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EDITORIAL

This issue marks the close of the sixth volume of *American Indian and Alaska Native Mental Health Research*. As the reader will immediately note, with one exception, the articles contained herein emphasize various services offered to American Indians and Alaska Natives covering a wide spectrum of problems. The article by Scurfield is especially appropriate, following on the heels of a recent special issue of this journal dedicated to describing the adjustment of American Indian and Alaska Native combat Vietnam veterans to their return home. His article provides valuable insights into the programmatic structure and therapeutic process that characterize this unique attempt to adapt Veterans Administration inpatient services to the needs of this special patient population.

Another article, authored by Husted, Johnson, and Redwing, provides one of the first detailed accounts of the structure and outcomes of a residential treatment program targeted to Indian youth suffering from a range of alcohol, drug, and mental health problems. Managed and staffed by the Sisseton-Wahpeton Sioux Tribe, this treatment program, originally developed in 1978, combines a variety of traditional as well as western psychotherapeutic procedures to treat a complex array of comorbid conditions that often plague troubled youth. Hopefully this report will encourage closer attention to other adolescent treatment programs, notably the regional treatment centers currently funded through the Indian Health Service. The lessons gleaned promise to inform the efforts of many such programs presently in place across Indian and Native communities.

In this vein, then, and absent data on effectiveness, Burns, in yet another article in this issue, questions the impact of federal funding, as it has flowed through the Indian Health Service, in combating alcohol dependence and related mortality among this population. Widespread, coordinated advocacy among Indian and Native communities has resulted in significant increases of funding for alcohol treatment and prevention. Burns questions the subsequent gains, as reflected in the admittedly sparse data available. The questions that he raises are important and timely, as recent changes in congressional mood strongly underscore. The Indian Health Services' commitment, pursued through the Alcohol and Substance Abuse Program Branch, under the leadership of Johanna Clevenger, M.D., to evaluate such programming has been acknowledged on several public occasions. This effort, once completed, will afford Indian and Native communities information that policy-makers and public representatives now require in order to justify as well as expand human services. Dr. Clevenger's invited comments follow.

V

Lester, focusing on social correlates of American Indian suicide and homicide, returns to the theme of a recent journal monograph. That monograph, entitled "Calling From the Rim", anticipated renewed concern in regard to this troublesome phenomena. Indeed, the Indian Health Service recently convened an external task force to review circumstances surrounding suicide in this population as well as to recommend a more comprehensive strategy for reducing risk as well as attendant suffering. Lester's article reminds us of the broader social, geographic, and political context in which suicide and homicide occur. Clearly local planning and prevention efforts will benefit from a broader awareness of the circumstances in which their own experiences unfold.

Lastly, a special commentary by Bhatara, Fuller, and Fogas point to the harsh professional demands of service in many rural, remote, and isolated Native communities. Based upon their work in South Dakota, they are able to suggest a number of important interventions that may facilitate the recruitment, retention, and ultimately satisfaction of health professionals working in these areas. The challenges underlined by this article echo those anticipated four years earlier by Scott Nelson, M.D., and his colleagues in the Mental Health and Social Services Program Branch of the Indian Health Service. Dr. Nelson, in responding to the authors' suggestions, reemphasizes this area of need and provides additional recommendations as to new opportunities for meeting these challenges by capitalizing on current opportunities in computer telecommunications, graduate training, and public-academic liaison.

Spero M. Manson, Ph.D.
EDITOR-IN-CHIEF

VI

HEALING THE WARRIOR: ADMISSION OF TWO AMERICAN INDIAN WAR-VETERAN COHORT GROUPS TO A SPECIALIZED INPATIENT PTSD UNIT

Raymond M. Scurfield, D.S.W.

Abstract: The American Lake VA Post-Traumatic Stress Disorder (PTSD) Treatment Program provides intensive inpatient treatment for war-related PTSD and associated conditions. As part of a substantial outreach effort to American Indians (AI) in the Northwest U.S., the program significantly modified its admission criteria and treatment to be more clinically and culturally relevant. An all-AI cohort, and then a group that was 50% AI, were admitted. Highlighted are lessons learned regarding: treating "traditional" versus more "assimilated" AI veterans; culture-specific additions of building and utilizing a sweatlodge on the hospital grounds, hiring an AI spiritual leader as a clinical advisor, and promoting attendance at weekend Pow-Wows; the relevance of the "regular" treatment components; and the need for regular debriefings about counter-transference dynamics among staff.

The American Lake VA Medical Center Post-Traumatic Stress Treatment Program (PTSTP) is one of 22 specialized inpatient PTSD programs in the Department of Veterans Affairs. In an attempt to be more clinically and culturally relevant to American Indian (AI) combat veterans and to attract more American Indian veterans to utilize the PTSTP, two modified inpatient treatment cycles were implemented. The modifications primarily were in four areas: (a) special advance preparations to sensitize program staff about AI cultural dynamics; (b) recruitment of patients of AI ethnicity to enter together in two consecutive admission groups; (c) facilitating access during the inpatient phase of treatment to sweatlodge and Pow-Wow activities, and to an AI traditional healer hired as a paid VA consultant; and (d) altering regular program offerings and clinical techniques, such as the adoption of a more non-confrontive and non-directive approach.

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The Post-Traumatic Stress Treatment Program (PTSTP)

Established in 1985, the American Lake VAMC PTSTP offers inpatient treatment for war-related PTSD and serves war veterans from a large multi-state catchment area in the Northwestern United States. While veterans from all wars are accepted, about 95% of the veterans admitted to the PTSTP are Vietnam veterans. With a 31-bed capacity, the PTSTP offers a bio-psycho-social, multi-disciplinary approach to the treatment of war-related PTSD. At the time of admission of the two AI cohorts, standard treatment consisted of an 11-week program of bio-psycho-social education, process and war-trauma focus groups, and "in-action" therapy. The latter included an adventure based component (five-day Outward Bound wilderness course) and a helicopter-ride therapy activity (Hyer, Scurfield, Smith, Boyd, & Burke, in press; Scurfield, Wong, & Zeerocah, 1992).[1]

In recognition of the special and powerful role that peer group treatment has in war-related PTSD (Scurfield, Johnson, Gongla, & Hough, 1984; Scurfield, 1993), the PTSTP is designed with the admission of cohort groups of ten-to-twelve war-veterans every six weeks, who then proceed together through the 11-week inpatient treatment process. At any one time there are two cohort groups in the program admitted five weeks apart from each other; the more senior group is closer to graduation, and the more junior group is just recently admitted. Each cohort primarily participates in its own treatment schedule; a few activities, such as the weekday morning meetings, patient/staff rules' infraction advisory committee, and graduation ceremony, are attended by members of both cohorts.

Outreach and Planning Efforts in Preparation For Two American Indian Veterans' Cohort Groups

A cohort admission of an all-AI veterans' group was a precedent setting and innovative approach in PTSD treatment. Admission of an all-AI cohort group was the result of several years of outreach work to AI veterans, organizations, health care agencies, and reservations. This outreach involvement began in March 1989, when the PTSTP was approached by an AI Vietnam combat veteran from the Nisqually Reservation in Washington. He was a member of the Portland Indian Health Board, and a graduate of the program. A meeting was planned to prepare a needs assessment which indicated that American Indians are the ethnic minority with the highest percentage of veterans in their population and yet had underutilized VA services. At the same time, the American Lake VA Medical Center Social Work Service and Domiciliary had made several connections to AI health care providers and agencies.

Out of these developments, an outreach and support effort was created that intensified over the next two years. At first, meetings with AI health care providers and community leaders were held at the hospital.

The hospital staff involved in these meetings began to develop a keener insight into the reasons why this population had underutilized Department of Veterans Affairs services for their health care needs. The familiar dynamic of "veteran vs. the system" undoubtedly played a role, but was dramatically intensified by a 300-year history of being betrayed, discriminated and misunderstood as a race. However, the desire of this facility to work more closely with AI veterans was appreciated, albeit cautiously, and welcomed by their representatives. After several such meetings, where motives and intentions were mutually explored, certain key players emerged from various Indian communities, the State Department of Veterans Affairs, Indian Health Services, and the PTSTP. The latter took on the responsibility to carry this effort into practical application.

Sensitization of PTSTP Staff Regarding American Indian Ethnocultural Factors

Staff members from the hospital, primarily from the PTSTP, began to give in-service trainings and presentations to AI veterans, family members, and community agencies. These trainings were provided on reservations and in surrounding rural areas, primarily in Washington, Idaho, and Oregon. It became obvious to the hospital staff involved that there were distinct differences in personal interaction styles between themselves and participating American Indians. For example, a more informal style of presentation that also prompted give-and-take interactions with the audience throughout the presentation, was much more effective than a more typical didactic training approach that would doggedly stick to completion of a pre-arranged agenda, content and closely-adhered-to length of presentation. Indeed, American Indians, like other ethnic minority groups, are sensitive to being "talked down to" and tend to prefer a more egalitarian structure and format (C. Loo, personal communication, August 3, 1994).

Other cultural practices also became better understood. For example, it is considered very impolite not to offer food to visitors or to refuse food when it is offered, regardless of time or circumstance (except during periods of fasting). It is not acceptable to interrupt someone who is talking, particularly an "elder." This is a consideration unfortunately rare in American society, and especially challenging for most Americans since an AI speaker may easily go on for a considerable length of time. Meetings rarely began (or ended) exactly on time; clearly, at least initially, it was as much the establishment of personal relationships, credibility and beginning trust as it was the content of what was presented that were important. It also was quite clear that American Indians were quite used to hearing all kinds of *promises* and commitments from various governmental officials but not a lot of sustained follow-through on the same. Thus, the PTSTP staff were very careful not to promise anything that could not be fully provided.

There was lengthy discussion as to the appropriate terminology to describe these cohort groups. There were arguments in favor of the usage of "American Indian", and others in favor of "Native American." Ultimately, the staff decided to allow the participants to choose; hence the usage of "American Indian."[2]

Initiation Of and Rationale For An American Indian Cohort Group

During this time period one other significant development took place: the founding of NIVA (Northwest Indian Veteran Association). NIVA was established and staffed by AI veterans from the greater Puget Sound area. Representing over 50 tribes, this service organization had proved to be an increasingly powerful political force on behalf of its members. NIVA had helped AI veterans access services for benefits, health, and PTSD problems, partly through following up with various VA and other governmental resources to insure that "good-intentions" did not lapse into non-actions. Further, NIVA had promoted traditional native ways to facilitate healing and a balanced way of life.

Members of NIVA brought the idea of an all-AI cohort to PTSTP staff. It became increasingly clear to PTSTP staff working with NIVA members that an AI cohort could have several advantages: veterans might feel less culturally isolated; veterans might experience more peer support and validation with veterans from their own cultural background; and staff would be forced to be more responsive to issues of ethnicity with a bearing on treatment.

Approval of this project was secured from the (former) Chief of Psychiatry, Steven Risse, M.D., and American Lake VAMC Director, Frank Taylor. However, the idea was not easily accepted by everyone on staff in the PTSTP, the hospital or the community. One of the concerns voiced was doubt of being able to interact in a clinically effective manner with a group comprised entirely of one ethnic minority race. This concern was exacerbated among some staff members who thought the PTSTP was not even doing a good job when *one* such veteran was in a group! Another issue was future implications. Would the PTSTP at a later time have to then bring in an all Hispanic, all African-American or all Asian group, and be able to deal with them appropriately and sensitively? Another argument was that there was not an all-AI unit in Vietnam, so how would such a cohort group fit into the 'reality' of a multi-ethnic war? The fact is, most units in the Vietnam War had ethnic minority compositions significantly above the typical 20% represented in any one cohort group at the PTSTP. Thus, typical group composition at the PTSTP also did not represent "the reality of Vietnam."

The single most asked question about this project was: Why American Indians? Why not African-Americans, Hispanics, or Asian Americans? Rationale for an all-Native American cohort included:

1.   There was a very high percentage of veterans among this population, and they represented only 0.1% of the patients at the medical center.

2.   The request for an all-Native American group was brought to the PTSTP from AI veterans with NIVA, suggesting readiness and need.

3.   Native American veterans (to include American Indians and Native Hawaiians) are among the only ethnic groups in the U.S. who come from a "warrior" society (not all tribes, but many). As such, many tribes have developed specific strategies to prepare warriors for battle, heal them of emotional war wounds, cleanse them from the 'taint' of killing, re-integrate warriors back into society and involve families and community in the process. PTSD treatment providers have much to learn of these ways, as the strategies may apply more generically to treatment of PTSD for all veterans (Ching, 1989; Department of Veterans Affairs, 1984, 1989a, 1989b, 1992; Holmes, 1986; Johnson & LaDue, 1990; Silver & Wilson, 1988; Wilson 1989).

4.   AI resources from the community were willing to justify devoting a significant amount of time to support these special treatment cycles in a way they were not able to when only one or two American Indians were in a group.

5.   It was the initial assumption of the PTSTP that this was a "one shot" strategy that would significantly enhance staff sensitivity and skills in working with AI veterans, improve networking with various AI and other community resources, and allow the provision of more culturally-relevant knowledge about PTSD and its treatment when other AI veterans were subsequently admitted.

AI veterans contacted during numerous outreach visits to "Indian Country" provided a further rationale for admitting an AI cohort to the PTSTP. They expressed the hope that some of the veterans admitted would be able to gain additional knowledge about PTSD to bring back to their communities in order to help create relevant PTSD programs and continuing care supports *on* the reservations.

Finally, the PTSTP considered the inherent difficulties that face any ethnic minority veteran who is admitted with other patients to a program in which the staff are dominantly Anglo (or not of the same ethnicity and cultural background as minority veterans). The concept of admitting any single ethnic minority veteran to a dominantly Anglo American peer group is not only difficult for the individual veteran, but also unfair. In effect, the program is asking the individual to adjust to the majority of the group and the program ethos, rather than asking the program and staff to adjust to different ethnic diversities. Requiring such adjustments primarily

by the staff hopefully would improve the treatment approach to such groups and increase program abilities to subsequently adjust to other minority groups.

Modifications and Preparations to Adapt Inpatient
PTSD Treatment to American Indian Cohort Groups

The plan was to offer the regular 11-week PTSD program, with some modifications. These modifications primarily involved adding spiritual and cultural activities, with the specifics to be left up to the group's discretion and negotiation with the staff. The staff knew that several "outside" (non-VA) AI consultants needed to be involved to provide knowledgeable support and guidance, such as recognized, native spiritual advisors and healers, and other community resources. This overall plan was discussed with several AI resources and their input pointed out three necessities:

1.   It was agreed that the staff working with the cohort group would need additional culture-specific training *before* the special cohort groups were admitted in order to be able to deal more effectively and sensibly with this population.

2.   It was necessary to facilitate access to a series of traditional AI rituals or ceremonies, either on station or at a site acceptable to the group.

3.   It was important to have AI spiritual advisors from the community conduct several sessions on AI-based spiritual concepts, during the residential stay, rather than utilizing the PTST Program staff to present this subject.

It was decided that only PTSTP Program staff interested in working with this cohort group would be included on the clinical team assigned to this cohort group. Also, two AI Vietnam veterans on staff at the Seattle Indian Health Board provided an intensive eight hour training session to the Program staff and other interested hospital workers on cultural sensitivity in working with American Indians; one of these AI veterans also was a respected healer in the Seattle area. In addition, a Korean War veteran Vet Center team leader further helped with staff training and sensitization, and screening of some possible candidates. Finally, six previous AI graduates of the program were contacted for feedback on the appropriateness of the services offered by the PTSTP.

The typical screening process for admission to a cohort group consisted of an assessment of several factors: significant exposure to war-related trauma; presence of comorbid conditions that might contraindicate acceptance into the PTSTP (current abuse of illicit drugs and/or alcohol, active psychosis, severe character pathology); inability or unwillingness to terminate anti-psychotic or benzodiazypine medications; presence of any

medical condition unable to be stabilized during the projected course of inpatient treatment; prior experience in PTSD treatment, preferably to include peer group treatment; and a current counseling relationship. The latter requirements were due to the nature of the PTSTP as a treatment option designed for veterans for whom outpatient treatment had proven insufficient and/or unavailable, and the necessity for the veteran to have a treatment provider to return to following discharge from the PTSTP in order to promote continuity of care and enhancement of any gains made during hospitalization.

The usual admission criterion of prior PTSD treatment, preferably to include peer group treatment, and a current counseling relationship, were not strictly adhered to. This was in recognition of the realities of very limited PTSD resources in many rural areas, and especially in "Indian Country." Also, the selection process for this cohort group proved challenging in that *ethnicity was utilized for the first time as an inclusionary criterion* in addition to our usual clinical criteria. A question frequently asked by referrers was what the (PTSTP) considered an "American Indian" to be? It was a complex question, since in some tribes only persons born on a reservation are considered American Indian; in others, there needs to be a certain percentage of documented heritage. To be enrolled in a tribe turned out to be the initial basic criterion that the PTSTP utilized for a veteran to be considered an "American Indian."

However, the program was somewhat concerned about admitting veterans to this cohort group who had minimal or no documented AI heritage. It was not as clear if veterans were to be considered American Indians when their heritage was 1/8, 1/16, or less AI, *and* they had minimal versus considerable cultural exposure (such as "grew up on the reservation," or "went to an all American Indian school," etc.) In the end the PTSTP agreed to accept a veteran claiming an AI heritage if both the veteran *and* referrer agreed that he would benefit from inclusion in this uniquely AI cohort group rather than in another cohort group that did not have a significant representation of AI veterans.[3] The complexity of what had been initially considered a relatively straight forward criterion foreshadowed the emergence of the issue and dynamics surrounding AI identity later in the treatment process.

Admission of the 100% American Indian Cohort Group

With these preparations in place, 12 AI veterans were admitted to the PTST Program. They represented 10 different tribes from 9 different states. Three of the twelve were former graduates of this program, who were thought to provide a "cultural link" between the PTST Program and the newly admitted cohort group. Eleven group members were of the Vietnam Era, and one was a veteran of the Korean Era. Out of the 12 group members, seven were from reservations and rural areas, the other five from urban settings.

The first few weeks were challenging for staff and veterans. Perhaps for the first time the PTSTP *staff* felt as intimidated by an incoming group as veterans being admitted to the program might typically feel. By design, admission week was less structured than usual to allow patients and staff the time to get to know one another informally. In retrospect, the lack of (typical) structure seemed to exacerbate tendencies among the staff to be somewhat preoccupied with the group as "special" and to feel inhibited about providing the normal amount of classes and groups. Such inhibition continued through most of the treatment cycle of the first AI cohort.

Culture-Specific Additions to the Treatment Program

There were three primary culture-specific additions that were incorporated into the treatment program. Building a traditional sweatlodge on the grounds of the hospital that was easily accessible, hiring a recognized local tribal spiritual leader as a clinical and cultural consultant to be readily available to the veterans during the inpatient treatment, and providing support necessary to facilitate attendance at Pow-Wows on weekends, all were considered to be very important culture-specific components of the modified PTSTP for this AI cohort.

The first decisive development with the cohort group was the unanimous agreement that a sweatlodge needed to be as readily available as necessary for cleansing and purification to interested members of the group. The PTSTP had been made aware of this possibility early during the pre-admission planning stage, and appropriate arrangements had been made prior to admission of the group to receive permission to build and operate a sweatlodge on hospital grounds (Department of Veterans Affairs, 1990; Scurfield, 1990). Some staff members had previous experience with this traditional AI purification ritual. However, it had been agreed that it would be not only more appropriate and respectful, but also a valuable group bonding process if the group members assumed the responsibility to build the lodge by themselves.

Prior to building the sweatlodge it was brought to the attention of the program staff that a traditional ground blessing ceremony was needed. The Korean War veteran of the group, who was also a "pipe carrier" (spiritual leader) from Minnesota, clarified for the staff that the ground blessing ceremony should be conducted by someone native to the Pacific Northwest; e.g., it is not proper for a spiritual person to bless the ground of an area his or her tribal affiliation is not at home on historically. A consultant service was therefore contracted with a respected AI spiritual leader from the nearby Nisqually Reservation. Spiritual advisors were available on a volunteer basis; however, it was agreed to be important, both symbolically and tangibly, to go through the VA contracting process and officially sanction and monetarily reimburse such as "expert consultants." The consultant

performed the ceremony, which was conducted on a Saturday; the sweat-lodge was built by the veterans the following day.

There were several logistical considerations required to build the sweatlodge. Group members collected willow sticks at the Nisqually river bank and lava rocks from Ellensburg, WA. The skin (cover) proved more difficult. The logistics branch of McChord Air Force Base was able to help out by providing the PTST Program with two surplus 'GP Mediums' (mili-tary tents) that served the purpose very well.

That same weekend the Nisqually spiritual leader consultant made his first therapeutic intervention on behalf of one particular group member. This veteran had become almost overwhelmed by anxiety in this strange place and was isolating from the group and program. Before mak-ing a final decision to leave the program, the veteran requested to speak to the spiritual leader and a meeting was arranged that same evening. The veteran met first with the spiritual leader; later, both of them met with the group. A ceremony was conducted and the veteran, even though still extremely anxious, decided to remain in the program.[4]

The sweatlodge was operational several days later after the ground blessing ceremony was performed and adequate supplies of fire-wood had been cut and stacked. All of these preparations were con-ducted by the veterans "under supervision" of staff to satisfy hospital liability requirements. Permission was secured from the hospital adminis-tration to allow the group members to swim in American Lake after the ceremony. Life saving and fire extinguishing equipment were stored at the site and a staff member with life rescue experience and a portable tele-phone was to be at the site during all times of operation, again to satisfy liability concerns.

The sweatlodge proved to be the single, most effective and fre-quently utilized traditional support activity for approximately six of the group members during the 11-week program. The sweatlodge was in use at least four days a week (after regular PTSTP classes and groups ended), and sometimes on weekends. It was primarily used by the veter-ans to "finish up" following important war - trauma focus group session work, to set painful memories free and to further resolve war - focus and other group issues. The sweatlodge was also utilized on two occasions by three veterans in the group as a preparatory means *before* discussing war - trauma in group sessions. It was extremely beneficial to their healing process that the PTSTP was able to secure permission to have it built on VA grounds; also, it was instrumental to facilitate healing that the location was in a scenic, relatively private, protected, and readily accessible area.

It is important to note that the VA Chaplain's Service was instru-mental in facilitating approval for the sweatlodge. There had been consid-erable concern raised by some VA officials and staff as to whether the PTSTP was "*mandating* a religious component" to the program. To counter this concern the sweatlodge was offered as an entirely optional

activity, and was only accessible *after* regular program hours. Also, the question was raised as to whether having an American Indian spiritual ceremonial area designated on the hospital grounds somehow was inappropriately preferential to one "religion" over others and to one group of patients over others at the hospital. To address these issues, the area where the sweatlodge was constructed was to be available to other VA patients when it was not scheduled for the cohort group. However, it was required for such veterans to be under hospital staff supervision and act in the blessed ground area with proper respect as would be expected in the chapel, for example. Finally, the cohort group agreed to take down the sweatlodge when their group graduated from the PTSTP (for a further discussion of the role that spirituality has in the treatment of war-related PTSD, see Mahedy, 1986; Scurfield, 1994; Wilson, 1989).

The second most utilized traditional activity during this time period was attendance at Pow-Wows at various locations in the Northwest. Pow-Wows are intertribal gatherings which celebrate American Indian culture with traditional song, dance, and drum competitions as well as contests with the participants in colorful traditional clothing and accessories. There are honor ceremonies, traditional foods, and arts and crafts proudly displayed at trader's tables; the items on display are to sell, trade or market. Perhaps most importantly to this discussion, the role of the Warrior is prominent. The Warrior opens the ceremonies, receives tribute and recognition through many of the dances, and usually is involved in closing ceremonies (Department of Veterans Affairs, 1984).

For the three group members who were traditional dancers, continued regular participation at Pow-Wows was extremely important to their overall recovery and well-being. It was therefore agreed by staff that Pow-Wows were to be considered religious holidays for veterans interested in attending. This step was necessary to expand the number of off-station passes usually allowed (e.g., six) during the 11-week stay and to justify the provision of transportation for veterans who otherwise would have been unable to attend. Several of the group members and staff became very involved in weekend Pow-Wow activities and further bonded with each other.

Lessons Learned From the All-American Indian Cohort Group

Overall, the AI cohort group experience appeared to be beneficial for most group members and remarkably educational for the staff. Notably, several of the graduates maintained regular contact with staff after completing the 11-week program. However, two issues emerged that were instructive about cultural and treatment issues related to American Indians: (a) sub-group differences in the perception and use of culture-specific additions to the program; and (b) divisiveness among staff around the extent of involvement in AI activities and attributions associated with the extent of staff participation in culture-specific additions to the program.

Both of these issues reflected the divergence of perspectives within the veteran cohort, and among the staff, about the preferred balance between PTSD treatment and culture-specific activities.

Subgroup Differences in the Cohort

One of the most commonly voiced concerns raised early in the planning stages by several AI providers from the community and by some of the PTSTP staff had been the fear of conflicts between and among group members because of historical tribal animosities or rivalries and differences. Interestingly, quite the opposite occurred. Among the "traditionals" from different tribes, there developed a very close, mutually respectful and very sincere interest to learn more about each other's ways that seemed to be independent of tribal affiliation.

On the other hand, it appeared that some of the most intense interpersonal differences arose (regardless of tribal affiliation) between "traditionals" versus "assimilated" AI veterans. Such differences were attributed at least partly to an incongruity if not clash of values, personalities, and styles of interacting. For example, compared to the more anglo-acculturated, most of the "traditionals" tended to be less confronting in groups, less willing to interrupt each other, less comfortable expressing rage, more comfortable talking in quiet and uninterrupted monologues, and less satisfied with receiving "PTSD only" treatment. They were very appreciative of the psycho-educational classes and groups and equally appreciative of staff support to allow them access to traditional cultural activities. The "traditionals" also tended to express their appreciation in quiet, personal ways and rarely in public. Finally, in retrospect, it may be that other underlying dynamics that the staff did not recognize also were taking place pertaining to the divisions and sub-groupings within this cohort, such as between "bloods" (full bloods of one Indian Nation) versus "breeds" (blood lineage of more than one tribe and/or of non-Indian heritage) (F. Montour, personal communication, August 5, 1994). Unfortunately, program staff were not sufficiently aware of these important distinctions and the roles they were playing in the group process of the AI cohort.

Towards the six week mark in the program, it became apparent that a major split was dividing the cohort, centering around subtle differences in opinion over when and how frequently to use the sweatlodge. This agreement ended in a heated group therapy session during which one of the group members left AMA (against medical advice) from the program. Similar issues arose within the cohort concerning frequency of attendance at Pow-Wows. Closer observation led to the conclusion that the split had occurred between more "traditional" and more "assimilated" group members. Somewhat naturally it turned out that the veterans who regularly attended Pow-Wows were the same members who also regularly attended sweatlodge ceremonies.

Since most of these "traditional" activities in the beginning were designed to be group bonding experiences, the necessary preparations were discussed partly in group therapy and partly in scheduled "vet-run" meetings. Almost all of the program staff were committed to being very responsive to cultural needs and nuances of the AI cohort group. Therefore, lengthy discussion and debate was facilitated and allowed among the group members about such planning or whether or not to attend Pow-Wows and other cultural activities. However, this led to considerable disruption of regular program offerings, including the cancellation of some regularly scheduled classes and groups.

In addition, all group members did not regularly attend traditional AI activities outside of the program; these veterans soon objected to any "PTSD treatment time" that was taken away from the program to discuss "traditional" events. The argument made in their case was short and clear: "We have sweatlodges at home and can go to Pow-Wows anytime we want to. We came here for treatment of PTSD and not awareness of American Indian culture." It was not until such discussions (which tended to be quite lengthy) were made optional and held "after-hours" that the regular day program could be fully provided and appreciated by the group.

The split crept into the group to the point where it was decided by program staff and the group to allow the veterans to divide into two self-selected sub-groups for war-trauma focus sessions; not surprisingly, the focus sub-groups split along the same lines of traditionals and assimilated veterans. The more traditional sub-group members preferred to have their sessions facilitated in a more non-confrontive, non-interrupting style than was characteristic of the usual PTSTP approach to war-focus. But by no means did the subgroup of veterans interested almost only in PTSD treatment appreciate being referred to as "non-traditionals." Every member of the group showed great reverence and respect for the traditional AI way of life. However, some members were committed to these ways as a complete life style, to include it as an integral part of the 11-week PTSTP; others made use of certain aspects of it when they saw the need for them.

Finally, it was agreed that special arrangements for traditional activities would be discussed by those interested veterans in *off*-program hours only. Therefore, no "regular PTSD treatment" time would be lost. This helped to ease the separation within the group somewhat, even though it continued to exist.

Staff Reactions and Divisiveness

A gap also developed between *staff* (and veterans) involved in the more traditional activities versus staff (and veterans) involved with the more assimilated veterans. For example, the staff highly involved in the traditional AI activities were perceived by other staff and the more assimilated veterans as being overextended and over-involved with the "traditional"

veterans. In turn, the staff highly involved in the traditional AI activities felt misunderstood and under-appreciated by other staff and the "assimilated" veterans. Contributing to these dynamics were the location of a number of the culture-specific activities outside of the office-setting, during "off-hours," without normal staff back-up or oversight, the emotionally proactive and spiritually charged nature of the activities, and the relatively frequent number of culture-specific activities that were being scheduled ("at the expense of" a number of regular program activities). The staff, and veterans, struggled to find an acceptable balance between the frequency and emphasis on culture-specific activities, and provision of the regular PTSD treatment program.

The nature, frequency, and locations of the culture-specific activities, combined with the need for staff oversight of such, resulted in those several staff who were highly involved in accompanying the veterans to such activities to become somewhat overextended. In retrospect, the program staff came to the conclusion that they had not been sufficiently aware *at the time* of how overextended several staff were, and the subsequent blurring of some patient - staff boundaries. For example, a staff member (unaccompanied) took an AI veteran home for a social visit; and, a staff member did not come forth to report being physically shoved in a ward bathroom by an AI veteran (a serious violation of the "no violence" rule). Somewhat belatedly, the program staff had learned that due at least in part to the increased, distinctive and intense activities for this population, transference and countertransference dynamics were a powerful influence throughout the treatment cycle. Hence, more rigorous and additional debriefings of veterans and staff would have been beneficial, and should have been proactively and vigorously initiated by the program leadership.

Group Losses, Graduation, and Immediate Aftermath

A total of four group members did not complete the PTST Program inpatient phase. In addition to the one member mentioned earlier who left due to issues over how frequently the sweat lodge was to be utilized, a second member left due to dissatisfaction regarding the medications he was being prescribed and a third left following receipt of a letter from his ex-wife asking for a reconciliation. The fourth group member was discharged one week before graduation due to an infraction of the PTST Program violence policy (he physically shoved a staff member). It is important to note that each time a group member left the program, a sweatlodge ceremony was held in the evening to pray for the ones who left and to send them good thoughts. The Nisqually spiritual leader consultant was called in to perform the proper rituals.

On December 5, 1990, eight of the original twelve veterans (67%) graduated from the program; the graduation ceremony was, by far, the most elaborate and longest in the program's history. Many American

Indians from the community paid tribute to these veterans by serving refreshments and giving presents. A host drum was invited, honor and warrior songs were sung and verbal tributes were given. Many of these presentations were rather impromptu, elaborate, and some came as a surprise to both program staff and graduating veterans.

During the course of the following two weeks, events developed tragically for two group members who had left the program early. One veteran died in a fishing accident. Another who had subsequently gone on to receive additional inpatient and outpatient treatment in California committed suicide. The group and staff came together to mourn and pay respect for these two veterans. In the case of the latter veteran, there also was a review of warning signs regarding possible suicidal intent that may have been overlooked by staff or cohort members (none were so identified). Again, the Nisqually spiritual leader consultant performed the proper rituals and ceremonies to facilitate the necessary recognition and grieving process.

Admission of A 50% American Indian Cohort Group

The PTSTP also had decided to admit a second cohort group immediately following the all-AI group; only, this group consisted of 50% AI and 50% non-AI war-veterans. All of the veterans were given the option in advance of being admitted with this 50% AI veterans' cohort or being admitted to another group; thus, all who came were interested in being part of this unique 50% AI group. (It should be noted that some of the AI veterans had expressed interest in either the 100% or 50% AI cohort. They were placed in the latter cohort once all the slots in the former cohort were filled).

This design for a 50% AI cohort had been decided *prior* to the admission of the all-AI group and was intended to counter some of the issues raised by an "exclusive" AI cohort group. There also was the objective to see if there would be positive aspects of having several AI and several non-Indian veterans interacting in the same group. In addition, some of the "lessons learned" with the all-AI group were proactively applied to this group. The results were a much smoother and seemingly more positive experience for all of the group members:

1.   Veterans were provided with the "regular" PTST Program during weekday hours.

2.   All discussions, debates, and planning for possible involvement in "traditional" AI activities were set aside for after 4:00 p.m., and were run by the veterans themselves. These meetings were optional for whomever in the cohort group (AI and other veterans alike) wished to attend.

3.   Several of the non-AI group members embraced the opportunity to participate in traditional AI healing techniques and integrated these opportunities into their PTSD recovery.

4.   While the staff did provide logistical support for sweatlodge ceremonies and Pow-Wows, these type of activities were reduced to a more manageable number (e.g., one about every other weekend in order to decrease the frequency of activities for which staff provided transportation, etc.). In this way, neither staff nor veterans had become "overextended" in such activities to the point where it hurt their focus and benefits from the regular program.

5.   Only a few "split" war-focus groups were held (e.g., where the group was divided into two sub-groups with each sub-group simultaneously having a war-focus group session). And, each sub-group was purposefully selected to include both "traditional" and "assimilated" orientations. In this way, the split groups did not accentuate splitting within the group as occurred in the all-AI group.

Staff overall appeared much more comfortable with the 50% AI group. However, it is not possible to determine how much this was due to the PTST Program having become more familiar and hence more at ease with an AI cohort group, and/or how much was due to the dynamic of a 50% vs. a 100% AI cohort group *per se*. In addition, in contrast to a 67% graduation or completion rate that occurred with the all-AI cohort group (versus a typical 80% completion rate for other non-AI cohort groups), there was a 100% completion rate in the 50% AI group. On the other hand, both cohorts had a combination of more "traditional", and more "assimilated", members. It may be that factors other than or in combination with ethnicity were more important than ethnic composition factors alone in influencing the completion rate. For example, the program had gained valuable experience working with the 100% AI group. Also, the clinical treatment team that was with the all-AI group had turnover of several staff during the 11-week cycle; in contrast the treatment team for the 50% AI group was intact throughout the cycle. Overall, the global staff impression of the 50% AI cohort group was so positive that two more 50% AI cohort groups were planned.

In Retrospect: Other Important Lessons Learned

To the author's knowledge, this was the first time that any hospital-based VA specialized PTSD unit admitted and treated an entire cohort group of AI veterans, as well as an additional cohort group purposefully comprised of 50% AI veterans. Thus, there naturally was somewhat of a preoccupation by the PTST Program staff with the dynamics and issues of AI ethnicity and ethnocultural factors. Perhaps due in part to some of the staff's own insecurities, many of us became rather over-sensitive and

over-reactive to some of the concepts that had been taught by AI consult-ants, e.g., "you can't confront an American Indian directly; when American Indians talk, let them talk until they want to stop; don't look in the eyes or demand eye contact; don't force emotions," etc. Some of the PTST Pro-gram staff took these concepts *very* literally. In retrospect, when someone is culturally unfamiliar, there is a tendency to overgeneralize cultural "rules of normative conduct"; one simply does not know the subtleties of its nuances and limits (C. Loo, personal communication, August 3, 1994).

Also, the staff often times did not pay attention to their *own clini-cal* judgments as to what *each individual* or the group needed. For exam-ple, there was a hesitation to set certain limits or confront persons whom the staff might otherwise have confronted. There is a need to find a bal-ance between what may appear to be culturally sensitive and what appears to be clinically appropriate. It is important to note that to be cul-turally sensitive does not necessarily come *at the expense* of what is clin-ically appropriate. Rather, it is the blending of the two that becomes the challenge for the staff (C. Loo, personal communication, August 3, 1994). With more experience, this author is confident that the PTSD Program is moving in this direction.

In retrospect, the PTST Program also tended to *minimize* factors that should not have been discounted as much as they were:

1.   A tendency to minimize the effectiveness and importance of offer-ing the core PTST Program to these cohort groups.

2.   A tendency to overlook the *non*-AI ethnicity composition of many of the group members. Most veterans had both an AI and non-Ameri-can Indian heritage. There were consequent issues of identity and assimilation of at least two different ethnic backgrounds. Some of the veterans had primarily rejected or avoided dealing with their AI *or* non-AI identity.

3.   There was a rather impressive amount of violence and trauma that was present in most of these veteran's lives both before and after the war. This had not been paid adequate attention and must be better incorporated into trauma focus groups (along with war-trauma). For example, one recognized AI leader mentioned on sev-eral occasions that he personally knew of many more AI veterans who were killed or died in violent circumstances *since* the war than *during* duty in the war-zone.

In addition, a number of the AI veterans clearly stated, "I came to the PTSTP for the PTSD treatment, not for the cultural stuff; I am already aware of the American Indian ways." The PTST Program had mistakenly assumed that all AI veterans *entering an American Indian cohort group* would be equally interested in incorporating *both* cultural and PTSD knowledge and activities. As previously mentioned, there also was some

role confusion between younger and older veterans in the cohort groups, e.g., older veterans being differentially accorded an "elder" status by some younger group members or being used to that status. In contrast, the typical approach in the PTSTP groups was to operate as peers and treat each other "equally" in terms of confrontation, etc. The staff also became enmeshed in this dynamic by being quite tentative to interrupt, for example, an "elder" veteran even when he seemed to be inappropriately or unproductively "consuming time" in various groups or classes. It would have been much better if differing AI versus PTST Program role expectations, such as this "elder" dynamic, had been openly discussed and strategies agreed to early in the program.

The AI cohort members had differing opinions about the extent to which they wanted various AI resources from the community to become involved in their inpatient treatment. For example, one counselor from another federal agency was willing to be a "guest" facilitator for two group therapy sessions at the PTSTP; however, a number of the AI cohort members felt that to come to participate in just two group therapy sessions would not be very helpful. Conversely, some of the community AI resources clearly were ambivalent about what degree of sanction they wanted to provide to a dominantly Anglo and African American staff who were conducting this untested AI ethnic cohort group concept. Some cohort group members thought that "some outside American Indians were bringing tribal politics to the program," and they "did not desire or need that". However, most were appreciative of the overall level of support offered or provided by various AI resources.

It is important that there was significantly more community involvement in these two groups during their inpatient phase of treatment *than had ever occurred* in the previous five years of the PTSTP. This significant level of community involvement included increased involvement by both veterans and staff in AI cultural activities *outside* of the hospital. In addition, lay-persons were very involved at such activities *and* in activities at the hospital. Such significant community involvement clearly was a major factor in reducing the typical isolation from community that characterizes most inpatient hospital treatment programs.

It is also of significance that the *non*-native veterans in the 50% AI cohort group were very positive in their self-evaluation of the benefits of participating in this unique cohort group. They reported substantial relief from some of their PTSD symptoms through the regular program offerings. In addition, they reported what might be called an enhanced set of rich, positive benefits related to the specialness of this group's ethnic composition and the program's cultural adaptations:

1.   A unique appreciation and learning about AI culture through the personal relationships developed in the cohort group bonding process over the 11-week residential stay.

2.   Spiritual and therapeutic benefits from participation in sweat lodge rituals.

3.   An "insider's perspective" at Pow-Wows through attendance with their AI veteran peers and consequent heightened access to meaningful interactions with Pow-Wow participants through personal introductions.

Also, there was the profound and bittersweet acknowledgment and welcome home receptions that occurred during visits to reservations when there were veterans' recognition ceremonies sponsored by the local tribes. *All* veterans of all eras in attendance, native and non-native, were enthusiastically enjoined to take part in a veterans' procession that was honored by the multi-generational audiences, from small children to elders. Joining and participating in the line of warriors being honored by the very supportive and emotional ceremonies and community members in attendance was a most moving experience. The power of such rituals, anchored in generations of tribal tradition and support for their warriors, is unique in American society. The bittersweet aspect was the recognition by non-native veterans (to include the author) that we never have had or would have this depth of mutual affinity with, let alone such support and recognition from, the communities in which we had been raised.

Conclusions

Admission of two AI cohort groups to the PTST Program was a challenging, invigorating, stressful, and learning experience for us all. The PTSTP became considerably more knowledgeable about specific aspects of AI cultural factors and dynamics. In addition, the program's substantial outreach and networking with various AI resources was a source of invaluable learning and "relationship-building" with AI veterans and resources. It became clear that many AI veterans felt that they have been given the bureaucratic shuffle by various agencies, to include the VA; that many World War II and Korean War veterans and family members had never seen veterans service organization or VA representatives and were quite ill-informed about benefits and services they are entitled to; and that typical VA contact in the past was provided in a "totally white" fashion (e.g., sitting in an office to wait for an AI to come in to ask for help) and so sporadic in frequency that necessary continuity of relationships just did not develop. There was considerable reluctance to accept help that was only offered back at the hospital setting, and considerable distrust when traditional AI knowledge was seemingly ignored or not accorded appropriate respect. Finally, there was a considerable split among AI themselves about whether their traditional ceremonies and rituals were appropriate for utilization *only* by AI; there was an opposing viewpoint that the traditional AI healing ways are for anyone, both AI and non-AI alike, if

approached and conducted properly (see Montour, 1985: Department of Veterans Affairs, 1984, 1989a, 1989b, 1992; Johnson & LaDue, 1990; Wilson, 1989).

The experience of the program staff also, ironically, enhanced appreciation both of traditional culture-specific activities, *and* the staffs own confidence that the "regular" PTST Program could provide very valuable therapeutic impact to AI and other veterans from a wide variety of ethnic, assimilation, geographic, and personality backgrounds - once staff were appropriately attuned and respectful of the values, ethos, and belief systems of each veteran.

The program staff somewhat belatedly recognized and intervened concerning the powerful transference and counter-transference dynamics that arose. Indeed, one might ask whether it was transference and counter transference as much as the nexus of cultural contact and adjustment (C. Loo, personal communication, 1994). Finally, there was yet an increased appreciation of pre-military, war and post-war experiences of AI veterans that was both distinctive from and similar to those of other war-veterans. This latter appreciation reaffirmed the program's emphasis on a "whole-life" perspective and approach, and the need to incorporate more culture-specific inquiry concerning all aspects of pre-military, military, and post-military life.

In closing, the author would be remiss not to mention the AI warriors of various PTSTP groups, to include those in the special 100% and 50% AI cohorts. They taught us all so very much, even as we were not cognizant of when we were the students, and not the teachers.

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Notes

1.   Since 1991, there have been significant changes in the PTSTP. For example, the Helicopter Ride collaboration with the Washington State Department of Veterans Affairs was discontinued, and funding provided by the Paralyzed Veterans of America for the Outward Bound project and study was completed. In regards to the latter, the PTSTP now utilizes a rope and height challenge course that is located on the hospital grounds rather than a five-day wilderness course. More recently, there has been a significant

reduction in the number of rehabilitation beds, with other beds converted to a more acute treatment regimen.

2. The need to be sensitive to the meanings of each of these labels is reflected in the advice, given to the author by a reviewer of an earlier draft of this manuscript, to specify in this article how to term "American Indian" (AI) was finally selected (F. Montour, personal communication, August 5, 1994).

3. The senior psychiatrist with the Portland Indian Health Service agreed to endorse the idea of an American Indian cohort group in a cover letter sent to all American Indian Health Service Centers in the greater Northeast. She also agreed to provide clinical consultation or liaison for any specific candidates applying to this cohort group, if desired by PTSTP staff.

4. Because of very prominent anxiety symptoms, it was decided to make an exception to program policy which generally prohibits the use of benzodiazepines. The veteran was temporarily placed on Xanax to decrease his anxiety during this initial phase of hospital adjustment. With the sweatlodge in place and functional, the veteran soon was able to discontinue this medication and continued on a non-habituating anxiolitic (Buspar).

MULTI-DIMENSIONAL ADOLESCENT TREATMENT WITH AMERICAN INDIANS

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Abstract: The purpose of this study was to determine the effec-
tiveness of an American Indian adolescent treatment program.
A two-year follow-up study was conducted measuring school
performance and antisocial behavior. It was found that Ameri-
can Indian adolescents who completed the program tended to
have improved school performance and less involvement with
the criminal justice system.

This paper is about evaluation of an inpatient American Indian adolescent treatment program. In researching the relevant literature, the authors were surprised to discover that little outcome research had been attempted with similar American Indian programs. The research also revealed the complexities involved in American Indian treatment which will be reviewed in more detail in subsequent paragraphs. Differences from the dominant United States culture in the role of the self, in methods of healing, and in the prevalence of poverty, depression, and alcoholism all combine to make American Indian treatment unique. Finally, the recent conclusions that community developed and managed treatment within tribal organizations present the most hopeful approach (Nelson, McCoy, Stetter, & Vanderwagen, 1992) add relevance since it is just this type of program that this present paper attempts to evaluate.

The American Indians continue to hold a unique position among ethnic minorities in American society. They are the only descendants of the people who inhabited North America originally and, as a result, have had to struggle to maintain tribal sovereignty in relationship to the federal government. After a long period in which tribal values and customs, confronted by the avalanche of information, income, and power from the dominant United States culture, faced an almost complete eclipse, the last fifteen years have witnessed in many tribes a re-emergence of the traditional American Indian way of life. This movement, labeled "retraditionalization" (LaFromboise, Trimble, & Mohatt, 1993), re-establishes beliefs and customs specific to individual tribes in problem solving as well as approaches to healing. Many tribal members now seem deeply

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ambivalent about the degree to which they desire to be assimilated into the dominant culture, and have clung to and, in many cases, rediscovered traditional culture.

Traditional values conflict with assumptions implicit in modern psychotherapy in several ways (LaFromboise et al., 1993). Two of the most important involve the role of the self. Modern psychology aims at strengthening the ego with insight and information, empowering the individual to make healthy decisions for himself. American Indian values focus on family and community to the extent that these forces (people) are viewed as part of the solution to the problem and are included in many tribal healing ceremonies (LaFromboise et al., 1993). While individual psychotherapy aims to differentiate the client from pathological family situations, helping the client create a healthy individuality, traditional values focus more on the individual developing, through increased awareness of family and community values, a subordination and assimilation of the individual ego into these larger experiences (LaFromboise et al., 1993). These value differences often create conflict and confusion in American Indian clients.

Because of insufficient training and the basic differences in assumptions underlying therapy (healing), psychologists are often not well prepared to work effectively with American Indians (Thomason, 1993). This conflict in models of helping, when combined with the difficult life circumstances of many tribes in the United States, have led many researchers to conclude that Native Americans are at a higher risk for mental disorders than are most ethnic groups (Nelson et al., 1992). The combination of poverty, poor opportunity in jobs and education, frustration, and substance abuse have led to an overabundance of depression in both adolescents and adults (Nelson et al., 1992).

Probably due at least in part to the combination of poverty and substance abuse and the lack of culturally-specific treatment, outcome research with American Indians with almost any kind of treatment tends to have disappointing results (Query, 1992; Westermeyer & Peake, 1983). With adolescents, which is the focus of this paper, very little information of any kind is available on the effectiveness of treatment. Zitzow (1990) reported a 220% increase in adolescents with problematic alcohol use among the Ojibway Community and a 235% increase in referrals through the court system over a ten-year period. Zitzow also reported that Ojibway adolescents experiencing greater family involvement tended to have fewer delinquent behaviors. Factors tending to be predictive of increased pathology in American Indian adolescents were poverty (Dick, Manson, & Beals, 1993) and parental alcoholism (Walker, Lambert, Walker, & Kivlahan, 1993). There appear to be no studies at all which report treatment outcomes of American Indian adolescents in treatment settings other than alcoholism.

There appear to be three conclusions which can be drawn from reviewing the literature. First, is that the problem of depression and substance abuse in American Indian communities is grave. Second, that these mental health problems have resisted treatment due, at least in part, to an incompatibility between values associated with modern psychotherapy and those of many traditional American communities. Finally, is the conclusion drawn by two recent publications by Nelson (1991) and Nelson, McCoy, Stetter, and Vanderwagen (1992) that these problems are best addressed at the local level in programs designed for and by American Indians and stressing traditional values.

The present study reports on such a community developed adolescent treatment program which employs a combination of modern psychotherapeutic techniques and counseling and education in tribal values and tradition. Specifically, the study reports on a two-year follow-up of 290 American Indian adolescents, all enrolled in the Sisseton-Wahpeton Sioux Tribe, who have been referred as clients to O'Inazin, an inpatient adolescent treatment center located on the reservation in Eastern South Dakota. The treatment center was originally developed in 1978 by members of the Sisseton-Wahpeton Tribe and employed, almost exclusively, tribal members in both administrative and counseling positions. The study then addresses the issues of treatment effectiveness with American Indian adolescents using traditional values in therapy in a community setting developed by and for members of the tribe.

Subjects

All 290 adolescents who had been admitted to O'Inazin in the years 1991 and 1992 were included in the study. The group consisted of 133 males and 157 females, ages 11 to 18 (mean = 13.8). The treatment was completed by 171 of the 290 subjects, with the average length of stay for those completing 4.5 months. The subjects were admitted for a variety of self-defeating behaviors. Thirty-two percent had already experienced legal problems in either Tribal or State (South Dakota) court. Eighteen percent showed active suicidal ideation or had tried suicide in the past. Over 90% had curfew violations, and 71% had been truant from school.

The subjects came from three different types of backgrounds: (a) 58% came from homes with at least one parent present, (b) 24% came from homes headed by a relative, and (c) 18% came from foster care.

Treatment Program

O'Inazin was started by the Sisseton-Wahpeton Dakotah Nation in 1977 as a locked, inpatient treatment facility through which the tribe could intervene positively in the lives of troubled adolescents. O'Inazin, Dakotah for "start again," accepts youth from environments of alcoholism,

incest, physical abuse, and neglect whose own behavior patterns had become so predictably self defeating (truancy, antisocial, alcohol abuse, curfew violation) that responsible tribal and family members felt compelled to intervene. The most consistent referral source was the Child Protection Program of the Sisseton-Wahpeton Tribe. The second most frequent source of referral was the adolescent's individual family, followed by Tiospa Zina, the tribal school. O'Inazin's goal is to re-teach and encourage positive and adaptive behavior in a culturally-relevant milieu.

The program is designed to function as a "surrogate parent" by providing consistency in behavioral and attitudinal expectations and consequences and nurturing counseling experiences with American Indian adults trained in mental health principles. The behavior-modification program or "step-up-a-level" system reinforces appropriate behavior by providing functionally-increasing degrees of freedom (e.g., extended curfews, home visits, and outside privileges) contingent on appropriate behavior.

The program has four levels which represent increasing degrees of freedom and responsibility. Each adolescent enters on Level 1, which limits activity to within the locked unit. The second level enables the adolescent to go outside and to school; the third level, to home visits. Students on Level 4 have almost complete freedom of the community and school activities except for nightly curfews.

Adolescents earn points by successfully completing assigned tasks, going to therapy or sweats, attending school on time, and completing academic assignments. Points are taken away for negative behaviors such as aggressions, running away, drinking, and noncompliance within the unit.

The counseling component includes individual and group counseling. Each individual is given a battery of tests by the staff psychologist who also conducts monthly interviews. This information is combined with data gathered by the tribal school, family members, and O'Inazin counselors to develop an Individual Treatment Plan. This document is reviewed and signed by the adolescent and the O'Inazin counselor and is reviewed and revised quarterly. The facility provides groups in alcohol abuse, codependency, and sexual abuse and refers to other community self-help groups such as Alcoholics Anonymous, Al-A-Teen, and Spousal Abuse. Family therapy is also offered. Family therapy intensifies as the adolescent progresses through treatment.

Throughout the adolescent's stay at O'Inazin, experiences and education relevant to traditional Dakotah thought and values are stressed. Students are given courses in Dakotah history and language by tribal elders. Sweats occur frequently and are encouraged. The walls of O'Inazin contain pictures and brief biographies of important American Indian figures from Dakotah and other tribes. Eighty-eight percent of O'Inazin residents attend Tiospa Zina Tribal School located two blocks

from O'Inazin. The school also presents courses emphasizing Dakotah language, history, and tradition.

Once the adolescent reaches the fourth level and remains on this plateau for two weeks, he is eligible for discharge either back home or to a foster home determined by the adolescent, Child Protection, and O'Inazin staff.

Procedure

All adolescents, those who completed treatment and those that did not, were evaluated on several possible outcomes: (a) school enrollment status, (b) school progress while in the program, and (c) legal difficulties before and after treatment. This information was compiled regularly by the program director. The dependent variables were such that the director had ready access to relevant information through communication with school and court personnel. Dependent variables were selected on the basis of their capacity to be measured objectively as well as their ability to reflect ongoing adaptive behavior. Gaining access to this information was not dependent on the cooperation of each individual adolescent which, doubtless, made it easier to account for all 290 subjects.

Results

Chi Squares were computed between the group of subjects who completed treatment and the group who did not complete treatment on variables of age, time in treatment program, gender, and type of family unit. The purpose of these tests was to determine if the two groups (complete and did not complete program) came from the same population of tribal adolescents. In none of these four variables did the p value approach significance, showing that these two groups did not differ significantly, at least in these four variables.

Outcome treatment was also evaluated using Chi Squares between the groups completing and not completing treatment in academic areas (tendency to remain in school, and improvement in grades), and in tendency to experience continuing legal problems. There was a statistically-significant difference between completed and incompleted groups in tendency to remain in school ($\chi = 12.863$, $p = .0003$) and an even more significant difference between the two groups in school progress as measured by increase in letter grades ($\chi = 24.815$, $p = .0001$).

The Chi Square indicated no significant difference between the complete and incomplete groups in number of clients with legal problems after treatment ($\chi = .371$, $p = .5423$). When both completed and incompleted groups were combined, the total number of adolescents experiencing legal problems declined from 86 before to 56 after treatment, a drop of 34.9% of those adolescents previously experiencing legal problems.

Discussion

The results of this study gives preliminary evidence for the effectiveness of program directives, emphasizing local development and implementation of mental health programs outlined by Nelson (1991) and Nelson, McCoy, Stetter, and Vanderwagen (1992). The data also seems to support LaFromboise, Trimble, and Mohatt (1993) and Thomason (1993) contention that services to American Indians need to be made as culturally-relevant as possible. As there were no studies available evaluating American Indian adolescent treatment, the paper also presents information that such programs have the potential for positive outcome.

It is important for a program which presents a unique combination of community development and management and traditional values to speculate what is going on to produce this kind of positive outcome. Modern psychotherapy seemed most effective when dealing with victims of physical and sexual abuse and with children of active alcoholics. Teaching the adolescents to not take responsibility for parental behavior, especially when it was abusive, seemed particularly helpful.

The combination of structure and nurturing culturally-specific counseling appeared to teach the adolescents that they could control much of what happened to them by their own choices. While this assumption might seem self-evident to most non-Indian adolescents, it was clearly lacking in a majority of individuals who entered O'Inazin. One of the most distressing characteristics of most of the adolescents entering O'Inazin was that they were not able to articulate goals, either in the short or long term. As they learned to advance through the program, many appeared to act as if they were beginning to believe that the choices they made would make a difference in what happened to them, which is, of course, the opposite of depression.

The variety of traditional experiences offered appeared to give to many adolescents new ways to solve problems. Most attended sweats regularly or became interested in the Dakotah language or history. It would be too great a step to say their self-image was enhanced by these programs, although it appeared that many were taking more pride and interest in these activities.

Of great importance is the investigation of the permanence of gains measured in the two-year follow-up study. Since the program has been in place for 16 years, records are available for adolescents who participated in the program who are now in early middle age. It would be important to investigate whether the group completing treatment compared favorably with matched control groups. On the reservation, people seldom become lost. It would, therefore, be possible to gather data investigating long-term gains.

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HOW DOES IHS RELATE ADMINISTRATIVELY TO THE HIGH ALCOHOLISM MORTALITY RATE?

Thomas R. Burns, Ph.D.

Abstract: From 1969 to 1990 the alcoholism mortality rate for American Indians/Alaska Natives (AI/AN) has been steadily decreasing. Compared to the U.S. All Races overall rate decrease of 7.8% in that time period, the AI/AN rate has decreased 33.6%, a remarkable fourfold decrease in the mortality rate due to alcoholism. In the decade from 1978 to 1988 the rate decreased from 64.5/100,000 in 1978 to 37.3/100,000 in 1988, a decrease of 42.2%. The comparable figures for U.S. All Races were 8.1/100,000 in 1978 and 7.0/100,000 in 1988, a decrease of 13.6%. During this decade (1978 to 1988) the Indian Health Service (IHS) embarked upon a major effort to assimilate and to expand alcoholism programs then transferred from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) by incorporating those programs into the IHS health delivery system. The number of programs has more than doubled (158/400) since the transfer was completed in 1983. Funds, moreover, have quadrupled ($20/$82.3 million in 1993). The actual funds expended by IHS from Fiscal Year (FY) 1981 through FY 1993 were $559,916,000. Despite the dramatic increase in numbers of programs and total funds applied to the reduction of alcoholism mortality, available data reveal an increase in alcoholism mortality of 40.3% from 1986 to 1990. This article reviews and questions the relationship of allocations, per capita expenditures, and service components available to reduce alcoholism mortality by IHS Areas in light of the increase in the mortality rate and the fourfold increase in the budget. The data appear to show little relationship of mortality rate with allocations, the number of service components available, or per capita expenditures.

Background

American Indians and Alaska Natives (AI/AN) continue to encounter major problems with alcoholism and substance abuse as indicated by high mortality rates. To counteract this severe health problem

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Indian Health Service (IHS) has adopted the Healthy People 2000 goals for the nation. The Alcoholism and Substance Abuse Program Branch (ASAPB), and administrative unit of the Office of Health Programs (OHP) of IHS, is committed to reducing alcoholism mortality by addressing goals related to alcoholism, especially goal 4.2 of the national plan (below).

4.2   Reduce cirrhosis deaths to no more than 6 per 100,000 people. (Age-Adjusted baseline 9.1 per 100,000 in 1987.)

4.2b   American Indian and Alaska Native men 1987 Baseline: 26.9. 2000 Target: 13.

This article presents IHS data which does not support the potential for achieving the adjusted target for AI/ANs. A review of alcoholism mortality data in relationship to allocations, per capita expenditures, availability of service components, and size of population to be served, indicates an apparent absence of a rationale for dealing with this high priority health problem.

The IHS ASAPB embarked upon significant developmental efforts in response to the Anti-Drug Abuse Act of 1986 (Public Law 99–570) and the Omnibus Drug Bill Amendments of 1988 (Public Law 100–690). These included goals of constructing one youth regional treatment center in each IHS Area, placing an aftercare worker in each IHS service unit (local health service delivery area), providing community education and training activities for care giving staff, establishing urban treatment

ALCOHOLISM MORTALITY RATES
American Indian & Alaska Natives

Rates per 100,000 Population
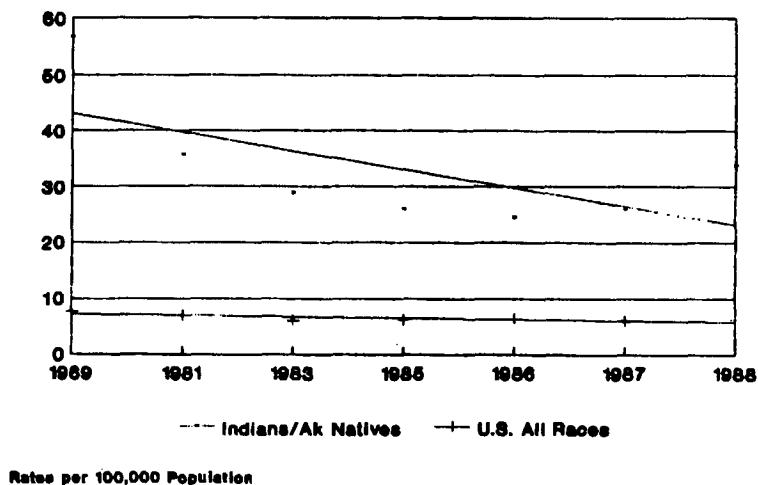
Figure 1
Alcoholism Moratlity Rates — American & Alaska Natives.

and prevention programs, and treatment for adult family members of youth in treatment centers.

The support IHS has received to combat its number one health problem, alcoholism and substance abuse, has grown more than four times since 1983 when funds were received for adult treatment only. The budget has risen from $20.2 million in 1983 to over $82.3 million in FY 1993 with the increase in resources for youth treatment, community education and training, aftercare services, urban substance abuse and prevention programs, and treatment for family members of youth in treatment (see Appendix A).

Yet, IHS has stated, "In 1989–1991, the age-adjusted alcoholism mortality rate for the IHS service area population was 37.6. When the 3 IHS Areas (Oklahoma, California, and Portland) with apparent problems in underreporting of Indian race on death certificates are excluded, the rate is 51.8. This is 630% higher than the U.S. All Races rate of 7.1 for 1990. The Aberdeen Area rate of 95.6 was 13.5 times the U.S. rate." (Chart 4.22, Age-Adjusted Alcoholism Mortality Rates, Calendar Years 1989–1991. Regional Differences in Indian Health, 1994).

Table 1
Alcoholism Mortality Rates by IHS Area (CY 1989–1991)

IHS Area	Rate per 100,000 Population**	Ascribed Rank
*Oklahoma	9.3	1
*California	20.0	2
Nashville	22.4	3
Bemidji	30.6	4
*Portland	41.0	5
Alaska	43.2	6
Phoenix	50.6	7
Tucson	52.2	8
Albuquerque	53.3	9
Navajo	53.7	10
Billings	61.7	11
Aberdeen	95.6	12
U.S. (1990)	7.1	
IHS total (all areas)	37.6	
IHS total (9 areas)	51.8	

* *IHS Areas with underreported alcoholism mortality.

**Source: Table 4.22, Age-Adjusted Alcoholism Mortality Rate, IHS, Regional Differences in Indian Health, 1994.

Current IHS strategies designed to decrease mortality associated with alcoholism do not appear to be working as successfully as hoped for. Those strategies include basic contracting for such services as alcoholism counseling, primary residential treatment, halfway house, limited educational services in school systems, residential treatment centers for youth and other youth prevention activities by IHS Area Offices with tribes and urban programs as well as relying upon additional resources from other federal entities such as the National Center for Substance Abuse Prevention (NCSAP) and Treatment (NCSAT) for specialized interventions. Since 1969, the alcoholism mortality rate has been going down, yet observation indicates that the rate has been accelerating since 1986 (see Table 2 below).

Table 2
Chart 1 - AI Alcoholism Mortality Rate

Calendar Year	Indian & Alaska Native		U.S. All Races		
	Number	Rate	Number	Rate	Footnote
CY 1989–91	1,079	37.6	19,587	7.1	(1)
CY 1987–89	1,006	37.3	18,715	7.0	(2)
CY 1986–88	742	29.3	15,909	6.0	(3)
1986	216	26.8	15,525	6.4	(4)
1985	228	28.4	15,844	6.2	
1984	231	31.7	15,706	6.2	
1983	246	34.5	15,424	6.1	
1982	242	38.6	15,596	6.4	
1981	282	43.8	16,745	7.0	
1980	323	50.6	17,742	7.5	
1979	338	57.7	17,064	7.4	
1978	354	64.5	18,490	8.1	
1977	353	70.1	18,437	8.3	
1976	337	72.7	18,484	8.6	
1975	326	76.6	18,190	8.6	
1974	338	80.5	18,530	8.6	
1973	312	79.6	17,791	8.6	
1972	241		17,484		
1971	334	62.9	16,891	8.4	(5)
1970	272	56.2	16,180	8.1	
1969	267	56.6	15,138	7.7	

Observation of the table above indicates that the alcoholism mortality rate has dropped from 56.6 in 1969 to 26.8 in 1986, an overall decrease of 52.7% despite an apparent increase of 43% from 1969 to 1974. Following a period of decrease from 1974 to 1985, the alcoholism mortality rate has since increased 40.3% from 1986 to 1990. (However, it should be noted IHS had not administered an alcoholism activity from 1969 to 1977. Responsibility had been vested in the Office of Economic Opportunity [OEO] until 1971 and thereafter in the NIAAA to 1978.)

Several factors (not the subject of this article) may contribute to the increasing rate including lack of service components available or, at least, a lack of an appropriate mix of service components, trained and certified staff to deal with the problem, wage and working conditions (lack of licensed facilities) low per capita expenditures for treatment, insufficient aftercare services, and the non-prioritization for expenditure of resources among other administrative problems.

In an effort to better understand this phenomenon, the author collected and ranked the data related to the allocation of federal funds and breadth of program components available throughout the ASAPB using budgetary, service population, and mortality data available for each Area.

Procedure

Data were collected from a service components list published by the ASAPB for each IHS Area, the ASAPB budget document for 1993 listing alcoholism and substance abuse allocations to each IHS Area, the IHS service population as published in *Table 2.1, IHS Service Population by Area, 1990–2000, Trends in Indian Health, 1992*, and mortality data from *Table 4.22, Age-Adjusted Alcoholism Mortality Rates, Regional Differences in Indian Health, 1994*.

Service components are those "parts" of tribal or urban alcoholism and substance abuse program funded by IHS as separate entities. For instance, a tribal program may provide several components of a total care delivery system, e.g., outpatient counseling, primary residential treatment, youth prevention services among others. Each component has its own source of funding such as from the Indian Health Care Improvement Act (Public Law 94–437) or the Anti-Drug Abuse Act of 1986 (P.L. 100–690) which provides personnel and operational support.

The author calculated the per capita expenditures by dividing the allocation to each IHS Area by the service population. The IHS Area with the highest per capita expenditure was ranked number 12; the second highest was ranked number 11, and so on until the ranking was complete. A similar procedure was used for mortality rate rank order, service population rank order, allocation rank order, and service components rank order. The data were then regressed with a stepwise multiple regression analysis to predict the mortality rate rank in a first analysis. Independent

variables included population, allocation, total service components available for treatment, and per capita expenditures.

Results

In ordering the IHS Areas by mortality rate order with services population, per capita expenditures and service components available, the author found that Aberdeen Area was first in mortality rate, third in per capita expenditures, fourth in service components available and seventh in services population. Aberdeen Area is the fourth highest in IHS allocations of alcoholism and substance abuse funds.

Billings was second in mortality rate, first in per capita expenditures, seventh in allocations, and tenth in both services population and service components available. Navajo Area was third in mortality rate, first in allocations, second in services population, and eleventh in both per capita expenditures and service components available.

Please refer to Table 3 (Rank Order of Mortality with Other Factors) for complete listing of IHS Areas. Of all the IHS Areas, Tucson (fifth), Portland (eighth), and Oklahoma (twelfth) were the only Areas where the mortality rate rank matched the per capita expenditures. Data for the elements of Table 3 including service population by IHS Area, FY 1993 allocations, per capita calculations by IHS Area, and service components listed by Area are found in Appendices A, B, C, and D following this report.

Table 3
Rank Order of Mortality with Other Factors

Area	Mortality Rank	Ranking of Other Factors			
		Svc Pop	Alloc	Per Cap	Svcs Avail
Aberdeen	12	6	9	10	9
Billings	11	3	6	12	3
Navajo	10	11	12	2	2
Albuquerque	9	5	7	11	5
Tucson	8	1	1	8	1
Phoenix	7	9	8	3	12
Alaska	6	7	10	7	4
*Portland	5	10	11	5	10
Bemidji	4	4	3	6	6
Nashville	3	2	2	9	7
*California	2	8	5	4	11
*Oklahoma	1	12	4	1	8

The regression analysis (Statpac Gold Statistical Analysis Package) yielded the following results. To predict mortality rank order (dependent variable) neither service population, allocation, service components, nor per capita expenditure rank order met the significance level for entry.

With all variables forced the following simple correlation matrix was formed in Table 4.

Table 4
All Variables Forced

	DV	IV1	IV2	IV3
IV1 Service pop. rank order	−.2378			
IV2 Allocation rank order	0.4266	0.6224		
IV3 Service compon. rank order	−.4196	0.4336	0.1189	
IV4 Per cap. exp. rank order	0.5315	−.7972	−.1888	−.3427

The F-ratio was 3.3984 with 4 and 7 degrees of freedom. The probability of chance was 0.0759. Regression coefficients are listed in Table 5.

Table 5
Regression Coefficients

Constant = 3.1735					
Variable	Coeff.	Beta	F-Ratio	Prob.	Std. Error
IV1	−0.2760	−0.2760	0.1775	0.6863	0.6549
IV2	0.6961	0.6961	3.2379	0.1129	0.3869
IV3	−0.2616	−0.2616	1.0508	0.3410	0.2552
IV4	0.3533	0.3533	0.5198	0.5006	0.4900

At best, a weak association can be found of allocation and per capita expenditure rank orders with mortality rank order at the zero-order level. One would hope that a sufficient amount of funds would impact the mortality rate. However, given the few observations available, small sample size, and associated low statistical power with 12 cases, this can hardly be stated with assurance.

Observation of the raw data indicate the Area with the highest service population has the lowest mortality and per capita expenditure rates. The Area with the highest allocation also has the next to lowest per capita expenditure and service components available rankings. The Area with the highest mortality rate rank has moderately high per capita expenditure and service components available ranks. One should use caution in interpreting the raw data as well as the results of this review.

Recommendation

It is beyond the scope of this article to review other factors which could contribute to a reduction of the alcoholism mortality rate. Such factors may include the quality of services delivered, the quantity and frequency of aftercare, acceptability and accessibility of those services, and coordination among other service providers.

Among other considerations, the quality of services is determined by training and expertise of staff, salary considerations, facility requirements, numbers of staff, quality of supervision, inservice education, appropriateness of service delivered to the problem presented.

Alcoholism especially is a chronic disease where relapse is the norm. An essential element of any treatment plan to counteract this characteristic is the provision of aftercare service, a combination of active treatment with community support to change a lifestyle. The availability of appropriately trained aftercare personnel and support services is critical to the successful intervention of alcoholism.

If basic services are not acceptable, i.e., the "right" mixture of services provided by trained staff who are at least cognizant of, if not representative of, community cultural standards and beliefs, those requiring services will not seek them. Such services must also be accessible, i.e., available in locations and at times where and when needed. Where elements of the continuum of services are not supplied, coordination among other service providers is a must to close the net around those who would fall through.

A review of these latter elements argues for the need for IHS to develop a services research agenda into the escalating mortality rate as a function of quality assurance activity. IHS should undertake a retrospective study of those who have died from alcoholism related causes to determine those characteristics of the present treatment system which need reinforcement or change.

Such a study would yield valuable information about the integration of the tribal treatment system with the IHS hospital and health clinics program and yield data about whether detoxification services were available, the nature and amount of aftercare given/received, the amount and type of treatment received while alive, in addition to valuable demographic information. Whether IHS has the capacity for such a critical examination is beyond the scope of this review; however, individual tribes would benefit from the data obtained to improve service delivery if such a study were done.

Very difficult choices face IHS. Should the funds made available by Congress for the control of alcoholism be tied to population indices? If so, those tribes with the highest population should receive the greater amount of funds. Or should IHS solely distribute those funds on the basis of years of productive life lost? If so, then those tribes doing whatever they are doing to keep alcoholism mortality low may have funds taken from

them to be reallocated to high mortality areas. Since urban areas are underrepresented in the distribution of funds, should IHS reconsider its allocation process to provide more support in higher population centers?

The issues generated by this inquiry are many. These issues place IHS in the unenviable position of having to balance political correctness with the remediation of its most significant health problem.

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Author Notes

Caution should be used in understanding the figures quoted in the Abstract. The AI rate of 64.5 per 100,000 population was taken from the IHS Trends in Indian Health, 1992, Table 4.24. IHS published a rate of 54.5 per 100,000 for the same year (1978) in 1989 in IHS Trends in Indian Health Table 4.23. Also, the figure of 37.3 per 100,000 in 1988 was taken from IHS Regional Differences in Indian Health, 1993, Chart 4.18, Age-Adjusted Alcoholism Mortality Rates. There are more causes of death due to alcoholism published in the Regional Differences in Indian Health pamphlet than are published in the former Trends publication. Hence, the numbers of deaths are greater in Table 2 (Chart 1 - AI Alcoholism Mortality Rate) for the first three entries.

For *Per Capita Expenditures* of Appendix C, I calculated the per capita expenditures by dividing the allocation to each IHS Area by the service population. The IHS Area with the highest per capita expenditure was ranked number 1; the second highest was ranked number 2, etc..

For Table 2 (Chart 1 - AI Alcoholism Mortality Rate), data were compared for internal consistency among IHS Trends publications. The data should only be taken at face value. An actual comparison of the two IHS Tables, 4.24 and 4.23 respectively revealed inconsistencies across nearly all AI/AN data. A further comparison of data published in IHS Regional Differences in Indian Health, 1994–1993, with the Trends in Indian Health, 1992, for numbers of AI/AN deaths due to alcoholism causes indicate broad differences (1993: 1,006 deaths compared to 1992: 307 deaths).

For instance, for: 1992 Trends, Table 4.24 the following numbers appear:

year	AI number	rate	U.S. number	rate
1983	246	34.5	15,424	6.1
1981	282	43.8	16,745	7.0
1975	326	76.6	18,190	8.6
1972	241		17,484	

for: 1989 Trends, Table 4.23

year	AI number	rate	U.S. number	rate
1983	293	28.9	15,424	6.1
1981	338	35.8	16,745	7.0
1975	403	62.2	18,190	8.6
1972	315	55.0	17,484	8.6

Appendix A*
Alcoholism and Substance Abuse Program
Branch Historical Funding Pattern
(Dollars in Millions)

| Fiscal Year | Legislation | | | Total |
	P.L. 94-437	P.L. 99-570	P.L. 100-690	
1981				$ 15,047
1982	12,290			12,290
1983	20,207			20,207
1984	23,469			23,469
1985	24,607			24,607
1986	26,131			26,131
1987	27,709	$ 21,700		49,409
1988	29,335	16,200		45,535
1989	31,159	18,700		49,859
1990	33,044	21,577	$ 11,218	65,839
1991	38,683	21,463	7,212	67,358
1992	47,158.4	22,958.5	7,714.1	77,831
1993	49,849.4	25,189.4	7,295.2	82,334
Grand Total all Years $559,916,000				

* Note: These sums exclude all other agency contributions such as from the National Centers for Substance Abuse Treatment; Prevention; the National Institute on Alcohol Abuse and Alcoholism; the Department of Labor; among others.

Appendix B*
Service Population (1993)

Area	Population & Ranking		YPLL Rank
Oklahoma	271,382	12	1
Navajo	197,423	11	7
Portland	127,610	10	6
Phoenix	116,420	9	12
California	101,158	8	2
Alaska	93,755	7	5
Aberdeen	85,150	6	9
Albuquerque	70,631	5	10
Bemidji	65,506	4	2
Billings	50,739	3	10
Nashville	55,346	2	4
Tucson	23,550	1	8

* Note: Years of Productive Life Lost (YPLL) are calculated from the year of death for alcohol related causes to age 65. For example, a 40 year old male dying from cirrhosis of the liver would have 25 years of YPLL.

Appendix C
FY 1993 Area Allocations and Per Capita Expenditures

Area	Allocation	Rank	Per Capita Expenditure	Rank
Navajo	$ 9,370.9	12	$ 47.466	2
Portland	9,133.0	11	71.570	5
Alaska	7,924.1	10	84.519	7
Aberdeen	$ 7,599.2	9	$ 89.245	10
Phoenix	7,179.7	8	61.671	3
Albuquerque	6,809.0	7	96.402	11
Billings	6,677.6	6	131.607	12
California	6,630.6	5	65.547	4
Oklahoma City	5,941.9	4	21.895	1
Bemidji	5,405.0	3	82.512	6
Nashville	4,717.3	2	85.233	9
Tucson	2,006.7	1	85.210	8

Appendix D*
FY 1992 Area Program Components

Area	#of Components	Primary Residential Treatment	Halfway Houses	Outpatient Aftercare / Prevent	
				Components	
Aberdeen	54	5	2	33	14
Alaska	34	1	0	30	3
Albuquerque	40	2	0	37	1
Bemidji	45	1	5	28	11
Billings	11	2	0	10	8
California	67	9	0	33	25
Nashville	46	2	0	26	18
Navajo	12	3	0	7	2
Oklahoma	51	6	7	19	19
Phoenix	76	4	0	37	35
Portland	66	5	1	37	23
Tucson	5	0	0	3	2
TOTALS	507	40	15	300	161

* Source: 1992 ASAPB Area Program Service Component List

Notes

1.   Data are taken from IHS, Regional Differences in Indian Health, 1994, Chart 4.22. Age-Adjusted Alcoholism Mortality Rates.

2.   Data are taken from IHS, Regional Differences in Indian Health, 1993, Chart 4.18. Age-Adjusted Alcoholism Mortality Rates.

3.   Data are taken from IHS, Regional Differences in Indian Health, Chart 4.18. Age-Adjusted Alcoholism Mortality Rates.

4.   1986 to 1972 data are taken from IHS Trends in Indian Health, 1992, Table 4.24 Alcoholism Deaths and Mortality Rates.

5.   1971 to 1969 data are taken from IHS Trends in Indian Health, 1989, Table 4.23 Alcoholism Deaths and Mortality Rate. See author's note for further explanations.

Commentary
by Johanna Clevenger, M.D.

The article by Dr. Tom Burns provides an analysis of a highly complex health concern, the continuing impact of alcoholism and substance abuse in American Indian and Alaska Native (AI/AN) communities. Dr. Burns' attempt to correlate allocations, per capita expenditures, and service components available to reduce alcoholism mortality by the Indian Health Service (IHS) Areas demonstrates the complexity of the problem as well as the challenge to the IHS to efficiently distribute limited resources.

The gap between AI/AN alcoholism mortality and that of the wider U.S. population remains significant. While the decrease in mortality between the late 1970s through the mid–1980s, followed by the increase noted by Dr. Burns, is accurate, there are now more current figures. As reported in the *1994 Trends in Indian Health*, there has been a decrease in the mortality rate to 37.6 for 100,000 population for the years 1989–1991.

Alcoholism is a bio-psycho-social and spiritual disease which is chronic, progressive, and prone to relapse. The long term nature of a disease which leads to death and extensive morbidity is not studied effectively by looking at appropriations in a given year and circumscribed heath indicators, when the benefits of that expenditure may be decades in evolving. There are many health and social consequences beyond what is reflected in mortality data and beyond a simple adverse impact on the life course of an individual. The individual, the children, the extended family, the community, and the tribe are all damaged in the course of the disease of alcoholism. The negative impact includes loss of life and health, as well as the loss of productivity in the patient and his/her community. The downward trend in mortality noted for 1989–91, hopefully, reflects the results of the past 10 years of early intervention and increased prevention and treatment services, notably for young people, families, and women.

In light of the current emphasis on the integrity of health planning, AI/ANs must seek to change their communities from within, with assistance from and collaboration with Federal, state, and private agencies. All efforts can only be effective, however, when tribal sovereignty is the central foundation for intervention. Indian nations have a right to their share of health resources and must determine the type of services which are most needed at the local level. This issue of sovereignty underlies the changes in funding brought about by tribal health leadership in compacting and implementation of the new tribal contracting regulations. What lies ahead for alcoholism treatment and prevention service delivery must be a better partnership with AI/AN tribes. With more effective health planning and services for a population at high risk, the outcomes achieved may benefit the non-Indian world as well.

Clearly, ongoing discussion of questions raised by this article is warranted.

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Reply

The author fully acknowledges and appreciates the complexity of factors that contribute to alcoholism mortality among the population in general and American Indians and Alaska Natives (AI/AN) in particular related by the ASAPB. This includes the delayed role of prevention in reducing morbidity and mortality.

While the ASAPB notes the chronic disease effects on the individual, the family, and the community cannot be measured by a single data unit (mortality - paragraph 3), it uses the same unit to "reflect(s) the results of the past 10 years of early intervention and increased prevention and treatment services, notably for young people, families, and women." I am not sure which point the ASAPB wishes to make.

Either one can use this very important measure of effectiveness or one cannot, and, if not, then what measure? Indian Health Service (IHS) uses mortality data to measure the progress of many health conditions, alcoholism included. As a matter of fact, it is the only measure used in their publications as an index of effectiveness for many interventions.

In the case of alcoholism, the author would hope for increased interventions whether on a treatment or a prevention level to reduce mortality and morbidity among AI/ANs. He also would hope that the ASAPB would not rely upon the dodge often used by IHS officials that "tribal sovereignty is the central foundation for intervention" when leadership within the system is an issue as exemplified by the lack of responsiveness of the IHS hospital system to community interest and concerns about detoxification, the lack of support from the highest administrative levels to the development and enforcement of adequate admission and follow up treatment policy, as well as the lack of reporting data upon which remediation efforts could be rationally planned.

IHS only reports mortality data in regard to alcoholism in its official publications; hence, the perhaps "simplistic" approach the author chose to review some of the ASAPB information base. It neither reports morbidity nor other impact data (with the exception of the charts and graphs the author reported in the *Trends in Indian Health* for the years of 1989 to 1991 for other substances of abuse from the Alcoholism Treatment Guidance System). The author believes mortality data become the standard upon

which treatment, prevention, and administrative systems can be reflected or judged for their adequacy. Other outcome targets have not been selected for reporting progress in IHS publications such as found in *Healthy People 2000* (for instance, the decline in age of first drinking by youth, the decrease in mortality by traffic accidents related to alcohol abuse, etc.).

While the ASAPB relates the decrease in mortality rate of the 1989–1991 data year (paragraph 3 of the ASAPB response), the figure remains .3 a percent more than the preceding data period of 1987–1989. This represents 73 more AI/AN who died from alcohol related causes. The point (acknowledged by the ASAPB) is that mortality is increasing since data year 1986 despite all the "collaborative efforts", the introduction of another data system, the introduction of evaluation systems to maximize resources, and the other administrative remedies discussed above.

SOCIAL CORRELATES OF AMERICAN INDIAN SUICIDE AND HOMICIDE RATES

David Lester, Ph.D

Abstract: The state suicide rates of American Indians in 1980 showed a very different pattern of associations with state social variables than did the state suicide rates of Whites. In contrast, the homicide rates had similar associations, in particular with an index of social instability. The implications of these findings for theory are examined, and suggestions made for further research.

Durkheim (1897), in his classic theory of suicide, predicted that social suicide rates should be greater in regions where indices of social integration (the degree to which people are bound together in social networks) and social regulation (the degree to which people's desires and emotions are controlled by social customs and norms) are either very high or very low. By extension, he anticipated that the following relationships should obtain: (a) low levels of social integration result in a type of suicide labeled by Durkheim as *egoistic*, (b) high levels of social integration result in a type of suicide labeled by Durkheim as *altruistic*, (c) low levels of social regulation result in a type of suicide labeled by Durkheim as *anomic*, (d) high levels of social regulation result in a type of suicide labeled by Durkheim as *fatalistic*, and (e) moderate levels of both social integration and regulation result in relatively low suicide rates.

Johnson (1965) argued that the definitions of social integration and social regulation, as offered by Durkheim and subsequent theorists, often overlapped, and that it made more sense to combine the two concepts into one. Furthermore, Johnson claimed, altruistic and fatalistic suicide are rarer than egoistic and anomic suicide. Therefore, he proposed simplifying Durkheim's theory, advancing a single, less complex proposition, namely, lower levels of social integration/regulation lead to higher rates of suicide.

Many studies have confirmed predictions based on Durkheim's theory as modified by Johnson. For example, indicators of social integration/regulation, such as high divorce rates (which indicate low levels of social integration/regulation) have been shown to be positively associated

which treatment, prevention, and administrative systems can be reflected or judged for their adequacy. Other outcome targets have not been selected for reporting progress in IHS publications such as found in *Healthy People 2000* (for instance, the decline in age of first drinking by youth, the decrease in mortality by traffic accidents related to alcohol abuse, etc.).

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with high suicide rates across states in the U.S. (Lester, 1988) and nations (Stack, 1981), and over time (Yang, 1992).

Henry and Short (1954) introduced homicide into this theoretical framework by arguing that the social stresses which lead to higher suicide rates also lead to lower homicide rates, and vice versa. This prediction springs from several assumptions, specifically that: (a) frustration results in aggression, (b) given strong external constraints on human behavior, frustrated people have external sources onto which to blame their unhappiness, thus legitimizing outward-directed aggression, leading to a high homicide rate, and (c) given weak external constraints on human behavior, frustrated people have no external sources onto which to blame their unhappiness, outward directed aggression is thus not legitimized, consequently aggression is turned inward upon the self, leading to a high suicide rate.

Lester (1988) conducted a factor-analytic study of regional patterns of suicide and homicide at the state-level in the United States. He found that suicide rates varied negatively with a cluster of variables appearing to measure social integration/regulation (including divorce rates, alcohol consumption, church attendance, and interstate migration), and rates of suicide were less strongly associated with factors relating to longitude (suicide rates increased toward the west). Other analyses revealed that homicide rates varied positively with a cluster of variables appearing to measure southerness and less strongly with wealth (positively) and social integration/regulation (negatively). Lester concluded that these observations in regard to suicide supported the Durkheim/Johnson theory of suicide, since the strongest associations were between suicide rates and indices of social integration/regulation. However, the results with respect to homicide and suicide did not conform to Henry and Short's theory, since the associations between homicide rates and the social indicators were different from, but not opposite of those specific to suicide rates.

The present study sought to extend Lester's (1988) study to American Indian rates of personal violence measured at the state level. The overarching research questions were: Which states have higher rates of suicide and homicide for American Indians, and are these rates associated with indices of social integration? The patterns characteristic of American Indians were not expected to conform to those of the population as a whole since the former have been, and still are, an oppressed minority. Prior research suggests that the associations found for the dominant cultural group may not generalize to a minority group. For example, Lester (1990–1991) found that African American rates of suicide, at the state level, are quite different from those of Whites. This raised the possibility, therefore, that the social correlates of American Indian suicide rates might differ substantially from those of Whites.

Method

The data are for the year 1980 for the 48 contiguous, continental states of the USA. All data were obtained from the *Statistical Abstract of the United States*, published annually, and the *Census of the Population, 1980*, from the Department of Commerce, except for the following variables: suicide and homicide rates from mortality data tapes for 1980 supplied by the National Center for Health Statistics, the American Indian population from the Bureau of Indian Affairs, church attendance and percentage Roman Catholic (Quinn, Anderson, Bradley, Goetting, & Shriver, 1982), handgun control strictness (Lester, 1987), alcohol consumption (Anon, 1985), gross state product per capita (Renshaw, Trott, & Friedenberg, 1988), southerness (Gastil, 1971), and latitude and longitude (Lester, 1980).

State suicide and homicide rates for American Indians and for Whites were calculated directly from the mortality data tapes for 1980 provided by the National Center for Vital Statistics. These rates are shown in Table 1.

Table 1
Suicide and Homicide Rates of American Indians per 100,000 per year,
1980 (calculated by the present author)

	Population	Suicide Rate	Homicide Rate
AL	7561	0.00	0.00
AZ	152857	19.63	20.93
AR	9411	0.00	10.63
CA	201311	4.47	8.44
CO	18059	16.61	27.69
CT	4533	0.00	0.00
DE	1330	0.00	0.00
FL	19136	5.18	15.53
GA	7619	13.13	13.13
ID	10521	19.01	9.50
IL	16271	0.00	0.00
IN	7835	25.53	0.00
IA	5453	0.00	18.34
KS	15371	6.51	13.01
KY	3610	0.00	0.00
LA	12064	16.58	8.29
ME	4087	24.47	24.47

Table 1 (Continued)
Suicide and Homicide Rates of American Indians per 100,000 per year,
1980 (calculated by the present author)

	Population	Suicide Rate	Homicide Rate
MD	8021	12.47	0.00
MA	7743	0.00	0.00
MI	40038	5.00	2.50
MN	35026	17.13	19.99
MS	6180	64.72	16.18
MO	12319	0.00	16.24
MT	37270	26.83	26.83
NE	9197	10.87	32.62
NV	13304	15.03	37.58
NH	1352	0.00	0.00
NJ	8394	0.00	0.00
NM	104777	15.27	21.00
NY	38732	5.16	12.91
NC	64635	9.28	20.11
ND	20157	39.69	29.77
OH	12240	8.17	0.00
OK	169464	6.49	12.98
OR	27309	7.32	7.32
PA	9459	10.57	10.57
RI	2898	0.00	0.00
SC	5758	0.00	17.37
SD	45101	35.48	33.26
TN	5103	0.00	0.00
TX	40074	2.50	7.49
UT	19256	15.58	5.19
VT	984	0.00	0.00
VA	9336	0.00	0.00
WA	60771	16.46	19.75
WV	1610	0.00	0.00
WI	29497	13.56	6.78
WY	7125	28.07	42.11

Results

A Factor Analysis

The state social variables were factor analyzed, using a principal components extraction with a varimax rotation (using SPSSx). The results are shown in Table 2. Eight eigenvalues were greater than one, and the SPSSx program extracted eight factors. Labeling factors is somewhat arbitrary, but was attempted on the basis of the social variables with the highest loadings (say, greater than .80 where possible):

1.   *Wealthy/urban* (median family income, per capita income, percent urban population, personal income).

2.   *Elderly* (birth rate, death rate, median age).

3.   *Southern* (percent black, southerness, latitude, percent married women working part-time).

4.   *Social instability* (divorce rate, interstate migration, percent born in-state).

5.   *Unemployment* (male, female, and total unemployment rate).

6.   *Labor force participation* (females in labor force).

7.   *American Indian population* (American Indian population).

8.   *Dense/Roman Catholic* (percent Roman Catholic and population density).

Table 2 *
Results of the Factor Analysis (Decimal Points are
Omitted from the Factor Loadings)

	Factor							
	I	II	III	IV	V	VI	VII	VIII
divorce rate	03	−16	−16	84 #	02	06	10	−13
Interstate migration	01	−28	05	87 #	−28	08	04	01
church attendance	−23	−19	17	−65 #	−39	−23	−08	29
gun control strictness	23	19	−01	−64 #	18	19	06	07
alcohol consumption	34	13	28	55 #	−12	35	−01	27
% born in state	−40	03	−07	−81 #	12	−10	−20	−12
% foreign born	69 #	31	05	04	07	−05	34	39
% Roman Catholic	50 #	32	46	−02	06	−02	01	49
median family income	90 #	−07	28	−05	03	19	−15	−03
per capita income	92 #	16	24	06	−10	14	−04	−06

Table 2 (Continued)*
Results of the Factor Analysis (Decimal Points are
Omitted from the Factor Loadings)

	Factor							
	I	II	III	IV	V	VI	VII	VIII
% urban population	83 #	−04	−13	05	−02	−08	20	34
population	56 #	21	−29	−33	23	−05	39	−13
population density	47	36	03	−31	05	−04	−24	55 #
% in poverty	−64 #	−06	−57 #	−10	08	−16	21	06
gross state product	60 #	−33	08	26	−32	−04	−03	−30
personal income	91 #	19	24	12	−09	16	−02	−04
crime rate	65 #	03	−14	47	13	13	27	32
% black	−07	05	−87 #	−22	16	16	−16	09
southerness	−20	−10	−85 #	18	16	−05	09	−26
latitude	06	03	90 #	−09	10	19	−04	−10
infant mortality	06	18	−77 #	−28	18	−02	−17	16
birth rate	−16	−90 #	03	12	−18	−17	14	−09
% elderly	−20	75 #	16	−18	−17	−44	07	02
% voting for Reagan	03	−56 #	20	29	−46	−23	12	−05
longitude	08	−50 #	14	42	−05	−04	50 #	−32
death rate	−20	81 #	−03	−28	−01	−38	−10	−02
% children	−34	−90 #	−06	−03	05	−12	−01	−02
median age	26	93 #	01	04	01	−14	−04	06
females/males	−02	58 #	−31	−49	22	−16	−16	37
unemployment	−03	02	−07	−10	96 #	−15	−05	01
male unemployment	03	04	06	−13	92 #	−17	03	−07
female unemployment	−10	−03	−26	−04	89 #	−08	−17	12
females in labor force	26	−08	35	09	−36	76 #	−10	05
males in labor force	39	−42	41	04	−36	53 #	−14	−08
employment ratio	21	−21	35	08	−52 #	59 #	−11	−08
married women working:								
full time	−21	−05	−58 #	22	−29	61 #	−04	−10
part time	23	−04	86 #	−19	−17	21	−09	19
AmInd population	17	−08	−07	08	−04	−03	91 #	−06
% AmInd population	−24	−26	20	24	−23	−15	63 #	11
% of variance	25.2%	21.1%	12.5%	8.1%	7.6%	5.9%	3.3%	2.9%

* # a high loading of the variable on the factor (> 0.50)

Some of the labels describe the factors better than others, but are intended only to facilitate ease of reference in the discussion below.

The Pearson correlations between the SPSSx-derived factor scores for each factor and American Indian and White suicide as well as homicide rates are shown in Table 3. White suicide rates were associated with *social instability* and *American Indian*. In contrast, the suicide rates of American Indians were associated with *wealthy/urban* and *elderly*. Since many states have few American Indian residents, the correlations were repeated using the subset of 25 states with 10,000 American Indian residents or more in 1980. Only the correlation of American Indian suicide rates with *wealthy/urban* was replicated on this reduced sample of states.

Table 3*
Correlations of Factor Scores With Rates of Personal Violence

| | Factor | | | | | | | |
	I	II	III	IV	V	VI	VII	VIII
All States:								
Amind suicide rate	−0.29 *	−0.36 *	0.10	0.09	−0.12	−0.02	0.13	−0.03
White suicide rate	0.08	−0.21	−0.17	0.75 *	0.03	−0.02	0.33 *	−0.03
Amind homicide rate	−0.13	−0.17	0.16	0.38 *	−0.43 *	0.03	0.23	−0.23
White homicide rate	0.16	−0.09	−0.61 *	0.39 *	0.09	−0.12	0.39 *	0.09
25 States:								
Amind suicide rate	−0.63 *	−0.29	0.56 *	0.06	−0.31	0.02	0.05	0.20
White suicide rate	0.19	−0.06	−0.33 *	0.84 *	0.03	0.02	0.21	0.40*
Amind homicide rate	−0.42 *	0.15	0.22	0.46 *	−0.44 *	0.27	0.16	0.09
White homicide rate	0.36 *	0.07	−0.66 *	0.44 *	−0.01	−0.12	0.37*	0.33*

* statistically significant at the 5% level or better

There were more similarities in the patterns of homicide of Whites and American Indians. For the full sample of 48 continental states, White homicide rates were associated with *southern, social instability,* and *American Indian*. (The association with *American Indian* is rather puzzling. However, other social variables load on this factor, including longitude. It may be the contribution of these other variables which causes the association.) American Indian homicide rates were associated with *social instability* and *unemployment*. Thus, White and American Indian homicide rates shared an association with indices of social instability.

Using the reduced sample of states with larger American Indian populations, the association of American Indian homicide rates with social instability and unemployment were replicated.

Regression Analysis with the Eight Factors

The eight factor scores were used in a multiple regression analysis to predict American Indian and White suicide and homicide rates. The results are shown in Table 4. From an examination of the R^2 scores, it is evident that the factors were more successful in accounting for the White suicide rate than the American Indian suicide rate (76% and 26% of the variance, respectively) and similarly for homicide rates (73% and 51% of the variance, respectively).

Table 4

Results of the Multiple Regression Over the 48 States Using the Eight
Factor Scores: Beta Coefficients Are Shown

| | Factor | | | | | | | |
	I	II	III	IV	V	VI	VII	VIII
Amind suicide rate	−0.29 *	0.11	0.36 *	0.09	−0.12	−0.02	0.13	−0.03
White suicide rate	0.08	−0.17 *	0.21 *	0.75 *	0.03	−0.02	0.33 *	−0.03
Amind homicide rate	−0.14	0.16	0.17	0.38 *	−0.43 *	0.03	0.23 *	−0.23 *
White homicide rate	0.16	−0.61 *	0.09	0.38 *	0.09	−0.12	0.39 *	0.09

Because of the small number of states (48) and the large number of social variables (39), the factor-analysis is of questionable validity. A second multiple regression was run, therefore, using the eight social variables with the highest loadings on each of the eight factors (per capita income, median age, latitude, interstate migration, unemployment, female labor force participation, American Indian population, and total population). The multiple R^2 scores were generally a little lower for these eight social variables than for the eight factors scores: (a) American Indian suicide rates, 26%; (b) American Indian homicide rates, 44%; (c) White suicide rates, 73%; and (d) White homicide rates, 70%. However, the reduced success of these social variables in accounting for the American Indian rates of suicide and homicide was replicated in this set of analyses.

Discussion

The present study of statewide American Indian suicide rates reveals a very different pattern of associations in contrast to White statewide suicide rates. Whereas White suicide rates were associated with a cluster of variables that seem to measure social instability (thereby confirming Durkheim's theory of suicide), American Indian suicide rates were associated with a cluster of social variables that included measures of wealth and urbanization. American Indian suicide rates were higher also in the poorer/less urban states, probably a result of the large reservations

being in those states and higher suicide rates among American Indians on reservations.

In contrast, the homicide rates of American Indians and Whites showed some similarities in their pattern. Both were associated with social instability, with states which had greater social instability also having higher homicide rates for both Whites and American Indians. In addition, American Indian homicide rates are higher where general overall unemployment is lower.

The present study indicates, therefore, the importance of examining whether the "classic" theories and research findings for suicide and homicide apply to all groups. The results reported here suggest that alternative theories may be required to account for rates of personal violence among American Indians. For example, Van Winkle and May (1986) examined the influence of social integration and acculturation on suicide rates in a small number of American Indian reservations in New Mexico. Their work indicates that acculturation plays a larger role in predicting suicide rates than does social integration.

Future research should explore the potentially predictive social variables in regard to suicide and homicide rates of American Indians living on and off reservations. It also would be useful to determine whether certain social indicators specific to American Indians have better success in predicting suicide and homicide rates. Hopefully, the present study will stimulate further sociological study of American Indian suicide and homicide rates.

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SPECIAL COMMENTARY

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and Bruce S. Fogas, Ph.D.

Mental health professionals working in American Indian and Alaska Native communities are often impressed by the immense talent, wisdom, and cultural richness of this special population (Vogt & Jerde, 1994). Many reservation mental health providers (RMHPs) not only enjoy their work but even prefer practice in American Indian communities. However, other RMHPs are dissatisfied with their jobs, and many reservation areas continue to be plagued by high RMHP turnover (Nelson, McCoy, Stetter, & Vanderwagen, 1992).

American Indians are one of the most underserved groups in the U.S.; less than half of their needs for ambulatory mental health services are being met (Blum, Harmon, Harris, Bergeisen, & Resnick, 1992; Indian Health Service, 1990). High RMHP turnover further compounds preexisting reservation mental health service deficits, creating a vicious cycle as turnover necessitates hiring new employees who in turn are a higher risk for resignation (Weisman, Alexander, & Chase, 1981). Obviously, underserved reservation areas can ill-afford further reductions in their mental health services due to high RMHP turnover.

Why do a considerable number of RMHPs leave their jobs? To answer this question, four issues are reviewed:

1.   *Health Provider Turnover* - Little is known about RMHPs turnover, but studies have been conducted on turnover of general health providers from non-reservation areas. Several complex models of health provider turnover have been advanced. Most of these models consider job satisfaction to be a critical variable for job retention (Hinshaw & Atwood, 1985; Hinshaw, Smeltzer, & Atwood, 1987; Lucas, Atwood, & Hagaman, 1993).

In general, these studies have found that while some health providers resign for unavoidable reasons, job dissatisfaction is the primary cause. For instance, a review of nurse job satisfaction studies estimated one-third of observed resignations to result from job dissatisfaction rather than personal factors (Weisman, Alexander, & Chase, 1981; Hanson, Jenkins, & Ryan, 1990). It is known that retention and job satisfaction of rural physicians may be influenced by a number of factors, including practice organization, patient characteristics, community characteristics, and service demands (Manious, Ramsbottem-Lucier, & Rich, 1994). It is likely

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that retention and job satisfaction of RMHPs is influenced by similar factors.

2. *Mental Health Needs in American Indian Communities* - American Indians are at higher risk than most other U.S. ethnic groups for mental health difficulties (Nelson, McCoy, Stetter, & Vanderwagen, 1992). Mental health service needs are high for all age groups, but the vulnerability of American Indian youth is particularly disturbing (U.S. Congress Office of Technology Assessment, 1990; Blum, Harmon, Harris, Bergeisen, & Resnick, 1992). The American Indian population is remarkably young (Manson, Walker, & Kivlahan, 1987), and if the current state of youth mental health is not improved, the future of many Native communities could be in jeopardy (Inouye, 1993). Therefore, the mental health needs of American Indian and Alaska Native youth require greatest attention. A recent report by the U.S. Congress Office of Technology Assessment (1990) underscores, however, the paucity of trained providers available to address these needs.

3. *RMHPs' Perceptions of Their Practice* - There is a paucity of research on reservation mental health practice. However, some aspects of reservation mental health practice are often identified as positive. These include: (a) diversity of case load, (b) slow pace of life and reservation lifestyle, (c) professional autonomy, (d) ease of professional networking, (e) friendly and appreciative community, and (f) American Indian culture (Vogt & Jerde, 1994).

   Some aspects of reservation mental health practice perceived to be negative are: (a) professional and educational isolation, (b) remoteness and harsh climate, (c) high service demands, (d) limited resources, (e) staff burnout, (f) low income, and (g) high staff turnover (Nelson, McCoy, Stetter, & Vanderwagen, 1992).

4. *Challenges Faced by RMHPs* - How does a mental health professional respond to challenges of reservation mental health practice? This question is important because the RMHPs who meet the challenges of reservation settings are likely the ones who adapt and thrive in American Indian country. The challenges of reservation practice include: (a) need for interdisciplinary and generalist skills, (b) dealing with resource paucity, (c) adaptation to American Indian culture, (d) dealing with geographical and transportation barriers, and (e) dealing with professional isolation by involvement in formal or informal health provider networks.

   To improve the quality and quantity of services, a national plan for American Indian/Alaska Native mental health services was developed in 1987 and approved in 1990 (Indian Health Services, 1990; Indian Health Services, 1991). Despite efforts to improve reservation

mental health services, many American Indian communities continue to experience difficulties in retaining mental health professionals. Therefore, RMHP retention strategies are sorely needed. This article presents an educational model for improving RMHP retention, and a pilot South Dakota study. Additionally, we describe some possible strategies that policy-makers, educators or agencies might employ to decrease professional isolation of RMHPs.

An Educational Model For Improving RMHP Retention

According to a typology proposed by Holland (1966), health professionals are classified as having "social personality types" (personalities with high needs for social interactions in their jobs). Holland postulated that when such social personality types experience professional and social isolation, which often is the case in rural and reservation areas, they are likely to become highly dissatisfied with their jobs. Holland's view of health professionals is consistent with our own experience in rural and reservation areas of South Dakota. While RMHPs can be dissatisfied with their job for a variety of reasons, the sources of job dissatisfaction that stand out in our experience and opinion is educational and professional isolation (Bhatara, Fuller, & O'Conner-Davis, 1995). Hence we propose that RMHP turnover can be decreased through an strategic educational intervention.

This approach rests on two premises. First, retention and job satisfaction of RMHPs can be improved through reduction of their professional isolation. Second, continuing education must involve reservation mental health providers of varying backgrounds. Therefore training opportunities should be expanded, especially through informal networking, across disciplinary lines. This is particularly important in rural and reservation areas, where it is unlikely to find a critical mass of professionals in any one discipline (see Figure 1).

Interdisciplinary continuing education can facilitate cross-disciplinary and interagency collaborations and networking, and thereby reduce educational, social, and professional isolation. Also, it teaches diverse health providers the skills for working together (World Health Organization, 1988). The result should be improved job satisfaction and improved retention of RMHPs.

The South Dakota Experience: A Pilot Study

A pilot study was conducted as part of a larger mental health needs assessment project focusing on south-central South Dakota (Fuller, Bhatara, Ricci, LaPierre, & Pederson, 1982; Bhatara, Fuller, & Unruh, 1994). The objective of the study in question was to compare the job satisfaction of RMHPs with those of adjacent non-reservation mental health providers (NRMHPs) by source.
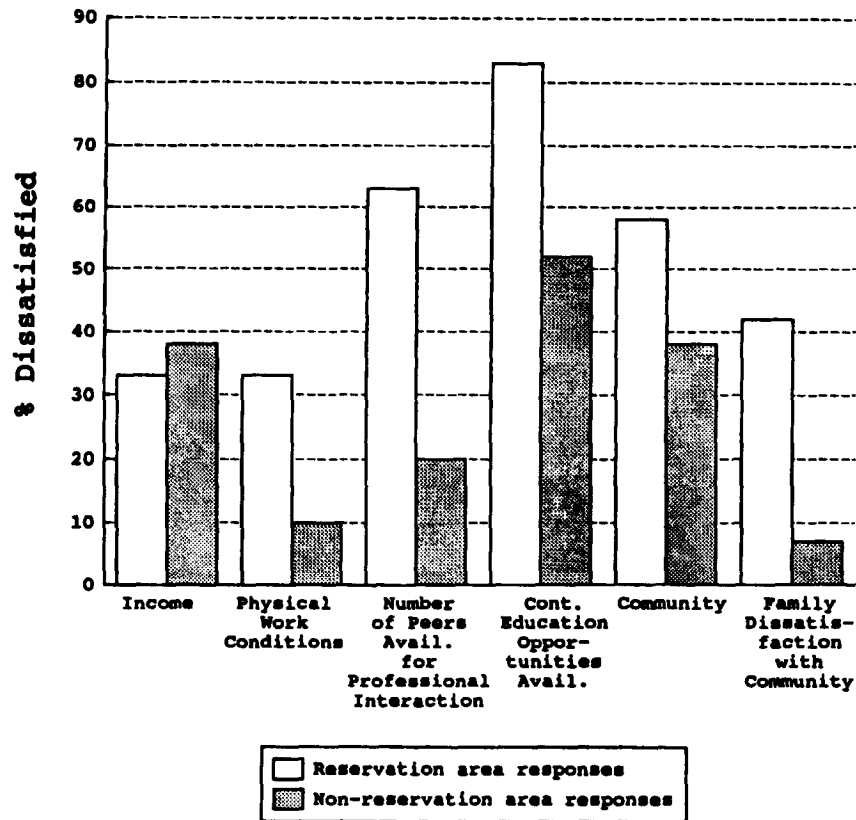
Figure 1.
Reservation vs. Non-Reservation Areas: Job Dissatisfaction Compared.

Subjects were south-central South Dakota mental health providers. A mental health provider was defined as any individual who might be professionally involved with a person with a mental health problem. This was a very broad definition, and included rural health occupations not generally categorized as mental health providers, such as nurses. In many rural and reservation areas the distinction between a provider of general health and that of mental health is blurred. Inclusion of general health providers reflects our experience that in rural South Dakota much of the mental health services are provided by the general health sector. This broad definition included eleven mental health occupations: (a) physicians [primary care and psychiatrists], (b) nurses, (c) social workers, (d) court service workers, (e) parole agents, (f) high school counselors, (g) clergy, (h) nursing home administrators, (i) alcohol/drug counselors, (j)

psychologists, and (k) physicians' assistants. Physicians practicing a specialty other than psychiatry were excluded.

The sample consisted of RMHPs and NRMHPs from an underserved region in south-central South Dakota. The region consists of catchment areas of four adjacent community mental health centers (CMHCs). The CMHCs are located in towns of between 3,800 and 14,000 people, and serve a rural or reservation population. The region around the eastern CMHCs (located in Mitchell and Huron) is a prairie, and agriculture is the main economic activity in this area. By contrast, the western region (served the CMHCs in Pierre and Winner), is an arid ranching area. It is much more sparsely populated than is the agricultural eastern region. All of the RMHPs were employed by the CMCHC located in Winner or by the Rosebud Public Health Service Hospital.

The CMHCs located in Pierre, Huron, and Mitchell were similar in their staffing patterns, and in the socio-economic status of the population they served. However, the CMHC located in Winner differed considerably; it had fewer mental health professionals and higher staff turnover. In contrast to the other three CMHCs, it served a substantially American Indian population from the economically-disadvantaged Rosebud Reservation.

The characteristics of RMHPs and NRMHPs in the sample differed in many respects. None of the RMHPs were in private practice. By contrast, the NRMHP sample was composed of both private practitioners and CMHC employees.

A Job Satisfaction and Referral Questionnaire (Fuller, Bhatara, Ricci, LaPierre, & Pederson, 1982) was developed for the pilot study. It is a 35-item instrument designed to collect information about health provider job satisfaction and attitudes toward collaborations with other health providers. Questions are anchored on a 4-point Likert scale. Questions inquired about the respondent's level of satisfaction with regard to six sources: (a) income, (b) physical work conditions, (c) number of peers available, (d) continuing education opportunities available, (e) community, and (f) family satisfaction with their community.

Mailing lists were obtained from health provider organizations (physicians, nurses, social workers, court service workers, parole agents, high school counselors, and physician assistants), and the directors of agencies such as CMHCs, social service agencies, nursing homes, and substance abuse facilities. The survey questionnaire was sent to all health care providers identified.

The number of respondents (N) varied with the question. Four hundred survey questionnaires were sent, and the overall response rate was approximately 44%. The sample size for RMHPs ranged from 11 to 12, and for non-reservation health providers (NRMHPs) from 139 to 162. Because of the low number of RMHPs, and the inability to match subjects by age and occupation, the data were not considered suitable for comparative statistical analysis.

Results

The results are summarized in Figure 2, which provides the percent response of RMHPs and NRMHPs by source. For both RMHPs and NRMHPs, the greatest source of job dissatisfaction was lack of continuing education opportunities. About one-half of NRMHPs, and over four-fifths of the RMHPs were dissatisfied with the continuing education opportunities available. For RMHPs, the second greatest source of dissatisfaction was the number of peers available for professional interaction. About three-fifths of RMHPs , but only one-fifth of NRMHPs were dissatisfied with the number of peers available. Similarly, a higher proportion of RMHPs than NRMHPs were dissatisfied with their communities and physical work conditions.

The response of mental health providers varied somewhat with their occupation, but almost all groups reported feeling professionally isolated. A majority of mental health providers expressed dissatisfaction on two items measuring professional isolation: opportunities for peer interaction and continuing education. Mental health providers of all backgrounds were dissatisfied with training opportunities. Dissatisfaction with the number of peers was also present among all groups except substance abuse counselors, court service workers, and clergy. The groups feeling most strongly isolated were physicians, psychologists, and physician's assistants. They were most strongly dissatisfied with the number of peers and continuing educational opportunities available. Most mental health providers were also dissatisfied with their income; only the physicians and the clergy were satisfied with their earnings.
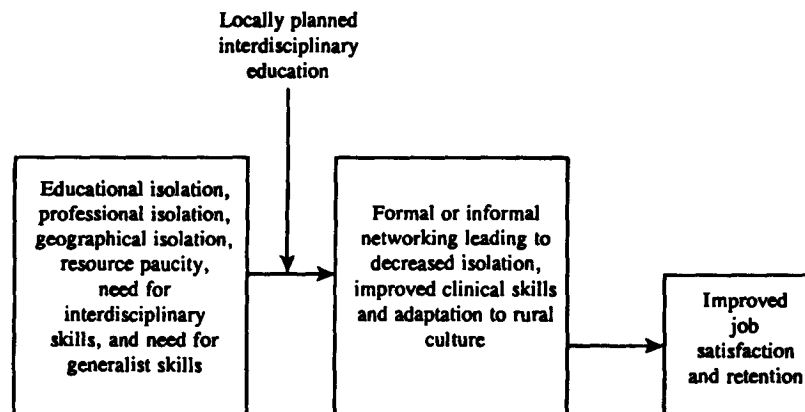

Figure 2.
A theoretical model of mechanisms by which interdisciplinary education might increase reservation mental health provider retention.

Discussion

The results indicate that a higher percentage of RMHPs than NRMHPs were dissatisfied with their jobs on 5 out of 6 job satisfaction items. Both RMHPs and NRMHPs were dissatisfied with continuing education opportunities, but a higher level of dissatisfaction existed on the reservation than in the adjacent non-reservation areas. On two measures of professional isolation (continuing education opportunities and number of peers available) a majority of RMHPs reported dissatisfaction. By contrast, fewer NRMHPs perceived themselves to be professionally isolated. These findings suggest that strategies need to be developed for decreasing professional and educational isolation of reservation and rural mental health providers.

Strategies to Reduce Professional Isolation

Creative approaches may help to reduce the isolation and dissatisfaction presented in many underserved reservation areas. These approaches might include: (a) reservation-university collaboration, (b) meeting training needs to reduce educational isolation, (c) increasing the numbers of American Indian mental health providers, and (d) using informatics, telemedicine, and other high-tech interventions.

While some of these approaches may seem costly, they are certainly no more costly than the high turnover rate experienced in rural and reservation health care. This turnover leads to a discontinuity of care that is likely to be more costly than the strategies suggested.

Reservation-University Collaborations

Formal networking with university-based providers appears to be a promising strategy for attracting and retaining health professionals to a career in American Indian communities (Vogt & Jerde, 1994). Such reservation-university networking is likely to improve job satisfaction and job retention of RMHPs through improved opportunities for continuing education and professional interaction. Not only can reservation-university collaborations reduce RMHP turnover, but they may also improve accessibility, coordination, and quality of mental health services (Bhatara, Fuller, & Unruh, 1994). These interprofessional and interagency collaborations also teach diverse health providers the skills for working together (World Health Organization, 1988). Such networking can also serve to increase the number of available resources for RMHPs, and help them to deal with local resource scarcity.

An example of such a linkage is an ongoing collaboration between South Dakota Medical School and Indian Health Service (IHS): The Pine Ridge Reservation Indian Health Service primary care resident

rotation (Vogt & Jerde, 1992; Vogt & Jerde, 1994). The rotation was conceived in an effort to help address the problem of recruitment and retention of physicians on the reservation. The rotation offers a unique educational opportunity for primary care residents (family practice, general internal medicine, and general pediatrics). Because the bulk of reservation mental health care is often provided by general health practitioners, such general health collaborations may improve both mental health and general health care. A formal collaboration such as the Pine Ridge Reservation Indian Health Service resident rotation allows clinicians to become more aware of opportunities on the reservation (Vogt & Jerde, 1992; Vogt & Jerde 1994). Once these relationships have been established while a clinician is in residency, continuing contact is much easier to accomplish. One of the important goals of this collaboration is to retain current and future providers through their involvement in the teaching program.

Results to date indicate that the program has been quite successful (Vogt & Jerde, 1994). Three of the original twelve residents have returned following completion of their residency to join the Pine Ridge medical staff, and resident evaluations of the rotation have been generally complimentary.

Meeting Training Needs and Reducing Isolation

The finding of RMHP dissatisfaction with continuing education opportunities is consistent with the IHS' recognition that training is a major need for RMHPs (DeBruyn, Hymbaugh, & Valdez, 1988). Interdisciplinary continuing education can decrease professional isolation and enhance job satisfaction by facilitating informal networking among professionals of diverse backgrounds serving underserved areas. Locally-planned interdisciplinary educational programs have been linked, over a 3-year project period, to mental health providers' reports of less professional and educational isolation (Bhatara, Fuller, & O'Conner-Davis, unpublished).

Some of the possible ways to meet training needs include involvement of professionals in: (a) circuit-training workshops, (b) slow-scan video workshops and case consultations, (c) journal club and grand rounds, (d) mini-fellowships and *locum-tenens* coverage to supplement mental health services, (e) conferences in nearby major towns for reservation mental health providers, (f) community development strategies for more interaction and support among professionals residing on the reservation, (g) collaborative research efforts, (h) developing a volunteer system of support and aftercare with other providers to provide assistance, and (i) continued emphasis on economic and social/cultural development.

Increasing Proportion of American Indian RMHPs

A complimentary recruitment and retention strategy worthy of further study is increasing the number of American Indian RMHPs. Because reluctance of outside professionals to locate on reservations may be due to their misconceptions regarding reservation practice, it may be easier for reservations to recruit American Indians. Similarly, reservations may be able to retain American Indian RMHPs better than non-Natives because the former may show better adaptation and emotional attachment to reservation practices than the latter.

Rhoades, Reyes, and Buzzard (1987) note that the American Indians are seriously under-represented in the health field, and thus few are available to work in American Indian communities. BigFoot-Sipes, Dauphinais, LaFromboise, Bennett, and Rower (1992), examined the importance of ethnicity and gender counseling among American Indian secondary school students. Their overall finding was a preference for talking with an American Indian counselor, particularly among those students who expressed a strong commitment to their culture. The female American Indian student expressed a preference to talk with a female American Indian student counselor. National Health Objectives for the year 2000 have targeted a rise in American Indians awarded health degrees from the 1985–1986 baseline of 0.3% of all degrees awarded (Public Health Services, 1990). Owens, Cameron, and Hickman (1987) compared job achievements of American Indian and non-Indian graduates. They found that on certain job variables (performance, job satisfaction, job dissatisfaction, and income), the two groups did not differ significantly; dispelling myths of native difficulties. They pointed out that the American Indian population is expected to grow further, and the health needs of American Indians will continue to increase. Furthermore, as IHS activities continue to expand, the shortage of highly qualified mental health professionals is likely to get worse.

Using Telemedicine, Informatics, and Other High-Tech Solutions

Effective use of several new technologies may potentially facilitate mental health provider retention through improved job satisfaction (Adamski & Hagen, 1990). A growing consensus exists that the most important contribution of such technologies as teleconferencing is in the improvement of services to underserved people. But the technologies are underutilized (Preston, Brown, & Hartley, 1992). Effective use of telemedicine has been shown to decrease perceptions of isolation, both professionally and socially (McGee & Tagalos, 1994). Not only does it offer traditional continuing education, but every interaction between a consultant and the consultee represents instantaneous continuing education.

Agencies serving reservations might consider the following steps recommended by a recent consensus conference for implementing telemedicine applications (McGee & Tangalos, 1994): (a) begin with a needs and resources assessment of the community, (b) identify a comprehensive medical center [not in the community] where those needs can be met, and (c) develop a community-medical center communication system.

Similarly, informatics (information science) can facilitate coordination of mental health care in several ways, by: (a) advancing mental health decision science, (b) facilitating multidisciplinary education, (c) integrating database and delivery, (d) providing user interfaces and delivery, and by (e) creating statewide mental health information systems, and facilitating mental health information networks (Ball & Douglas, 1989).

Conclusions and Future Directions

The future of isolated rural and reservation mental health service delivery will likely be heavily influenced by the currently burgeoning demonstration projects in informatics, telemedicine with slow scan television, and more highly organized systems of care. The clinical practice is inextricably entwined with the management of information (Shortliffe, Perreault, Weiderhold, & Pagen, 1990), and it is important for RMHPs to move rapidly towards integration into the information age. Information exchange and communication from the social systems perspective serves a basis: "cement", so to speak, that binds various disciplines in the mental health team. High-tech solutions and informatics can be combined with interdisciplinary training and university support to significantly decrease professional dissatisfaction of RMHPs. It will also be important to build in training funds for RMHPs to capitalize on these emerging opportunities.

Although high-tech solutions can help future RMHPs, people are and will remain the most important environmental component of any RMHP. Therefore, RMHPs must, above all, develop and maintain positive and professional relationships not only with their agency but with their entire community. Administrators need to help RMHPs to obtain community support, and publicize their role in a positive manner. The increased involvement of RMHPs with the community should lead to improvements in their knowledge of culturally-relevant factors, and enhanced community-RMHP relations. RMHPs who do not feel isolated may have a greater chance of not only surviving, but thriving on reservations.

Three questions remain unanswered. First, what are the personality characteristics of those RMHPs who choose to live on the reservations? Second, what are the differences in job satisfaction and retention of American Indian and non-Indian RMHPs? Third, what are the differences

in the cost and effectiveness of different strategies for reducing professional isolation of RMHPs?

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Reply
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This article reemphasizes the wisdom of developing effective ways of meeting providers, personal and employment needs in mental health, social service, and substance abuse programs. Accomplishing this is often

more challenging in American Indian and Alaska Native settings which are frequently characterized by remoteness, few professional staff, and large patient workloads.

With regard to the general issues presented in the paper:

1. The numbers of trained Indian mental health and social service professionals is increasing rapidly. For the last four years, thanks to the leadership of George McCoy, Ph.D. and Mary Ann O'Neal, ACSW, the IHS has included psychology and social work as disciplines eligible for its professional scholarships. Moreover, training programs and internships have been developed at Utah State (psychology), George Warren Brown School of Social Work in St. Louis (social work) and at the University of Colorado and University of New Mexico (psychology internship and social work child fellowships (UNM only)). The ideal solution for the mental health and social service needs of American Indian programs is to develop American Indian providers who will serve their own communities.

2. New ways for enhancing the professional training of American Indian persons are being explored, particularly for persons living in remote areas who may be unable to make a geographic relocation. The use of videotechnology and creation of onsite training programs, for example, to allow American Indian persons to obtain bachelor's and masters degrees in clinical fields with supervision through videotechnology at distant university sites is an exciting possibility which will be explored in future years.

3. Several universities in addition to the University of South Dakota, have developed relationships with service sites and tribes for trainee clinical experiences in American Indian country. These include the Departments of Psychiatry in New Mexico, Colorado, Oregon, and Oklahoma.

Several principles related to effective strategies for recruitment and retention of behavioral health professionals in American Indian country should be noted:

1. The issue of community satisfaction is not addressed by the paper, but our experience in IHS shows that effective orientation to communities by IHS or tribal programs, demonstration of interest in the tribal community and sensitivity to the culture by providers, and outreach to providers by tribes are all important and effective mechanisms for improving retention in American Indian service sites.

2.   Strategies should be site-specific. Approaches that are individualized to the geography and culture of the American Indian community are much more likely to be effective. For example, pursuit of a university-resident rotation may be difficult when a university is located several hundred miles from a site.

3.   Strategies also need to be individual and group specific. Some providers may not be comfortable with high-technology methods of continuing education as with more traditional methods. The primary issue is to assure that providers' perceived and actual needs are met.

4.   While the issue of cost is minimized in the paper, it cannot be ignored, especially in a time of shrinking resources. Analyses need to be carried out of the cost of such efforts as high-technology continuing education efforts vs. their effectiveness in retention. Some American Indian service programs have financed continuing education for providers based on rates of billing and collection of third-party funds by the program.

Ultimately, the key ingredients to successful recruitment and retention of behavioral health professionals seem to be the commitment of the provider to serve the population, the competence of the provider in delivering service, the sensitivity of the provider to the tribal culture, and the willingness of tribes to accept and reward their service providers. These all depend on development of long-standing trusting relationships between providers and American Indian communities.

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