

The Zuni Life Skills Development Program: A School/Community-Based Suicide Prevention Intervention

TERESA D. LAFROMBOISE, PhD, AND HAYES A. LEWIS, MEd

The Zuni Life Skills Development Program, an effective community-initiated and high-school-based suicide prevention intervention, is featured. Development and evaluation of this intervention are followed by note of the specific challenges associated with stabilizing the program. A more tribally diverse, culturally-informed model entitled the *American Indian Life Skills Development Curriculum* is then presented to illustrate a hybrid approach to the cultural tailoring of interventions. This curriculum is broad enough to address concerns across diverse American Indian tribal groups yet respectful of distinctive and heterogeneous cultural beliefs and practices. Finally, we reflect upon issues in community-based research that emerged during this collaboration.

Suicide and suicide-related behaviors are a major public health concern for American Indian adolescents, yet their risk behavior pattern remains undefined. Suicide is the second leading cause of death among American Indian adolescents and young adults in the 15- to 24-year-old age group and is the third leading cause of death in the 10- to 14-year-old age group (Centers for Disease Control, 2005). In addition, among American Indian youth age 5 to 14 years, the rate of suicide is 2.1 per 100,000 compared with .8 per 100,000 for U.S. youth in the same age group; the rate of suicide among American Indian youth age 15 to 24 years is 37.4 per 100,000 compared with 11.4 per 100,000 for all U.S. youth in the same age group (Indian Health Service, 2002). Suicidal behaviors (i.e., suicidal ideation, suicide plans, and suicide attempts) increase with age in this popu-

lation until age 45, when the rate begins to resemble that of the general U.S. population (Goldsmith, Pellmar, Kleinman, & Bunney, 2002).

In studying adolescents from three culturally distinct American Indian tribes, Novins, Beals, Roberts, and Manson (1999) noted that the correlates of suicidal ideation differed between tribes but were consistent with the tribe's social structure, individual and gender expectations, support systems, and conceptualization of death. These findings underscore the need for caution when generalizing across tribes about cultural influences on suicidal behavior. The variability in rates and manifestation of symptoms may be a function of contagion within close-knit and isolated communities rather than differences in cultural mores or practices. Additional risk factors noted in the Novins et al. (1999) report, such as weak American Indian identity and loss of cultural supports, have not been found consistently in other related research (LaFromboise, Medoff, Lee, & Harris, 2007). Recently, perceived discrimination has joined the list of risk factors often mentioned in other studies; such as negative

TERESA D. LAFROMBOISE is with Stanford University; and HAYES A. LEWIS is with the Institute of American Indian Arts.

Address correspondence to Teresa LaFromboise, PhD, 485 Lasuen Mall, Stanford, Ca. 94305-3096; E-mail: lafrom@stanford.edu

life events, depression, and substance use (Yoder, Whitbeck, Hoyt, & LaFromboise, 2006).

In 1987 tribal and community leaders and parents residing on the Zuni Indian reservation became increasingly alarmed over the rising rates of youth and young adult suicide. Over a 7-year period from 1980 to 1987, 13 school-aged youth and young adults had fatal suicidal behavior in Zuni, a pueblo located in northwestern New Mexico about 150 miles west of Albuquerque. The youth were between the ages of 14 and 18 and included 12 males and 1 female. It is uncertain if all of the individuals knew each other, but it is certainly possible within this small homogeneous community. The tribe and local educators had great difficulty obtaining information on the actual circumstances of the suicides from the Zuni service unit of the Indian Health Service (IHS), which made the incidents difficult to evaluate.

There was community speculation that one of the possible reasons for this increase in suicidal death was the fact that Zuni families were becoming more fragmented. Family and traditional support systems within the community had weakened with an increase in dispersed housing subdivisions. Traditional extended family dwellings had been virtually replaced by single family dwellings. This broke up families and adversely affected the value of the extended family as a social, emotional, cultural, and economic resource. As the population expanded and extended family units were separated, single-family Housing and Urban Development (HUD) homes became commonplace. The new housing patterns also caused a cultural and spiritual hardship because many families living in Blackrock (a settlement three miles from Zuni) began to find it more difficult to participate in cultural activities. Absence from traditional cultural activities weakened the transference of cultural knowledge and beliefs to younger family members. There was a corresponding change in economic conditions in Zuni as well. Many families living in HUD subdivisions had to make much higher down payments to purchase homes. In addition,

most HUD homes were cheaply made and thus required added resources to heat and cool. Moreover, the jewelry market, a major source of income for many families, bottomed out during that time period causing further economic hardship.

Suicide is an especially distressing phenomenon for the Zuni because it is forbidden in their traditional culture. Zunis believe that to take one's own life will cause the soul to remain in a state of distress. The soul of the deceased will wander and may cause harm to family members and close associates. The deceased person's soul will not go to "Zuni Heaven" until the time that death would have naturally occurred. The soul of the one who has died by suicide may not be called upon to spiritually help the living during times of sacrifice and religious participation. In addition, death by this means is a source of stigma to the family (A. Seowtewa, personal communication, March 19, 1987).

At the time of this project, the epidemiological reality of Zuni suicidal behavior was limited to a set of selected statistics from 1965–1988 which had been compiled by a community member employed at the local IHS hospital (Ghachu, 1989). Inferences on any earlier incidents of death by suicide had to be made from this document. The list of risk factors associated with suicidal ideation among Zuni adolescents during baseline assessment for the current intervention revealed the following: psychological symptomatology, past suicidal ideation, drug use, depression, hopelessness, stress, limited social support, dislike for school, and weak interpersonal communication (Howard-Pitney, LaFromboise, Basil, September, & Johnson, 1992).

What follows is an account of the development and evaluation of the Zuni Life Skills Development Program, a community-initiated high school suicide prevention program designed to provide intervention strategies consistent with cultural and community values and strengths. We define the specific challenges associated with institutionalizing this new and ultimately effective program, which has been substantiated through a

quasi-experimental posttest evaluation study. Its derivative, the American Indian Life Skills Development Curriculum, is presented as a culturally-informed model of suicide prevention that is broad enough to capture concerns relevant across diverse tribal groups, yet respectful of distinctive and heterogeneous tribal beliefs and practices. Finally, we reflect on critical issues in community-based research that emerged in this collaboration.

INITIATION INTO THE COMMUNITY

When the first author was invited by the second author, then superintendent of the Zuni Public School District, to help facilitate a community response to the latest suicide crises among its adolescents, there already existed a Zuni-Stanford Committee to address areas of need on the Zuni reservation. This committee was initiated as a result of a formal agreement between Stanford University, the Zuni Board of Education, and the Zuni Tribal Council. It represented collaboration between an interdisciplinary group of Stanford faculty and Zuni community leaders for the purpose of sharing expertise concerning pressing issues in Zuni related to communication, education, and economic development. Once an institutional review of our intervention project was conducted and approval granted by this committee, there began a 3-year process of consulting with the Zuni community to develop and evaluate a suicide prevention intervention which would emphasize life skills development and peer support. A life skills training approach was selected because of its preventive focus on offsetting the underlying factors of vulnerability that contribute to high-risk behavior among adolescents. Helping youth build help-seeking behaviors and teaching their peers to respond appropriately when they reach out became our focus. In addition, our research team provided community and school gatekeeper training for suicide prevention and collaborated with the

Zuni IHS service unit to refine protocols for appropriate response and support.

The members of our team were first hosted in the homes of Zuni community members in the spring of 1987. One member was invited to spend the summer at Zuni to learn about the community and to review existing school-based suicide prevention training programs. After a summer of fieldwork in Zuni and 1 year of intervention development on campus, the team began interventionist training for the pilot study. Initially, the teachers selected to deliver the intervention were resistant to becoming involved with the project. They were upset about an article that appeared in a local newspaper (the *Gallup Independent*) just days before the initial implementation of the curriculum in the field. This article highlighted the irony of the tribe bringing in Stanford University researchers to “save Zuni lives” during the winter Shalako ceremonies and solstice fasting period which, in fact, celebrates life. Despite negative reactions to this publicity within the community, Zuni support was mobilized and the teachers (all of whom were non-Indian) were encouraged to continue. Two Zuni professionals, a cultural consultant and a mental health technician, joined the intervention team as cultural brokers between the students’ school and home contexts.

Extensive input was solicited from Zuni tribal members by members of the research team in order to examine key aspects of helping and problem solving in Zuni culture and to establish community support for a formative evaluation of the intervention. Focus groups representing various households, medicine fraternities, or kiva society members were selected by the superintendent and gave necessary guidance on implementation issues and further refinement of the intervention. Their input led to a title change (from Zuni “suicide prevention” to Zuni “life skills development”) and to a reordering of the sequence of skills presented. Instead of directly addressing suicide prevention skills-training at the onset, the intervention gradually phased in information about crisis intervention and suicide prevention after first

addressing skills-training in problem solving, overcoming depression, and stress and anger management.

Selecting a Skills-Training Approach

A skills-training approach was selected for use in this work because of its effectiveness with American Indian adolescents in reducing the risk factors of substance (Hawkins, Cummins, & Marlatt, 2004) and tobacco use (Schinke, Moncher, Holden, Botvin, & Orlandi, 1989). Skills-training has several features that facilitate intervention with American Indian youth. In particular, it is a flexible model with inherent potential to offer interventions that are culturally appropriate. Specific aspects of skills-training with American Indian youth include the extensive use of (a) small group work, which is compatible with traditional and communal modes of helping; (b) role modeling by adult guest speakers on effective coping despite adversity, which replicates knowledge transmission through apprenticeship opportunities with designated family members—an essential source of childhood socialization in Zuni culture; and (c) community gatekeeping by tribal members knowledgeable about the tribal structure and worldviews (LaFromboise & Rowe, 1983). Skills-training lends itself to collaboration between community members and interventionists to determine socially appropriate goals for the intervention, which could include the maintenance of certain indigenous beliefs and skills as well as the acquisition of new skills. This approach allows the community to define the target problems (e.g., substance use, violence) and the types of behaviors deemed appropriate for each situation (e.g., refusal skills, coping skills, anger management skills). It also facilitates prevention efforts because it can be used to develop skills and competencies prior to the manifestation of behavioral problems or deficiencies.

The research team anticipated that a universal intervention might raise the overall supportiveness and responsiveness of the school environment for at-risk youth. Zuni

youth appeared to confide in peers about their concerns more often than they confided in adults. It was believed that provision of help by peers would be beneficial to both the peer helpers and the students in need. Participating in help-giving would be a way to engage in pro-social behavior and support a valued community norm. Furthermore, increased contact with caring adults while acquiring depression management techniques and stress management, problem solving, crisis intervention, and goal-setting skills would widen their network of available helping resources.

Youth skill-building programs have been applied to diverse adolescent prevention programs, especially in school-based settings. These programs have focused primarily on the enhancement of competence in youth development work (e.g., self-regulation), as well as the reduction of at-risk behaviors and the prevention of mental health problems (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002). Outcome data from these prevention interventions have been promising, especially when coupled with parent and family training and support (Weisz, Sandler, Durlak, & Anton, 2005).

School-based adolescent suicide prevention is one area in which the skills-training approach is insufficiently used. Increasingly, school-based suicide prevention programs focus on early screening for suicidal risk, on teaching information about suicide, on detecting risk factors, on referring at-risk students to mental health services, and on developing crisis intervention techniques. Few explicitly strive to use skills enhancement to modify suicide risk factors such as inadequate problem solving or coping skills. The success of the skills-training approach in ameliorating other adolescent risk behaviors suggests that it may be an effective approach for suicide prevention with youth. This evidence of effectiveness coupled with the compatibility of skills-training with Native American ways of knowing made this approach appealing for the universal intervention.

The Zuni Life Skills Development Curriculum (ZLS; LaFromboise, 1991) was endorsed by the tribe to address essential risk

factors associated with adolescent suicide (e.g., hopelessness, depression, anger). The seven major units of the curriculum were as follows: (1) build self-esteem; (2) identify emotions and stress; (3) increase communication and problem-solving skills; (4) recognize and eliminate self-destructive behavior; (5) learn about current knowledge on the variable rates of suicide across tribes, on risk factors for American Indian adolescent suicidal behavior, on the warning signs of suicide, and on facts and myths about suicide; (6) receive suicide crisis intervention training; and (7) engage in individual and collectivistic goal-setting. Each lesson contained the standard skills-training techniques of providing information about the helpful or harmful effects of certain behaviors, modeling of target skills, experiential activities and behavior rehearsal for skills acquisition, and feedback for skill refinement. These four fundamental components tap a variety of different learning channels and actively engage students early in the training process.

Cultural Tailoring of the Intervention

A unique feature and strength of the intervention was that it was specifically tailored to be compatible with Zuni cultural teachings and world views, values, norms, communication styles, and rewards and forms of recognition. A key feature in the intervention delivery process was team-teaching: pairing a Zuni person with each non-Zuni teacher to deliver the curriculum. Issues of a highly personal nature brought up by students were often spoken in the Zuni language to other students and the Zuni member of the team. It should be emphasized that the deep structural aspects of Zuni culture were shared sparingly with the research team during intervention development and only as they related to the goals of the intervention. All involved acknowledged that it was important not to reveal tribal mores in spheres outside of the Zuni family, clan, and religious structures.

The curriculum began with an opening invocation from a Zuni leader, asking stu-

dents to remember that the life they were given was the most important possession they had. The beginning lessons focused on the desire for community cohesion and knowledge of one's family background. Core Zuni values were underscored, such as resistance and fortitude—qualities found necessary at numerous times in their history, such as the Pueblo Revolt of 1680 and subsequent threats by outsiders over the years. Students then began to review the ways in which other tribal people had coped with stress, especially when struggling against the demeaning aspects of colonization. They also studied culture-specific manifestations of psychological symptoms associated with suicide from scholarly writings available at the time.

Each skill-building activity was selected by the first author from research supporting best practices for social emotional regulation and skills acquisition. The research team made a thorough study of the most efficacious components of group cognitive and behavioral treatment strategies (see review by Weisz et al., 2005). Once a treatment procedure was identified, community input was sought concerning socially-valued components of the procedure and necessary modifications of the protocol. For example, in the lessons on dealing with mild depression, the Pleasant Events Schedule (Lewinsohn, Munoz, Youngren, & Ziess, 1986) was adapted for the adolescent developmental level and for greater relevance to the reservation context, and was used as a class activity and homework assignment. Items such as "talking on the telephone" or "playing a musical instrument" were retained. However, new items were added: "doing heavy outdoor work (cutting or chopping wood, clearing land, etc.)" or "being at weddings and other ceremonies." In the lessons on stress management, the eight coping categories advanced by Folkman and Lazarus were presented to community members and discussed to better determine community preferences for each of the ways of coping (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). The most highly ranked ways of coping were featured in the lessons on

coping within the curriculum. Goal-setting, which is usually an individual endeavor, was expanded to include both personal and community goal-setting.

Stabilization of the Intervention

The ZLS was offered 3 days a week in language arts classes during the first year of the intervention, followed by booster sessions on suicide prevention during the third year. Using a multi-method evaluation approach including self-report, behavioral observation, and peer rating, the intervention was found to reduce suicidal thoughts and behaviors and feelings of hopelessness among Zuni youth. It was also found to increase problem-solving skills and suicide intervention skills (LaFromboise & Howard-Pitney, 1995).

Unfortunately, the ZLS was discontinued 2 years following its promising evaluation for several interrelated reasons. Suicide, as it occurs within the tribal community context, has the potential to become not only controversial but adversarial at several levels. Suicide prevention and intervention requires constant vigilance and appropriate, timely action. This takes energy, careful orientation, training, community awareness, school and community collaboration strategies, and the creation of effective policies and protocols. The second author, a Zuni tribal member, experienced first-hand initial resistance and lack of support for the program by some IHS personnel. Changes in the Zuni School District leadership occurred at the superintendent level the year following the final evaluation. This involved reassignments of key Zuni and other personnel who were familiar with the school-community suicide issues. Key staff replacements were primarily non-Indian personnel who had little familiarity or knowledge of community priorities or dynamics. The new superintendent was unwilling to press for the necessary community advocacy to insure long-term implementation and institutionalization (personal communication with W. Eriacho, G. Keene, and M. Eriacho, November 13, 2005). His lack of fa-

miliarity with community dynamics and fear that the topic was a liability in local politics among partner agencies were the chief reasons for the end of the program (personal communication with J. West, November 20, 1994). Unfortunately, his views found acceptance within the school site leadership, among teachers, and with the school board.

It appears that the new leadership at the administrative and board levels believed that the Zuni-Stanford suicide prevention goals were accomplished, since the number of school-aged suicides had been drastically reduced. The cumulative impact of changes in district leadership and the sharp drop-off in deaths by suicide resulted in a shift in priorities away from continuation of the suicide prevention and intervention.

In small, homogeneous tribal communities, many Native American service providers and teachers believe that they know everyone else's most private affairs. When blame for a suicide is assigned, particularly when family dysfunction is assumed to be a major contributor, the process of intervening with new systemic support systems from the community and school becomes problematic and controversial. A number of parents told the second author that tribal and school-based service providers were implying that their inability to be "good parents" contributed to the suicide of their children. Feelings of personal guilt and responsibility interfered with their ability to effectively cope with the many complicated and emotion-laden issues. This left many parents and relatives with very few effective or appropriate ways to express their grief, frustrations, and fears.

AMERICAN INDIAN LIFE SKILLS DEVELOPMENT CURRICULUM

While the ZLS was struggling with stabilization issues, the first author turned to other American Indian school settings to refine the intervention and address the problems of youth from other tribal nations. Underlying this work was the assumption that many tribes, especially more traditional ones,

would be reluctant to share valued deep-structure cultural information. However, it was believed by the first author and supported by the diverse tribal community consultants who worked on the project that many of the cultural nuances in the Zuni program could be adapted to create intervention programs for other tribes. The more tribally heterogeneous version for this process was published as the American Indian Life Skills Development Curriculum (AILS; LaFromboise, 1995). This curriculum encourages interventionists to incorporate traditional and contemporary worldviews of their tribes and communities into the cultural content of the curriculum without altering the skills-training form of program delivery or compromising the core psychological components of the intervention. Castro, Barrera, and Martinez (2004) have labeled the heuristic for this type of cultural tailoring a “hybrid-like framework.”

With the AILS we also attempted to address the needs of both traditional and pan-tribal adolescents. The AILS contains certain universal Native American values and behaviors such as respect, kindness, and generosity, but also allows for the local tailoring of intervention content and training processes. Since its inception in 1995 it has been used by representatives of traditional healing societies with youth on reservations as well as by teachers in after-school programs, and with American Indian students in both public and tribal schools.

The AILS has been featured as an effective suicide prevention program for rural American Indian communities in the Institute of Medicine of the National Academies’ report, *Reducing Suicide: A National Imperative* (Goldsmith et al., 2002). Its inclusion in this report was based on a program evaluation at the Cherokee Nation in Tahlequah, Oklahoma, where there was a reversal of the Sequoyah High School’s 20-year suicide rate, with zero deaths by suicide recorded since the AILS was implemented in the late 1980s. Middlebrook, LeMaster, Beals, Novins, and Manson (2001) noted that the AILS was unique as a program that used risk and pro-

tective factors specific to American Indian youth to inform the development of prevention strategies in their review of suicide prevention programs in American Indian/Alaska Native communities. Greenberg, Domitrovich, and Bumbarger (2001) also deemed it a promising program in their review of prevention interventions for mental disorders in school-aged children.

Clearly, further effectiveness studies of the AILS for suicide prevention are needed in order to meet current standards of evidence against which preventive interventions are evaluated. If more evaluations of the AILS support continuation of this intervention, applications in urban settings must be studied. Then this intervention could be used in tandem with evidence-based substance abuse programs already implemented with American Indian adolescents (Moran & Reaman, 2002).

CONTROVERSY OVER CULTURAL SENSITIVITY

Within the community of American Indian mental health scholars there is increasing advocacy for an emic (within the culture or “insider”) approach in which interventions are highly specific to the traditional wisdom and healing practices of a particular tribe (Gone, 2004). The ZLS is an example of such an approach. This work not only involved ongoing collaboration between the research team and the Zuni-Stanford Committee, it required ongoing reports about the intervention, its related evaluation activities, and its results to the tribal council and to the school board. There were also formative evaluations of the ZLS conducted by tribal educators and students (LaFromboise & Howard-Pitney, 1994).

However, the field of prevention is divided about whether culturally-adapted interventions are more effective than generic interventions when applied to ethnic minority populations. A number of researchers have noted relatively limited success when trying to involve ethnic minorities in generic,

but evidence-based, prevention programs (Bernal & Scharron-Del-Rio, 2001; Dent, Sussman, Ellickson, Brown, & Richardson, 1996; Turner, 2000). They suggest that generic interventions appear irrelevant or inaccessible to individuals from communities that strongly identify with their cultural heritage. The movement to put generic, tested interventions into practice, including a mandate that programs funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) select interventions from lists of evidence-based practices in its registry of effective programs, is seen by many American Indians as yet another stringent imposition placed on them by the federal government.

Botvin and his colleagues attempted to address this issue in their studies of the effectiveness of both culturally-focused and generic skills-training approaches to alcohol and drug abuse prevention among ethnic minority adolescents. They compared the two prevention approaches and found that both programs influenced mediating variables associated with non-drug use more than the information-only control group (Botvin, Schinke, Epstein, & Diaz, 1994). In a 2-year follow-up study, they found that adolescents in both a culturally-focused and a generic intervention approach had less current alcohol use and lower intentions to engage in future alcohol use relative to adolescents in the control group. Adapting the program for a specific ethnic group led to lower levels of risk-taking among students in the culturally-focused intervention group compared to students in the generic skills intervention group (Botvin, Schinke, Epstein, Diaz, & Botvin, 1995). This finding points to the potential effectiveness of tailoring interventions to specific populations.

Kumpfer and her colleagues posited that culturally-adapted prevention programs would substantially improve engagement and acceptance, leading to better involvement of ethnic communities in the intervention. However, participants in culturally-adapted programs only slightly improved on outcomes (Aktan, Kumpfer, & Turner, 1996).

These authors have subsequently advocated for phased intervention procedures that allow for post-intervention modifications of generic programs. They suggest that further evaluation of the generic intervention for cultural appropriateness should be conducted by expert members of the target cultural group (Kumpfer, Alvarado, Smith, & Bellamy, 2002).

In essence, the iterative process of intervention modification with both generic and culturally-tailored interventions already occurs in the field. Once an evidence-based intervention is adopted by a school or community, it is often modified to respond to pressing issues and preferred modes of interacting within the local context. The extent of local cultural tailoring depends upon the interest, energy, and degree of traditional involvement of members of the field curriculum team. Adaptations range from surface level modifications to versions based on careful analysis of the deeper structural cultural tenets underlying each phase of the intervention. Unfortunately, these locally modified forms of intervention are rarely subjected to the rigor of the evaluation standards on which the empirically validated version was endorsed.

FURTHER CONSIDERATIONS

The opportunity for the authors to reflect on this community-initiated suicide prevention effort has been helpful in several important ways. The emotional distance created by time and space allowed us to think through some of our original assumptions regarding the long-term implementation of the ZLS. We learned that tribal and community leaders assumed that prevention strategies and intervention activities would continue to be effective without monitoring support, after apparent successes, but programs were adversely affected by changes in leadership. We discovered that advocacy for program development, application, and institutionalization should not depend upon a few individuals or agencies, especially when the

prevention of suicide is a vital concern throughout the tribal community. We assumed that the tribal community and school leadership would initiate appropriate public policy and procedures to continuously monitor, support, and enhance the program as well as strengthen the community's capacity to address suicide needs and concerns. However, given the widely-held misperception by tribal/community and school leadership that the suicide problem had been solved, necessary policy recommendations for community-wide coordination and resource sharing did not occur. In addition, the tribal council and community leadership did little to create systemic approaches to maintain vigilance or create second-level strategies to address the related causes of family and community violence.

Interventions within tribal communities must include important protocols associated with cultural resources, indigenous values, and healing practices. The reliance on evidence-based practices to address tribal youth suicide needs may narrow family and community options and neglect valuable cultural resources found within tribal communities, particularly in those that still maintain a strong cultural and traditional base. The identification and inclusion of traditional healers has often been marginalized among researchers and interventionists who come to tribal communities to work on issues of suicide. The absence of this important cultural resource sends mixed messages to community members who depend on traditional healers for ongoing healing services, and diminishes the value of such a critical resource. Although tribal cultural resources were an integral aspect of the ZLS, traditional healers should have been asked to participate further, to support the appropriate community infrastructure, and to help develop the capacity of the community for responsibility and self-reliance in suicide prevention.

Although the parents of Zuni High School students were updated about the program on a regular basis and were invited to celebrate their child's completion of the program, family members were not included in

the intervention unless parents were members of the school board, school staff, or the tribal council. Parental involvement was also necessary to ensure cultural compatibility and longevity of the prevention effort given the importance of the family in Zuni culture. Perhaps if more Zuni parents had had the opportunity to discuss positive parenting practices and become familiar with the content of the ZLS, they would have felt less threatened by the insinuations that students' family situations were to blame for their behavior. The research team should have reported the evaluation findings to parent groups who were not able to attend Zuni School Board meetings. We can only speculate about what might have happened if parents had advocated for the continuation of the program after the disruption in school leadership.

The intervention was found to have a positive impact on hopelessness (as measured by the Beck Hopelessness Scale; Beck, Weissman, Lester, & Trexler, 1974), suicidal ideation (as measured by the Suicide Probability Scale; Cull & Gill, 1988), and students' ability to intervene in a peer suicidal crisis situation (as determined by the behavioral study reported in LaFromboise & Howard-Pitney, 1995). These results only partially confirmed the original cultural hypothesis: that Zuni youth were engaged in fatal suicidal behavior due to rising levels of hopelessness and decreased involvement in cultural traditions, which in turn was associated with increased family fragmentation and economic hardship. This cultural hypothesis was tested in an analysis of risk factors for suicidal ideation using data collected during the baseline assessment. Traditionality (as defined by the Zuni tribal council on a 10-item scale available from the first author) was not found to be a risk factor for suicidal ideation (Howard-Pitney et al., 1992). More intensive efforts at improving this measure for the final evaluation should have occurred, given the salience of traditionality in Zuni culture. The constructs of enculturation and family cohesion were not assessed in this evaluation. However, measures of enculturation have been

subsequently developed for studies with other tribes (Whitbeck, McMorris, Hoyt, Stubben, & LaFromboise; 2002), and could serve as a useful model in this regard. The measurement of family cohesion, deemed too personal for inclusion within this study, may have further informed the cultural hypothesis testing. Thus the process of confirming, disconfirming, and reconfirming cultural hypotheses was limited in this research and may have left important community stakeholders wanting more.

CONCLUSION

One of the tenets in community-based research is to intervene, yet to wait for change in order not to interfere. This suggests that the researcher must seek guidance for the development and application of interventions from tribal/community leaders and other resource people. Local people are often best positioned to know the community dynamics and needs, and can provide leadership

and advocacy for capacity development. While there is a strong sense of urgency to address the critical needs and issues of suicide within the American Indian community context, there are many community and tribal relationships and protocols that must be considered in any mobilization effort to address suicide. Often it takes quite a bit of time to bring people, agencies, and resources together, which may leave researchers with the impression that there is little active concern on the part of tribal leaders and community members. In terms of tribal capacity for development and effective intervention, tribal leadership must take the initiative and responsibility for promoting public policy that will enhance community-wide responsibility for the elimination of suicide within American Indian communities. In terms of intervention development and outcome research to support intervention effectiveness and validity, researchers must intervene in the most professional and culturally competent manner possible. To do less on either part is a serious disservice to tribes and to the field of mental health.

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