional stories to increase cultural relevance. Previous evaluations of Native STAND demonstrate it to be an effective approach for addressing healthy relationships, STIs, and teen pregnancy (Rushing et al., 2017).

Although positive outcomes have been reported, additional research was needed to identify barriers and facilitators to implementing Native STAND. A 5-year D&I study was designed to address three critical public health needs: (a) increasing the number of health professionals trained to deliver EBPs; (b) rigorously evaluating a culturally-relevant program to test its effectiveness, and (c) disseminating and implementing an EBP to reduce health disparities using a proactive technical assistance approach (Ray et al., 2012).

Method

The project's evaluation plan and dissemination strategies were guided by Glasgow's RE-AIM Framework, which utilizes five evaluation components: Reach, Effectiveness, Adoption, Implementation, and Maintenance (2019). This qualitative review of the larger D&I study explores the following research questions to better understand the Implementation and Maintenance components of the study:

Research Question 1 (RQ1): What were the primary barriers to implementing Native STAND?
Research Question 2 (RQ2): What factors facilitated the implementation of Native STAND?
Research Question 3 (RQ3): What factors influenced the sustainability and/or maintenance of Native STAND after the conclusion of the study?

Research Partners

The Native STAND D&I research study was a collaboration between the Oregon Prevention Research Center (Oregon PRC) at Oregon Health & Science University (OHSU), the Northwest Portland Area Indian Health Board, and 48 Tribes and Native-serving organizations located across the United States. The study protocol was reviewed and approved by OHSU (IRB00000734) and the Portland Area Indian Health Service Institutional Review Board (659942).

Site and Facilitator Recruitment

The research team developed an application process and recruited 12–20 Native STAND educators each year for 3 years. From December 2014 through February 2017, the team used email, the Healthy Native Youth website, newsletters, and social media (Facebook), Native press outlets, and webinars to recruit community partners. Tribes, Tribal health organizations, Indian Education and human service organizations serving Native young people posted announcements in their respective listservs. Recruitment also occurred through a national network of reservation and urban Indian health clinics.

Table 1. Resources Available to Native STAND Participants by Intervention Arm.

Resource	Explanation	Designation
Summer institute	A 5-day all-expense paid training that included sessions on curriculum instruction, research study evaluation components, and opportunities to practice delivering the curriculum.	Active and passive
Box of supplies	Shipped to each educator following the summer institute, the box of supplies included supplementary materials necessary to implement the curriculum such as condoms and beer goggles.	Active and passive
Manager	The Project Manager on the Native STAND research team conducted monthly calls with educators, discussing aspects of implementation including identifying institutional support and working through challenges, providing study resources for implementation, and general implementation progress. The Project Manager also connected study participants to other educators to determine solutions to similar implementation challenges.	Active and passive
Web portal	The Native STAND research team developed a web portal through which educators could access materials and resources shared during the summer institute, have online discussions, and upload related documents they had created.	Active and passive
Technical assistance	The research team engaged two previous implementers of Native STAND to serve as technical assistance advisors. These individuals were called educators in the active arm and met monthly, or more frequently as requested by the technical assistance advisor or educator, to provide implementation advice.	Active only
Monthly learning group calls	Participants in the active arm were invited to attend monthly collaborative calls during which they were encouraged to share ideas, challenges, and successes. Each monthly call had a theme related to implementation.	Active only

Note. STAND = Students Together Against Negative Decisions.

Eligible facilitators included Tribal health educators, teachers, and or youth prevention staff who worked or partnered with a Tribal school or a youth-serving Tribal organization, where they had access to students to deliver Native STAND. Eligible sites had a majority of AI/AN high school-age youth in their program (9th to 12th grade).

Applications were scored using a matrix to assess fit. Priority was given to applicants who were: (a) American Indian or Alaska Native with documentation of Tribal affiliation—applications from non-Natives who worked with Native populations were also accepted with support from a Tribal organization; applicants who had (b) advanced training, namely, Bachelor's level health or public health field, or 3 years of experience in health education; and who had (c) demonstrated support from their employer and Tribal organization. Sites were required to sign a Memorandum of Agreement between OHSU and the Tribe/organization detailing the roles and responsibilities of each partner. Several communities also elected to pass a Tribal Resolution to ensure leadership and community support.

A total of 48 educators in three cohorts were enrolled over 3 years. Each cohort of facilitators attended a 5-day all-expenses-paid training on the use and implementation of Native STAND in Portland, Oregon. Selected sites received a 2-year capacity-building grant (US$5,000 per year) to offset the costs of implementing the curriculum, with the goal of delivering the program at least twice with two unique cohorts of students.

Randomization Into Study Arms

After each training, we randomized the educators into two study arms (active and passive). Educators in the passive arm received four capacity-building resources, while educators in the active arm received an additional two for a total of six resources (Table 1).

Sites randomized into the passive arm were rolled into the active arm after 1 year to assess differences in D&I outcomes (Figure 1). To prevent imbalance on important factors related to the adoption and sustainability of Native STAND, the team used a stratified randomization process: (a) school classroom delivery versus youth program (after-school or club) and (b) reservation versus urban setting.

Implementation research has demonstrated the benefits of frequent, ongoing technical assistance (Ellis et al., 2003; Kegeles et al., 2012). In the active arm, we provided tailored implementation support that included one to two telephone calls per month with one-on-one technical assistance and monthly peer learning collaborative calls. We assessed curriculum fidelity through weekly or bi-weekly check-ins with educators. During these calls, the educators reported what lessons and topics they had covered and how long they had spent on each section. These check-ins also provided opportunities for peer-to-peer learning to resolve structural and policy issues that hindered implementation, student retention, and program sustainability.

Data Collection

The first and second authors conducted semi-structured phone interviews between December 2016 through July 2019 with the Native STAND educators. Semi-structured interviews were conducted with 44 educators from the 48 sites across three cohorts of Native STAND. All participants provided written informed consent to participate.

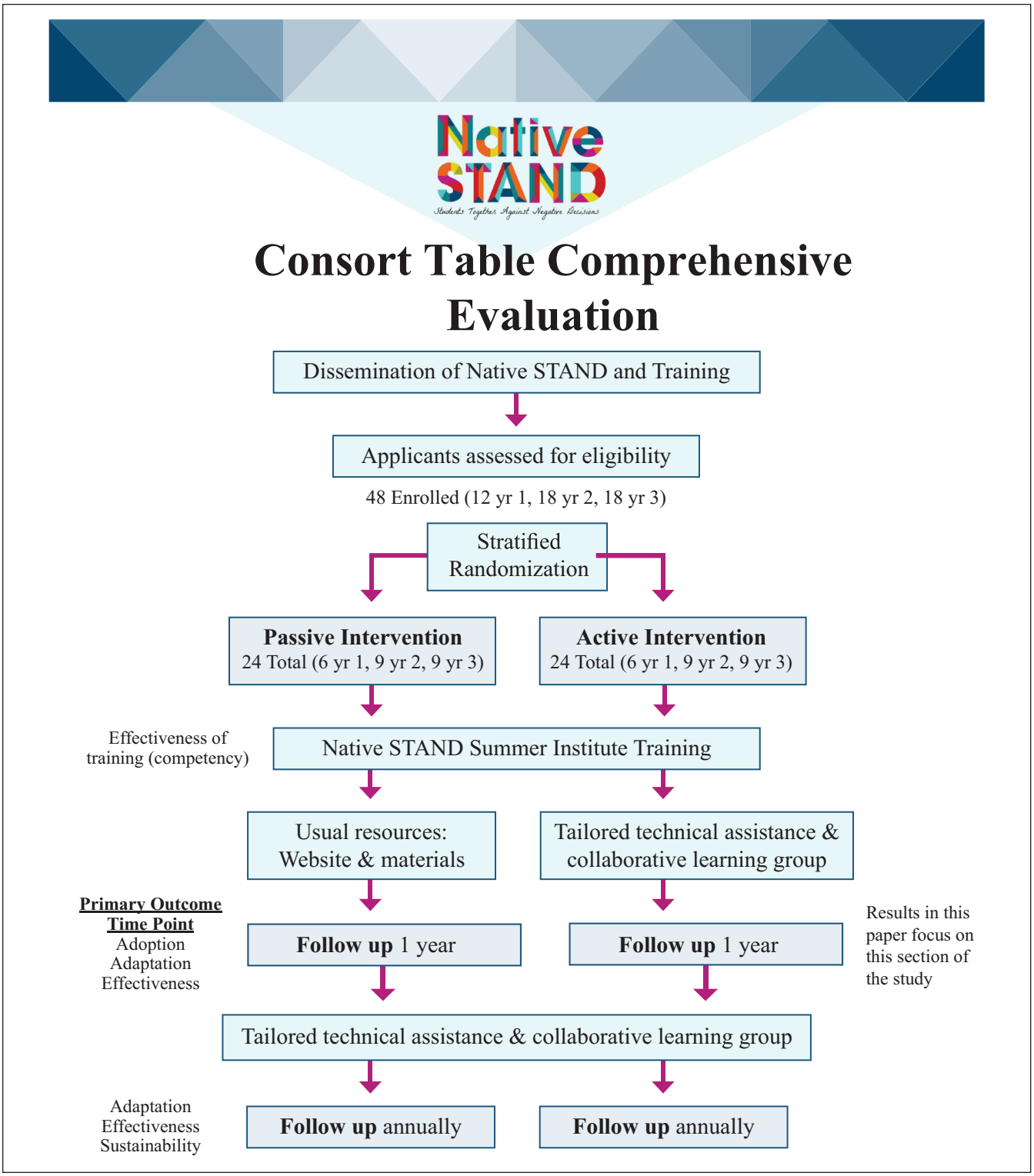

Figure 1. Consort table for comprehensive evaluation of Native STAND study.
Note. STAND = Students Together Against Negative Decisions.

The interview guide was designed to better understand the Implementation and Maintenance components of the RE-AIM framework, providing insight from the perspective of the educators delivering Native STAND (Glasgow et al., 2019). The questions focused on implementation fidelity, local barriers and facilitators to lesson delivery, the impact of the D&I study activities (peer support, coaching, and technical assistance) on program delivery, and educator

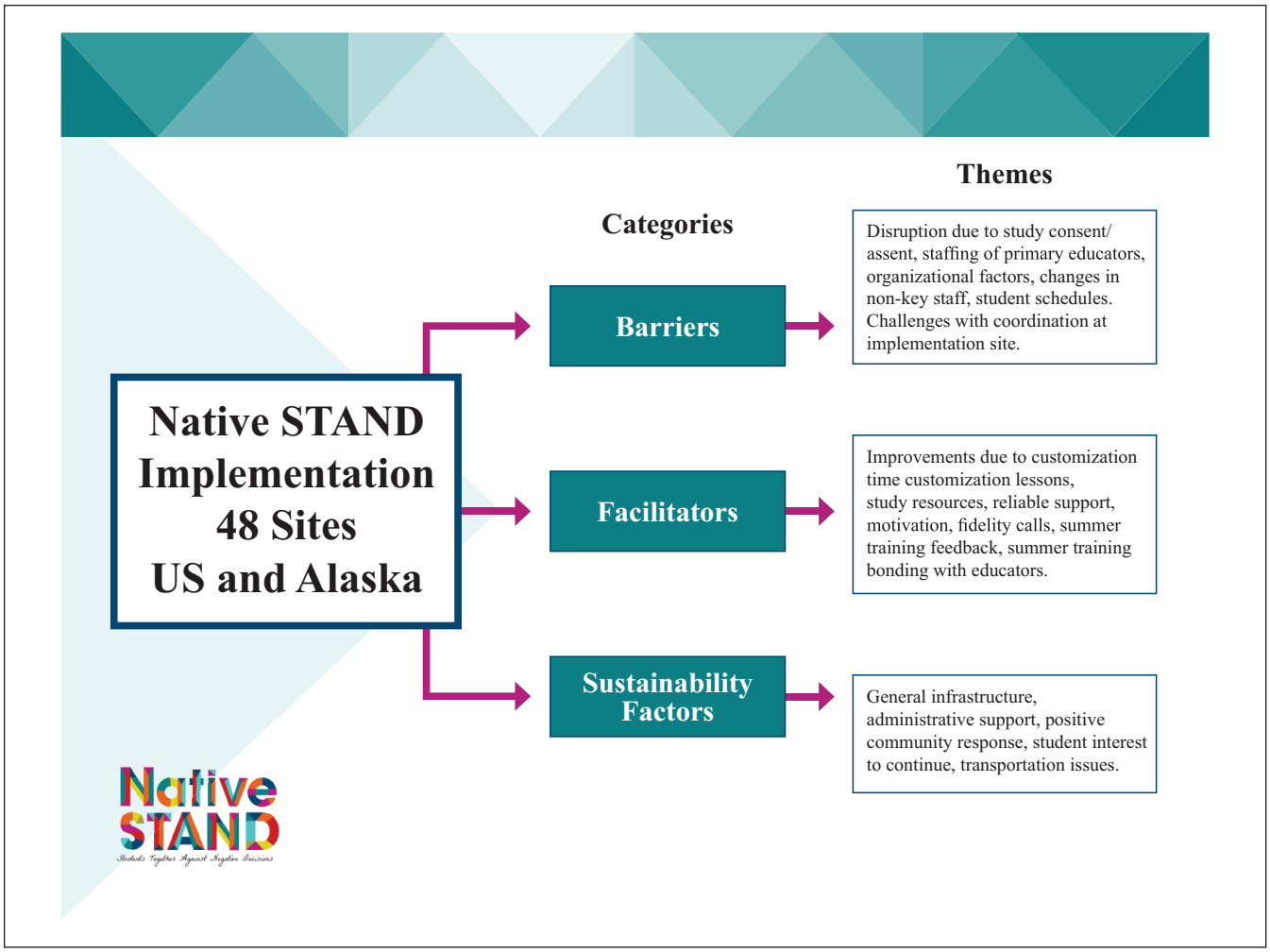

Figure 2. Categories and themes from Native STAND implementation.
Note. STAND = Students Together Against Negative Decisions.

growth due to participation in the study (see Online Supp). Interviews were audio-recorded, manually transcribed verbatim, and ranged from 20 to 70 min with an average of 45 min. Educators were not provided additional compensation for completing an interview.

Qualitative Analysis

The first and second authors were responsible for transcribing, coding, and analyzing the qualitative data using a modified grounded theory approach (GTA) (Glaser & Strauss, 2017). GTA was selected as the method for this study for its iterative and comparative framework. The principles of GTA allowed for the interviews to guide hypotheses. We formulated our research questions first with a focus on barriers to implementation, facilitators of implementation, and factors influencing sustainability and inform findings and subsequent recommendations. QSR NVivo version 12.0 was used to generate transcripts that were manually validated and edited. The authors first reviewed transcripts for emergent themes using open coding, allowing for initial codebook development (Holtrop et al., 2018). The codebook was iteratively refined as themes emerged during the coding process.

The authors double-coded each transcript and reached a consensus through verbal discussion. In rare cases when the authors were unable to reach a consensus, the text was brought to a third coder. The authors also conducted code cross-checking to minimize research bias and measure the reliability of their coding. Interrater reliability ratings remained consistent at 80% throughout, demonstrating clarity of the code definitions and consistency across coders over time. From this analysis, three major subject themes appeared: (a) unique barriers, (b) facilitators to implementing Native STAND, and (c) factors affecting sustainability (Figure 2).

Results

Description of the Study Sites and Educator Demographics

Native STAND was implemented in 48 communities from 16 states, including Alaska. Most of the sites were from rural

communities (75%), and from the western part of the United States (75%). Most educators (89%) identified as American Indian or Alaska Native, and 80% identified as female. They ranged from 20 to 65 years of age, and 61% held an undergraduate degree or higher. Educators held various professional positions, including Tribal or school-based youth programs, including Indian Education; community health, behavioral health, social services, and prevention programs.

Barriers to Implementation

The most common barriers described by educators implementing Native STAND included disruption due to consent/assent protocols, staffing changes, coordination with the implementation site, organizational factors, and student schedules. Table 2 highlights the top six barriers to implementation, each reported by more than 15% of the educators. The percentage of educators reporting was derived from NVivo coding counts, which were then manually sorted to remove duplicates so that no educator transcript was counted more than once.

Disruption Due to Consent or Assent Protocols. More than half of the educators (57%) reported that obtaining parent/guardian consent or child assent presented delays to program delivery. Because those activities are only required during the efficacy phase of the study (to protect human participants), and would not affect standard use of the curriculum, we did not analyze those disruptions in greater detail. Our analysis thus focused on those elements of the program and its delivery that could affect its utilization and dissemination more broadly.

Disruptions Due to Staffing Changes. Two of the most common disruptions to implementation mentioned by the facilitators were staffing changes involving the primary educator or support staff. Incidences where the primary educator transitioned into another role or took on additional responsibilities, complicating their ability to implement Native STAND, was the second most reported barrier (41%). As one educator explained,

> A few months after I had gone through the training, my position had changed to where I was actually promoted into another position. I ended up taking on two additional programs on top of the other programs I was running. So, it has literally taken me about a whole year to kind of figure out how I can make everything work.

Aside from the primary educator, changes in non-key staff also presented implementation challenges (25%). Some educators felt alone and overwhelmed when staff left:

> I chose to pick it up because I saw the significance, and we had some turnover with staffing. So, the young lady who did attend the Summer Training had moved on to grad school, which is awesome. [Native STAND] was just kind of left alone and we had absorbed the grant money, and nothing was implemented. I was just seeing an immense need in our community for something like this, and so I took it on top of my usual role.

Disruption Due to Coordination With Implementation Site. Another common barrier reported by educators was coordinating with implementation sites (34%). Coordination issues manifested in three ways: (a) difficulties securing a meeting space, (b) difficulties scheduling between educator and the implementation site, and (c) inability of the implementation site to follow through with implementation commitment due to unforeseen factors. Many educators implemented the program in a school setting and worked around the needs of school employees, including the availability of classroom space. Although sites agreed to deliver the program during the application process, external factors often made it difficult for them to move forward with implementation. One educator who implemented in a school shared,

> Last year they were kind of reluctant to let us in there because their test scores were low, so they wanted to improve their scores by doing more in school. We weren't able to go in [to the schools] until a certain time so that is why last year was hard.

Disruption Due to Organizational Factors. Similarly, another common disruption mentioned by educators was change(s) in leadership at the educator's organization or Tribe (27%). Although educators originally received letters of support from their home community or potential implementation site as part of their application, changes in leadership often affected support for implementing Native STAND. Student schedule interferences, particularly around sports and other extracurricular activities, were reported by 18% of educators. One educator reported, "The only challenge I had was working around the kids' schedules. Because I don't deliver it in schools. With kids and sports, it was really hard."

Facilitators to Implementation

Factors that facilitated the implementation of Native STAND included improvements due to local tailoring, support provided by the Native STAND Project Manager, improvements due to fidelity calls, summer training, and administrative support (Table 2).

Improvements Due to Local Tailoring. Educators were encouraged to tailor and customize the curriculum, delivery format, and audience based on the needs of their home community. Although Native STAND lessons were designed to take 60–90 min, many educators had limited access to students and had to alter lessons to match the time available (41%). In determining how to customize the curriculum, one educator reported that they reviewed lessons through the lens of the students' needs and prioritized content accordingly:

> Sometimes I would skip parts of the lesson and I would look at the lesson to see what I felt was important that the students needed [to hear]. And then I kind of picked what I felt was important, or what activity was a lot more fun than the others, so that's how I strategized.

Other educators chose to adjust the number of lessons they implemented in their home community (30%):

> I only got to eight lessons. So, the eight that I got through, I mean, pretty much everything was there. The majority of it is pretty self-explanatory. I think given that [the Study team] kind of leave it open to, you know, more of it being a guide to teaching these things, kind of helps also.

Although Native STAND was designed to be implemented as a club or after-school program, many educators chose to implement it in a retreat format (5 days or less) or as a health class in-school to align the program with the needs and constraints of their communities:

> We had four days [to implement] for the most part. Four full days. In the end, the youth wanted to cover more things, so we actually came back two weeks later for another evening after that.

Support Provided by the Project Manager (Study Resource). Educators across both study arms reported that the highest rated study resource—and the second highest rated facilitator to implementation—was the Project Manager (43%). When asked what made the Project Manager such an important resource, educators reported that she was a reliable source of support, checking in, being reassuring, and advocating (45%). Educators also reported that the Project Manager motivated them to remain accountable, keep pace, or keep going (23%). Educators talked about her availability and support, "She was always available, very supportive, always positive." When we asked educators about their utilization of other resources (i.e., coaches or peers), many expressed a preference for the Project Manager as the primary point-of-contact to answer questions or concerns.

Improvement Due to Fidelity Calls (Study Resource). Educators felt that the fidelity calls were encouraging, motivating, and or improved their ability to implement Native STAND (39%). The fidelity calls were weekly or biweekly check-ins with a member of the research team. The calls tracked implementation factors such as how closely educators followed the curriculum and individuals involved.

Improvement Due to Summer Training (Study Resource). When asked what made the summer training an important resource, educators shared the opportunity to practice delivering the program with students with real-time feedback (32%) and bonding with other educators in their cohort (25%). One educator explained,

> I'm more of a hands-on learner. I like to see examples and hear from people who have experienced it, and hear from professionals face-to face, and have a chance to listen to their conversations. Hear their stories, ask questions, and have conversations with them. And then, you know, participate in more interactive group activities. I feel like that's what usually helps me and that's just my particular learning style, to carry out a curriculum.

Table 2. Frequency of Implementation Barriers, Facilitator, and Factors Affecting Sustainability ($N = 44$ Participants).

Major themes related to barriers to implementation	*n* (%)
Disruption due to study consent/assent[a]	25 (56.8)
Disruption due to staffing of primary educator	18 (40.9)
Coordination with implementation site	15 (34.0)
Disruption due to organizational factors	12 (27.2)
Disruption due to changes in non-key staff	11 (25.0)
Disruption due to student schedules	8 (18.1)
Major themes related to facilitators to implementation	***n* (%)**
Improvement due to customization time	18 (40.9)
Improvement due to customization lessons	13 (29.5)
Improvement due to study resource—manager[b]	19 (43.1)
Improvement due to reliable support—manager[b]	20 (45.4)
Improvement due to motivation—manager[b]	10 (22.7)
Improvement due to fidelity calls[b]	17 (38.6)
Improvement due to feedback—summer training[b]	14 (31.8)
Improvement due to bonding with educators—summer training[b]	11 (25.0)
Major themes related to factors affecting sustainability	***n* (%)**
General infrastructure meeting spaces, time, and staffing[c]	19 (43.1)
Current infrastructure in place to continue implementation	10 (22.7)
Lack of community infrastructure to continue	9 (20.4)
Administrative support to continue[c]	11 (25.0)
Current administrative support and approval	9 (20.4)
Lack of administrative support	2 (4.5)
Community response to continue implementation[c]	10 (22.7)
Community response aids future implementation	9 (20.4)
Community response prevents future implementation	1 (2.2)
Student interest	9 (20.4)
Transportation issues	6 (13.6)

Note. [a]Parent consent or participant assent presented challenges or delayed implementation. [b]Element of the research study. [c]Broad theme represents the total frequency of sub themes.

Factors Affecting Program Sustainability

Factors affecting the sustainability of the program after the conclusion of the study included infrastructure, administrative support, positive community response, student interest, and transportation issues (Table 2).

Infrastructure. When asked about continuing Native STAND past the two rounds tracked in this study, 43% shared that infrastructure—such as the availability of meeting spaces and time slots, as well as staffing considerations—played a

role in whether or not they could continue to implement Native STAND. A narrow majority of these educators (23%) reported that they had the infrastructure to continue implementing it in their home community, while 20% reported that they lacked the infrastructure to continue delivering the program. One educator built Native STAND into their high school curriculum and reported,

> One of the neat things that you received from our school and me implementing is that it's in our curriculum. . . I'd say that if I leave, I think they'll still have [Native STAND]. So, the future of it is strong in our school, because . . . they have to take it because of Health [credit requirements]. We put it under the Health category, and they need Health to graduate.

Administrative Support. Twenty-five percent of educators cited administrative support, or lack thereof, as a sustainability factor for their programs. More educators (20%) reported having the necessary administrative support and approval to continue delivering Native STAND; 5% reported insufficient support would prevent delivery to future cohorts. Administrative support was defined as support from any person in a position of leadership or with decision-making power within the tribe or community. When asked whether they thought they had sufficient administrative support to continue Native STAND, one educator responded, "Right now, no. I'm just worried about the next governor coming in and if he's going to be as supportive as this one and the one before."

Community Response. Another common sustainability factor was perceived community response (23%), with most educators (20%) reporting that favorable community buy-in for Native STAND would aid its implementation in the future. Only one educator reported that their community's response to Native STAND would prevent them from implementing it in the future.

Student Interest. Equally influencing the ability to sustain the implementation of Native STAND was whether or not educators could identify interested students to participate in future years (20%). Those reporting difficulty recruiting students cited reasons such as transportation issues and competing commitments, like sports. Transportation issues were reported by 14% of educators and related to actual or anticipated student turnout. One educator shared,

> Right now, our van is down, and it's been down for a couple weeks. I'm trying to get funds too, because that's how we haul kids to the program, and then we take them home. [The van] being down hurts us.

Other educators had no concerns about implementing in the future, including one educator who reported, "I think [sustaining Native STAND in my community] should be pretty straight forward from here. I already have a list of students who are interested and are going to attend for next year." Table 3 includes additional quotes that reflect major subject themes.

Discussion

Native STAND was successfully implemented in 48 diverse AI/AN community settings across the United States. Although implementation methods varied greatly, educators maintained strong fidelity to the curriculum itself (Skye et al., 2021). The curriculum was delivered to over 2,000 students by a diverse cadre of community health advocates—ranging from trained educators to youth prevention specialists. Common barriers that delayed or prevented implementation included disruptions in staffing; changes in leadership, stability, or organizational capacity; or difficulty coordinating with the implementation site. Although the educators at many of the sites changed-hands over the 3 years, most successfully anticipated staff-turnover by developing a detailed Implementation Plan and by selecting and training a co-facilitator who could continue delivering the program when disruptions inevitably took place—advice provided during the week-long educator Training and monthly TA/fidelity calls. Many educators also successfully navigated administrative turnover using a Memorandum of Agreement, Letters of Support, and/or Tribal Resolutions—a required component of their participation. These findings are similar to previous D&I research, where staff turnover and insufficient funding were identified as frequent challenges, and support from leadership was identified as critical for program sustainability (Jaycox et al., 2006).

Program delivery (reaching two or more cohorts of students) was strongest at sites that had continuous access to students and space. While integrating Native STAND into health and sex ed classes in school settings improved program delivery—improving reliable access to students—it was not feasible for all schools in all States. Some schools lacked administrative support for sex education, others noted their school's curriculum had to focus on statewide standards, which left no time for Native STAND. Providing educators flexibility to teach Native STAND in school and community settings, with options for cultural tailoring, improved program delivery, and community buy-in.

Other important factors that improved the D&I of Native STAND involved person-to-person communication and resource sharing. Across the board, educators reported strong satisfaction with the support they received from project personnel. Instead of looking through the facilitation manual or the online portal, most educators preferred to connect with the Project Manager or their peer educators. Participants also ranked the in-person training with hands-on practice favorably. This finding aligns with traditional learning and teaching styles present in AI/AN communities, which draw upon storytelling, role modeling, and practice to build core competency and skill mastery (Pewewardy, 2002). Facilitators relied heavily on the Project Manager to help navigate each phase of the study. The Project Manager

Table 3. Major Themes With Relevant Quotes Around Barriers, Facilitators, and Sustainability Factors.

Major themes—barriers	Relevant quotes
Disruption due to non-key staffing changes	"We had one facilitator leave and a new person join the team, and she was new to Native STAND. That did affect our implementation."
Disruption due to coordination with implementation site	". . .And fighting over classroom space. Because you know, I'm not a teacher, so I had to figure out which teacher was going to let me use their room. All the teachers were like, 'Can't use my room!'"
Disruption due to organization factors	"Before, I had gotten a letter from Tribal council saying they supported me to go through this process. And then I did start to go through the process and the Tribal council leadership had changed, and they weren't so excited for me to go through implementing this program."
Major themes—facilitators	
Improvement due to customization	"Their classes are only 50 minutes, and a typical STAND lesson is at least 90 minutes, so I've never taught a whole lesson of Native STAND yet."
Support provided by the Native STAND Project Manager	"[Project Manager] has been very supportive. . . For someone like her who just calls up to check on you when you just feel like you're on your own, but you're not [on your own] when you have somebody as positive as she is and just reassuring about it. Even just that call is important."
Improvement due to fidelity calls	"When we had our two-week check ins, just having the time to reflect on the work that I did to reflect on what was helpful, what wasn't helpful, I think that helped me. And just getting feedback from her about the program!"
Improvement due to summer training	"We were all able to bond, and just meet the other people in the cohort who would be implementing stuff [with us]."
Major themes—sustainability	
Infrastructure	"Where it stands right now is everybody's on board to implement it, but right now I'm trying to find a spot and a time and a location to do it."
Administrative support	"The principal sat me down last year and said, 'Hey we've got to keep this going.' So, I said, 'All right!'"
Community response	"It's been very positive. We were invited to the youth conference to do one of their. . . they have different speakers come and do different sessions with the kids, so that was good. During the session, people would come up to either myself or the co-facilitator and ask, 'oh, can I get my kid in there?' or 'when's the next session starting?'"
Student interest	"There are a lot of programs in the [Tribe redacted] community and only a small amount of kids. A lot of people are fighting over kids."

Note. STAND = Students Together Against Negative Decisions.

was: able to authentically connect with participating health educators; proactive reaching out to offer support (calling, responsive to emails); identified as a member of the community being studied; provided unconditional support at every step of the process; and helped educators identify barriers and potential solutions. Future D&I efforts should consider this an essential role when disseminating EBPs in AI/AN communities.

Study Limitations and Future Directions

Results from this study should be considered within the context in which data were collected, and the Native STAND curriculum was offered. First, high educator turnover resulted in limited institutional memory from previous "deliveries." Second, qualitative interview data were combined over a 3-year period, meaning changes in policies, funding, program, staff, and attitudes about sexual behaviors may have changed throughout the duration of the study. Third, while results provide promising guidelines, future research should explore cultural and contextual aspects of implementation, and the most important strategies to support D&I. Last, we intended to study the experience of educators across different delivery settings (in-school, after school, retreat), community settings (reservation vs. urban), and active vs. passive cohorts, however, staff turnover and changes in program delivery over time at those sites made it difficult to rigorously assess those differences.

These qualitative findings from the Native STAND D&I study suggest that expanding the use of EBPs in AI/AN settings can be improved by providing culturally-tailored training and technical assistance to health educators, sufficient funds to support implementation, a peer learning collaborative or Community of Practice to inspire forward progress, and an Implementation Plan that anticipates common barriers. Our work underscores the need for EBPs in AI/AN settings, which prioritizes community values, promotes flexibility, respects tribal sovereignty, and acknowledges the unique community conditions that affect their implementation and maintenance.

Implications for Practice

EBPs that reflect the unique needs and experiences of AI/AN youth are necessary to address systemic inequities in adolescent health outcomes. The Native STAND D&I study is among the first to assess facilitators and barriers to program delivery in diverse AI/AN settings. The barriers and facilitators described in this article share important lessons learned for D&I research teams, as they design strategies to disseminate and grow adolescent health programs. Other publications by our team describe the positive impacts of the Native STAND curriculum on student learning and health behavior (Skye et al., 2021). Together, these qualitative and quantitative findings provide strong evidence of effectiveness for Native STAND as a sexual health program that reflects the unique needs and experiences of AI/AN youth.

Authors' Note

All procedures performed in studies involving human participants were in accordance with the ethical standards of the Oregon Prevention Research Center (Oregon PRC) at Oregon Health & Science University (IRB00000734) and the Portland Area Indian Health Service Institutional Review Board (659942).

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