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BRIEF REPORT

Healthy & Empowered Youth: A Positive Youth **Development Program for Native Youth**



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Introduction: During 2010–2012, Oregon Health & Science University's Prevention Research Center, a Northwest Tribe, and the Northwest Portland Area Indian Health Board, collaborated to evaluate the Healthy & Empowered Youth Project, a school- and community-based positive youth development program for American Indian and Alaska Native high school students.

Methods: The Native STAND (Students Together Against Negative Decisions) curriculum was enhanced with hands-on learning activities in media design to engage students in sexual and reproductive health topics covered by the curriculum. Guest speakers, field trips, and extracurricular activities were added to provide academic enrichment, engage students in cultural activities, and offer opportunities for career development. Students completed comprehensive pre- and postsurveys, and the authors conducted focus groups and key informant interviews with students and teachers. Data analysis was conducted during 2013-2014.

Results: Survey findings demonstrated improvements in student leadership and achievement, physical and mental health, and protective sexual health behaviors. The percentage of female teens reporting use of a condom the last time they had sex increased from 17% to 30%, and those who reported ever having been tested for sexually transmitted illnesses doubled from 12% to 24%. Focus group and interview findings indicated similar improvements in student self-esteem, life skills, health behavior, and engagement in community.

Conclusions: The Healthy & Empowered Youth Project educated and empowered Native high school students on a variety of sensitive health topics. The media enhancements were central to the program's success, reinforcing and personalizing classroom lessons and generating health-related videos and posters that resonated with family and friends.

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INTRODUCTION

merican Indian and Alaska Native youth are disproportionately affected by a number of health challenges, including drug and alcohol use, violence and self-harm, teen pregnancy, and sexually transmitted infections (STIs).¹ Structural and environmental factors contribute to these health disparities, including rural geography, high poverty rates, poor access to health services, stigma, and historical trauma.² Despite the immense need, few culturally relevant interventions have been designed for or rigorously evaluated among American Indian and Alaska Native youth.³ In response, Oregon Health & Science University's Centers for Disease Control and Prevention-funded Prevention Research Center, the Northwest Portland Area Indian Health Board, and a Northwest Tribe collaborated to implement and evaluate the Healthy & Empowered Youth (HEY)

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Project, a multimedia school- and community-based positive youth development program that emphasized sexual and reproductive health.

The Healthy & Empowered Youth Project

The HEY Project was delivered as a classroom course to students at the Tribe's junior/senior high school during 2010–2012. Students received an enhanced version of Native STAND (Students Together Against Negative Decisions), a culturally relevant curriculum that draws on teachings and values from across Indian Country.^{4,5}

The curriculum consists of 27 sessions that are each 90 minutes; employs active learning methods; and holistically addresses healthy relationships, self-esteem, preventing STIs and early pregnancy, and avoiding substance abuse. To enhance the curriculum, teachers incorporated hands-on training in video production and media literacy, guest speakers, field trips, and after school and summer camp activities. The class was taught by two trained facilitators (one male, one female), who were employed as teachers at the school, and who received training from professional filmmakers.

Table 1.	Description	and Results	of Composite	Survey	Measures	(Positive	Emotions)
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			Composite in	Composite index, M (SD)	
Domain	No. of items	Scale anchors benchmark value	Pre-survey (n=90)	Post- survey (n=90)	Pre-post absolute change ^a
Positive outlook	1	10 (very happy) to 0 (not at all happy)	6.85 (.26)	7.22 (.29)	+0.37
How happy would you say you are these days?			6.85 (.26)	7.22 (.29)	+0.37
Self-esteem	8	10 (strongly agree) to 0 (strongly disagree)	6.96 (.20)	6.85 (.21)	-0.11
I feel confident about reaching my goals.			7.91 (.28)	7.88 (.22)	-0.03
I smile and laugh a lot.			7.25 (.34)	7.98 (.31)	+0.73
I feel I am a person of worth.			6.90 (.27)	7.04 (.26)	+0.14
I feel I can't do anything right. ^b			4.46 (.31)	5.66 (.33)	-1.20^{*}
Sometimes I think I am no good at all. ^b			4.91 (.31)	5.10 (.34)	-0.19
I feel that I am a failure. ^b			3.92 (.35)	4.43 (.38)	-0.51
I feel that I do not have much to be proud of. $^{\rm b}$			5.05 (.32)	4.65 (.33)	+0.40
I feel that my life is not very useful. ^b			4.68 (.38)	5.32 (.37)	-0.64
Good at making friends, empathetic, caring	2	10 (strongly agree) to 0 (strongly disagree)	6.78 (.20)	6.94 (.23)	+0.16
I am good at making friends.			6.78 (.25)	6.84 (.28)	+0.06
I care about others' feelings.			6.86 (.25)	7.04 (.28)	+0.18
Strong moral compass, values, responsible, helpful, hardworking	5	10 (strongly agree) to 0 (strongly disagree)	7.54 (.19)	7.61 (.17)	+0.07
I am helpful.			7.23 (.31)	7.26 (.38)	+0.03
I feel confident standing up for what I believe.			7.39 (.33)	7.58 (.31)	+0.19
I try to do my best.			7.92 (.28)	8.11 (.30)	+0.19
I try to take responsibility for what I do.			7.72 (.31)	7.86 (.30)	+0.14
I live by my values.			7.05 (.32)	7.12 (.30)	+0.07
Adjusts well and meets challenges	2	10 (strongly agree) to 0 (strongly disagree)	6.61 (.22)	6.96 (.23)	+0.35
I adjust well to new situations and challenges.			6.67 (.23)	6.85 (.25)	+0.18
I do a pretty good job dealing with obstacles.			6.51 (.27)	6.98 (.25)	+0.47

^aChanges in the positive direction indicate an improvement (more favorable response) in the domain or measure.

^bScores for these questions were inversed for the calculation of pre-post differences and composite measure scores. *p < 0.05 by *t*-test. During 2010–2012, a total of 117 students participated in one or more trimesters of the HEY class; 27 students (23.1%) dropped out of the curriculum before finishing.

METHODS

Confidential, anonymous surveys were administered to students at the beginning and end of their participation. A total of 33 focus groups, assembled by grade level and gender, were conducted with students at the end of each trimester. Focus groups ranged in size from two to 18 students, with a total of 129 participants. Interviews with the two teachers were conducted by phone at the end of each school year, and seven key informant interviews were conducted with community leaders, school administrators, and parents at the end of the project.

Measures

The survey included ten sections drawn and adapted from the Native Youth Survey⁴ and other questionnaires validated with Native youth:^{5–13} (1) demographics; (2) self-esteem; (3) cultural identity; (4) aspirations and hopefulness; (5) cultural activities and interests; (6) relationships with caring adults; (7) feelings about school; (8) friends and community; (9) physical and mental health, alcohol and drug use, and sexual activity; and (10) feelings about the project.

Research on positive youth development has reported strong correlations between healthy behavior and factors that strengthen youths' ability to respond to developmental challenges.^{9,14} To assess these protective/resiliency factors, the analysis included composite measures on "positive emotions and self-worth," "cultural pride and identity," feelings of "hopeful future," "parent/family engagement," and "community engagement."^{12,13,15}

Statistical Analysis

Survey data were entered into an Access database and were analyzed for pre–post differences in Stata, version 12. The focus group transcripts were analyzed according to grounded theory methods using ATLAS.ti (www.atlasti.com). Transcript data were systematically categorized (open coding), categories were related to subcategories (axial coding), and core concepts were identified (selective coding).¹⁶ Student findings were organized into eight themes: (1) Trimester Topics, (2) Skills, (3) Identity, (4) Community, (5) Opportunities, (6) Project Strengths, (7) Project Weaknesses, and (8) Project Suggestions.

Teacher findings were organized into five themes: (1) Curriculum Topics, (2) Student Development, (3) Teacher Experience, (4) Project Challenges, and (5) Project Suggestions.

Seven themes emerged from the key informants: (1) Health Risk and Prevention, (2) Positive Outcomes and Impacts, (3) Community Engagement, (4) Project Praise, (5) Project Challenges, (6) Project Recommendations, and (7) Project Continuation.

Data analysis was conducted during 2013–2014. Findings were discussed with HEY teachers, school administrators, and community leaders to ensure alignment with their lived experience and to contextualize outcomes.

RESULTS

Of the 90 students who completed both a pre- and postsurvey, 83 (92%) were American Indian, 57 (63%) were aged 14–17 years, and 54 (60%) were in grades 9–12. The majority of students (72.2%) attended the HEY class for two or more trimesters.

Most students ranked themselves favorably on measures of positive outlook, self-esteem, morals and values, and adaptability (Table 1), and on measures of cultural pride and identity (Appendix Table 1, available online). Students also reported medium—high scores on questions related to future life chances, future optimism, and life meaning (Appendix Table 2, available online). Little change was observed from pre- to post-survey on these measures. At post-survey, 71.1% of students reported one or more leadership activities and 89.9% reported having an adult they could talk to about personal problems.

Measures of physical and mental health varied by gender. A higher percentage of boys than girls indicated they had "excellent or very good physical health" (boys: pre=60%, post=59%; girls: pre=49%, post=55%). A higher percentage of boys than girls reported they had "excellent or very good mental health" (boys: pre=62%, post=57%; girls: pre=51%, post=59%). More girls than boys indicated they had "ever experienced depression" (girls: pre=59%, post=52%; boys: pre=27%, post=35%). A higher percentage of girls than boys reported ever having "attempted suicide" (girls: pre=19%, post=16%; boys: pre=6%, post=9%). Pre-post differences were not statistically significant. Behaviors associated with STI risk generally improved, although were not statistically significant. Most notably, high school girls reported improvements in condom use and testing for STIs (Figure 1). High school boys reported higher condom use than girls (pre=65%, post=61%) and similar prevalence of testing for STIs (pre=22%, post=26%) (Appendix Figure 1, available online).

Students created more than 89 videos, 75 posters, two public billboards, and a mural addressing health topics (e.g., drug and alcohol use, suicide, bullying, dating



Figure 1. Percentage of female HEY students who reported protective health behaviors.

HEY, Healthy & Empowered Youth; STDs, sexually transmitted disease.

violence). The HEY YouTube channel (https://www. youtube.com/user/HEYProject1) has been viewed more than 14,000 times. In focus groups, students reported that the hands-on training in filmmaking and media development were critical components, improving retention, self-esteem, and self-confidence. In general, students favorably evaluated the HEY Project as acceptable, relevant, and valued (Appendix Table 3, available online).

DISCUSSION

The HEY Program educated tribal teens on a variety of sensitive health topics while remaining socially and culturally relevant. Students gained life skills, increased their confidence and self-esteem, and became more involved in their culture and community. Although the small sample size prevented demonstration of statistically significant effects, generally positive shifts were observed in key measures. Additional limitations include attrition, the pre–post design, and a single community.

The filmmaking activities reinforced classroom lessons and generated health-related media that resonated with family and community, suggesting that training youth to create media messages has the potential to influence not only individual behavior and peer norms, but also the social —ecologic factors that contribute to community-level health.

CONCLUSIONS

The HEY Project employed novel teaching strategies, using the Native STAND curriculum and student-led media projects to broach sensitive health topics, enhance student retention, instill healthy decision-making skills, and foster community buy-in.

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SUPPLEMENTAL MATERIAL

Supplemental materials associated with this article can be found in the online version at http://dx.doi.org/10.1016/j. amepre.2016.10.024.

REFERENCES

- Sarche M, Spicer P. Poverty and health disparities for American Indian and Alaska Native children: current knowledge and future prospects. *Ann N Y Acad Sci.* 2008;1136:126–136. http://dx.doi.org/10.1196/annals.1425.017.
- de Ravello L, Tulloch S, Taylor M. We will be known forever by the tracks we leave: rising up to meet the reproductive health needs of American Indian and Alaska Native youth. *Am Indian Alsk Native Ment Health Res.* 2012;19(1):i–x. http://dx.doi.org/10.5820/aian.1901.2012.i.
- Craig Rushing S, Stephens D. Use of media technologies by Native American teens and young adults in the Pacific Northwest: exploring their utility for designing culturally appropriate technology-based health interventions. J Prim Prev. 2011;32(3):135–145. http://dx.doi. org/10.1007/s10935-011-0242-z.
- Smith MU, Craig Rushing S. Native STAND (Students Together Against Negative Decisions): evaluating a school-based sexual risk reduction intervention in Indian boarding schools. *Health Educ Monogr.* 2011;28(2):67–74.
- Smith MU, Diclemente RJ. STAND: a peer educator training curriculum for sexual risk reduction in the rural South. Students Together Against Negative Decisions. *Prev Med.* 2000;30(6):441–449. http://dx. doi.org/10.1006/pmed.2000.0666.
- Benson PL, Scales PC. The definition and preliminary measurment of thriving in adolescence. J Posit Psychol. 2009;4(1):85–104. http://dx. doi.org/10.1080/17439760802399240.
- DeHart DD, Birkimer JC. Trying to practice safer sex: development of the sexual risks scale. J Sex Res. 1997;34(1):11–25. http://dx.doi.org/ 10.1080/00224499709551860.
- Fisher JD, Fisher WA, Bryan AD, Misovich SJ. Informationmotivation-behavioral skills model-based HIV risk behavior change intervention for inner-city high school youth. *Health Psychol.* 2002;21 (2):177–186. http://dx.doi.org/10.1037/0278-6133.21.2.177.
- Gavin L, MacKay AP, Brown K, et al. Sexual and reproductive health of persons aged 10–24 years: United States, 2002–2007. *Morb Mortal Wkly Rep Surveill Summ*. 2009;58(SS06):1–58. www.cdc.gov/mmwr/preview/ mmwrhtml/ss5806a1.htm?s_cid=ss5806a1_e Accessed July 17, 2009.
- Jessor R, Donovan JE, Costa F. Personality, perceived life chances, and adolescent health behavior. In: Hurrelmann K, Lösel F, eds. *Health Hazards in Adolescence*. Berlin: Walter de Gruyter & Co., 1990:25–42.
- Lou C, Anthony EK, Stone S, Vu CM, Austin MJ. Assessing child and youth well-being: implications for child welfare practice. *J Evid Based Soc* Work. 2008;5(1/2):91–133. http://dx.doi.org/10.1300/J394v05n01_05.
- Rose-Krasnor L, Busseri MA, Willoughby T, Chalmers H. Breadth and intensity of youth activity involvement as contexts for positive development. J Youth Adolesc. 2006;35(3):385–499. http://dx.doi.org/ 10.1007/s10964-006-9037-6.
- 13. Youngblade LM, Theokas C, Schulenberg J, et al. Risk and promotive factors in families, schools, and communities: a contextual model of

positive youth development in adolescence. *Pediatrics*. 2007;119(suppl 1): S47–S53. http://dx.doi.org/10.1542/peds.2006-2089H.

- Catalano RF, Berglund ML, Ryan JAM, Lonczak HS, Hawkins DJ. Positive youth development in the United States: research findings on evaluations of positive youth development programs. *Prev Treat*. 2002;5(1). http://dx.doi.org/10.1037/1522-3736.5.1.515a.
- Catalano RF, Gavin LE, Markham CM. Future directions for positive youth development as a strategy to promote adolescent sexual and reproductive health. J Adolesc Health. 2010;46(3):S92–S96. http://dx. doi.org/10.1016/j.jadohealth.2009.12.026.
- Morgan DL. Focus Groups as Qualitative Research. Thousand Oaks, CA: Sage Publications, 1996.