American Indian and Alaska Native Mental Health Research

The Journal of the National Center

Volume 8, Number 2, 1998

RESEARCH ASSOCIATES
(Continued)

TEACHER, PARENT, AND YOUTH REPORT OF PROBLEM BEHAVIORS AMONG RURAL AMERICAN INDIAN AND CAUCASIAN ADOLESCENTS

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Abstract: Previous research on the mental health status of American Indian youth has documented rates of pathology that are higher than the rates for Caucasian youth. However, much of this previous research has compared rural American Indians to urban Caucasians. The present study is a comparison of American Indian and Caucasian youth living on or near a rural reservation. Results suggest that although American Indian youth have higher levels than Caucasian youth of certain problem behaviors, group differences are much less general and pronounced than previous research has documented. Analyses also revealed teachers' perceptions of youth were in some cases quite different than parents' perceptions of youth and youth's perceptions of themselves.

According to the most recent census, there are over two million American Indian people living in the United States (U.S. Bureau of the Census, 1996). Of these, estimates are that 22% reside on tribal reservations and trust lands, and that between ten and forty percent more live in towns and cities very close to reservations (Beals, Keane, & Manson, in press; Norton & Manson, 1996). There are over five-hundred American Indian tribes and Alaska Native villages, many of which are federally recognized and others which are seeking re-recognition as sovereign nations (U.S. Department of Commerce Census Bureau, 1993). Although there exists a broad diversity of cultural organization among the tribes, American Indian peoples share significant cultural values and some important demographic trends and health concerns. One of the more notable demographic characteristics of the American Indian population is its relative youth: 39% of the American Indian population is under age 20, in contrast with 29% among the United States

population as a whole (U.S. Indian Health Service, 1990). Despite positive health trends, such as a decline in the use of many drugs since the early 1980s (Beauvais, 1992), significant health risks persist for these young people.

One source of risk involves the dramatic changes that have occurred among many American Indian tribes throughout the twentieth century. Some tribes' populations have increased significantly while other tribes have virtually disappeared. Many tribes have had to leave the lands of their ancestors as a result of forced relocation policies and in search of economic opportunity, as others continue to live on family lands but have left behind ways of life that had been practiced for generations. Centuries' old language bases, child-rearing practices, life roles, and family structures have been disrupted to such an extent that many tribes struggle to maintain awareness of the traditions and practices which defined their ancestors (Berlin, 1987). Urban and rural American Indian communities alike have faced considerable challenges to their collective and individual well-being.

Until recently, the emotional and socio-cultural toll of developmental pressures on American Indian youth received little concern from those outside of the American Indian communities except by a handful of clinicians, anthropologists, and religious leaders. In the last quarter century, however, as concerns have risen regarding the health of America's ethnic populations, many tribes have sought to develop stronger voices. Also, during this time American Indian youth have come under investigation by social science researchers who have documented high rates of depression, suicidality, substance abuse, and emotional dysfunction in this population (Blum, Harmon, Harris, Bergeisen, & Resnick, 1992; U.S. Office of Technology Assessment, 1990). National rates of suicide, accidental death rates, and homicide have been observed to be two to three times as high for American Indian youth and young adults, compared to American youth as a whole (U.S. Office of Technology Assessment, 1990; U.S. Indian Health Service, 1990).

Even less well noted than the worrisome health and behavior statistics have been the counterbalancing signs of positive trends and features of American Indian communities, in which, despite considerable risks, many children grow into adolescence with secure and strong identities and family and community affiliations. Indeed, the early school-age years have been noted to be successful ones for most American Indian children. As far back as the late 1960s there was recognition that American Indian and Caucasian youth perform at comparable levels in school through much of the elementary school years (Saslow & Harrover, 1968). More recently, Beiser and Attneave (1982) observed that American Indian children as a group appear to function as well as their non-Indian counterparts until early adolescence.

Yates (1987) posited that the rise in problems for American Indian youth as they become adolescents may be related to their growing sense of

alienation and awkwardness in fitting into social systems and schools that are not good matches for their styles of conceptual and language processing. Yates also observed that traditional American Indian values, such as sharing, allegiance, respect for elders, noninterference, and present-orientation, are not accorded the same importance in European American society and that this contributes to American Indian youths' sense of conflict, pessimism, and alienation. These concerns have been echoed by Sanders (1987), who described a "cultural value conflict" that American Indian youth face in Anglo-American classrooms. Especially when American Indian children are schooled in environments where there are few, if any American Indian teachers, schools may be experienced by the youth as micro-cultures with few role models or culturally-synchronous developmental pathways. These arguments suggest that the academic struggles of American Indian youth may be a direct result of being poorly understood with respect to their values, learning strategies, and perceptual styles (Greenbaum, 1985).

The present study examines problem behavior among American Indian and Caucasian high-school students living in a rural reservation community. There has been previous research on this topic: A number of studies have compared American Indian and Caucasian youth on such variables as health, psychosocial adjustment and risk, mental health services utilization, and academic performance variables (Beiser & Attneave, 1982; Halpin, Halpin, & Whiddon, 1985; Rotenberg & Cranwell, 1989; Wright, Mercer, Mullin, Thurston, & Harned, 1994). Across this range of variables, American Indian youth typically show higher rates of problem behavior and fewer positive outcomes. A recent study of rates of severe emotional dysfunction (SED) among youth in the state where the reservation is located found the rate of SED among American Indian youth to be more than double the rate for Caucasian youth (16.7% vs. 6.9%) (NIMH, 1990).

While this research is important in providing information about the status of American Indian youth, and certainly should be cause for concern, it also is somewhat limited in its generalizability. In particular, there are several issues that this research does not address. First, comparisons of the two ethnic groups typically compare Caucasian youth living in urban and suburban settings with American Indian youth living in reservation communities. Given the extent to which the experiences of rural and urban youth may differ, this comparison may tell us less about ethnic differences than about geographic differences. It was a goal of the present study to examine youth of both ethnicities living in a *geographically contiguous area*, on or near a rural reservation.

Another issue that has not been adequately addressed in previous research is the extent to which reports about problem behavior may vary depending on the source of the information. Differences across ethnic groups may vary depending on whom is the informant. Given the differences between American Indian culture and Anglo-American educational philosophy, for instance, it may well be the case that American Indian youth and their

parents have different perceptions than teachers. If this is true and if systematic patterns of divergence can be discerned, it would have important implications for prevention and intervention. For instance, the classic studies on self-fulfilling prophecy (Rosenthal & Jacobsen, 1968; Rist, 1970) suggest that a teacher's expectations have the potential to influence students' behavior and perceptions of self. This is a topic that has been extensively researched and within which there is some controversy about the strength and directionality of relations among variables, as well as the possibility for some confounding variables (Brophy, 1983; Cornblum, Annis, & Tanaka, 1997). At the very least, however, it seems important to investigate whether there are discrepancies in teachers' versus others' perceptions of these two ethnic groups. The research described here included as informant: youth, their parents, and their teachers.

Finally, a third goal of this research was to examine differential patterns of behavior for males and females. There is a great deal of evidence to suggest that beginning in adolescence and possibly earlier, males have higher rates of externalizing and females have higher rates of internalizing pathology (e.g., Gjerde, Block, & Block, 1988; Green, Clopton, & Pope, 1996; Ledbetter, Blatt, & Quinlan, 1985; Lewinsohn, Rhode, & Seeley, 1993). However, the extent to which ethnic group differences in levels of problem behavior may vary by gender is not well understood. To summarize, the variety of informants, the geographic proximity of the two ethnic groups, and examination of gender differences were ways in which this study had potential to provide new information about rural American Indian and Caucasian adolescents.

Method

Subjects

Subjects were 404 children and adolescents in 7th- 9th- and 11th-grades. The sample originally contained a small number of subjects who were neither Caucasian nor American Indian. These were eliminated from the present study because their numbers were insufficient to include in group comparisons. Of the 112 American Indian youth in the study, 52 were male and 60 were female. A total of 54 were in 7th-grade, 31 were in 9th-grade, and 26 were in 11th-grade at the time of data collection. Of the 292 Caucasian youth in the study, 130 were male and 162 were female. A total of 105 were in 7th-grade, 100 were in 9th-grade, and 87 were in 11th-grade at the time of data collection. The higher proportion of American Indian youth in 7th-grade was not significant using a Chi-square test. Other demographic characteristics of the sample are included in Table 1. As is apparent from Table 1, the two ethnic groups did not differ in terms of age.

Table 1
Demographic Characteristics of American Indian and Caucasian
Adolescents in the Sample

| | Race | |
Variable	American Indian (n=112)	White (n=292)
Age in years	14.82	14.78
Percent of children living in single parent family	34.8	18.5
Percent of children living with both biological parents	34.8	66.1
Percent of children living in blended family or other family situation (i.e., extended family)	30.4	15.4
Percent of children reporting that someone in their family attempted/ completed suicide	41.7	10.7
Percent of children reporting that a friend had committed suicide	21.2	4.2
Percent of children reporting a grade point average (GPA) of B or above (does not include students with B-)	56.1	84.4
Percent of children reporting a GPA of C or less (does not include students with C+)	21.6	4.9

However, across a variety of measures of family structure, negative life events, and academic performance the American Indian group appeared to be at higher risk. The implications of these differences are considered in the discussion section of this paper; however, it is also important to acknowledge that within this sample there were many positives reported by American Indian youth, including a high rate of adherence to traditional values and practice of traditional cultural and religious activities.

Measures

The three versions of the behavior checklist developed by Achenbach and colleagues were utilized as measures of problem behavior. These measures include the Child Behavior Checklist (CBCL) for parent report (Achenbach, 1991a), the Teacher Report Form (TRF) for teacher report (Achenbach, 1991b), and the Youth Self Report (YSR) (Achenbach, 1991c).

All three of the measures contain identical scales, including the aggregate problem behavior scales of Internalizing and Externalizing, and eight clinical subscales including Withdrawal, Somatic Complaints, Anxiety/Depression, Social Problems, Thought Problems, Attention Problems, Delinquency, and Aggression. Raw scores are converted to t-scores for each of the scales based on population norms.

The Achenbach measures have been utilized extensively in research on children and families to assess a range of psychopathological behaviors in youth and adolescence. Their psychometric properties have been studied extensively, and Achenbach (1991a) states that the work done to date suggests that development of separate norms for subgroups within the U.S. population may not be necessary because of a lack of statistical differences. Less is known, however, about the appropriateness of the measure specifically for American Indian youth. This is an issue of considerable importance. In order to develop a clear understanding of the differences between American Indian and Caucasian adolescents, there is a need to use measures that are valid and reliable across both groups. These issues are addressed further in the discussion section.

Data Collection Procedures

Approvals were obtained from Indian Health Service's Human Subjects Review Board, a large public university's institutional review board, and the Tribes' Business Council. Once these approvals were in place, presentations were made to the school boards of the various districts to be included in the study. Some required one presentation while others required repeat visits. All requested school districts ultimately gave their consent.

All nine-hundred 7th- 9th- and 11th-grade students in seven schools from four school districts on or near the reservation were asked to give assent and to participate in the study. One parent and one teacher of each student were also asked to consent and to participate. Student participants completed the Youth Self Report (YSR) and several additional questionnaires. Data were collected during the 1992-1993 academic year using a group administration format. Parents completed the Child Behavior Checklist (CBCL) regarding their child. Parents were mailed the CBCL along with a self-addressed stamped envelope. Teachers completed the Teacher Report Form (TRF) regarding the student. TRFs were dropped off and picked up from teachers. Teachers were paid three dollars per completed TRF. Labels were used so that once instruments were received from student, parent, and teacher the label was separated thereby maintaining anonymity.

Active consent/assent was required before a student could be included in the study. The student had to give assent and his/her parent had

to give consent before the student could be included. If either the parent or the student refused neither one was included in the study. With the approval of their school boards, teachers gave consent for their own participation.

Consent/assent forms were distributed at school and then by mail. If at any point the student or parent declined to participate they were never contacted again. In some instances signed forms did not result in completed instruments. Some students who had assented missed the administration day and were followed up at school. Many parents who had given consent did not return the CBCL. When this occurred, up to three additional contacts were made by phone or mail. When no instruments were completed following the third such contact, no further contacts were initiated.

Analysis Plan

Caucasian and American Indian youth were compared on measures of behavior as assessed by the Achenbach (1991a; 1991b; 1991c) instruments (CBCL, TRF, YSR). Rather than comparing individual data points, overall profiles on these measures were compared using a multivariate analysis of variance procedure (MANOVA). The sample was split by gender, and separate MANOVAs were run for data from the CBCL, TRF, and YSR. There were, therefore, a total of six sources of data: comparison of Caucasian versus American Indian males on teacher report, parent report, and self-report of behavior, and comparison of Caucasian versus American Indian females on teacher, parent, and self-report of behavior. It is important to note that it would have been possible to utilize a factorial design and run analyses on the entire sample, including gender as a second independent variable. The primary advantage of doing so is that it would be possible to examine gender effects first, and if none are found, to collapse the sample across gender and simply examine ethnic group differences. However, one of the goals of this research was to examine how profile differences between the ethnic groups vary across gender. Some of these differences may be fairly subtle and related to general trends and patterns of elevated scores that might not be detectable through multivariate statistical comparisons across gender. Given the exploratory nature of this research, it therefore seemed important to employ an analysis plan in which the data from the different genders were examined separately.

Two profiles were considered for each data source. First, scores across the eight clinical scales (e.g., withdrawal, aggression, delinquency, etc.) were considered as a group. Then scores on the global internalizing and externalizing scales were considered together. This resulted in a total of 12 MANOVA equations.

Role of Community

In order to overcome some of the common problems with research projects in American Indian communities, the research team utilized "community empowerment" strategies (Ball, Ball, & Fisher, 1996; Fisher, Storck, & Bacon, 1997). At the center of these strategies is the understanding that community members must be engaged as active members of the research team. They must help shape the research questions, provide input into questionnaire design and implementation of interventions, and ultimately are partners in the interpretation of the results. The primary purpose of research based on this community empowerment model is to provide information that will be useful to the tribal community. Disseminating the results to the scientific community is considered of secondary importance.

In the present study, a group of tribal elders were recruited to participate in the development of hypotheses, the selection of variables to study, the interpretation of results, and the discussion of the implications of the results. The research team, therefore, included both the professional "academic" staff and the tribal "cultural consultants." The research team met on approximately a monthly basis for over a year to discuss issues related to the study. These meetings were fairly informal, and generally involved issues being presented by either the academic staff or the cultural consultants for discussion. There were many occasions upon which a much broader understanding of issues emerged as a result of these discussions. Such areas are highlighted in the discussion section of this paper. This group continues to meet to lay out plans for implementing changes within the school system based on the results of this study.

One final note: The particular tribal community in which this project was conducted had established a "research code" that provided clear guidelines about ownership of the data and other relevant topics. Use of similar codes in other minority communities has great potential to facilitate research conducted from a community empowerment perspective.

Results

Profile differences are displayed in Figures 1 through 8. We first present the results of MANOVAs comparing the profiles on American Indian and Caucasian males.

Comparison of Profiles for American Indian and Caucasian Males

Profile comparisons for males are presented in order of youth self-report data (Figure 1), teacher data (Figure 2), and parent data (Figure 3). Clinical scale profiles obtained by youth self-report were significantly higher for American Indian than for Caucasian males [$F(8,166) = 3.68$, $p < .001$]. Given the significant multivariate F statistic, it was also appropriate to examine

Figure 1
Mean Differences on Achenbach Scales:
American Indian vs. Caucasian Males, Self Report
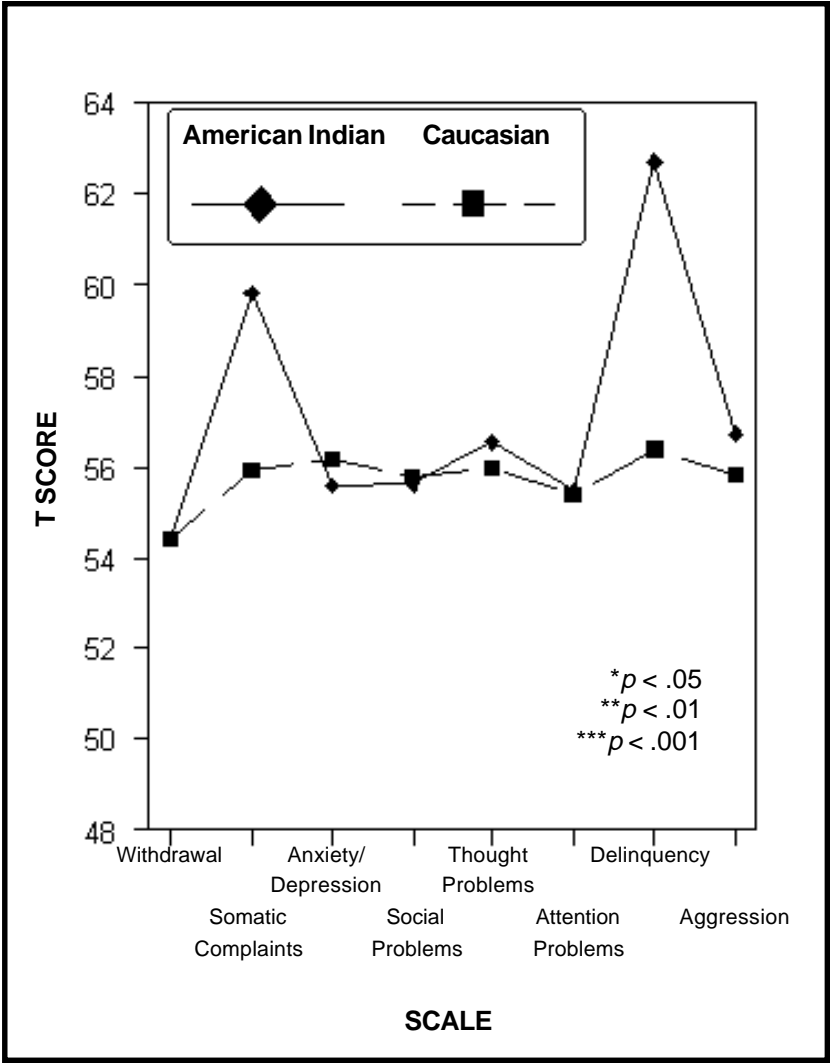
- Significantly more overall problems reported by AI males than by White males**.

- Significantly higher scores on the following scales: Somatic Complaints*; Delinquency***.

Figure 2
Mean Differences on Achenbach Scales:
American Indian vs. Caucasian Males, Teacher Report
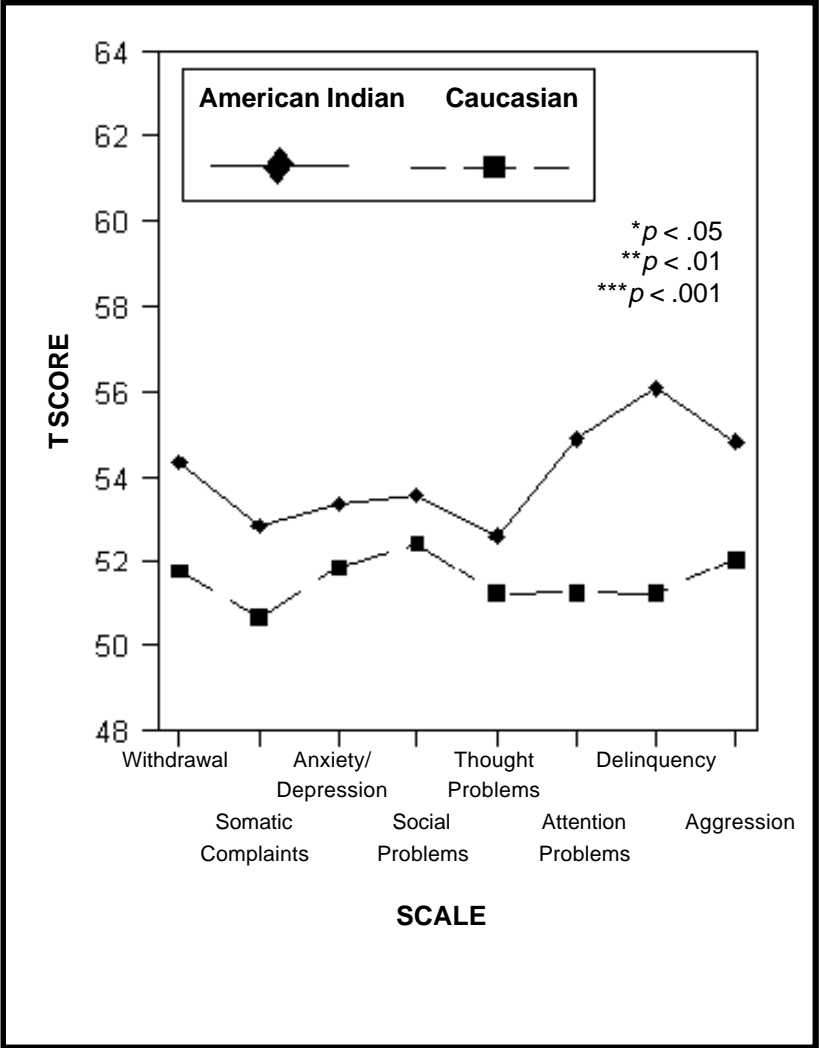
- Significantly more overall problems reported by teachers for AI males than for White males***.

- Significantly higher scores on the following scales: Withdrawal***; Somatic Complaints**; Anxiety/Depression*; Attention Problems***; Delinquency***; Aggression**.

Figure 3
Mean Differences on Achenbach Scales:
American Indian vs. Caucasian Males, Parent Report
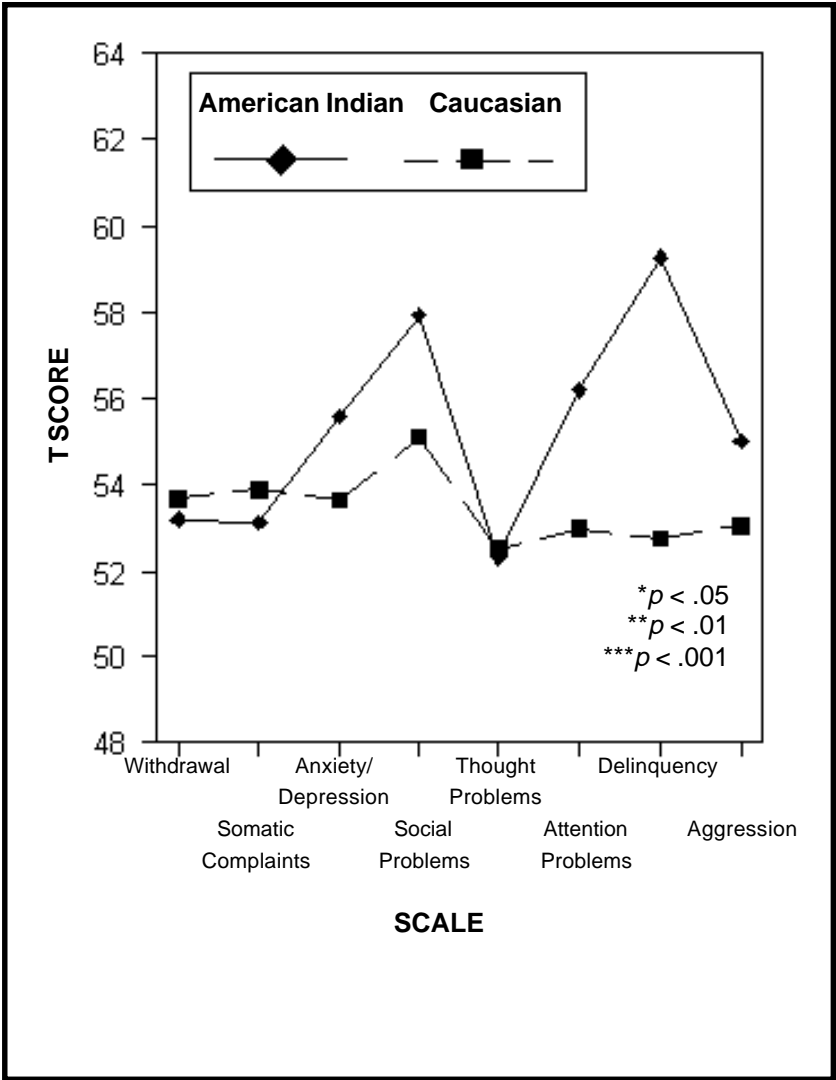
- Significantly more overall problems reported by parents of AI males than parents of White males***.

- Significantly higher scores on the following scale: Delinquency***.

differences on individual scales. Of the eight scales, somatization and delinquency were significantly different [$F(1,173) = 5.17$, $p<.05$, and $F(1,173) = 19.21$, $p<.001$, respectively], with scores for American Indian males higher than scores for Caucasian males.

Differences between self-reports provided by American Indian and Caucasian males approached statistical significance for the internalizing/externalizing profiles [$F(2,172) = 2.66$, $p = .07$]. Again, this difference was the result of higher scores for American Indian youth. An examination of the means for the individual scales reveals that it is externalizing on which of these two groups differ most notably (although again, the difference only approached statistical significance).

Profile differences for American Indian and Caucasian males based on teacher report were both more widespread in nature (i.e., across a number of clinical scales) and of greater magnitude. The multivariate test of significance was significant [$F(8,163) = 7.52$, $p<.0001$], with American Indian males again obtaining higher profiles. In addition, of the eight scales, six were significantly higher for American Indian males, and the remaining two approached significance. Values were as follows: withdrawal [$F(1,170) = 15.28$, $p<.001$]; somatization [$F(1,170) = 12.45$, $p<.01$]; anxiety/depression [$F(1,170) = 6.00$, $p<.05$]; social problems [$F(1,170) = 3.43$, $p<.10$]; thought problems [$F(1,170) = 2.81$, $p<.10$]; attention problems [$F(1,170) = 31.79$, $p<.001$]; delinquency [$F(1,170) = 41.03$, $p<.001$]: aggression [$F(1,170) = 26.94$, $p<.001$].

As expected, based on the clinical scale differences, profile differences on the internalizing and externalizing scales were also highly significant. Both the overall profiles [$F(2,169) = 8.51$, $p<.0001$] and the individual scales yielded significant differences [internalizing $F(1,170) = 10.12$, $p<.01$; externalizing $F(1,170) = 13.25$ $p<.001$]. Again, scores were higher for American Indian than for Caucasian males.

Profile differences based on parent report must be interpreted cautiously, as the participation rate for parents was approximately half that for teachers and youth. Parent report profile differences on the clinical scales were significantly higher for American Indian males [$F(8,76) = 3.96$, $p<.01$]. Examination of univariate comparisons across the clinical scales revealed a significant difference for delinquency only [$F(1,83) = 14.82$, $p<.001$]. Differences on the attention problems scale approached significance [$F(1,83) = 3.43$, $p = .07$]. Once again, differences in the overall profiles and on these individual scale were reflective of higher scores for American Indian males.

Finally, profile comparisons across internalizing/externalizing scales approached but were not statistically significant [$F(2,82) = 2.59$, $p = .08$] (Figure 4). As was the case with the youth self-report data for males, profile differences were primarily accounted for by higher levels of externalizing reported by parents of American Indian than of Caucasian males. In this case the difference on externalizing was statistically significant, although

the meaningfulness of the significance is questionable, given the lack of multivariate significance.

Comparisons of Profiles for American Indian and Caucasian Females

Examination of profile differences for females are presented in order of youth self-report data (Figure 5), teacher data (Figure 6), and parent data (Figure 7). Youth self-report profiles were significantly higher for American Indian females than for Caucasian females [Hotelling's $F(8,196) = 2.88$, $p<.01$]. Examination of the clinical scales revealed significantly higher scores for American Indian females on anxiety [$F(1,203) = 5.35$, $p<.05$], social problems [$F(1,203) = 9.12$, $p<.01$], thought problems [$F(1,203) = 4.29$, $p<.05$], and delinquency [$F(1,203) = 9.92$, $p<.01$]. As with self-report for boys, the profiles on internalizing/externalizing scales were not significantly different for girls.

Teacher report profiles across the clinical scales were not significantly different for American Indian and Caucasian girls. It was therefore not appropriate to consider differences on individual clinical scales. Similarly, differences between the two groups on the internalizing/externalizing profiles were not significant.

Parent report profiles were significantly higher for American Indian females than for Caucasian females across the clinical scales [Hotelling's $F(8,100) = 2.22$, $p<.05$]. Interestingly, none of the individual scales was significantly elevated for American Indian females, although several approached significance. Finally, there was not a significant difference between the two groups on the internalizing/externalizing profiles (Figure 8).

Discussion

The profile comparisons for American Indian and Caucasian youth revealed several important areas of distinction. First, there was a clear trend across the reports of all informants of elevated profiles for American Indian youth compared to Caucasian youth. Of the twelve profile comparisons, six were significant and three more approached significance ($p<.10$). In each of these analyses, the profiles of American Indian adolescents were higher than those of Caucasian adolescents. This finding is consistent with previous research, which has found higher rates of "problem behavior" among American Indian children and adolescents. However, the present study allows for more detailed investigation of this issue. In particular, data from males and females produced dissimilar results, and profile patterns also differed considerably by informant.

One of the most notable differences existed between the profiles that different informants provided of Caucasian and American Indian males. By their own report, and by the reports of their parents, the American Indian

Figure 4
Mean Differences on Self Report, Teacher Report, and
Parent Report of Externalizing and Internalizing:
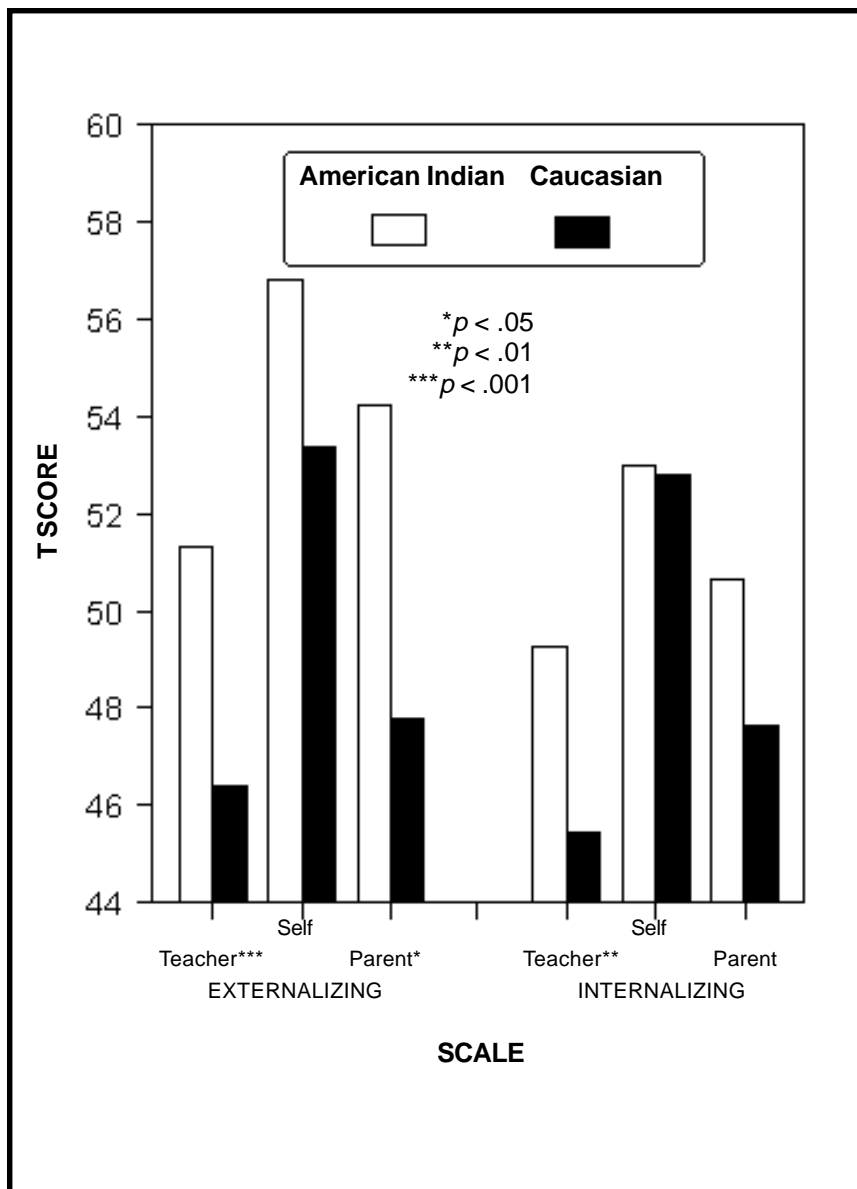
Figure 5
Mean Differences on Achenbach Scales:
American Indian vs. Caucasian Females, Self Report
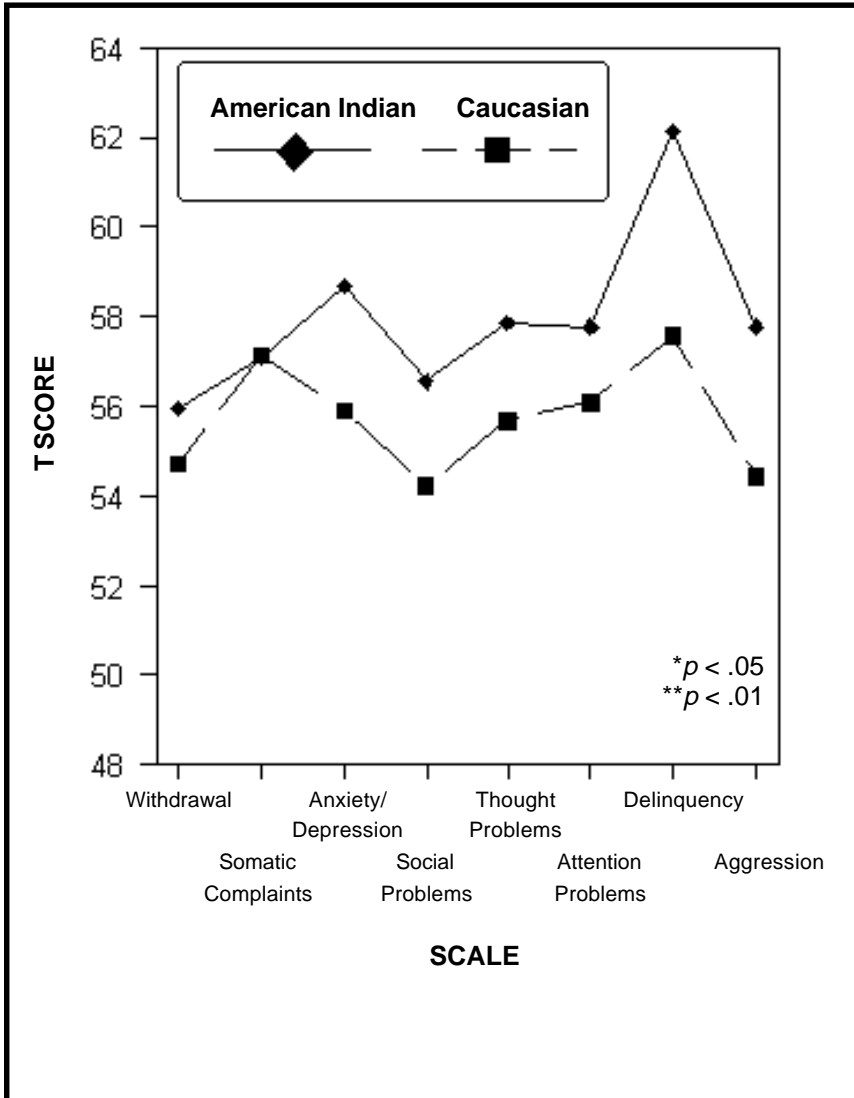
-Significantly more overall problems reported by AI females than White females**.

- Significantly higher scores on the following scales: Anxiety/Depression*; Soical Problems**; Delinquency**.

Figure 6
Mean Differences on Achenbach Scales:
American Indian vs. Caucasian Females, Teacher Report
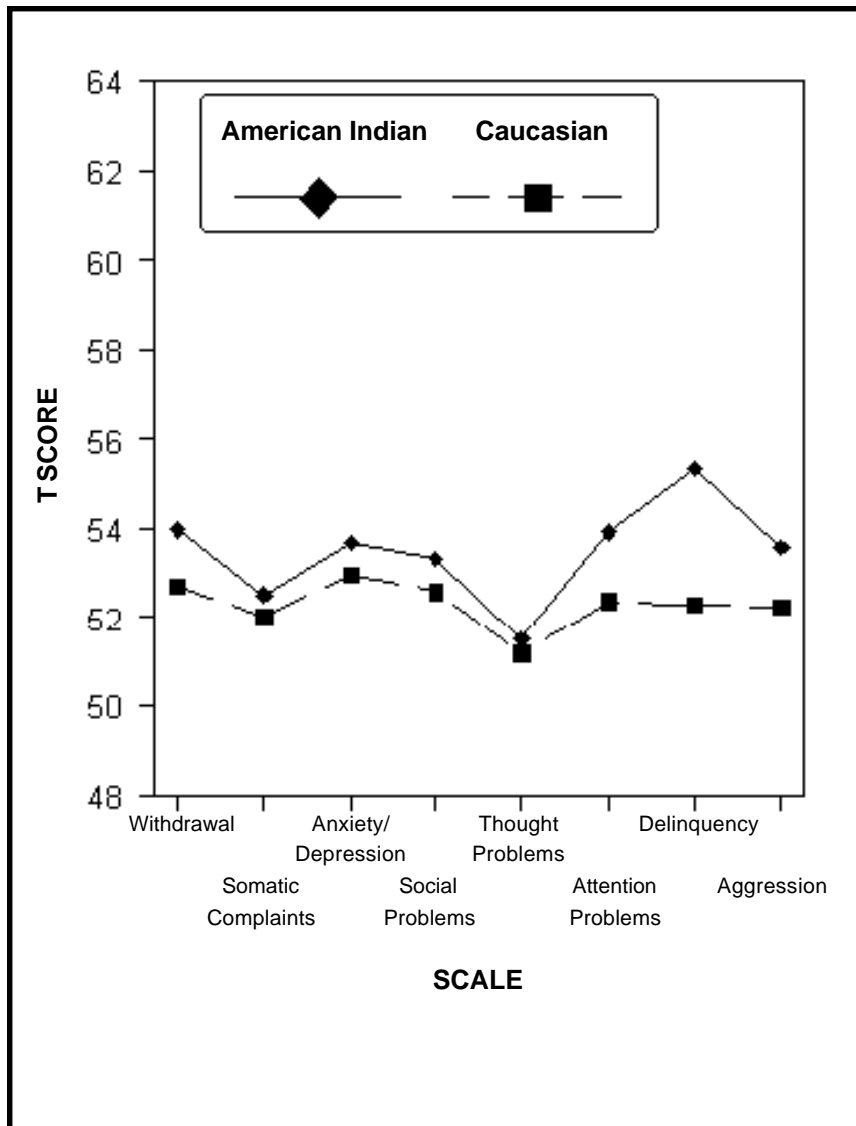
-No significant differences in overall problems for females reported by teachers, thus differences on individual scales are not interpretable.

Figure 7
Mean Differences on Achenbach Scales:
American Indian vs. Caucasain Females, Parent Report
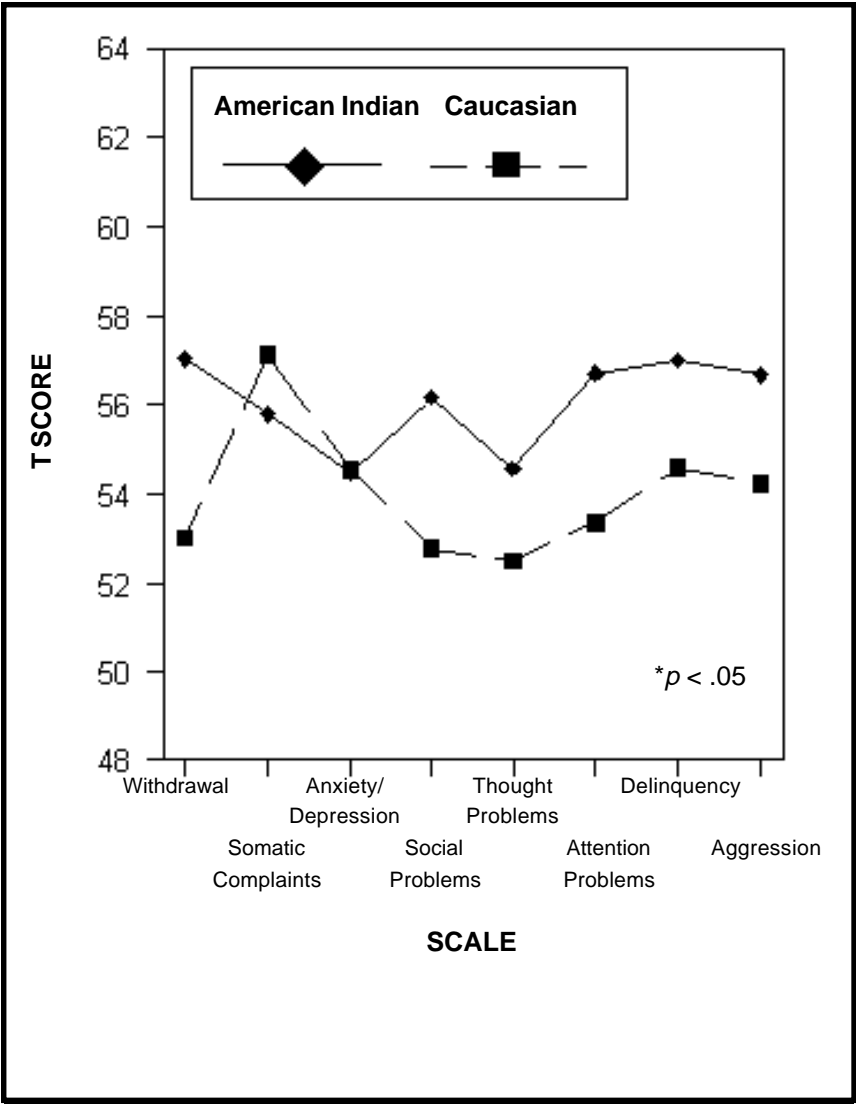
- Significantly more overall problems reported by parents of AI females than parents of White females*.

- No significant differences on individual scales.

males in this sample did have higher overall rates of problem behavior. However, an examination of the individual CBCL clinical scales reveals that these differences were mainly the result of significantly elevated scores for American Indians on the delinquency scale (for youth report, the somatization scale was also significantly elevated). Moreover, differences across externalizing and internalizing scales were close to, but not significant for both youth report and parent report.

Figure 8
Mean Differences on Self Report, Teacher Report, and
Parent Report of Externalizing and Internalizing:
American Indian vs. Caucasian Females
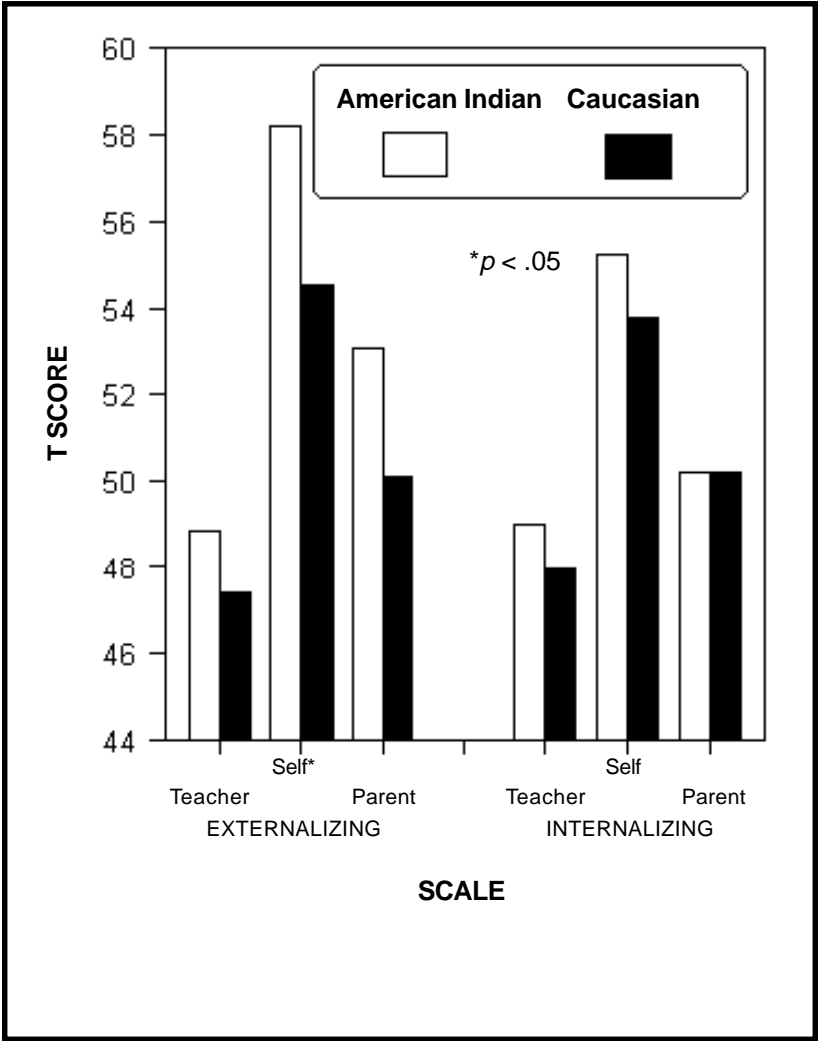
In contrast to youth and parent report, the comparisons between teacher reports of problem behavior for Caucasian and American Indian males reveal a different pattern. The profiles of American Indians were again elevated, but in this case the elevation was due to a much broader elevation across the clinical scales. Six of the eight clinical scales were significantly elevated, including withdrawal, somatization, anxiety/depression, social problems, thought problems, attention problems, delinquency, and aggression. In addition, both the internalizing and externalizing scales were significantly higher for American Indian males than for Caucasian males. Moreover, of the effects obtained in the analyses, these were as a group the greatest in magnitude.

A number of interpretations may be made of these results. One is based on the assumption that teachers are accurate observers of these two groups of adolescents. If this is the case, then American Indian males are displaying higher rates of a range of problem behaviors than Caucasian males in the school. This is essentially a context specific interpretation; presumably, the reason for different profile comparisons based on youth and parent reports is that the youth and their parents are considering different contexts than school (or a broader range of contexts than school) when completing the rating forms. For this interpretation to be accurate, youth must behave differently outside of school than in school.

Another interpretation is that teachers' reports are accurate not only in the schools, but across contexts, and that parents and youth are minimizing or failing to report problem behaviors. While this is a viable possibility, it seems unlikely—especially given the increased levels of delinquency in American Indian youth and parent reports. Whether one or more of these interpretations is accepted, it is clear that teachers perceived American Indian males as more likely to have a global range of problem behaviors as compared to their Caucasian male peers, whereas American Indian parents and the youth themselves perceived higher rates of problem behavior in a narrower area of functioning that included delinquency.

The final interpretation of these results we considered is based on the concept of systematic bias. It may be the case that teachers rated the American Indian male youth according to a globally symptom-oriented conceptualization; thus, whether or not particular behaviors occur they may be more frequently endorsed as a way of designating the youth as a "generally troubled" individual.

The cultural commentators' responses to these results were illuminating. First, in response to the elevated self-report and parent report of delinquency for American Indian males, there was some question about the extent to which this should be viewed as indicative of a pathological process (to facilitate consideration of this issue, items from the delinquency scale are listed in Table 2). Within the traditional American Indian cultures represented on this particular reservation, the role of the "young warrior" for adolescent males has historically been accepted and continues to be valued.

Given the social conditions under which many of the youth live, some degree of acting out against authority in school (and in general) was seen to conform to the young warrior role, and was also viewed as an adaptive response to adverse living circumstances. Indeed, there was more concern about youth who were showing no rebelliousness than about those whose behavior was troublesome at times. This is not to say all levels of delinquency were viewed as positive by the commentators. Behavior that places youth or community in harm's way, through violent or destructive behavior, was seen as problematic, not socially acceptable, and as something that could lead to social disintegration, substance abuse, incarceration, and premature death.

The cultural commentators also viewed the teachers' more global elevated symptom ratings of the American Indian youth as cause for concern. Whether this pattern of results is due to actual higher rates of problem behavior in the school setting or whether it is due to bias on the part of the teachers, it is clear that intervention is called for. A report in the tribal newspaper (Morrison, 1992) in the years prior to the study did bring attention to the fact that the percentage of American Indian teachers in the school districts on or near the reservation was extremely low: 0-5% in all schools. Programs aimed at (a) reducing antisocial behavior, (b) recruiting and hiring more American Indian teachers, and (c) increasing existing teacher's levels of cultural sensitivity could help to decrease the discrepancy between the problem behavior profiles of Caucasian and American Indian adolescent males. Indeed, such a program is in the planning stages.

Table 2
Delinquency Items from the Child Behavior Checklist
(Achenbach, 1991a)

Item
Doesn't seem to feel guilty after misbehaving
Hangs around with children who get in trouble
Lying or cheating
Prefers playing with older children
Runs away from home
Sets fires
Steals at home
Steals outside the home
Swearing or obscene language
Thinks about sex too much
Truancy, skips school
Uses alcohol or drugs
Vandalism

In contrast to the profiles for males, Caucasian and American Indian females showed a different pattern of results. In this case it was teachers who saw no differences between the two groups, and parents and youth who saw the American Indians as having higher rates of problem behavior. Specifically, by their own reports, American Indian females had higher overall profiles than Caucasian females and higher levels of anxiety, social problems, thought problems, and delinquency. Parent reports revealed higher overall profiles for American Indian females; however, none of the clinical scales were significantly different. Teacher reports did not produce significantly different profiles. Interestingly—and a reflection of the overall similarity of girls' profiles—there were not significant differences between American Indian and Caucasian girls on the externalizing/internalizing profiles for any of the three informant groups. Moreover, in general, the effect sizes for the comparisons of females were, in general, lower than those for the males.

The lack of agreement between teachers and the two other informants (youth and parents) on the clinical scale profiles again may be interpreted in a number of ways. First, it must be taken into consideration that the magnitude of the two ethnic groups' profile differences was less for the females than for the males. Thus, while a search for meaning of these results is important, it appears that all three informants have more similar impressions of the girls than of the boys. This being so, it still may be the case that teachers perceive Caucasian and American Indian females' behavior as more similar than either parents or the youth themselves because in contrast to the boys, their behavior in school may actually be more similar. This is consistent with the notion that the most salient behaviors to teachers are disruptive behaviors such as talking out of turn, fighting, and refusal to follow instructions.

According to the cultural commentators, American Indian girls would be unlikely to display disruptive behavior in a school setting, as it would be a violation of cultural norms. If emotionally troubled, they would more typically display internalizing behaviors, such as social withdrawal, non-participation in activities, and sadness. Moreover, girls in general display lower rates of disruptive behavior than boys. Thus, it may be that teachers draw less of a race distinction than a gender distinction when it comes to their perceptions of girls.

As indicated in Table 1, these results are also consistent with the stressful life events—problem behavior relations. American Indian girls appear to be exposed to a high degree of risk factors, and would be expected to exhibit symptoms as a result of this exposure. To a certain extent, the fact that this symptomatology is not apparent to teachers is cause for some concern; just as the boys being identified as globally symptomatic by the teachers may lead to a lack of investment in teaching them, the girls being identified as globally asymptomatic may cause existing problems to be overlooked.

Implications for Future Community Interventions

The implications of these results for the design of future preventive interventions are quite important. We begin with the notion that for many American Indian children and adolescents, the school environment is at odds with a variety of cultural values. In particular, the emphasis on individual achievement, the focus on linear thinking, and a number of differences in styles of social interaction may be quite foreign to many youth. This may lead to an increase in alienation, as well as oppositional and generally negativistic behavior on the part of the boys, and a general tendency to conform on the part of the girls even in the face of self- and parent-reported higher rates of symptoms. However, in neither case do teachers appear to share the perceptions of the youth about their adjustment in school. The potential may be great, therefore, for misattributions of youth behaviors on the part of the teachers.

In order to address these issues, a two-stage intervention might be employed. In the first stage, teachers could be educated regarding the American Indian youths' own reports of symptoms and the manner in which these symptoms are (a) related to exposure to actual risk factors and (b) expressed or not expressed in the academic environment. This could be accomplished through a series of in-service training workshops. In the second stage, there could be a focus on developing anti-bias curricula that allow students of different ethnic groups to benefit equally from the educational resources being offered. In particular, encouragement of specific skills typical of American Indian culture such as collective participation and non-linear thinking could be mutually beneficial for Caucasian and American Indian students, and would increase the likelihood that the American Indian student feel more welcome in the classroom. This curriculum could include content related to cultural heritage, but would go beyond content to also include process components. The anticipated effects of this combined intervention would be to increase teachers' sensitivity to the psychological functioning of American Indian youth and to create an academic environment for American Indian youth that is supportive and empowering. An intervention of the type described here is currently being designed and we anticipate implementing a pilot study of its efficacy in the near future.

Cautions and Other Considerations

One issue of critical importance in this research is that although this paper has addressed topics such as teacher bias and lack of parent involvement we in no way mean to imply that either teachers or parents are at fault or are consciously perpetuating a problem situation regarding youth. Teachers in the reservation community are there by choice and may be assumed, at least, to be genuinely committed to the success of youth. It

may be that teachers have developed general impressions of the two ethnic groups, and are more passively biased by the information available to them and by general stereotypes within European-American culture than they are actively biased for or against either of the ethnic groups. If teachers do feel "threatened" by or otherwise uncomfortable in the face of male American Indian adolescents' acting out behavior, and consequently make global attributions about the pathology of this behavior, it is likely that they lack both knowledge to understand the behavior in a non-threatening manner, and the tools to intervene effectively in order to redirect such behavior into more constructive actions.

Similarly, parents' lack of involvement or support in the school setting is certainly understandable given the historical perspective presented briefly above, but must be addressed if interventions are to be effective. The phenomena described in this paper can be largely accounted for by relatively basic processes that social psychologists and others have known about for some time, and that relate to the power of the situation to determine attitudes and behavior. As interventionists, we encourage a focus on changing the situation in order to alleviate these problems.

Several additional cautions are necessary in interpreting the results. First, this study does not examine the psychometric properties of the scales used to evaluate problem behavior. These analyses were not undertaken in part because the relatively small sample size makes difficult an examination of the extent to which the conceptual framework of the scales is appropriate for American Indian youth. However, one consequence of this is that certain of the results—in particular the lack of differences in reports of certain informants—must be considered somewhat tentative in nature. It may be the case that these results are reflective of either inaccurate measurement of certain problems or of inapplicability of certain concepts within the American Indian sample. Further research will be necessary in order to better understand these issues.

A second concern arises because the two ethnic groups did appear to differ across a number of demographic variables related to risk for the development of psychopathology, with the American Indian youth at higher risk. This is consistent with previous research and is reflective of the more challenging social conditions of American Indian youth—even those living in the same communities as Caucasian youth. Given these differences, what is perhaps most surprising is the extent to which certain comparisons across the different informants did not reveal differences. Again it is necessary to consider the possibility that the lack of differences is related to psychometric issues. Moreover, a closer examination of the relationship in these two ethnic groups between risk and protective factors, on one hand, and psychosocial functioning, on the other, appears warranted.

A third concern is that although it was extremely important to the architects of this project to utilize an active consent process on the part of the parents, this process did result in lower participation rates in general

than would have been ideal. Moreover, the limited participation of parents in completing the questionnaire does weaken the study from a methodological perspective. Although parents' reports were generally more similar to the youths' reports than to those of the teachers, this may be the result of parents of the more troubled youth not participating in the study. Future research must increase parental participation rates to be closer to the rates of youth and teachers. This might be accomplished by using in-person solicitation of participation rather than phone contact to parents who had not yet agreed to participate. In addition, advance notice of the study being conducted, the source of the research questions (i.e., the tribe, rather than outside academicians), and the potential benefits of participation might help to improve participation rates.

A fourth concern involves the lack of information about the youth who were approached but did not participate in the study and also the youth who were unable to participate because they had dropped-out of or were not attending school at the time the data were collected. Compared to the youth in the sample, the risks faced by many of those not included may be considerably higher. Although examination of high-risk youth as a specific group is beyond the scope of this study, additional work remains to be done to understand the needs and differences of American Indian and Caucasian youth who have become disengaged from the educational system.

A final, more general caution: This research was designed to be only the first step in a potentially lengthy process. The results we present here provide important information for the next step, which is the design of preventive interventions, but they in no way tell the whole story. Much work remains to be done: (a) to understand how factors of strength and resiliency that are so apparent among many youth in American Indian communities buffer against psychosocial risks and the vagaries of the educational system; (b) to design measures that are more culturally sensitive than those used here to assess problem behaviors; (c) to develop positive collaborations between interventionists and tribal communities; (d) to empower community members to carry out this work on their own; and (e) to assess the efficacy of the interventions that are designed using sound empirical techniques.

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Author Note

BOARDING AND PUBLIC SCHOOLS: NAVAJO EDUCATIONAL ATTAINMENT, CONDUCT DISORDER, AND ALCOHOL DEPENDENCY

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Abstract: Many critics of United States government operated boarding schools for American Indians have asserted that the boarding school experience has lasting deleterious effects on personality development. Specifically, it has been suggested that a boarding school education is likely to lead to problems with alcohol in adulthood. To examine that assertion, data from interviews with over 1000 Navajos are analyzed concerning schooling, conduct disorder and the history of alcohol use. Consistent with data on the U.S. population generally, Navajo high school dropouts reported greater problems with alcohol than did graduates. Contrary to expectations, Navajos with a history of alcohol dependency were no more likely to have attended boarding schools than those who did not report patterns of alcohol dependency.

The effects of a boarding school education upon American Indian students has generated controversy over the years. Critics of the boarding school system have asserted that boarding schools break up families (DeJong, 1993) and "invariably set parents and children, home and school, to warring with one another" (Ortiz, 1972, p. 83). They further propose that the experience may have long term negative consequences for the personality development of the students (Leon, 1969). Moreover, boarding schools have long been criticized for depriving students of their own tribal cultures, which of course was an important reason for creating them in the first place.

Mental health workers have often expressed the view, generally on the basis of clinical impressions, that the boarding school experience was

very damaging. Leon (1969), a psychiatrist, suggested that the parental separation associated with residential schooling of young children led to serious, irreversible psychological damage. Bergman (1969), a psychiatrist in the Indian Health Service in the 1960s, wrote:

> Among the young adults who are the first generation of Navajos in which the majority went to school, there are many severe problems. The problems that occur with excessive frequency are ones involving the breakdown of social control: drunkenness, child neglect, and drunken and reckless driving. Alarming numbers of people have lapsed into an alienated, apathetic life marked by episodes of delinquency and irresponsibility…. It seems a reasonable hypothesis that their having been placed by their own parents in an impersonal institution contributes to such attitudes, and it is noticeable that the boarding schools provide children and adolescents with little or no opportunity to take care of other children or even of themselves. (p. 1126)

More recently, Topper (1985) has observed that "among the Navajo… employment and boarding school experiences are major contributors to the development of the problems many young Navajos have in relating to strangers and to the recent increase in the levels of socio- and psychopathology…" (p. 237). He notes that many factors, such as genetic history and quality of parenting, are important in understanding why specific individuals become alcohol abusers. Apart from family life, he continues, the "boarding school experiences" and employment conditions have the greatest "impact on the development of psychopathology and maladaptive behavior" (p. 237). In a subsequent paper, Topper and Curtis (1987) point to the values inculcated by "Western education" in "agency-town schools" (p. 337), (which could be either boarding or public) as contributing to a form of social pathology ("synergistic dual anomie depression") among Navajo male adolescents. In several places they indicate that boarding school experience is more detrimental than public school in generating this mental health problem (Topper & Curtis, 1987, pp. 339, 343-344).

A study of Inuit (Eskimo) students in Alaskan boarding schools in the 1970s indicated high levels of psychological disturbance. The extent of the problems varied from one boarding school environment to another, but Kleinfeld and Bloom (1977) posited that, generally, Indian boarding school environments "can contribute to the development of long-standing character pathology" (p. 411). In a study of Canadian boarding school students during the 1960s, Hobart (1974) found that students from families more involved in the subsistence economy had greater problems than those from families relying primarily on wage work. Krush, Bjork, Sindell, and Nelle (1966) found a high level of emotional disturbance among Indian students at a

Bureau of Indian Affairs (BIA) boarding school in South Dakota. Dick, Manson, and Beals (1993) claim that "Alcohol use/abuse has approached near epidemic proportion in Native American boarding schools" (p. 172). They go on to say that it was the observation of an association between "high levels of dysfunction, notably substance abuse and depression," in "this type of environment" that "fueled the decentralization of educational resources and increased local control of schools" (p. 172).

In the late 1960s a U.S. Senate subcommittee, after hearings on the BIA boarding school system, concluded that off-reservation boarding schools had "generally become dumping grounds for Indian students with severe social and emotional problems" but also included students who simply "had no other school available to them" (U.S. Senate, 1995, p. 2). One critic counseled that "finding viable alternatives to boarding schools for the young is undoubtedly the biggest and most urgent challenge facing the Subcommittee" (Ortiz, 1972, p. 84).

There was not complete unanimity in condemning boarding schools, however. The Navajo Tribal Council, discounting the claimed link between boarding schools and emotional problems, requested that the BIA expand the boarding school program "working closely with the Navajo tribe" (Fuchs & Havighurst, 1972, p. 223). Moreover, studies of specific boarding schools have emphasized their positive aspects. Trennert (1988) noted that "those who passed through the system [the Phoenix Indian School] generally praised it," believing "that the brand of education and strict discipline associated with the school developed moral character, a sense of responsibility, and integrity" (p. 297). Writing about the Dakota Sioux, Erikson (1963) claimed that the boarding school environment was generally more physically comfortable than the home environment and the times spent at the schools were among "the pleasantest years in the child's life—and yet the great majority of students who enter high school do not graduate; they sooner or later play truant and finally quit for good" (p. 159). Frisbie (1996) has analyzed published accounts of the boarding school experiences of 16 Navajos who attended such institutions in the decades prior to 1940. Recognizing that these "narrations are affected by selective memories, audiences," as well as other factors (p. 171), she notes that several individuals "end up assessing their experiences as positive, although perhaps too harsh and difficult" (p. 166). She cautions against "simplistic interpretations of the significance and lasting reverberations of boarding school experiences in today's world, and monolithic generalizations about agents, particulars, and extent of cultural destruction" (p. 169).

Not only are there differences of opinion about the damage done by boarding schools, the alternatives have also been criticized as well. Based on work among Navajo children in the early 1940s, Leighton and Kluckhohn (1947) wrote:

> [t]he psychological conflicts and stresses which are perhaps the most momentous for the personality formation of Navaho children taught by white teachers… arise from two features of white culture: (1) the great stress upon competition between individuals; (2) the lack of definite status for the child at each age level…. It is frequently observed that Navaho children who leave the hogans calm and well-poised return at the end of the first school year nervous and tense. This is less true of children attending the present Indian Service day and semi-boarding schools. (p. 68)

More recently, some analysts of Indian education note that "public schools serving Indian children… present a picture which is little better" than the boarding schools (Ortiz, 1972, p. 84). Both "the Public and Bureau of Indian Affairs schools have failed Indian children, parents, and communities" (Otis, 1972, p. 71). Teachers in schools both on and off the reservations "lack understanding" of students and their culture (Otis, 1972, p. 72). Thus, "in the cultural conflict between school and home, children, by the time they reach adolescence, have often developed an 'Identity-Orientation' psychosis so acute that conflict is resolved only by complete withdrawal and alienation from self and society" (Otis, 1972, p. 72).

Of all American Indian tribes, the Navajo have the largest reservation and the greatest number of tribal members residing on reservation. The availability and structure of educational experiences have differed to some degree from those of other tribes. The educational system on the Navajo Reservation was one of the least extensive and developed. By the end of World War II, only 32% of Navajo children were enrolled (Johnston, 1966). The federal government responded in 1946 with a unique, off-reservation boarding school program for Navajo adolescents: "the Navajo special education program." The goal was to provide students, in a five year course of study, with "a salable skill, sufficient fluency in English to get and hold a job and as much academic education as each individual could acquire in the years left to him for formal education" (Thompson, 1975, p. 90). In 1950 Congress further expanded educational opportunities with the passage of The Navajo-Hopi Long-Range Rehabilitation Act (PL 81-474). The act appropriated $25 million for school construction (Young, 1961). Enrollment of school age children rose to 57% in 1954 and 89% in 1958, followed by a slight decline through the early 1960s (Thompson, 1975; Johnston, 1966).

During the 1960-61 school year 29,611 Navajo students were attending school. Over a third (35.8%) were enrolled in 54 boarding schools located on Navajo lands. About 8% were housed in BIA administered "peripheral dormitories," located in towns near the reservation ("border towns"). These "border dorm" students attended local public schools. Nearly one-fifth (19.4%) were at one of the 11 distant off-reservation BIA boarding schools. Thus nearly two-thirds of all students were in some type of "boarding"

environment while pursuing their education. The remainder attended public schools (25%), BIA day schools (4%) or mission and other schools (nearly 5%) (Young, 1961, pp. 60-61).

These figures indicate that in any one year Navajo students could be found in many different types of schools. Thompson (1975) asserts that "the quality of educational services for Navajo children had suffered in the interest of getting children in school in the emergency effort of the 1950s" (p. 148). The rapid expansion of facilities and programs seems to have led to a certain instability in the educational experience and emphasized boarding school experience for most students at some point in their school career, but increasingly day schools were built to replace boarding schools and allow students to remain at home.

Public school districts, established under state law, were formed within the reservation beginning in the 1950s (Thompson, 1975). By the 1970s, with nearly all Navajo children enrolled in school, and over half in public schools, concern among Navajo educators shifted from getting young children into school to keeping older ones from dropping-out. In the mid 1980s the Navajo Area Student Dropout Study found an overall drop-out rate of about 31%, and an annual transfer rate of about 30% (Brandt, 1992). In 1992 nearly 70% of students within the Navajo Nation attended public schools and 21% attended BIA administered schools (some as day students) (Navajo Nation, 1993). Some students still attend boarding school for part of their education and there is a great deal of movement by students among schools of different types.

Despite the high dropout rate, the general educational level of the population has increased substantially. The U.S. Commission on Civil Rights, citing 1970 census figures, "disclosed that most Navajo adults complete an average of 5 school years" and "that 80% of the over 25 age group had dropped out of school before reaching grade 12" (Brandt, 1992, p. 49). These were accurate aggregate statistics for the time, but the figures obscure the age cohort effects. In 1970, a third (32.8%) of Navajos, born approximately between 1934 and 1945 and prior to the massive push for education, had completed high school. Only a quarter (24.3%) of this 25-34 year old cohort had less than 5 years of school, whereas over half (53.1%) of all adult Navajos residing on the reservation had less than 5 years of schooling (U.S. Bureau of the Census, 1973). By 1990, two-thirds of Navajos ages 25-34 (those born approximately between 1954 and 1965) were high school graduates. Overall, the 1990 census reports that 51% of all Navajos over 25 had graduated high school and only 28.2% had less than a 9th grade education. The aggregate statistics for the entire population change slowly as cohorts age, but this masks the profound changes in educational attainment that have occurred in a single generation.

The changes in educational attainment described above would be expected to be associated with changes in alcohol use and abuse. Alcohol consumption has been widely observed to be associated with educational

attainment. In the U.S. population "those with the lowest levels of education have the highest rates of heavy drinking" with "a consistent fall in these percentages as educational level rises" (Helzer, Bucholz, & Robins, 1992, p. 86). Between 1967 and 1984 symptoms of alcohol dependence increased "somewhat disproportionately among those with less income and less education" (Room, 1991, p. 157). Similar observations have been made among American Indians. Reporting on data from three widely separated tribes, Manson, Shore, Baron, Ackerson, and Neligh (1992), found that people with at least some college were slightly less likely to have alcohol problems than those with less education.

Complicating the picture is the observation that antisocial personality disorder (ASPD) is strongly associated with alcohol dependence (Hesselbrock, Meyer, & Keener, 1985; Kadden, Getter, Cooney, & Litt, 1989; Litt, Babor, DelBoca, Kadden, & Cooney, 1992; Ross, Glaser, & Germanson, 1988; Rounsaville, Dolinsky, Babor, & Meyer, 1987). In the population-based Epidemiological Catchment Area Study (ECA), for instance, the odds ratio for people with ASPD being alcohol dependent was 21, higher than for any other co-morbid condition (Regier, et al., 1990). Among the criteria for ASPD is conduct disorder before age 15, which is a significant risk factor for alcohol dependence in the Navajo population (Kunitz et al., in press). Because conduct disorder is manifested in truancy and other school related behaviors, it is important to consider whether the school experience exerts an independent effect on alcohol dependence or whether the effects, if any, are mediated through conduct disorder.

This review of the existing literature suggests that one would expect: (a) an inverse association between age and educational attainment, (b) an inverse association between education and alcohol dependence, (c) a higher proportion of boarding school alumni among alcohol dependent than non-alcohol dependent people, and (d) that the associations between educational experience and alcohol dependence would be explained by the presence of conduct disorder.

Methods

This study uses a case-control design to investigate risk factors for alcohol dependence among Navajo who were between 21 and 67 years of age in 1992-95. It was carried out in two of the eight Indian Health Service (IHS) service units on the Navajo reservation:
1. Shiprock, the most populous service unit in the Navajo Nation had a 1990 population of 26,710 American Indians (overwhelmingly Navajo) residing on Navajo Nation lands.
2. Tuba City, had a 1990 population of 15,800 American Indians (mostly Navajo but including over a thousand Hopis and some Southern Paiutes). Each service unit also serves the American Indian population residing in

neighboring off-reservation locations. While the Tuba City hospital is 75 miles from the nearest off-reservation towns ("border towns"), five border towns are located within 50 miles of the Shiprock hospital.

Cases residing in each service unit were drawn from alcohol treatment programs. Controls were matched by age, sex, and community of residence and were drawn from lists provided by the IHS hospitals in Tuba City and Shiprock. The names were of all people seen in an IHS facility between 1982 and 1992 who gave an address in either of the two service units. They were not only in-patients but children seen for school physicals, adults seen for food handler examinations, and so on.

All Shiprock male cases were interviewed while they were in-patients in one of several residential treatment programs. About half the female cases from the Shiprock Service Unit were also interviewed while in the same programs. Due to an insufficiency of such cases, others were selected from lists of patients provided by the Navajo Nation's out-patient substance abuse treatment program.

In Tuba City 82% of the male and 79% of the female cases came from the tribal out-patient program. The different case selection procedures in the two service units were required because of the sizes of the two populations, differences in service unit and tribal program referral practices, and the relative isolation of the Tuba City population from residential treatment facilities.

A stratified random sampling procedure was used to obtain controls in each service unit. In the Shiprock Service Unit the communities were grouped into twenty geographic areas, sixteen of which were chapters (or combinations of chapters)[1] while the remaining four were off-reservation areas. Within each geographic stratum, there were nine age categories in five year intervals for those born between 1927 and 1972, yielding 360 sampling strata, equally divided by sex. In Tuba City, eight chapters were used as the sampling areas as well as one off-reservation area, yielding 162 sampling strata, again equally divided by sex.

Within each sampling stratum in Shiprock the names were randomized and controls were sought by working down the list. Estimates of the success with which individuals were first located and then interviewed range from 30% for the youngest age cohort to 65% for the oldest, and from about 30% in the off-reservation communities to over 80% in a number of rural on-reservation chapters.[2] Interviews were conducted until a non-alcohol dependent control was located. It was not always possible to find such an individual.

In Tuba City a random number table was used to select four potential controls to match each case. Interviewing from these lists of four potential controls occurred until a non-alcohol dependent control was identified or the list was exhausted. When a list was exhausted, a new list of potential controls was randomly drawn and interviewed until a non-alcohol dependent control was found. Response rates in Tuba City were similar to those in

Shiprock. Similar to Shiprock, in Tuba City non-alcohol dependent matches were not found for all cases.

The population was sampled for controls within strata defined by locality, age and sex. To adjust for the demographic effects of these sampling strata, they are included in the regression analyses. We have grouped respondents into three types of "localities" based upon their community of residence: (a) border town, (b) agency town, and (c) rural reservation. We dichotomized the sample by age: (a) less than 50 years of age, and (b) 50 or more years of age. We report the effects of these strata only if they are significant because they are not the topic of the present paper. They are introduced principally to adjust for possible differences between strata, as is common in the analysis of stratified samples.

Corresponding to each case (CAS), interviews were conducted with demographically similar respondents until a non-alcohol-dependent control (NADC) was found or until too many (3-4) alcohol-dependent controls (DEP) had been encountered. In the dichotomous logistic regression analyses presented below, the resulting three samples are treated pairwise: CAS vs. NADC and DEP vs. NADC.

In studying the results of any multiple logistic regression the effect tests of each variable were examined first. If a variable was significant, the effects of its individual levels were tested at the (5/k)% level. This is the Bonferroni method with k being the number of levels of the variable. If a variable had a non-significant effect test, its individual levels were not examined. This procedure avoids the pitfalls of multiplicity, i.e., of flagging a few results as significant merely because many tests were done.

The interviews were very extensive and included the questions from the Diagnostic Interview Schedule (DIS) designed for the ECA Study (Robins & Regier, 1991). The items included allowed for the diagnosis of both Alcohol Dependence and Conduct Disorder. The sexual content of many of the ASPD items were regarded as inappropriate in the Navajo context, especially in field interviews. That and our focus on early manifestations of problems led us to exclude that scale and include only the items relevant to Conduct Disorder. The version of the DIS we used had been revised to match the criteria in DSM-III-R.

To diagnose alcohol dependence a series of twenty-six questions from the DIS was used. In DSM-III-R the number of symptoms reported is considered a measure of severity. The various criteria do not need to have occurred at the same time. Some may have occurred sequentially over several years. It was also possible for people who were alcohol dependent to be in remission by the time they were interviewed. Nonetheless, in the analyses that follow they are treated as having a lifetime history of alcohol dependence.

Although according to DSM-III-R Conduct Disorder can occur at any age, in this study the focus is upon the behaviors which manifested themselves before age 15 (Robins, Tipp, & Pryzbeck, 1991). As with alcohol dependence, the number of affirmative answers to the items in the DIS is considered a measure of severity. The variable ASYES is the total number of affirmative answers which, because of its skewness (most values being zero) has been transformed into log (ASYES+1). In this paper, conduct disorder is treated as a continuous rather then a dichotomous variable and logASYES is used in the analyses.

There were also extensive questions having to do with family, occupational, marital, substance use, and drinking histories, and most relevant to this paper, educational background and attainment. Interviewing occurred between May 1993 and September 1995. Interviews ranged in length from two to four hours. Interviewees were requested to sign a consent form which had been approved by both the University of Rochester's Institutional Review Board (IRB) and the IRB comprised of representatives of both the Navajo Tribe and the IHS. A Certificate of Confidentiality had been obtained to protect informants should they have reported any illegal activities. At the end of the interview each informant was paid $30.

Results

As expected, for each sex and within each sample, age and number of years of schooling were inversely and negatively correlated (see Table 1). Older people have substantially less education than younger.

The regressions of years of education onto age reveal a related point, illustrated in Figure 1, for each sample (men and women are combined because the results are similar for both sexes). While all the regressions are significantly negative, the one for NADC has the steepest slope and that for CAS the least steep. This means that the youngest NADC are the

Table 1
Correlations of Age and Years of Schooling by Gender and Sample

Sex and Sample	R	p
Women:		
NADC	-.44	0.0000
DEP	-.23	0.0357
CAS	-.25	0.0010
Men:		
NADC	-.53	0.0000
DEP	-.47	0.0000
CAS	-.36	0.0000

best educated and the oldest the least educated among the three samples. These results suggest that the meaning of education has changed over several generations. In the past people who did not attend school seem to have had fewest problems with alcohol. More recently, education has been associated with reduced levels of difficulties with alcohol.

Years of education treated as a continuous variable is a useful measure, but it is also important to consider education as a series of stages, the successful completion of each being necessary for passage to subsequent stages. We collapsed years of education into six levels of schooling: (a) a small percentage of respondents who had never attended school; (b) those who had attended only grade school [through eighth grade]; (c) those who had attended, but had not completed, high school [grades nine through twelve]; (d) high school graduates; (e) those who had some college experience; and (f) college graduates.

The failure to complete an important stage of the educational process may thus be associated with increased difficulties both contemporaneously and subsequently. Table 2 shows that for men and women NADC were less likely to be high school dropouts and more likely to be high school graduates than both CAS and DEP. They were also more likely not to have attended school at all, which is a reflection of the age pattern displayed in Figure 1.

Table 2
Highest Level of Schooling Achieved (in%)

Level	Male			Female		
	CAS	DEP	NADC	CAS	DEP	NADC
None	1.0	0.5	5.7	1.3	1.7	2.8
Grade School	14.4	11.3	15.3	10.1	5.0	7.0
Some High School	34.2	29.9	14.0	49.3	33.3	22.4
High School Graduate	32.7	36.1	40.1	18.9	18.3	20.3
Some College	17.8	18.9	21.7	18.2	40.0	42.7
College Graduate	0	3.2	3.2	2.0	1.7	4.9
N	202	371	157	148	60	143
X^2		42.327			35.027	
d.f		10			10	
p		<0.0001			<0.0001	

Because some components of conduct disorder involve problems related to schooling (such as truancy and delinquent acts leading to suspension and expulsion), it is possible that being a high school drop-out is simply a proxy for having conduct disorder. Table 3 displays two dichotomous logistic regressions of samples onto school level, logASYES,

Figure 1
Regressions of Years of Education onto Age, by Sample
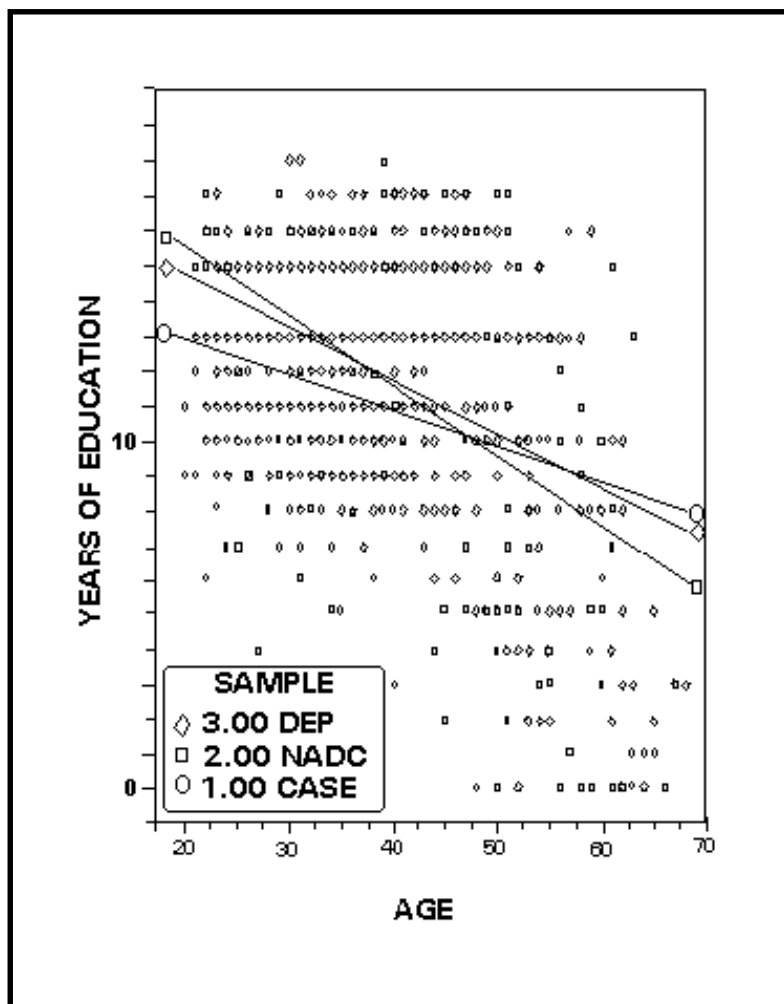
and the stratification factors of age, sex, and locality (community type). It is clear that school level has independent effects in addition to those of log ASYES, and that conduct disorder is not the underlying cause which explains both dropping out of school and alcohol dependence.

As described previously, the school experience has been said to be a punishing one that causes psychological distress, including alcohol abuse and dependence. Table 4 displays the types of grade schools and high schools attended by those informants who attended any school at all.

Table 3
Multiple Logistic Regressions of Sample onto School Level:
logASYES, and the Stratification Factors of Age, Sex, and
Community Type

A. DEP vs. NADC

Effect Test:

	D.F.	Wald Chi square	*p*-value
School level	5	15.9896	0.0069
log ASYES	1	31.1861	0.0000
Community type	2	2.5220	0.2834
Age	1	0.2623	0.6085
Sex	1	78.3619	0.0000

Estimate of Effects from Mean

	Estimate	Std. Error	Chi square	*p*-value	Odds Ratio
School Level					
No school	-1.34	0.6	4.97	0.0258	0.07
Grade school	0.193	0.265	0.53	0.4683	1.47
Some H.S.	0.839	0.219	14.65	0.0001	5.36
H.S. grad.	0.175	0.206	0.72	0.3964	1.42

Estimate of Effects from Mean

	Estimate	Std. Error	Chi square	*p*-value	Odds Ratio
School Level					
Some college	0.183	0.219	0.70	0.4031	1.44
College grad.	-0.053	0.420	0.02	0.8994	0.90
logASYES	0.857	0.154	31.19	<0.0001	5.95
Sex (females)	-0.9	0.102	78.36	<0.0001	0.17

B. CAS vs NADC

Effect Test:

	D.F.	Wald Chi square	*p*-value
School level	5	34.1341	0.0000
log ASYES	1	84.8086	0.0000
Community type	2	0.0547	0.9730
Age	1	0.1230	0.7258
Sex	1	0.0223	0.8811

Table 3 Continued
Multiple Logistic Regressions of Sample onto School Level:
logASYES, and the Stratification Factors of Age, Sex, and
Community Type

Estimate of Effects from Mean

	Estimate	Std. Error	Chi square	*p*-value	Odds Ratio
School Level					
No school	-0.65	0.553	1.39	0.2379	0.27
Grade school	0.725	0.27	7.22	0.0072	4.27
Some H.S.	1.025	0.225	20.81	<0.0001	7.77
H.S. grad.	0.186	0.228	0.67	0.4144	1.45
Some college	-0.19	0.236	0.63	0.4257	0.69
College grad.	-1.1	0.583	3.54	0.0598	0.11
logASYES	1.443	0.157	84.81	<0.0001	36.10

Respondents' grade school experience was coded for eight types based upon the category of school attended: (a) a boarding school on the reservation administered by the BIA; (b) a border town public school while being housed at a dormitory administered by the BIA; (c) a BIA administered on-reservation day school; (d) a public school on the reservation [without the experience of living in a dormitory as a component of the education]; (e) a public school in an off-reservation community, usually a border town [again without any residential dormitory experience]; (f) attendance at an off-reservation school while placed with a family through a placement program of the Mormon Church, or attendance at a Mission boarding school; (g) a BIA administered boarding school off the reservation; and (h) any experience that involved a combination of one or more of the first seven types. Most frequently those in the "combination" category had experience in both a boarding and a non-boarding educational setting. The categories are the same for high school experience except that there were no BIA day school attendees and we have assigned all those who were enrolled in the five year program at off-reservation boarding to a distinct category because nearly all were adolescents at the time they were first enrolled in this program.[3]

There is no difference among samples with regard to grade schools. There is a significant difference among men but not women at the high school level. The difference is accounted for entirely by the men who attended the special five year programs, which existed for only about two decades following World War II.

The people who were in this program were among the oldest informants; they averaged 53 years of age, about 15 years older than the average age of all the samples. Because male cases were on average

Table 4
Types of Schools Attended, by Sample and Sex (in%)

	Men			Women		
	CAS	DEP	NADC	CAS	DEP	NADC
Type of Grade School						
BIA Boarding on Reservation	25.2	25.9	25.0	23.9	22.4	18.7
BIA dorm, off Reservation Public School	0.5	0.5	0.7	0.7	1.7	0.7
BIA on Reservation day	3.5	2.1	4.7	3.4	1.7	2.1
On Reservation public school	17.3	14.5	13.5	27.4	17.2	23.7
Off Reservation public school	10.4	10.8	11.5	6.8	10.3	10.1
Mission or Mormon placement	2.5	4.0	2.7	2.7	5.2	3.6
BIA off Reservation boarding	2.9	1.9	8.8	2.7	1.7	3.6
Combination	37.6	40.1	33.1	32.2	39.7	37.4
N	202	371	148	146	58	137
p-value		0.1159			0.9306	
Pearson's chi square		20.47			7.12	
df		14			14	
Type of High School						
BIA Boarding on Reservation	8.0	5.8	5.3	5.2	3.6	3.8
BIA dorm, off Reservation	2.9	3.3	5.3	2.2	9.1	3.8
On Reservation public school	26.3	29.2	18.8	29.1	32.7	41.2
Off Reservation public school	24.6	19.1	27.8	20.1	18.2	18.3
Mission or Mormon placement	2.9	5.8	7.5	.7	3.6	3.1
BIA off Reservation boarding	12.0	15.5	11.3	9.7	3.6	4.6
Combination	20.0	19.5	15.0	29.9	29.1	22.1
5-year program	3.4	1.8	9.0	3.0	.0	3.1
N	175	329	133	134	55	131
p-value		.009			.256	
Pearson's chi square		29.43			17.01	
df		14			14	

about two years younger than male DEP and NADC, age confounds the comparison. In Table 5 two logistic regressions are displayed of sample onto high school type, logASYES, and the stratification factors of age, sex, and community type. School type is not significant once age is included in the analysis.

Discussion

Case-control designs are subject to significant selection and recall biases. The former has to do with the way in which both the cases and the controls are chosen. If, for example, the people in treatment programs were

Table 5

Logistic Regressions of Sample onto High School Type, LogASYES, and the Stratification Factors of Age, Sex, and Community Type

A. DEP vs. NADC

Effect Test:

	D.F.	Wald Chi square	p-value
High school type	7	12.1573	0.0955
logASYES	1	32.6577	0.0000
Age	1	0.7610	0.3830
Sex	1	73.4369	0.0000
Community Type	2	1.1624	0.5592

Estimate of Effects from Mean

	Estimate	Std. Error	Chi square	p-value	Odds Ratio
Sex (female)	-0.9	0.105	73.44	<0.0001	0.16
logASYES	0.924	0.162	32.66	<0.0001	6.83

B. CAS vs. NADC

Effect Test:

	D.F.	Wald Chi square	p-value
High school type	7	10.6662	0.1539
logASYES	1	85.0638	0.0000
Age	1	0.9894	0.3199
Sex	1	0.1496	0.6989
Community Type	2	0.1380	0.9333

Estimate of Effects from Mean

	Estimate	Std. Error	Chi square	p-value	Odds Ratio
logASYES	1.48	0.16	85.06	<0.0001	39.10

Note: Estimates are provided for only those variables for which the results of the Effect Test were significant.

selected in some way that was associated with their educational background that differentiated them from the rest of the population, a spurious association (or lack of one) could result.

There is no evidence of that in the data. The availability of alcohol dependent controls is useful in demonstrating this, for there is a regular decline among both men and women in the proportion of high school dropouts: high among cases, intermediate among alcohol dependent controls, low among non-alcohol dependent controls.

With regard to recall bias, it is possible that people in treatment learned, as a result of the treatment experience itself, to describe their childhood misbehaviors more fully than the controls. To explore this potential bias, we have compared logASYES scores among alcohol dependent controls who were once in treatment with those who were never in treatment. There is no difference between them, and we conclude that this sort of recall bias is not a significant problem.

Another limitation in this study is that synchronic areal surveys, such as this one which focuses on a segment of the Navajo population residing on or near the reservation, cannot account for the processes of selective mortality and differential out-migration. It could be that a significant proportion of people who have attended boarding school and who develop alcohol dependency leave the population through untimely deaths or migration to distant urban areas. This is an empirical question that might best be examined through the study of a cohort of boarding school attendees.

That dropping out of high school is an independent risk factor for alcohol dependence is consistent with what has been observed in the ECA study, in which dropping out of any school program instead of completing was also associated with alcohol dependence (Helzer, Burnam, & McEvoy, 1991). It is not clear what the explanation is, but clearly it is different from the dimension tapped by the questions dealing with conduct disorder.

That alcohol dependence is in general associated with lower levels of school attainment is also consistent with studies in the general population. These results are complicated, however, by the finding that men who did not attend school or who attended the special five year program were disproportionately found among the NADCs. Men in these categories were older than other respondents. This finding may be the result of a different experience among previous generations, in which not attending school or attending a five year program as a teenager without ever having completed, or even attended, grade school was in fact protective against the development of alcohol dependence. That type of educational experience is no longer possible, and among younger people failure to complete high school is associated with an increased risk of alcohol dependence.

Perhaps more surprising in light of the observations cited previously is the fact that the type of school attended is not associated with alcohol dependence. There are two points to be made. The first is that boarding schools, which have generally been the focus of criticism, have also been cited by many of their former students as having effectively taught them skills needed for survival in an Anglo-dominated world (Levy & Kunitz, 1974). Some informants, indeed, claim that going to boarding school got them out of very disrupted and abusive home situations. Frisbie (1996) has reached similar conclusions from her analysis of Navajo reflections upon boarding school experiences in late 19th and early 20th centuries. Thus, while the

experience must have been devastating for many, it was not universally so, and the variability helps to account for the fact that it is not a risk factor for alcohol dependence.

Second, the large public school complexes that arose to replace the boarding schools of an earlier era, especially those located in the large and relatively densely populated agency towns such as Tuba City and Shiprock, have proven to be fertile soil for the development of a new youth culture which includes heavy drinking as one of its major attributes (Henderson, 1997). This is a relatively new pattern and suggests that other sorts of school environments than boarding schools may also produce behavior which predisposes to alcohol dependence.

Navajo experiences with boarding schools may differ significantly from the experiences of members of other tribes. Based on many of the generalizations about the devastating consequences of boarding schools upon the adult behaviors of individuals, we expected to find that a boarding school education would have a direct relationship to the development of alcohol dependency in adulthood. Although the overall level of educational attainment is directly related to a history of alcohol dependency, the type of institution in which one attains that level is not.

That we have been unable to demonstrate a simple association between boarding schools and alcohol dependency among the Navajos in two regions of Navajo Country does not mean, of course, that boarding schools may not operate to affect alcohol use by more circuitous routes. For example, Beauvais (1992) has speculated that "boarding school drug use can be a source of 'infection' for Indian youth in general" because, when those who have been exposed to "the boarding school drug culture" return to their home communities, they may transmit elements of the drug subculture to "their friends, creating the potential for high levels of drug involvement by other youth as well as in the youth who attended boarding school" (p. 52). The hypothesis, as well as other means by which the boarding school may indirectly lead to substance abuse problems, are worth testing empirically.

Finally, recalling the narrow focus of our analysis, we have not claimed that boarding school experiences are, in general, psychologically or socially positive, although they clearly were for some people. Nor have we argued that they were the product of a humane American Indian policy. What we have found among a large sample of individuals from one tribe, however, is that the type of educational institution attended is not associated with subsequent alcohol dependence.

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Author Note

Notes

1.   A chapter is the smallest unit of Navajo government.
2.   The degree to which potential controls identified in the IHS records could actually be found and interviewed is another potential source of bias. Most of the failures in interviewing a person whose name appeared on the list were not refusals, but were the result of mistakes in the records themselves or the age of the records. People whose last visit to the hospital was ten years prior to the time of attempted interview were likely to have moved. This was especially true in the four Shiprock service unit border towns. Searching for more recent addresses in city directories and public utility connection lists allowed us to find only a few of these individuals.

It is possible that people known to the IHS system differ from those who are not. This is unlikely for at least three reasons. First, the IHS has been the major provider of health care to these two service unit populations for 40 years. Second, any level of contact, from a well child visit to an acute hospitalization, is sufficient to be listed in the record system. Moreover, a person visiting a non-IHS provider but who has a part of the bill reimbursed by IHS is listed in the system. Several border town interviewees reported never being treated by the IHS. Thus there is no reason to think that a major bias was introduced by using this source of controls. Third, in a previous study using this same technique more people were identified within the target age group and area than had been identified by the U.S. Census (Kunitz & Levy, 1991). Nonetheless, there is no way of being entirely certain that the people we could not locate were not significantly different from the people we could locate, nor that people unknown to the system are both

very numerous and significantly different from those who are known to the system.

3.   The "Special Five Year Navajo Educational Program" was initiated by the BIA in 1946 with 290 Navajo students enrolled at the Sherman Institute (Riverside, California). At the time only about a third of Navajo children of school age attended school. The program was designed to provide Navajos between the ages of 12 and 18 (who had little or no previous schooling) with basic skills in English and with vocational training. The first three years focused on academic and English skills with bilingual instruction by a classroom teacher and a Navajo speaking "teacher-interpreter." By 1950 there were 3,431 Navajos enrolled at several off-reservation boarding schools. Enrollment peaked at 6,560 in 1957. The program was modified during the 1950s to accommodate students who had some prior schooling and was phased out during the 1960s. Between 1951 and 1961 the program graduated 4,347 students (Thompson, 1975, pp. 88-107; Young, 1961, pp. 44-66).

FACTORS INFLUENCING THE PURSUIT OF EDUCATIONAL OPPORTUNITIES IN AMERICAN INDIAN STUDENTS

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Abstract: American Indians are the most under-represented minority group across all levels of education. The present study investigates sociocultural, psychological, and nontraditional academic factors that influence American Indian students' decisions to pursue higher education (e.g., vocational training, college). Nineteen American Indians with previous academic difficulties completed several self-report measures at the beginning of an eight-week Job Corps. program. The results indicate that students who pursue educational opportunities have a more realistic self-appraisal of their academic abilities and are supported by others (e.g., family, mentors) in their academic pursuits. A hypothesized link between self-appraisal and support suggests that the availability of a mentor and/or family support is crucial in American Indian students' decision to pursue educational opportunities.

The American Indian population is the youngest and fastest growing racial minority group in the United States, with a birth rate twice that of the general population (Yates, 1987). American Indians also represent the most socioeconomically disadvantaged population in this country. Over one-quarter of the American Indian population lives below the poverty line, compared to only about 12% for all other races (Axelson, 1993; Yates, 1987; Young, 1994). Furthermore, research has suggested (e.g., Sinha, 1990) that poverty affects not only monetary aspects of life, but encompasses physical, social, and psychological domains as well.

One reason for these impoverished conditions is that American Indians are under-represented at all levels of education and evidence disproportionately higher school attrition rates and receive lower grades,

compared to Anglo students and other culturally diverse student populations (Sanders, 1987; U.S. Senate Select Committee on Indian Affairs, 1985; Young, 1994). American Indian students tend not to be as academically prepared upon entering college as other students and are more likely to drop out, if they have an established poor academic history, poor study habits, and come from uneducated families (Astin, 1975; LaCounte, 1987).

The cumulative effect of the lack of education and unemployment is often a self-perpetuating cycle in which generations of American Indian children are at risk for continued poor academic performance and unemployment (Astin, 1982). Considering the steady and rapid growth rate of the American Indian population, it is likely that these problems will be magnified in the future. To interrupt this cycle, efforts must be made to develop more effective means of retaining American Indian students in the educational system. Further, because traditional measures of academic success (e.g., GPA, standardized test scores) are not sufficient to predict admission or retention of American Indian students in higher education (Lunneborg & Lunneborg, 1986), the identification of specific factors associated with academic success in the American Indian population is needed.

A number of variables have been identified in the literature that may be related to academic achievement and the pursuit of academic opportunities in American Indian students. For example, Tracey and Sedlacek (1987) have examined a variety of noncognitive variables that appear to predict short-term and long-term academic success in both minority and non-minority college students. Variables such as realistic self-appraisal, personal support, and previous leadership experiences have been found to be more predictive of retention in both Black and White college students than more traditional academic indices (i.e., SAT scores). Also, because these nontraditional factors appear to be less culturally biased than traditional measures of academic performance, they may prove to be important predictors of academic success for American Indian students.

Oetting and Beauvais (1991) found that identification with both Anglo and the American Indian culture was significantly related to "positive school adjustment" (p. 674). Importantly, however, this study examined American Indian students who were attending a school with a large American Indian population. No known study has investigated the role of cultural identification in predicting educational success in American Indian students attending largely Anglo schools. Thus, the influence of American Indian and Anglo cultural identification on academic pursuits has not been fully explored across contexts.

Further, traditional psychological variables have been shown to influence academic achievement. For example, Peterson and Barret (1987) found that college freshmen who explain negative academic events with internal, stable, and global causes achieve lower grades than students employing less pessimistic causal explanations for their academic failures.

In other words, students who adopted a more helpless stance in response to aversive academic events (e.g., failing a test) were more likely to perform poorly on subsequent academic tasks. In a similar vein there is evidence to suggest that the prolonged socioeconomic and educational deprivation experienced by minority individuals in this country may predispose them to acquire this helpless cognitive set (e.g., Mukerjee, Chatterji, & Gupta, 1991; Nolen-Hoeksema, 1992). Unfortunately, the role of cognitive appraisal variables like explanatory style, in academic success has not been examined in American Indian populations.

It is apparent that a variety of factors, including traditional psychological variables (i.e., attributional style), less traditional academic measures (i.e., noncognitive indices), and sociocultural factors (i.e., cultural identification and levels of perceived deprivation), may influence academic success in American Indian students. The goal of the present study is to examine the influence of these variables in the decisions of "at-risk" American Indian high school students who attend college or vocational schools. It is hypothesized that American Indian students who pursued further educational opportunities would endorse higher levels of Anglo cultural identification, would demonstrate more optimistic explanations of life events, and would evidence more noncognitive academic skills than students who did not pursue higher education opportunities.

Methods

Subjects and Procedures

The sample consisted of thirteen male and six female "at-risk" American Indian high school seniors and recent graduates participating in a Job Corps program. Individuals in this program are considered to be "at-risk" because they have all experienced previous academic difficulties in a public high school setting, typically behavioral problems (e.g., suspensions, truancy, dropping out, etc.). The Job Corps program consisted of eight weeks of didactic and on-the-job skills training for students. Additionally, the program offered assistance in seeking further educational opportunities (e.g., college and vocational-technical training) and a $1,000 incentive toward tuition for students successfully completing the program and enrolling in a college or vocational-technical school.

The subjects averaged 18.9 years of age (ranging from 17 to 21) and were from three tribes: Otoe-16, Kiowa-2, Papago-1. Sixty-five percent of the subjects were from middle- to upper-middle socioeconomic backgrounds and the remaining 35% came from lower-middle to lower socioeconomic backgrounds (Hollingshead, 1958). Subjects were given a packet of self-report instruments in a group format during the first week of the Job Corps program. Subjects were followed up at the end of the eight-

week program to determine those who pursued educational opportunities (i.e., enrolled in college or vocational school).

Instruments

Cultural Identification. The Cultural Identification Scale (CIS) is a four-item instrument that assesses individuals' cultural identification across five different cultures (e.g., Mexican-American, American Indian, Black-American, Anglo-American, and Asian-American) (Oetting & Beauvais, 1991). For example, the individual is asked "Is your family a success…" in the American-Indian way of life, in the African-American way of life, etc. Items are rated on a four-point Likert scale (e.g., none at all, not much, some, a lot) and are summed to determine the extent to which the individual endorses traditional cultural beliefs and values. In the present study, only the American-Indian and Anglo-American dimensions were examined.

The four Likert-style items were taken from Oetting and Beauvais' (1991) larger Cultural Identification Scale. The authors report internal consistency estimates in the high .80s with adequate concurrent and discriminant validity for this four-item version of the scale.

Perceived Deprivation. The Perceived Deprivation Scale (PDS) used in the present study was adapted from the Prolonged Deprivation Scale developed in India by Mukerjee et al. (1991). The PDS is a 12-item measure that assesses the degree to which individuals believe that their upbringing was deprived in certain areas of living (e.g., money, clothing, family support, peer support, religious support, etc.). The PDS does not measure socio-economic status (SES) but, rather, an individual's perception or his/her deprivation across several areas. For example, an individual from a low SES may perceive that his/her needs were met in all areas even though the family had little money. Respondents rate the extent to which their needs were met/not met in specific areas on a six-point Likert scale. Response options range from "needs met all of the time" to "needs not met at all." The PDS yields a total deprivation score when the twelve items are summed. Although no psychometric data are available for our measure, the original Prolonged Deprivation Scale has demonstrated adequate discriminative validity and correlates strongly with academic achievement (Mukerjee et al., 1991).

Attributional Style. The Attributional Style Questionnaire (ASQ) (Peterson et al., 1982) is a 48-item instrument that assesses individuals' causal explanations for events. These causal explanations provide insight into the respondents' view of their control over the environment and the stability of this control. The respondent imagines six positive and six negative hypothetical events happening to him/her (e.g., "A friend treats you badly"). The subject then provides a major cause for each event and rates it on a seven-point scale along internal, stable, and global attribution

dimensions (e.g., Abramson, Seligman, & Teasdale, 1978). The ASQ yields three attribution dimension scores (i.e., internal, stable, and global) for positive events and three for negative events. Additionally, two composite attribution scores (i.e., composite negative and composite positive) can be obtained by summing each of the three dimension scores for negative and positive events, respectively. The composite attribution scores were utilized in the present study. Peterson et al. (1982) reported that the internal consistency of the ASQ ranges from .72 to .75. The authors also reported adequate test-retest reliability.

Noncognitive Academic Factors. The Noncognitive Questionnaire (NCQ) assesses nontraditional academic factors believed to contribute to success in college (Tracey & Sedlacek, 1984). The NCQ consists of two items tapping academic expectations, eighteen Likert-type items concerning expectations about the educational setting and self-assessment, and three open-ended questions assessing goals, past accomplishments, and group memberships. The NCQ yields eight factor scores: (a) positive self-concept, (b) realistic self-appraisal, (c) understanding and dealing with racism, (d) preference for long-term vs. short-term goals, (e) availability of a strong support person, (f) successful leadership experience, (g) demonstrated community service, and (h) knowledge acquired in a field. Good test-retest reliability and predictive validity for the NCQ has been reported by the authors. The NCQ has been found to be a better predictor of GPA in the third semester of college than SAT scores for both White and Black students (Tracey & Sedlacek, 1987).

Results

To test the internal consistency of the measures Cronbach's alphas were calculated for each of the measures (see Table 1). Two multivariate analysis of variance (MANOVA) were performed between those subjects who pursued further educational opportunities (ED group; n=7) and those who did not (NED group; n=12). The first MANOVA examined differences between indices of socioeconomic status, cultural identification, attributional style, perceived deprivation, and gender. None of these variables were significantly related to subjects' decisions to pursue higher education. Due to the number of factors, a second MANOVA was conducted for noncognitive factors. This analysis indicated significant differences between the two groups [$F(1,17)=3.66$, $p=.02$] (see Table 2). This MANOVA was followed up with a series of univariate analyses of variance (ANOVAs) which found significant differences on the Realistic Self-Appraisal [$F(1,17)=15.57$, $p=.001$] and Availability of a Strong Support Person factors [$F(1,17)=6.86$, $p=.02$] on the NCQ. These findings suggested that subjects in the ED group possessed a greater ability to recognize, accept, and correct academic deficiencies.

The subjects in the ED group were also more likely to report the presence of a person or persons who strongly supported their academic goals.

Table 1
Cronbach Reliabilities for Measures

American Indian culture	.86
Anglo culture	.92
Perceived Deprivation	.88
Attributional Style Questionnaire	.66
Noncognitive Questionnaire	.74

Table 2
Means and Standard Deviations of Noncognitive Academic Factors

Factors	Group	
	NED	ED
Availability of Support	11.25(1.86)	12.00(1.08)*
Community Service	3.25(.45)	3.29(1.11)
Coping with Racism	17.58(1.98)	18.43(4.16)
Goal Preferences	12.67(2.81)	13.43(1.51)
Knowledge in a Field	4.50(1.24)	4.14(1.35)
Leadership Experience	6.83(2.04)	7.86(1.07)
Realistic Self-Appraisal	9.08(1.38)	11.71(1.50)**
Self-Confidence	16.50(3.83)	18.00(1.41)

*$p<.001$

**$p<.02$

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Discussion

The goal of the present study was to evaluate the influence of sociocultural, nontraditional academic, and psychological variables on "at-risk" American Indian students' decisions to attend college or vocational schools. The proposed hypotheses that students obtaining further education would endorse more optimistic attributional styles, higher Anglo cultural identification, and lower levels of perceived deprivation were not supported. However, the hypothesis that students pursuing higher education would

possess more noncognitive academic skills was partially supported. Specifically, significant mean differences were found between the two groups (i.e., ED and NED) on two non-cognitive factors (i.e., Realistic Self-Appraisal and Availability of a Strong Support Person).

Subjects in this study who pursued further education upon completion of the Job Corps. program exhibited higher scores on the Realistic Self-Appraisal and Availability of a Strong Support Person factors than those that did not continue their education. These findings suggest that students pursuing higher education have insight into their academic abilities and reflect on their academic performance. They possess a greater ability to recognize and accept academic deficiencies. These students are also more likely to work to correct their deficiencies. Students pursuing higher education are also more likely to be supported in their academic goals from a significant person (e.g., parent, teacher, mentor).

It appears that specific noncognitive academic factors facilitate the attainment of higher education in American Indian students. Moreover, the Realistic Self-Appraisal and the Availability of a Strong Support Person factors, which differentiated the two groups, may reflect similar processes. To illustrate, a person who is seen by the student as supporting his/her academic goals is also in a better position to help the student recognize and overcome academic weaknesses. Similarly, Atkinson, Neville, and Casas (1991) found that one of the primary benefits of a mentoring relationship for minority students was an increase in the students' self-image. Our findings, and those of previous authors, point to the particular importance of perceived support of academic pursuits and the role of mentors in minority students' decision to obtain higher education.

Our findings need to be reviewed in light of several methodological considerations. First, although significant findings were observed, the power of the statistics employed in this study was limited by a small sample size. For example, the lack of significant differences between the groups across Anglo identification and attributional style may have been due to the small number of subjects in our sample. Also, the generalizability of the results of this study may be limited to "at-risk" American Indian students, that is students who have encountered difficulties within a public school setting, and not to the larger population of American Indian students. Additionally, because there is significant group and individual variability among American Indian peoples across language, values, and beliefs, our findings may not be applicable to all American Indians. Because this study explored the use of psychosocial and academic constructs (e.g., perceived deprivation, attributional style, and noncognitive factors) that are largely untested within American Indian populations, the utility and validity of these measures may be questioned. Lastly, the scope of this study was limited. For example, it is possible that other extraneous factors (e.g., quality of previous education,

education level of parents, intelligence, etc.) may also play a significant role in this process, as others have suggested (e.g., Astin, 1975; LaCounte, 1987).

However, given these limitations, our results suggest that noncognitive academic factors play an influential role in the pursuit of higher education of American Indian students. Although the initial work has begun, the utility and validity of these psychosocial and academic constructs within American Indian populations needs further exploration. Future studies in this area should include larger numbers of subjects to allow for a more detailed view of the psychological and sociocultural processes that influence academic pursuits in American Indian students. Additionally, longitudinal methods should be employed to investigate developmental changes in the specific factors associated with academic achievement and the decision to pursue higher education opportunities. Lastly, these factors should be evaluated with a wider range of American Indian students, including middle school, high school, and college students from different tribes and geographic regions of the country.

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Author Note

THE AMERICAN INDIAN HOLOCAUST:
HEALING HISTORICAL UNRESOLVED GRIEF

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Abstract: American Indians experienced massive losses of lives, land, and culture from European contact and colonization resulting in a long legacy of chronic trauma and unresolved grief across generations. This phenomenon, labeled historical unresolved grief, contributes to the current social pathology of high rates of suicide, homicide, domestic violence, child abuse, alcoholism and other social problems among American Indians. The present paper describes the concept of historical unresolved grief and historical trauma among American Indians, outlining the historical as well as present social and political forces which exacerbate it. The abundant literature on Jewish Holocaust survivors and their children is used to delineate the intergenerational transmission of trauma, grief, and the survivor's child complex. Interventions based on traditional American Indian ceremonies and modern western treatment modalities for grieving and healing of those losses are described.

American Indians and Alaska Natives are plagued by high rates of suicide, homicide, accidental deaths, domestic violence, child abuse, and alcoholism, as well as other social problems (Bachman, 1992; Berlin, 1986; Indian Health Service, 1995; May, 1987). Racism and oppression, including *internalized oppression* (Freire, 1968), are continuous forces which exacerbate these destructive behaviors. We suggest these social ills are primarily the product of a legacy of chronic trauma and unresolved grief across generations. It is proposed that this phenomenon, which we label *historical unresolved grief*, contributes to the current social pathology, originating from the loss of lives, land, and vital aspects of Native culture promulgated by the European conquest of the Americas.

In this paper we outline the concepts of *historical unresolved grief* and *historical trauma* among American Indians. We each have over 20 years of experience providing mental health treatment, training, and prevention services to reservation and urban Lakota and Pueblo Indians as well as other tribes across the country and in Canada. One of us is a Lakota clinical social worker and the other is a French Canadian medical anthropologist. We came to these concerns separately, starting in the 1970s. We have collaborated for many years, however, and developed these terms in 1988 to explain the impact of one generation's trauma on subsequent generations. We offer evidence to suggest that major social problems challenging American Indians today can be better understood and resolved by incorporating the concepts of historical unresolved grief and historical trauma into any analysis of present social pathologies. We argue that unresolved grief and accompanying self-destructive behaviors have been passed from generation to generation.

We begin with an overview of the historical legacy, including the boarding school era and federal assimilation policies. We continue with a review of theoretical contributions from the Holocaust, trauma, and grief literature as well as examine the role of alcohol which support our concepts of historical trauma and unresolved grief; these include the survivor complex, disenfranchised grief, and intergenerational transmission. We then outline healing and clinical activist strategies for grieving these losses and recovering from the centuries' old legacy of trauma. Although we often use examples drawn from the Lakota experience of historical unresolved grief, it is our contention that other indigenous people throughout the world can trace social pathologies and internalized oppression to similar historical legacies. Much of the literature we cite and the concepts we advance in this paper are reviewed and further developed by Brave Heart-Jordan (1995).

Legters (1988) asserts that American Indians are victims of genocide much like victims of the Jewish Holocaust. He defines genocide according to the United Nations General Assembly's Convention on Genocide from 1948:

> Genocide means any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial, or religious group, and includes five types of criminal actions: killing members of the group; causing serious bodily or mental harm to members of the group; deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part; imposing measures intended to prevent births within the group; and forcibly transferring children of the group to another group. (p. 769)

Legters goes on to note growing attention to a less murderous form of genocide, sometimes labeled "cultural genocide that is taken to cover

actions that are threatening to the integrity and continuing viability of peoples and social groups" (p. 769). Legters (1988) argues further that settler colonies and the concomitant displacement, domination, and exploration increase the likelihood of genocide and outlines the consequences including:

> …coerced abandonment of religious and cultural underpinnings of the subject society, preemption or destruction of resources necessary to native survival… transmittal of disease and addiction against which native populations have inadequate immunity, disruption of kinship and familial relations basic to the native social structure, treatment based on modes of definition that obliterate a group's identity, and finally, outright extermination of native populations. (pp. 771-772)

The Historical Legacy

Evidence of an American Indian holocaust is replete in the literature (Brown, 1970; Legters, 1988; Stannard, 1992; Tanner, 1982; Thornton, 1987). The clash of attitudes between Europeans and Natives is poignantly stated by Luther Standing Bear (1933/1978):

> We did not think of the great open plains, the beautiful rolling hills, and winding streams with tangled growth, as "wild". Only to the white man was nature a "wilderness" and only to him was the land "infested" with "wild" animals and "savage" people. To us it was tame. Earth was bountiful and we were surrounded with the blessings of the Great Mystery. Not until the hairy man from the east came and with brutal frenzy heaped injustices upon us and the families we loved, was it "wild" for us. When the very animals of the forest began fleeing from his approach, then it was that for us the "Wild West" began. (p. 13)

For Europeans, ownership of land is a dominant value. For American Indians, land, plants, and animals are considered sacred relatives, far beyond a concept of property. Their loss became a source of grief.

European contact brought decimation of the indigenous population, primarily through waves of disease, annihilation, military and colonialist expansionist policies. The forced social changes and bleak living conditions of the reservation system also contributed to the disruption of American Indian cultures. This painful legacy includes themes of encroachment based on the *manifest destiny* doctrine and betrayal of earlier agreements and treaties (Limmerick, 1987). Armed conflict and removal of tribes from traditional lands became the norm. Numerous tribes faced "long walks" where many, if not the majority, died from disease, fatigue, and starvation.

As the reservation system developed, tribal groups were often forced to live together in restricted areas. When lands were found to be valuable to the government and Whites, more often than not, ways were found to take them and resettle Natives elsewhere (Jacobs, 1972; Pearce, 1988; White, 1983).

The Boarding School Era

Established in 1824, the Office of Indian Affairs, later the Bureau of Indian Affairs (BIA), was part of the War Department and responsible for regulating tribes. In 1849 the BIA was moved to the Department of the Interior. The BIA assumed the function of providing education for American Indians under its "Civilization Division." Federally operated boarding schools were conceived as a solution to the "Indian problem," an enactment of forced assimilation (Hoxie, 1989; McDonald, 1990; Noriega, 1992; Prucha, 1984). In 1878 Hampton Institute, a school for freed African American slaves, accepted American Indian prisoners in an assimilation experiment. In 1879 the Carlisle Indian School, administered by the BIA and patterned after the military model for the American Indians at Hampton, opened its doors to American Indian children from all over the country. Mission schools, established as early as the late 1700s for some American Indian students, and BIA boarding schools like Carlisle were intended to teach American Indian children dominant cultural values, language and style of dress. Although children were to be sent voluntarily at first, the policy did not work as thoroughly as the government hoped. Consequently, by 1890, attendance was enforced through threats of cessation of rations and supplies and incarceration (McDonald, 1990; Noriega, 1992).

American Indian children were beaten for speaking their native languages, were removed from their families and communities, sometimes for many years (Noriega, 1992; Unger, 1977), and were subsequently raised— in essence—without the benefit of culturally normative role models. Some children never returned to their homes and many died from disease and homesickness while in boarding school. The destructive and shaming messages inherent in the boarding school system, whether BIA or mission schools, were that American Indian families are not capable of raising their own children and that American Indians are culturally and racially inferior. Luther Standing Bear (1928/1975), taken to Carlisle at about ten years of age, describes feeling that he would never come back alive or ever see his family again.

Boarding schools have had devastating consequences for American Indian families and communities; abusive behaviors—physical, sexual, emotional—were experienced (Beiser, 1974; Brave Heart-Jordan, 1995; Dlugokinski & Kramer, 1974; Irwin & Roll, 1995; Noriega, 1992; Tanner, 1982) and learned by American Indian children raised in these settings. Spiritually and emotionally, the children were bereft of culturally integrated behaviors

that led to positive self-esteem, a sense of belonging to family and community, and a solid American Indian identity. When these children became adults, they were ill-prepared for raising their own children in a traditional American Indian context.

Assimilation Policies

Federal legislation such as the 1887 Dawes Allotment Act significantly reduced the tribal land base which was held in trust by the United States government under the Department of the Interior (Prucha, 1984; Washburn, 1988). Land was divided into individual allotments and the remainder was open for White settlement. Subsequent assimilationist policies included the 1924 Indian Citizenship Act, the termination policy of the 1950s, and the Voluntary Relocation Program beginning in 1950. Responsibility for American Indian health services was transferred from the BIA, Department of the Interior, to the Public Health Service (PHS) in 1955 during the termination era. Initially, American Indian health services were provided through the Division of Indian Health under PHS. In 1968 the division was elevated to the Indian Health Service. The rationale was that, after tribal status had been terminated and American Indian health status was par with the general population, there would be no need for such a specialized agency (Federal Indian Law, 1958; Prucha, 1984).

During the Voluntary Relocation Program, administered by the BIA, American Indian men were moved into urban areas to live and work as assimilated citizens. Once in the urban area, American Indians faced racism and discrimination in employment and housing similar to other ethnic minority groups and became relegated to second class status, sometimes in urban ghettos. More than 100,000 American Indians were sent to major urban centers throughout the United States (Barse, 1994; Sorkin, 1978). Many who had responded to the program returned to their respective reservations within a very short period of time. Others remained in the cities, often developing a lifestyle of going back and forth to the home reservation. Some stayed, forced to develop new coping methods to survive (DeBruyn, 1978). Families were often separated for long periods of time to meet community obligations back on the reservation while at the same time trying to succeed with employment in the urban environment. This situation created additional stresses on American Indian families economically, socially, and spiritually. As of 1995, over half of all American Indians live in urban settings where they face a concerted lack of economic and health resources.

Theoretical Contributions of the Holocaust, Trauma and Grief Literature

The Holocaust survivor literature provides both a theoretical and applied body of knowledge relevant for our argument (Berger, 1988; Brave Heart-Jordan, 1995; Fogelman, 1991; Fogelman & Savran, 1980). Fogelman (1988a) outlines aspects of Jewish survivors relevant for many American Indians such as the difficulty in mourning a mass grave, the dynamics of collective grief, and the importance of community memorialization. A specific example is that of Lakota survivors and descendants of the Wounded Knee Massacre in 1890. This genocide was analogous to the Jewish Holocaust in that (a) it was fueled by religious persecution of Lakota Ghost Dancers and by federal policies of extermination (Brave Heart-Jordan, 1995; Brown, 1970; Prucha, 1984; Tanner, 1982); (b) the victims of the massacre were stripped and thrown into a mass grave "…like sardines in a pit" (Mattes, 1960, p. 4) similar to the mass graves of Jewish Holocaust victims; and (c) the suffering of the survivors and descendants chronicled in the literature (The Lakota Times, 1990; McDermott, 1990) and the challenges of mourning a massive group trauma bear resemblance to the challenges facing Jewish Holocaust victims and survivors.

For American Indians the United States *is* the perpetrator of our holocaust. Alice Kehoe (1989) notes: "Where was America for American Indians? No other country welcomed them as immigrants, no other country promised them what their native land had denied them" (p. 33). Fogelman addresses the challenges for Jews in European countries where Jews lived among the perpetrators of the Holocaust. We draw a comparison for America's Native people who live in a colonized country and suggest that similar patterns of grief have emerged. Fogelman (1988a) asserts that:

> Jews in Europe have not found an effective means of coping, integration, and adaptation. Most are in a stage of complete denial and stunted mourning of their losses…. They feel a great need to control their emotions, because they feared that if their intense emotions were given free reign, they might go insane…. Survivors feared the uncontrollable rage locked within them, they feared they would be devoured by thoughts of avenging the deaths of their loved ones. This repression results in… "psychic numbing". (pp. 93-94)

Fogelman distinguishes the healthier communal grief process of American Jews from the delayed and impaired grief of European Jews.

Although some question is raised regarding empirical evidence of a survivor syndrome (Solkoff, 1981, 1992), the bulk of the literature acknowledges the existence of special features among the clinical population

of survivors. The similar dynamics observed among the children of survivors and their descendants has been called a *survivor's-child complex* (Kestenberg, 1990).[1] Both the survivor syndrome (Niederland, 1968, 1981, 1988) and the survivor's child complex involve (a) anxiety and impulsivity, (b) intrusive Holocaust imagery including nightmares, (c) depression, (d) withdrawal and isolation, (e) guilt, (f) elevated mortality rates from cardiovascular diseases as well as suicide and other forms of violent death (Eitinger & Strom, 1973; Keehn, 1980; Nefzger, 1970; Sigal & Weinfeld, 1989), (g) a perceived obligation to share in ancestral pain as well as identification with the deceased ancestors, (h) compensatory fantasies, and (i) unresolved grief. Further, descendants of survivors feel responsible to undo the tragic pain of their ancestral past, often feeling overly protective of parents and grandparents, and are preoccupied with death and persecution. These features are congruent with those identified by Macgregor (1946/ 1975) and Erikson (1963) among Lakota children; the elevated mortality rates among Native people are well-documented (Indian Health Service, 1995).

Like the transfer of trauma to descendants from Holocaust survivors, the genocide of American Indians reverberates across generations. The survivor's child complex (Kestenberg, 1989; 1990) is evident in the following clinical vignette. A 15 year old Pueblo Indian girl, referred for a suicide attempt from an aspirin overdose, manifests a protective attitude toward the parents and a sense of guilt about her own pain.

> G: I just can't talk to my parents. I don't want to burden them with my problems and feelings. They have so much pain of their own. I just can't bring myself to do that, but I felt like I had no one to talk to. That's why I took those pills—I just felt so tired. I wish I could take away their pain. They have suffered so much themselves in boarding school. I'd like to go away to college but I can't leave them. I feel so guilty, like I have to take care of them.

G. stated that she did not want to kill herself but that she felt an overwhelming sadness that she could not comprehend or share with her parents who were boarding school survivors. G. manifested signs of the survivor's child complex in her depression and the suicide attempt, her guilt, and her fantasies of wanting to protect her parents and undo their pain.

Defining Historical Disenfranchised Grief

Disenfranchised grief is grief that persons experience when a loss cannot be openly acknowledged or publicly mourned (Doka, 1989). In the dominant United States culture, grief is recognized and considered legitimate only when the relationship to the deceased is an immediate kinship tie

(Doka, 1989). Characteristics of the grievers also impact disenfranchisement of their grief. If a person or, we add, a group of people, are socially defined as being incapable of grief, there is little recognition of their sense of loss, need to mourn, or ability to do so (Doka, 1989; Pine, 1972). We assert the historical view of American Indians as being stoic and savage contributed to a dominant societal belief that American Indian people were incapable of having feelings. This conviction intimates that American Indians had no capacity to mourn and, subsequently, no need or right to grieve. Thus, American Indians experienced disenfranchised grief.

Disenfranchised grief results in an intensification of normative emotional reactions such as anger, guilt, sadness, and helplessness. Rituals and funeral rites permit the bereaved to adjust to the death, publicly display emotion with social support, and permit the community to reaffirm social values (Pine, 1989). Guilt, which often accompanies a death, is relieved through rituals and the mourning period is limited by societal practices and expectations (Doka, 1989; Pine, 1989). The absence of rituals to facilitate the mourning process can severely limit the resolution of the grief. The lack of understood social expectations and rituals for mourning foster pathological reactions to bereavement (Parkes, 1974).

When a society disenfranchises the legitimacy of grief among any group, the resulting intrapsychic function that inhibits the experience and expression of the grief affects, that is, sadness and anger, is shame. Subsequently, there can be a lack of recognition of grief and inhibition of the mourning process. Grief covered by shame negatively impacts relationships with self and others and one's realization of the sacredness within oneself and one's community (Kaufman, 1989). Associated feelings are helplessness, powerlessness, feelings of inferiority, and disorders in the identification of the self (Kaufman, 1989).

We suggest the concept of disenfranchised grief facilitates the explanation of historical unresolved grief among American Indians. The historical legacy denied cultural grieving practices, resulting in multigenerational unresolved grief. Grief from traumatic deaths following the Wounded Knee Massacre and boarding school placement, for example, may have been inhibited both intrapsychically with shame as well as societally disenfranchised through the prohibition of ceremonial grieving practices. Further, European American culture legitimizes grief only for immediate nuclear family in the current generation. This may also serve to disenfranchise the grief of Native people over the loss of ancestors and extended kin as well as animal relatives and traditional language, songs, and dances.

Intergenerational Trauma: The Unresolved Grief Legacy

Kaufman (1989) notes that another source of disenfranchised grief is the persistence of a previous experience of unsanctioned grief. The concept of unsanctioned grief introduces the idea of historical unresolved grief that is passed on for generations. Kestenberg (1989) posits the concept of *transposition* which she defines as "an organization of the self" transferred along with culture as well as "a mechanism, used by a person living in the present and in the past" which "transcends identification, as it serves the perpetuation of the influence of major historical events through generations" (p. 70).

Transposition goes beyond our earlier concepts of intergenerational Post Traumatic Stress Disorder (PTSD) (Brave Heart-Jordan, 1985; Brave Heart-Jordan, DeBruyn, & Tafoya, 1988) and mirrors our more contemporary construct of historical unresolved grief. We have suggested that the first generations of American Indians who directly faced these losses suffered from PTSD. Symptoms of PTSD include depression, hypervigilance, anxiety, and may include substance abuse (Flynn & Teguis, 1984; American Psychiatric Association, 1994; Herman, 1992; Peck, 1984). The concept of intergenerational PTSD has also been suggested by Duran, Guillory, and Tingley (1992) and Duran and Duran (1995).

We argue that subsequent generations of American Indians suffer from a response we entitle historical unresolved grief. Like children of Jewish Holocaust survivors, subsequent generations of American Indians also have a pervasive sense of pain from what happened to their ancestors and incomplete mourning of those losses. Despite their Eurocentric bias, early personality studies among the Lakota (Erikson, 1963; Macgregor, 1946/1975) provide evidence to support generational trauma response features similar to the survivor's-child complex. Closer examination of suicide studies reveals implicit unresolved, fixated, or anticipatory grief about perceived abandonment as well as affiliated cultural disruption (see Berlin, 1987; Claymore, 1988; May, 1973; Maynard & Twiss, 1970; Mindell & Stuart, 1968; Shore, Manson, Bloom, Keepers, & Neligh, 1987). O'Nell (1996) found that traumatic history and racism play a significant role in depression among the Flathead. The discrepancy between intellectual capacity and performance along with the decline in achievement among Lakota children (Sack, Beiser, Clark, & Redshirt, 1987) may be explained by Krystal's (1984) observation that cognitive performance deteriorates over time in traumatized individuals and further suggests the possibility of trauma features.

Present generations of American Indians face repeated traumatic losses of relatives and community members through alcohol-related accidents, homicide, and suicide. Domestic violence and child abuse are major concerns among American Indian communities throughout the country. Many times deaths occur frequently, leaving people numb from the last loss as they face the most recent one. These layers of present losses in addition

to the major traumas of the past fuel the anguish, psychological numbing, and destructive coping mechanisms related to disenfranchised grief and historical trauma. While a number of clinical studies addressed the impact of repeated losses in children's lives (Long, 1983), few have made the connection with losses of past generations that have not been grieved. One study has validated the existence of a Lakota trauma response (Brave Heart-Jordan, 1995; Brave Heart, 1998).

American Indians still face oppression as well as spiritual persecution. We believe that the current proliferation of "New Age" imitations of traditional American Indian spiritual practices is genocidal. Insensitive and opportunistic non-Indian "healers" corrupt and attempt to profit from stereotypic distortions of traditional ceremonies. Such attitudes towards the "possession" of sacred pipes and ceremonies, for example, are reminiscent of the entitlement and subsequent aggressive actions inherent in the doctrine of manifest destiny. It is our opinion that these behaviors are an assault on Native people who do not separate spiritual traditions from the self.

The Impact and Role of Alcohol

The effects of alcohol have been devastating for American Indian people (Shkilnyk, 1985). National Indian Health Service (IHS) statistics reveal that the age-adjusted alcoholism death rate is 5.5 times the national average (IHS, 1995). Relatively little known prior to European contact, alcohol was used as a bargaining tool on the American frontier, with inferior quality alcohol given to tribes prior to treaty negotiations (DeRosier, 1970) or fur trading (MacAndrew & Edgerton, 1969). Role models for drinking behavior were usually pathological and associated with violence, not a necessary correlation among societies (Levinson, 1989). Drunken comportment became a learned behavior for American Indians (MacAndrew & Edgerton, 1969).

Tolerance levels for alcohol consumption were low for American Indians, as most Natives had limited prior experience with alcohol or mind-altering substances. Even for those who did, such experience was usually in a ceremonial context. Controversial theories about metabolic deficiencies among indigenous Americans as well as theories about the search for religious experiences have been used to explain alcoholism among American Indians (Hoxie, 1989). Such theories have not been demonstrated to have empirical validity (May, 1992) and fail to interpret American Indian alcoholism as a feature of generational unresolved trauma and grief.

Despite arguments regarding the origins of alcoholism among American Indians, alcohol has had devastating effects on the health and morale of American Indian people. With the introduction of the reservation system, a colonized people lost control of their land, culture, and way of life. We could explain American Indian alcohol abuse—a self-destructive act

often associated with depression—as an outcome of internalized aggression, internalized oppression, and unresolved grief and trauma. In this view, anger and oppression are acted out upon oneself and others like the self, i.e., members of one's group. Freire (1968) speaks of the internalization of self-hatred as an outcome of oppression and the danger of direct expression of anger toward the dominant culture. Also helpful in understanding this phenomenon is the concept of *identification with the aggressor* which addresses anxiety in response to critical authority figures (Freud, 1966). An individual incorporates the harshness of the aggressive authority figure, which may be projected onto others with ensuing hostility. The individual may further internalize the aggressor which can lead to guilt, self-blame, self-criticism, and depression (Freud, 1966). We contend that the high rates of depression (Shore, et al., 1987), suicide, homicide, domestic violence, and child abuse among American Indians can also be attributed to these processes of internalized oppression and identification with the aggressor induced by historical forces. There are precedents for our assertions that traumatic history influences psychosocial pathology among the Lakota specifically (Erikson, 1959, 1963; Macgregor, 1946/1975, 1970; May, 1973) and among American Indians in general (Zentner, 1963).

Implications for Healing Historical Unresolved Grief

Clinical Activist Strategies

We present a model for facilitating the resolution of historical unresolved grief through an integration of both clinical and traditional American Indian interventions. We contend that the model is a catalyst for stimulating the process of grieving historical trauma. Individuals can continue the healing process through individual, group, and family therapy as well as attending to their own spiritual development. American Indian tribes will need to facilitate communal grief rituals, incorporating traditional practices. Some tribal programs are incorporating elders and teaching storytelling skills about tribal history to youth which further serve to heighten historical awareness, germane to our model of healing.

Our underlying premise in this healing model rests on the importance of extended kin networks which support identity formation, a sense of belonging, recognition of a shared history, and survival of the group. Clinicians must be trained specifically in the concept of historical unresolved grief as well as address their own unresolved grief issues. Fogelman (1988a; 1988b), in her work with Jewish Holocaust survivors, suggests intervention strategies similar to those we incorporate into our model. She emphasizes the importance of groups oriented around the theme of generational trauma to aid in lifting the taboo against expressing painful feelings about the Jewish Holocaust. Although the groups are short-term in duration, a mourning

process is stimulated. Fogelman (1988a) observes the need to develop specialized treatment interventions aimed at facilitating the resolution of the communal grief of Jewish Holocaust survivors and developed specific training for mental health practitioners working with survivors. She contends that communal support, strength, identity, and the maintenance or replacement of extended family networks as well as communal responses facilitate healing from unresolved grief.

We strongly advocate the development of similar groups for American Indian survivors and clinicians working with American Indians. The group process involves heightening awareness of historical trauma and stimulates the experience of associated grief through the use of audiovisual materials depicting traumas such as the Wounded Knee Massacre and early boarding school ordeals. The emotional expression of pain is encouraged through small and large group processing and cathartic exercises. In one exercise, participants diagram a lifeline of their traumatic experiences and share these with partners and in small groups. Facilitators trained in historical trauma work with the small groups. The entire four day process involves daily prayer, an *inipi* (Lakota purification ceremony), and concludes with *wasiglaki istamniyanpi wicakcepakintapi*—wiping the tears of the mourners (B. Kills Straight, personal communication, February 13, 1995)—a traditional Lakota grief resolution ceremony. Through this ceremony participants become, in essence, part of an extended family to facilitate continued contact and support. Further, our model stimulates a re-attachment to traditional Native values. The effectiveness of this model, demonstrated in the Black Hills in September 1992, resulted in the development of the Takini Network: Lakota Holocaust Survivors' Association; this group provides training on historical trauma among American Indians (Brave Heart-Jordan, 1995).

For clinicians to integrate interventions addressing historical trauma, we suggest developing cultural or ethnic competence which requires therapeutic congruence with the client's culture (see Cross, 1989; Green, 1982; Iglehart & Becerra, 1995). Such an approach includes creating awareness of one's cultural limitations (Green, 1982) as well as an appreciation for one's own cultural background. We offer specific guidelines for modifying one's behavior to achieve congruence with American Indian clients. In addition, we address issues of transference and countertransference which incorporate therapeutic handling of historical grief and survivor guilt on the part of both client and therapist (Brave Heart-Jordan & DeBruyn, 1995).

Our training model emphasizes the development of cultural competence, self-awareness, and management of transposition and grief. For example, in a facilitator group training on historical unresolved grief comprised primarily of Lakota human service providers and spiritual leaders, we confronted powerful feelings and anxiety about coping with intergenerational trauma. Transposition was evident in this comment by one of the facilitators during the training:

> V: When I was driving up here [to the Black Hills], I felt angry. I looked at the beauty of the land, of the Black Hills. I thought, "where are the Indians?" I wasn't going to say anything about this but, I had a dream the other day. It was kind of scary. I got up shaking [starting to cry]. I saw people carrying guns and shooting people [American Indians] in the Black Hills again. It was a hard dream. That's what I saw.

The facilitator shared persecutory fears, intrusive Lakota Holocaust imagery, and identification with ancestral suffering, all typical of the survivor's child complex and the phenomenon of transposition. The manner in which the dream was shared showed hesitancy and fears about being thought crazy for having such a dream. Another facilitator expressed his anxiety:

> S: I think we're going to open up Pandora's Box here and I think we're going to have to be prepared to deal with all these feelings. I don't know if I'm ready for that.

In the group process, overwhelming anxiety and other features of the survivor's child complex including transposition are identified and normalized, permitting more open expression of affect.

Group discussion about the connection between present day oppression and historical grief was fraught with concomitant heaviness and depression. The following quotes illustrate this cognizance of the cumulative generational trauma as well as the identification with ancestral grief, again components of transposition and the survivor's child complex.

> I: We are just continuing to be victimized. It's fine for us to process all of this here. But when we leave here we have to deal with this again. It's just so overwhelming. I feel like I've been carrying a weight around that I've inherited. If I knew how to let it go, I would. That's what I want to do here, because it gets in my way. I have this theory that grief is passed on genetically because it's there and I never knew where it came from. I think we're all inhibited by the sense of responsibility and the sense of guilt. . . we blame ourselves for our loss of tradition. I feel a sense of responsibility to undo the pain of the past. I can't separate myself from the past, the history and the trauma. It [the history] has been paralyzing to us as a group [American Indian people].

> A: I consider my parents like a second generation. They knew exactly what happened—they were told. My grandfather had scars that were seen [from the Wounded Knee Massacre] and [my parents] lived through that life [the aftermath of the Massacre]. Three of the eleven brothers [in my grandfather's family] survived; the others were killed. We still have that grief… we are traumatized.

In addition to carrying generational grief, the facilitators also addressed the impact of historical trauma in the development of internalized oppression and identification with aggressor:

> K: The rage and the anger is still there in all of us… there ain't no cavalry running around here! We're doing it to ourselves. I've never been in a boarding school. I wished I was [had] because all of the abuse we've talked about happened in my home. If it had happened by strangers, it wouldn't have been so bad—the sexual abuse, the neglect. Then I could blame it all on another race. [Pause]. I don't think I've ever bonded with any parental figures in my home. Physically, they were there. But that's all. And yes, *they* went to boarding school.

Even for these facilitators who were spiritually developed, had years of their own treatment and recovery as well as years of clinical experience, it was evident that the power of the partially repressed and unresolved historical grief was challenging and, at times, overwhelming. However, facilitators and the participants in the 1992 study experienced a cathartic release through the process, a reduction of perceived grief affects, an increase in joy, and a decrease in guilt (Brave Heart-Jordan, 1995; Brave Heart, 1998). One of the facilitators commented on his own grief resolution at the end of the group process, particularly poignant as he has been a traditional leader and has focused on community healing for others:

> I've done a lot for the *Oyate* [the Lakota Nation], to wipe their tears; I've been on the [Bigfoot Memorial] Ride for five years—four years of preparation and the final fifth year. I've fasted and ridden in 50 below zero weather. But until today, no one has ever wiped my tears!

Lakota parents who went through historical trauma healing imbedded in a parent training curriculum attested to the powerful impact this had upon their own perceptions of their healing and parenting (Brave Heart, in press). One parent shared,

I find there's a bonding between me and my kids now, just from what I've learned…. I'm starting to put my kids first…. We became a family here. I think that was part of the magic that developed in the training, we became empowered….

Spiritual Empowerment: The Wisdom of Traditional Ceremonies

Tribes have utilized traditional healing ceremonies which have a natural therapeutic and cathartic effect. The *inipi*, for example, is spiritually, physically, and emotionally healing. Participants are able to share their pain and pray for the good of others as well as their own individual healing. Many individuals maintain sobriety only after they resume or begin regular involvement in traditional spiritual practices. Silver and Wilson (1988), for example, describe the therapeutic psychological effects of the *inipi* for Vietnam veterans with PTSD. Among the Lakota, we have a traditional ceremony to keep the spirit after the death which gives the family time to accept the loss and go through a mourning process. After that period of time, usually one year, we release the spirit and then wipe the tears of the mourners which facilitate grief resolution.

Tribes need to conduct specific grief ceremonies, not only for current deaths, but for historical traumas: the loss of land, the loss of the right in the past to raise our children in culturally normative ways at home, and mourning for the human remains of ancestors and sacred objects being repatriated. What we advocate is the development of a spirituality that does not serve as a defense against experiencing painful affects. Rather, a healthy spirituality embraces the range of one's feelings—grief, shame and pain to joy, pride, and resolve to maintain balance—in order to regain personal wellness and the power of community self-determination.

Brave Heart-Jordan (1995) quotes the Hunkpapa Traditional Elders' Council announcement of the 1990 Sitting Bull Memorial (Blackcloud, 1990) which underscores the concept of historical unresolved grief and community healing. The Sitting Bull/Bigfoot Memorial Ride, honoring the memory of those slain at the Grand River (the site of Sitting Bull's murder) and at the Wounded Knee Massacre in December 1890, was a prayer for the next seven generations:

It is our way to mourn for one year when one of our relations enters the Spirit World…. Tradition is to suffer with the remembering of our lost one, and to give away much of what we own, and to cut our hair short…. Sitting Bull was more than a relation… he represented an entire people: our freedom, our way of life—all that we were. And for one hundred years we as a people have mourned our great leader…. We have suffered remembering our great Chief and have given away much of what was ours…. During this time the heartbeat of our people has been weak, and our life style has deteriorated to a devastating degree. Our people now suffer from the highest rates of unemployment, poverty, alcoholism, and suicide in the country…. Let a hundred drums gather. It must be a time of celebration, of living, of rebuilding, and of moving on. Our warriors will sing a new song, a song of a new beginning, a song of victory. Let our warriors sing clear and loud so that the heartbeat of our people will be heard by Sitting Bill and all our ancestors in the Spirit World, and our two worlds will become one again. (Blackcloud, 1990)

In our view, community healing along with individual and family healing are necessary to thoroughly address historical unresolved grief and its present manifestations. The process is not quick nor is it easy. However, without such a commitment to healing the past, we will not be able to address the resultant trauma and prevent the continuation of such atrocities in the present. Nor will we be able to provide the positive and healthy community activism needed to stop and prevent the social pathologies of suicide, homicide, domestic violence, child abuse, and alcoholism so prevalent in American Indian communities—as in society at large—today.

Conclusion

In this paper we have presented arguments for the existence of historical unresolved grief among American Indians. We have outlined the historical legacy that has created intergenerational trauma and suggested healing strategies that include modern and traditional approaches to healing at all levels—individual, family, and community.

The crux of our argument has far reaching implications for other colonized, oppressed peoples throughout history and those being oppressed, as we write, that are obvious to us. Wherever peoples are being decimated and destroyed, subsequent generations will suffer. We need only heed the traditional American Indian wisdom that, in decisions made today, we must consider the impact upon the next seven generations.

The concept of historical unresolved grief has powerful implications not only for healing from our past but for giving us the strength and commitment to save ourselves and future generations. The American Indian

Holocaust is unfortunately not unique to present world events, which themselves continue the pattern of oppression and genocide. The connectedness of past to present to future remains a circle of lessons and insights that can give us both the consciousness and the conscience to heal ourselves. Understanding the interrelationship with our past and how it shapes our present world will also give us the courage to initiate healing. These clinical activist strategies are vital to insure the future connectedness of indigenous people all over the world and our responsibility to and for each other. We dedicate our healing work to the next seven generations in honor of *Tatanka Iyotake* (Sitting Bull), *hecel lena oyate kin nipi kte*—that the people may live!

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Notes

1.   Addressing criticisms of the survivor syndrome, Fogelman (1988a) asserts that, although more empirical studies are needed, the pain and psychological impairment of survivors is not captured by standardized personality tests. Further, differences between children of Holocaust survivors and control groups, supporting the concept of the survivor's-child complex, were found by numerous studies (i.e., Felsen & Erlich, 1990; Rose & Garske, 1987; Solomon, Weisenberg, Schwerzwald, & Mikulincer, 1987).

2.   Brave Heart-Jordan, M. Y. H. (1995). Copyright by author: reprints available through the Takini Network, c/o author, University of Denver, Graduate School of Social Work, 2148 South High Street, Denver, CO 80208.

LOOKING FOR "A GOOD DOCTOR": A CULTURAL FORMULATION OF THE TREATMENT OF A FIRST NATIONS[1] WOMAN USING WESTERN AND FIRST NATIONS METHOD

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Abstract: The following paper utilizes the DSM-IV suggested clinical and cultural formulation to present an example of how First Nations and western treatment methods can work together to treat a First Nation's woman with a serious mental disorder. The formulation provides reflections on cultural elements in the diagnosis and what distinct and common elements are present in the First Nations and western explanatory models for etiology and treatment.

Contemporary theorists (LaFromboise & Rowe, 1983; LaFromboise, Trimble, & Mohatt, 1990; Lefley & Pedersen, 1986; Torrey, 1986) question the use of certain forms of psychotherapy, particularly psychoanalytic frameworks, with indigenous people. Some propose that conventional western methods of therapy may actually harm some minority patients. Because western psychotherapies are based on symbolic systems, values, methods, and interactional styles which are culturally inappropriate for Native people, they also increase the likelihood that patients may leave treatment prematurely. As an alternative, Torrey (1986) advocates that Native patients should be referred to traditional healers who perform a culturally based form of psychotherapy.

Other theorists focus more on understanding how culturally-based idioms of help and healing reveal universal features of all healing systems (Frank, 1974; Kleinman, 1988). They articulate how cultures create their own forms of and processes for understanding pathology and administering treatment, which are parallel to western psychotherapy. They consider it appropriate for clients to use their own indigenous systems, which would best serve them. They also recommend that the western professional should

understand the efficacy of these systems and the culturally based explanatory models for illness and healing. Mohatt (1988) questions a generic recommendation that it is best for therapists to always refer their patients to a medicine man. He sees it as a way for the therapist to avoid difficult personal material and as eschewing the therapist's responsibility to understand the cultural material with the client. He stresses the importance of understanding the idioms of help and explanatory models for healing in order to adapt therapy to the indigenous client. To facilitate such adaptations, LaFromboise, Trimble, and Mohatt (1990) advocate for working closely and in a complementary manner with indigenous healers in training, consultation, and treatment.

Although there appears to be a split between those who consider psychotherapy irrelevant to indigenous people and those who consider it appropriate, much of the literature advocates for cultural adaptation of therapy and complementary work between Native healers and Euro-American practitioners. Duran and Duran (1995) and Devereaux (1951) argue that psychoanalytic or depth approaches, if culturally adapted by a therapist who understands the patient's culture, fit indigenous groups. They and many theorists advocate for a cultural adaptation paradigm that recommends that therapists are trained to understand and become sensitive to cultural dimensions of treatment (Atteneave, 1982; Berg & Wright-Buckley, 1988; Carter and Helms, 1987; Casas & Vasquez, 1989; Devereaux, 1951; Erickson, 1975; Mohatt, 1988; Trimble, 1976).

Three questions raised by the literature on psychotherapy of American Indian and Alaska Native clients are of importance for the following case presentation:
1. How do First Nations' healing systems conceptualize the illness and healing process?
2. How can indigenous forms of healing be integrated in treatment with psychotherapy?
3. Under which conditions does psychotherapy work effectively for First Nations' clients?

The following case is presented using the DSM-IV recommendation (American Psychiatric Association, 1994) for clinical and cultural formulation in order to provide a unique example of the treatment of a First Nation's woman using both western and First Nations' forms of treatment. The discussion will return to the above three questions and help expand the literature on complementary treatment approaches for Native people.

Clinical History

Patient Identification

H. was an eighteen-year-old woman from an Ojibwe First Nation, living in central Canada. At the time of the intervention she had been hospitalized for two weeks and was checked out by her family for four days to attend healing ceremonies to be conducted by a visiting Lakota Medicine Man. She lived most recently with her mother, stepfather, and younger sister and half-brother. She periodically lived with her father, with her grandfather, and or with an aunt, thus moving from place to place. At the time of the intervention to be described there was a critical family situation for her as her mother and stepfather were discussing splitting up. The mother and stepfather had earlier sought help from Lakota healers for her younger brother when he was born premature with neurological problems. They indicated the belief that the help received had saved their sons life and, therefore, had a positive attitude to the Lakota healers, so they sought similar help for H.

History of Present Illness, Psychiatric History, and Previous Treatment

At the age of 15, H. began to experience problems related to drugs, apparently mainly marijuana abuse. Earlier drug and alcohol experimentation and abuse had occurred, but had not led to problems with others inside or outside the family. The actual extent of her abuse is not known, but it was perceived as a problem by the family and as a cause for her "getting in trouble."

Her first major psychotic breakdown came at age 16 when she worked with young people at a summer-camp. She became agitated, lost sleep, had disorganized thoughts and her behavior was deemed more and more inappropriate. As far as is known, she did not have hallucinations or organized delusions. Her reality testing was, however, impaired and she was hospitalized. She also had suicidal thoughts and behavior, e.g., standing in the middle of a highway hollering and thus in extreme danger of being run over by a car. Her thoughts were, at the time, concerned with First Nations' adolescents who were at risk of being damaged by drugs and alcohol and having no safe place to live. Although her thoughts were disorganized, they seemed to reflect accurately both her own situation and that of her peers. She complained about the seeming inability of First Nations' officials to do what was necessary to prevent these problems. She believed that the "system" was corrupted by the "hypocrisy" of the officials who were or had been abusers of substances, who were uncaring and corrupt, and condescending towards First Nations' youth. This hospitalization was brief

and she was referred to a substance abuse treatment program for sixty days.

In the summer of 1995 at the age of 18, H. was again hospitalized. This occurred after she became increasingly depressed following the death of an adolescent cousin who died in a drowning accident. She was also agitated and disorganized in thought and behavior. She was able to attend the funeral and express emotion, but became more and more preoccupied with the safety of her siblings and other young people. During the same time, her mother and stepfather began to have increasing marital problems, separated, and were discussing divorce. H. expressed great fear that her sister and younger brother would be abandoned and made vulnerable by such a divorce. The authors do not know whether H. was using drugs at the time, however, the family denied this was a problem. She was diagnosed as having bipolar disorder and treated pharmacologically and with milieu-treatment. At the time she came for the ceremonies, she was receiving Lithium, 450 mg. and Chlorpromazine, 150 mg. She was, however, strongly critical of the hospital regime, and rejected the thought that her problems were a sign of a mental illness. She felt the "labels" of mental disorder and the labeling process was a form of condescension which belittled what she considered the truth that she wished people to hear, especially on the part of her parents and public officials. She further experienced the hospital as frightening, being locked up on a ward with very psychotic patients. She felt the staff had sexually and physically abused her. Hospital officials denied abuse took place and considered this part of H.'s delusional system.

Social and Developmental History

H. grew up in a traditional Ojibwe community. Her parents divorced when she was a preteen, after which she lived mostly with her mother. Her mother remarried and she then periodically lived with her mother, stepfather, and siblings who were a full sister and half-brother. She has had a very close relationship with her younger sister. She managed well in school until high school, when she dropped out between her sophomore and junior years, during which time she became increasingly preoccupied and disorganized. The family reported a childhood history of Attention Deficit Hyperactivity Disorder (ADHD) like behavior indicating that H. always had been a bit "scattered," did multiple things at the same time, enjoyed involvement in many activities, and tended to move from one thought to another rapidly. She performed well in intellectual activities and was and is considered very intelligent by friends and family. She had friends but was described as tentative in meeting new people. Many of her friends were those with whom she was involved in abusing cannabis. She had, however, great concern for others and was occupied with the needs of the young First Nations' children.

Family History

There was no knowledge of psychiatric illness in her family. There is a history of unstable marital relationships and abuse of alcohol among extended family members. H. acknowledges great concern about the instability of the family units and their ability as caregivers.

Course and Outcome

Immediately prior to her second and most recent hospitalization, H.'s parents had separated and were considering divorce. They have subsequently separated. H. was considered psychotic upon admission and had to be placed in a locked ward. She received medication and milieu-treatment, had sessions with the doctor at the ward but no organized psychotherapy. She had not liked the doctor who had treated her during her first hospitalization so she was very concerned about who would treat her during her most recent hospitalization. Since her previous doctor had resigned, she began to develop a relationship with a new psychiatrist. Although she didn't think he believed her stories about being abused by the staff, she thought he might be able to help her and expressed a tentative trust in him. Her intake diagnosis was bipolar disorder-manic type.

During the interventions to be described, she manifested a symptom picture that could justify the diagnosis of bipolar disorder of a mixed type. Her history with a previous hospitalization with psychosis and earlier possible attention deficit and increased activity may substantiate this diagnosis, as ADHD like symptoms have been found in the history of adolescents with bipolar disorders. There is, however, controversy connected with diagnosing bipolar disorders in this age-period among others because the symptom-picture varies and often is atypical (e.g., mixture of manic and depressive symptoms) (West, 1997). Another consideration that Kleinman (1988) notes is that brief reactive psychosis constitutes a larger portion of acute psychoses in non-western societies than in the industrialized west. He also indicates that they are often caused by immediate life stressors which have a high degree of cultural salience and they respond well to indigenous healing systems.

Psychodynamic Considerations

H. was a woman in her late teens that had experienced major losses and an unstable home-situation in several periods in her life. She lived in a social environment in which problems related to employment, social stability, and cultural identity were common. This reflected both the actual situations for first Nations' people in Canada but also the history of atrocity, genocide, and cultural degradation. She was an intelligent and alert young woman,

who perceived many of the problems in her family and community. She seemed, however, to have difficulties in distinguishing her problems from those of others. We perceive this as a reflection of her own struggle with identity-formation, including becoming a woman in an unstable social situation that could not give her sufficient support. She seemed to lack a sufficiently strong identification with a cultural ideal apparently both because of her own experiences of loss (father and mother's divorce) and the problems of the tribe-community. It seemed that she felt that the tribe's history mainly offered a victim-identity which arose from her perceiving that First Nations' officials had "sold out", demonstrated many of the problems which they said they wanted to get rid of (e.g., alcohol and substance abuse and the lack of cultural values such as respect of Elders), and failed to take responsibility for protecting the children. She counteracted this by taking on a savior-role for the First Nation youth. In her psychosis this coalesced with her attempts at restoring her own self-fragmentation. It seemed then that the cultural and social (family) setting did not compensate for the turbulence of puberty with its pulls toward fragmentation and return to more impulsive and disorganized behavior and feeling. Loss and separation-anxiety were dominant themes in her internal world, with her sense of helplessness at times compensated with an omnipotent savior-role, which allowed her to speak the "truth."

Interventions

H. was doctored by a Lakota medicine man during one night through a sweat lodge (*oinikage*) and a second night of the sweat lodge and a healing ceremony (*wapiya Iowanpi*). The medicine man did not prescribe medicine to assist in the healing but saw the ceremony and sweat lodge as adequate to begin the process of healing. He explained that his friends, the spirits with whom he worked, would strengthen her and that "nothing bad would happen in the future."

The medicine woman present at the ceremony, who was the widow of the medicine man who had doctored the younger sibling, had an alternative perspective and she volunteered to the family to help H. with follow-up. She diagnosed that H. had a problem on the left side of her head behind the ear, which was affecting her brain and, therefore, needed traditional herbal medicine. She explained to H. that medicine was important to facilitate the healing of the body and restore balance and health (*wicozani*) to her. She explained that each sickness was unique to the person and needed a medicine that fit it. She spoke about the medicine as a relative, which could speak to the body in a way that would help it fight its sickness. She explained that H. should speak to her body and explain why she was taking this medicine and welcome it into her body, explaining that it was there to help her. She also told H. to speak to the medicine before she ingested it and welcome it into her body. The Lakota conceptionalization was that the body and the

medicine are relatives and the person must assist in establishing the relationship between them in order for health (*wicozani*) to return. What was critical for *wicozani* was that the right medicine was found, the correct relative who could speak to the body and to the medicine and establish a healing relationship between them.

Each medicine becomes a unique source of healing for the particular person in this specific context. In this worldview the idiopathic of this person, this problem, and this treatment are salient. During the next four days, she treated H. in the sweat lodges, administered herbal medicine each day for four days, and left medicine with H. to utilize, and had a daily dinner with the family and H. after each sweat lodge.

On the second day after the Lakota medicine man's ceremony and the first sweat lodge, H. became acutely psychotic. She re-experienced severe delusions, sensory hallucinations, and agitation. She would not eat or sleep and talked incessantly. Her stepfather sought out the authors and asked for help. We met with the stepfather and H. for three hours at a local agency office. Her mind was running at a very rapid pace. She wanted to return to the summer camp immediately. She felt that she had bugs crawling all over her which she kept brushing away with an eagle feather given her by the woman healer.

She performed this act very gently and softly like she was brushing a piece of lint from her sweater. She was vividly reminded of the abuse she felt she had experienced in the hospital. She did not want to eat or sleep, but go immediately to save the children at the camp. She wanted help for herself, a "good doctor" to listen to her. She feared for her sister's safety and wanted her to come and sit with her. She said she had no home to go to, said she would not eat nor sleep, but would remain alert to defend her people, attack and "strike" the enemies in order to save the children. Her speech moved back and forth between these issues. She appeared to be trying to organize her universe, but the points of meaning kept slipping away so she was left without anything to hold onto.

We spent the next three hours in an intense crisis therapy session to bring H. and the stepfather through this crisis moment. We both had to think separately, take our cues from each other, and make our interventions to try to alleviate the crisis. Our psychoanalytic traditions stressed the importance of establishing the subject-object relation, the goals of grounding H. in the here and now, re-establishing her relatedness, getting her to eat, to agree to go home, to establish where home was, and to sleep. We both wanted to help her parent learn how to deal with her and what would be needed by her in the next few days and for the long term. We were both leaving the area in the next two days so we had a responsibility to inform him of what options he should consider for her care.

The session had three segments. During the first we worked to establish who we were, who she was, who was present in the room, and that we were here together with no one else present. The first part of the session

grounded her and us in the current evolving relationships. We worked very carefully to get her to acknowledge who we were, talking of the recent past, e.g., the meeting, the ceremony, and talked with her about her friends and family. In the second segment of the session we worked to get her to eat and drink with us, to have lunch with us. This took over an hour and was contingent on our success in the first segment of anchoring her in relatedness. We succeeded and were able to share a small lunch of peanut butter and jelly sandwiches, juice, and tea. This also mirrored the importance of meals as part of the ending of the ceremony of the previous night.

Finally, in the third segment we finished the session, left her, and made the transition back to her everyday space without a sense of her being abandoned. We had to work to establish the links between her and her stepfather and family, her house, sleep, food, and security. She said she was not going to leave, but we took her step by step through what she would need to do in order to leave the office, the building, how to get into the car, and the one-mile trip home. By this point in the session, her stepfather had watched closely how we work and had joined in with a quiet, patient, and gentle but firm way of communicating with H. She was able to take leave of us. As we stood to leave, she thanked us by giving each of us a pack of cigarettes and a coin as her gift or exchange for the session.

We told the father to return after H. was settled and we would discuss the future with him. They left and we sat and discussed what the options appeared to be from our perspective. The stepfather returned and we discussed the choice of her going back to the hospital or the family working round the clock with her to come through the current crisis and working with the Lakota medicine woman for the next four days. We discussed the pros and cons of both and that they might not be mutually exclusive, since they might want to use the hospital as a possibility if she became much worse. He discussed these with his wife and they decided to continue with the work with the healer, to spend much time with H., and not take her to the hospital. The father then tried to call the doctor and the hospital in order to talk to them about the decision. We agreed to speak with the doctors in order to explain the situation, what had happened, and what was planned. We were unable to reach her psychiatrist, but the stepfather would meet with them the next week.

Subsequent to our intervention, H. was treated by the Lakota medicine woman for three more days, became calm, focused, was able to sleep and eat, and decided not to return to the hospital. She did seek out psychotherapy from a variety of sources and was finally able to establish a therapeutic relationship with a psychiatrist at the regional hospital in which she had been a patient. She continued in this treatment for one more year. She also was subsequently doctored once in the following year by the Lakota medicine woman.

Diagnostic Formulation

The current life-situation of H., with conflicts between parents and losses may have contributed to the outbreak of her illness. Her drug-abuse surely contributed to her instability but may also be seen as an attempt at self-medication because of mood-disorder. There was, however, no information of drug abuse at the time of her current psychosis. Considering the stresses in her life prior to onset, the short duration of her psychotic episode (less than one month), the success of traditional medicine in ameliorating her condition, and the fact that she seemed to return to her prior level of functioning and even improved afterwards with no new psychotic episode during the three years of follow-up and no medication, we think that a more accurate, cautious, and conservative diagnosis would be brief reactive psychosis, with marked stressors. We ruled out schizophrenia because she did not meet the criteria for duration nor social and occupational dysfunction, see Table 1.

Table 1
Diagnostic Formulation

Axis I: 298.8 Brief reactive psychosis, with marked stressors.

Differential diagnosis:

296.66 Bipolar I Disorder, Most Recent Episode Mixed, Severe with
mood congruent psychotic features.

alternatively;

293.83 Mood Disorder due to Substance-induced With Mixed
Features.

Axis II: None.
Axis III: None.
Axis IV: Current: Marital difficulties of parent.
Fear of loss of parents and death of grandparent.
Residual grief at loss of cousin.
Family instability for siblings.

Past: Divorce of parents.
Family instability.
Perceived insensitivity of local band to needs of adolescents.
Racial discrimination, moderate.

Axis V: GAF = 20 (at onset)
GAF = 70 (Highest past year)

Cultural Formulation

Cultural Identity

Cultural Reference Group(s). H. is an enrolled member of an Ojibwe band in Canada. Both of her parents, stepfather, and extended family are First Nations' members.

Language. H. speaks English and some Ojibwe. She has fair receptive language abilities in Ojibwe and the language spoken at home had been Ojibwe; however, she speaks English with family members and is most comfortable with English.

Cultural Factors in Development. Her family is traditional on both father and mother's side. They are speakers of the language and H. lived with her grandfather, who was very traditional, while she was growing up. The family respects and utilizes Indian medicine men. H. experienced how her younger brother was doctored by and healed of the neurological impairment in his infancy through the help of a visiting Lakota medicine man. Subsequent to this, the family involved themselves in healing ceremonies whenever they occurred. However, the tribe had no resident medicine men or women who had the power to heal in a way that the Lakota healer did. There are, however, members of the community who are seen by the community as medicine men. H. and the family did not consider them able to help H.

Involvement with Culture of Origin. H. has lived on the reservation all of her life. She has lived for brief periods in urban areas of Canada to attend school, to work, or during hospitalizations or treatments. From her early adolescence she has tried to bring attention to the cultural and political problems of her tribe. She took a critical stance towards both her parents and the First Nations' officials. Her work at the cultural summer-camp seemed to be motivated by a desire to help young First Nation people, whom she perceived as having serious problems. She seemed, therefore, to be actively involved in her culture and had an identity as a First Nation member, although she felt a lack of proper identification figures.

Involvement with Host Culture. H. participated in ordinary school activities and seemed to do well in non-Indian settings. She chose to attend school off the reservation in order to complete high school. She lived in an apartment and felt comfortable with the anonymity of an urban area, although she reported that she felt lonely and isolated. She chose to live alone rather than with others while in the urban context and did well in completing her schooling. Movement back and forth between city and reservation is quite common and has continued over many contemporary generations.

Cultural Explanations of the Illness

Predominant Idioms of Distress and Local Illness Categories. The symptoms presented by H. are recognized in the community as a serious problem. The most widely used explanation is substance abuse from over using cannabis or alcohol; the community tends to look to this cause for much deviant adolescent behavior.

Meaning and Severity of Symptoms in Relation to Cultural Norms. People within the community acknowledged that all adolescents have adjustment problems and the community is sensitive to the problems youth have with schooling and the dominant Euro-Canadian attitudes toward First Nation's people. However, H.'s behavior was considered atypical and serious enough that she needed professional help and hospitalization. To protest politically the action of the band, First Nations' members frequently argue with the Council and its leaders. However, H.'s behavior varied in degree and methods. She would appear at any time demanding to be heard. She would disrupt public and private meetings.

Her fears of harm coming to the children at the camp was viewed as paradoxically antithetical to both her goals and the goals of the camp and as not based in reality. Finally, her public behavior of standing in the road and hollering was seen as putting her and others in danger and that she suffered from uncommon and severe problems.

Perceived Causes and Explanatory Models. Such uncommon behavior made the local people look beyond the conventional explanations of alcohol and substance abuse to spiritual causes. Most predominant of these was the "bear walk" which is caused when a person with power wishes bad on another and can come to the other in the form of a bear and cause serious harm. Although H. did not dream of bears or speak of such experiences, there was concern that someone might be trying to harm her. When suicides have occurred in the community, this type of bad medicine was seen as explanation of the causation. Concern existed on the part of the family that such bad medicine might be or could become involved. If this were the case, they needed very powerful medicine to counteract it. The family also wondered if H. had a mental illness and whether it was amenable to doctoring by a medicine man. Given the periodic nature of involvement with traditional healers and the limited family socialization in traditional worldviews about such illnesses, the family did not have a clear traditional explanatory model for the problem.

H. and her family live in a bicultural world. Western medicine has strong influence in this area, and is frequently used when people get ill. H. and her family decided that western medicine was worthwhile and should be used. The family and community accepted the possibility of biological causes for the problem and the potential for western medicine to help. However, they became dissatisfied with the ways in which it made H. feel and the sense that no cure for her condition existed. Given the possibility that the

problem could have a spiritual cause, that western medicine was not producing a cure, and their satisfaction with the traditional doctoring of their youngest child, the family with H.'s consent turned to Lakota healing.

In the First Nation's context, spirituality and the power of rituals and healing-ceremonies is the important approach for disease. The indigenous conceptualization of her illness saw the problem not only lodged in her, but as reflecting problems in her family, her peer-group, and her tribe, who were all in crisis. A biological conception was also presented by one of the Lakota healers, but seen as a consequence of trauma. The body (*ta'chan*) was one part of a triangle together with the person's spirit (*nagi*) and the world of relatives, the spirits and other people (*mitakuye oyasin*), all of which could work together in order for health (*wicozani*) to be re-established. *Wicozani* includes rapid symptom relief and the reestablishing of relationship with others, particularly kinship relationships. The Lakota healer stressed to the family that it was necessary for all of the relatives to be present and to achieve a sense of a singleness of desire among every one at the ceremony in order for the patient to achieve health. The singleness of desire (*wowacin wanjila*) involved everyone being there for the healing of H. rather than to get something for themselves or ask for healing for themselves. This *wowacin wanjila* would create a context in which the power of the spirits could touch H. in a way that she would feel safe in relationship to others. Additionally, H. was seen as having a weakening of desire and will (*wowacin hunkesni*) which was consequent on the fractures within her family and community. The ceremony was seen as strengthening the will and assisting H. in regaining a strength of desire and will (*wowacin tanka*).

Restoration of the health of the body is one critical dimension. However, equally important to cure is to restore relatedness within the family. The salient elements in the indigenous conception of illness were thus problems of the relationship between the spirit and the body and disruption in human relatedness. Her symptoms were, at this level, then seen mainly as a consequence of her struggle with problems, not as a cause of an inherent illness.

Help Seeking Experiences and Plans. As noted earlier, H. was on leave from the hospital. She did not plan to go back to the hospital nor did she want to take western medicine. However, she was insistent that she needed a "good doctor," defined as one who will listen and talk to her. H. had experienced this type of doctor in her substance abuse treatment, but since she could not return there she wanted to find a counselor or psychotherapist that would listen to her and not give her medications.

Cultural Factors Related to Psychosocial Environment and Levels of Functioning

Social Stressors. H. had been unemployed because permanent employment was dependent on graduating from high school. She had been able only to find seasonal and temporary work. However, she entered a special program to finish high school after which she was hired by a local employer. She continued, however, to be unsure of her career goals and moved again to an urban area. The level of alcohol and drug abuse among peers was also perceived as a stressor.

Social Supports. The ceremonies in which H. was doctored were attended by a large number of relatives and friends. She received strong words of encouragement and prayers from those who attended. They shared personal narratives and committed themselves to help her. Family members continued to support her during follow up treatments, which included daily dinners in the evenings following the sweat lodge with friends and extended family members. She continued to receive active encouragement to return to the community and work, and was welcomed back and supported with a job.

Levels of Functioning and Disability. As a consequence of the ceremonies, social support, and individual psychotherapy, H. was able to weather a number of challenges. She began to abuse substances, primarily alcohol, but was encouraged to stop by relatives and did so. She also became depressed and discouraged, wondering if she would "make it." However, she did not become actively psychotic and did not have to be re-hospitalized. She kept in contact with both the Lakota medicine woman, her therapist, and wrote the authors twice a year. Her letters contained pain and hope but she said that she felt strong enough to weather these storms.

H. has significantly improved in the past three years, maintaining a job for over a year and completing high school. However, it is expected that she will continue to struggle, but she has strong social support and increasing ego strength to continue to improve.

Cultural Elements of the Clinician-Patient Relationship

European or Euro-Canadian therapists varied in their level of knowledge of First Nation's culture. The primary therapist had little knowledge of the healing systems that H. was using, but he was respectful and cooperative. He wanted her to utilize both therapy and medications, but she refused and asked for a "good doctor who would listen." To his credit, he agreed and worked within a treatment modality which included traditional healing rituals. There was no contact between the doctor and either the Lakota medicine man or medicine woman. The Lakota medicine man had little knowledge of the Ojibwe community but was well received and trusted by H. and her family.

The medicine woman had extensive experience on the reserve and was familiar with both the Ojibwe culture and the particular family context. She was highly respected because of both her own performance and her status as the widow of a medicine man who had provided extensive help to many people on the reservation.

The crisis intervention session was well received by H. One therapist had extensive experience with First Nations' people and with H.'s community. The other therapist was a psychoanalyst with extensive cross-cultural experience with traumatized war refugees and individuals with psychosis. During the crisis intervention, the pace and style of speaking included low volubility, long pauses, much reassurance, and an attention to the here and now. The father was included. The interactional styles and other elements described in the intervention mirrored the rules for social interaction in the community. Following the crisis intervention, there were discussions between the therapists and the medicine woman. Follow up with H., her family, and the medicine woman by one of the crisis intervention therapists to assist in arranging for treatment options was important because of the cultural importance of continuity of relationship and helping. Once a psychotherapist was identified, the family and H. worked primarily with him and the medicine woman to gain needed services.

Overall Cultural Assessment

The case of H. is a complex presentation of how a First Nation's woman who experienced significant psychotic symptoms was understood and treated by both western professionals and traditional healers. The clinical and cultural formulations delineate two views of H.'s problem.

The two cultures vary in the goal of treatment (cure or management) and the centality of spirituality in First Nations' models for healing. However, other aspects of the explanatory models for treatment are not inherently contradictory. It may well appear to the western practitioners that H. will develop a bipolar, chronic disorder. The complexity of her culture and her life situation, calls for extreme caution, especially when the person is in a turbulent adolescent developmental phase. One crucial treatment problem for western practitioners is whether Lithium treatment is justified or not. The combination of biological, psychological, and social approaches is a solid part of both Lakota and western tradition. H. refused the biological part of western medicine yet embraced the First Nations use of traditional herbal medicine. The western practitioners knowledge of and respect for the biological treatments of First Nations' healers is important. Attention to the best traditions of western practice and First Nation's worldview insists that we insure that the choice of the patient is central in their treatment. Whether we conceptualize this as facilitating collaborative empiricism in a cognitive perspective or the therapeutic alliance in a psychodynamic perspective,

there are common bonds with the concern of First Nations' people that healing comes out of freedom of choice.

In H.'s case a key question then is how can a patient make an informed choice when the person is severely disorganized and acutely psychotic. Part of the role of medications, crisis intervention, and hospitalization in a western framework reestablishes the needed connections to reality. It is also a goal of the sweat lodges, the dinners following them, and the use of herbal medicine to activate a new relationship between spirit and body. These each may calm the patient and ground them in human relationships, so they can make an informed choice about their treatment. Although significant differences existed in the western and First Nations' approaches, enough common ground existed for complementary treatment to occur and for H. to find each system helpful.

H. found the ceremonies helpful to reestablish bonds at an emotional level with others. The help that she received strengthened her own sense of identity as a First Nation's person and gave her a sense of respect for her community. At the same time, the ceremonies strengthened her resolve to find a western doctor who could help her on her own terms. Following the ceremonies, H. became more persistent and uncompromising in this and convinced the physician to do psychotherapy with her. She committed herself to continued contact with the medicine woman, feeling that she would be helped by her ceremonies. H. emerged from the experience of these complementary treatments with a greater sense of cultural identity and a renewed sense of her competence to complete her education and work. The activation of social support networks helped her to realize she had a home and a community to which she could return and which was no longer seen as dangerous and threatening, but as potentially nurturing. She additionally came to a growing realization that spiritual help was available.

Family members spoke about how the ceremonies helped them realize how they could help. In a very real sense the ceremonies treated the family and community by encouraging them to come to the support of H. and showing them the power they had to help. The family kept in contact with one of the crisis intervention therapists who helped them look for resources and encouraged them in pursuing both traditional medicine and psychotherapy. The step-father experienced three hours of crisis intervention and through the modeling of the therapists he said that he learned something about how to react to acute psychotic behavior, i.e., how to be calm in the face of psychotic material and how to assist the person in coping and reconnecting to the here and now. The interventions served to increase the skill and competence of the family and the confidence that they could help H.

Subsequent developments have shown that H. has significant work to do to maintain her health with a potentially significant challenge related to substance abuse and alcohol abuse. Her work history, completion of education, level of social support, and her ability to live independently indicate,

however, that she is gradually improving. The progress in gaining relief from symptoms through ceremonies, and her choice of work with traditional arts and crafts enhanced her ethnic identity. The level of symptom relief, its continuity, and her response to traditional healing reinforces our opinion that she has emerged from a brief adolescent reactive psychosis rather than a mood disorder. She possesses increased cultural identity and enhanced ego strength to develop an adult role and identity. The medicine woman continues also to be optimistic about H.'s recovery but believes she will continue to struggle to avoid substance abuse.

Returning to the questions in the introduction, the treatment of H. suggests that psychotherapy can assist the First Nation's client if it serves her/his goals and is done in a way that fits the social interactional cultural rules and, in this instance, the cultural norm of family involvement. Second, therapy can serve as a complement to indigenous healing provided that the client is motivated to utilize both systems and the principal practitioners are willing to work in a complementary manner. In the case of H. she refused psychotropic medication but accepted traditional herbal medicine provided by the Lakota healer. If the healer had instructed her not to use western medicines a potential conflict would have occurred, which does happen at times when the two systems interact. At other times western practitioners advise their patients to not use local healers in place of their treatment. However, in this case these types of conflicts did not occur.

Both systems can complement each other, but there are significant areas of difference that can cause conflict. Goals and explanatory models for etiology and treatment vary. What appears critical in this instance is that the client directed how these systems would serve her and each system helped meet particular needs of the client. The medicine woman focused on the biological, spiritual, and social-interpersonal levels. The crisis intervention contributed to the family's competence and rapid symptom relief. The longer-term psychotherapy allowed a place for H. to speak and be heard by a good doctor. All of the systems contributed to restoring H.'s ability to relate to others and a positive grounding in human community. H.'s case provides an instructive example of how the two systems can assist in the restoration of health (*wicozani*) and how adaptation of therapy to the First Nations' client facilitates treatment and outcome.

Afterword

It appears that H. found many good doctors, each providing help in her struggle to achieve and maintain health. She convinced the psychiatrist that was seeing her in the hospital to be her therapist and she returned to therapy for a period of a year. She also continued to seek social support and advice from the authors by sending them letters with updates on her progress. H. believed the healing by the medicine woman was most helpful

and saw her whenever she returned to the reservation. The healer doctored her until she was well enough to no longer need herbal medicine and ceremonial assistance. This came when H. was strong enough to cope independently and had significant symptom relief. The medicine woman still hears from H. frequently, and is prepared to return to help her if she asks. H., therefore, continues to have available a set of complementary treatments involving both western psychotherapy and traditional healing.

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Notes

1.   First Nations is the way in which Canadian Indians refer to themselves in contemporary society.
2.   For H. First Nations' officials included council members, the chief, and some of the administrators.