ALCOHOL PROBLEMS IN ALASKA NATIVES: LESSONS FROM THE INUIT

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Abstract: In this Alaska Native study, cultural "insiders" analyzed problems associated with increased alcohol availability, factors which have reduced alcohol-related problems, and ideas for improving treatment in an Inuit community. Participants described frequent bingeing, blackouts, family violence, suicide, loss of child custody, and feelings of intergenerational grief. Helpful existing treatment approaches include alcohol ordinances, inpatient treatment programs, twelve-step groups, and religious involvement. Participants urged the development of family treatment approaches which integrate Inuit customs and values.

Introduction

Alcohol abuse and dependence are common among Alaska Natives and are associated with high rates of violence and health problems (Brems, 1996; Segal, 1991, 1999; Segal & Hesselbrock, 1997; Shore, Manson, & Buchwald, 2002). While recent findings from the American Indian Service Utilization, Psychiatric Epidemiology, Risk and Protective Factors Project (AI-SUPERPFP) study have clearly documented the high prevalence of alcohol use disorders in American Indians (Spicer et al., 2003; Beals et al., 2005), there has been no major epidemiologic study documenting their prevalence in Alaska Natives as a whole or in any of the five major Alaska Native cultural groups (Athabaskan, Yup'ik, Inupiaq, Tlingit-Haida, and Aleut). Existing data do indicate, however, that Alaska Native alcohol-related death rates are almost nine times the national average, and approximately 7% of all Alaska Native deaths are

alcohol related (U.S. Department of Health and Human Services, Indian Health Service, 2001). Three landmark studies between 1989 and 1994—the Alaska Federation of Natives (1989) study, the Pulitzer Prize-winning series "A People in Peril" by the Anchorage Daily News (1989), and a report from the Alaska Natives Commission (1994)—confirmed that problem drinking is "epidemic" among Alaska Natives and identified alcohol abuse as their number one health problem. A 1998 Alaska statewide telephone survey by the Gallup Organization (1998) found that 14.9% of American Indians and Alaska Natives were dependent on alcohol, and another 4.1% were alcohol abusers. Heavy drinking is associated with suicidal behavior, suicide and deaths from unintentional injury (Kettl & Bixler, 1993; Marshall & Soule, 1998; Borowsky, Resnick, Ireland, & Blum, 1999). Unintentional injury rates are more than three times higher than the overall U.S. population, while suicide rates are more than four times higher (U.S. Department of Health and Human Services, Indian Health Service, 2001). Suicide is a particularly critical problem among young male Alaska Natives, who are 14-40 times more likely to commit suicide than other U.S. males in the same age group (Marshall & Soule, 1998; Center for Substance Abuse Prevention, 2002). Alcohol use is also linked to homicide, family violence, and fetal alcohol syndrome. Binge drinking and abuse of inhalants and marijuana is common, especially in male adolescents and younger adults (Zebrowski & Gregory, 1996; Stillner, Kraus, Luekefeld & Hardenbergh, 1999; Miller et al., 2002; Denny, Holtzman & Cobb, 2003).

Numerous American authors have emphasized the need for a culturally appropriate understanding of identified problems of American Indians and Alaska Natives because of the complexities and varying influences related to alcohol problems (Spicer et al., 2003), and the history of alcohol researchers who have alienated communities by excluding Native peoples from participation in the design, conduct and interpretation of results. (Mohatt, Hazel, et al., 2004). Research methods and interventions need to be designed with collaboration from Native people using constructs and procedures that make sense to community members, avoid repeating historical trauma, are respectful of their privacy and culture, build on their historical traditions of healing, and identify their areas of strength and resiliency (Mills, 2003; Mohatt, Hazel, et al., 2004; Whitbeck, Adams, Hoyt, & Chen, 2004). Furthermore, researchers have stressed the importance of avoiding implications that may be interpreted as beliefs that the community lacks the capability to define and resolve its own problems (Fisher & Ball, 2003). Towards this end, opinions, suggestions, and participation from Alaska Native

leaders were sought at each step of the research process, during study development, data collection, data analysis, manuscript preparation, and revision. Leaders of the community who had participated in the planning for the project recruited the focus group participants. In terms of methods for data collection, focus groups and individual interviews were chosen as principal means because these methods fit with the cultural tradition of story-telling. Focus groups have previously been found useful in conducting cross-cultural research and identifying cultural knowledge (Hughes & DuMont, 1993), and have been used in other studies of Alaska Natives (Hazel & Mohatt, 2001). In the focus groups and individual interviews, questions were designed to first build trust with the focus group leaders and to encourage opportunities for telling stories related to the questions asked. Sufficient time was allocated for silent reflection and personal interaction.

Researchers have also emphasized the need for culturally-grounded interventions among American Indians and Alaska Natives. Inupiat culture teaches that a sense of well-being (*ahregah*) derives from being in balance with the environment. The air, wind, and water are believed to have healing powers. Likewise in social activities, family, church, and friends create an environment where one's own problems are absorbed through the contagious power of *ahregah* (Reimer, 1999). In works by Mohatt and Whitbeck and their colleagues, researchers have sought to integrate traditional cultural concepts into substance abuse prevention and treatment efforts (Mohatt, Rasmus, et al., 2004; Mohatt, Hazel, et al., 2004; Whitbeck, Chen, Hoyt, & Adams, 2004; Whitbeck, Adams, et al., 2004). The authors attempted to follow this research model of maintaining a focus on strengths and resilience, and integrating traditional cultural concepts into the search for solutions. This study is the second of three studies designed to explore how and why alcohol problems escalate among indigenous groups undergoing cultural transition, and how insights from individuals within the culture can contribute to solving those problems. This single-community study explored alcohol use among the Inupiat and Yup'ik peoples of northern Alaska, often referred to by others as Eskimo or Inuit (an anthropological term for the ethnic family that includes both the Inupiat and Yup'ik). Because these two groups have a relatively short history of exposure to beverage alcohol (Segal, 1983; Hild, 1981, 1987), and many of their communities remained isolated from large-scale daily cultural contact with Western culture until oil was discovered in 1968 (Segal, 1999), many people in these communities can describe firsthand the impact of increasing alcohol exposure during their lifetime. Our previous study

among the Carib people of Venezuela suggested that insights from people within the culture can make an important contribution in guiding prevention and treatment efforts (Seale, Shellenberger, Rodriguez, Seale, & Alvarado, 2002).

This study sought to: (a) use a combination of quantitative and qualitative techniques to provide a culturally-relevant assessment of alcohol-related problems in an arctic Alaska Native community, (b) encourage Inupiat and Yup'ik individuals to identify factors contributing to alcohol-related problems in their culture and offer cultural insights that could guide future treatment interventions, and (c) to compare findings from the experiences of the Inupiat and Yup'ik with those of the Venezuelan Carib people.

Method

Community description

The study was conducted in September 2001 in an isolated coastal "hub village" above the Arctic Circle whose population is approximately 80% Alaska Native (primarily Inupiat, with some Yup'ik inhabitants). The surrounding borough includes eleven smaller villages ranging in population from 100 to 1,000. The town's government-sponsored health center provides inpatient and outpatient care and services the surrounding villages by teleconference and teleradiology. Common patient complaints include hypertension, diabetes, depression, respiratory infections, chest pain, and orthopedic complaints. Historically, the area was a trading center surrounded by numerous fish camps. Many inhabitants still participate in some subsistence activities such as fishing and hunting caribou, moose, and seal. Important cultural traditions involve preparation for the hunt, the successful taking of animals, cooking, and distribution of the meat (Reimer, 1999). Employment opportunities include the school district, health center, Alaska Native Corporation, government offices, and a nearby mine. Most inhabitants speak English, and some older individuals also speak Inupiaq or Yup'ik. Contact with the outside world is possible via air and sea routes, and in winter by snowmobile or dogsled. Evidence of Western influence includes cars, trucks, snowmobiles, stores selling processed foods and manufactured goods, and cable television. Approximately 80% of homes have indoor plumbing. Alcoholic beverages can be imported, but

"damp" laws prohibit alcohol sales within city limits. Alcohol is expensive, with one fifth of whiskey costing $50. Bootlegging is reported to be common.

The study was approved by the Institutional Review Board of the Medical Center of Central Georgia, the medical director of the local hospital, and the head of the regional Alaska Native Corporation (ANC). Members of the ANC and administrative personnel at the Maniilaq Recovery Center and the Maniilaq Health Center assisted in the recruitment of subjects for this study. The head and administrative board of the regional ANC reviewed the contents of the article.

Qualitative methods

Focus groups were conducted according to the method described by Varkevisser (1991): (a) groups of different age and gender composition were organized to gain a variety of perspectives; (b) target group size was 6-12 participants; (c) each 90-minute focus group discussion was directed by an experienced facilitator (SS or JPS); (d) the same set of questions was discussed in each group in order to limit inter-group variability; (e) all group members were encouraged to participate; and (f) the facilitator presented and verified his/her understanding of the group's key findings at the end of the discussion. The following questions, modified from two previous American Indian studies (Seale, Shellenberger, et al., 2002; Seale, Martinez-Leal, & Girton, 2003), were discussed: *1. How did your people drink before there was significant contact with outsiders? 2. How do people drink now? 3. Why do people drink? Take drugs? What motivates them to do so? 4. Is alcohol/drug use causing problems in individuals? If so, what are the problems? What problems have resulted from alcohol use? 5. How do family members and friends react when drinking problems or drug problems occur? 6. Is alcohol/drug use causing problems in the communities? If so, what are they? 7. Are there factors that have reduced consumption of alcohol in the communities? If so what are they? 8. What suggestions do you have for reducing problems related to alcohol/drug use here?* Where recruitment was difficult and insufficient numbers of participants were available to conduct focus groups, structured interviews were conducted.

Participants were recruited by community leaders, church leaders, medical personnel, and alcohol treatment counselors. Participants were invited to participate in a study of past and current use of alcohol among the Alaska Native people in their area, designed

to identify drinking-related problems and help search for solutions. Signed consent was obtained. All participants were fluent in English, and no translators were utilized.

Tapes of focus group discussions and structured interviews were transcribed, reviewed, analyzed and coded by all three investigators—two family physicians and a family psychologist. Analysis utilized a systematic iterative process of text interpretation and categorization in which the analysts identify meaningful referents and establish patterns of significance (Varkevisser, 1991). Two or three analysts reviewed each transcript together to identify meaningful units of information related to the research queries. Findings were categorized into coding categories through consensus, before arriving at the thematic findings. Interpretive disagreements were resolved by debating supporting evidence. Coded answers to all questions by groups and interviewees were summarized on a spreadsheet. Statements were considered in terms of frequency, extensiveness, intensity and specificity to identify themes. Tables and visual summaries of data were prepared to communicate themes that emerged. As a measure of trustworthiness, the analysts reviewed the transcripts again in search of evidence contradictory to the findings. Community leaders read the findings to ensure the content had no possibility of traumatizing Alaska Natives. In addition, leaders who had participated in the focus groups reviewed the manuscripts and revisions for the purpose of assuring that focus group content was accurately reflected.

Four focus group discussions were conducted: (a) a men's inpatient treatment group (8 participants ages 22-43), (b) a women's inpatient treatment group (5 participants ages 23-45,) (c) the community's Alcohol Advisory Board (6 participants, all over age 50 and self-described as former heavy drinkers), and (d) a community women's group (6 participants, ages 24-60, 3 of whom described themselves as former heavy drinkers). While most participants lived in the town, numerous individuals had grown up in rural villages. Some individuals in inpatient treatment were from surrounding villages. Two individual structured interviews were conducted with male leaders in their 40s from the town's largest church. Neither was a current or former drinker. Two individuals who were originally recruited for a focus group discussion for young adults instead participated in structured interview (ages 20s to 30s); one was an active problem drinker awaiting inpatient treatment and the other did not disclose the drinking behavior.

Quantitative methods

Alcohol use questionnaires were administered to a consecutive sample of patients in the town's only outpatient clinic in order to gather objective measures of alcohol use patterns and associated problems. The Alcohol Use Disorders Identification Test (AUDIT) was administered by a house officer and one of his supervising physicians to consecutive clinic patients over two weeks. Each patient seen by these physicians was asked to participate in an anonymous survey regarding drinking patterns in the region that would be used to assist local leaders in shaping alcohol programs in the community, and verbal consent was obtained. Emergency room visits were excluded, as they were felt to represent a skewed subset of the population at high risk for alcohol-related problems. The AUDIT, a ten-question instrument validated by the World Health Organization in patients from six countries (Saunders, Aasland, Babor, de la Fuente, & Grant, 1993), was chosen because it has demonstrated usefulness across a wide range of cultural settings (Rigmaiden, Pistorello, Johnson, Mar, & Veach, 1995; Schmidt, Barry, & Fleming, 1995; Gudmundsdottir & Tomasson, 1996; Holmila, 1995; Guevara-Arnal et al., 1995, Seale, Seale, Alvarado, Vogel, & Terry, 2002). AUDIT responses were used to calculate the prevalence of binge drinking (defined as consuming 6 or more drinks per occasion), problem drinking (defined by an AUDIT score of 8 or more), and various alcohol-related problems. Information from quantitative studies was integrated with results from focus group discussions and structured interviews.

Results

Traditional patterns of drinking

Focus group discussion and structured interview participants noted that alcoholic beverages were not indigenous to their culture, stating that alcohol was first introduced by whalers, fur traders, and visitors from Russia, who sporadically brought large quantities of distilled spirits into the communities. Men, women, and traders would drink freely until intoxicated, and traders would take sexual advantage of village women and economic advantage of men during trading. Intoxicated Native men would sometimes become violent with their wives. Alcohol use sometimes produced devastating consequences when hunting and fishing were neglected. One older woman related:

> [One] summer they bought a whole bunch of alcohol… and the men stayed drunk. Spring is our time of gathering for the winter like hunting and fishing, but the men stayed drunk and we didn't stock food for the winter. And since there was TB and influenza with the diseases [the whalers] brought…we had no food for the winter...Eight out of the 10 villages were wiped out.

During the twentieth century, Western cultural contact increased as military posts, mines, canning facilities, and government agencies were established. By mid-century, alcohol could be purchased in many towns. Many people purchased alcoholic beverages or brewed alcohol from berries. Many Native men were exposed to heavy drinking through military service. Frequent heavy drinking became commonplace among men and women.

Current drinking patterns

According to focus group discussion and structured interview participants, alcohol use and illegal drug use are now common among adults, adolescents, and pre-teens. Most focus group discussion participants began drinking at age 9-13. Marijuana use was reported to be prevalent. Some adolescents also engaged in inhalant abuse. Participants reported the recent death of a young girl from inhalant abuse.

AUDIT questionnaires provided additional information regarding alcohol use patterns. Questionnaires were completed by 21 male and 43 female patients (refusal rate 6%). The mean age was 37.2 for men and 33.8 for women. Analysis indicated 69.6% of men and 56.1% of women had consumed alcohol during the previous year. Whiskey was the most common beverage consumed, followed by beer. The mean AUDIT score was 4.9 for females and 10.3 for males. Answers to AUDIT questions are presented in Table 1. Binge drinking within the past year was reported by 60.9% of men and 36.6% of women, with 47.8% of men and 19.5% of women bingeing at least monthly.

Table 1

Responses to *Alcohol Use Disorders Identification Test*

		Score*	(0)	(1)	(2)	(3)	(4)
			Never	Monthly or less	2-4 times a month	2-3 times a week	4 or more times a week
1.	How often do you have a drink containing alcohol?	Male (%)	30.4	26.1	26.1	8.7	8.7
		Female (%)	43.9	29.3	17.1	9.8	0
			1 or 2	3 or 4	5 or 6	7 to 9	10 or more
2.	How many drinks containing alcohol do you have on a typical day when you are drinking?	Male (%)	40.9	18.2	18.2	18.2	4.5
		Female (%)	53.7	26.8	12.2	4.9	2.4
			Never	Less than monthly	Monthly	Weekly	Daily or almost daily
3.	How often do you have six or more drinks on one occasion?	Male (%)	39.1	13.0	34.8	8.7	4.3
		Female (%)	63.5	17.1	12.2	4.9	2.4
4.	How often during the last year have you found that you were not able to stop drinking once you had started?	Male (%)	50.0	18.2	27.3	0.0	4.5
		Female (%)	82.9	9.8	7.3	0.0	0.0
5.	How often during the last year have you failed to do what was normally expected from you because of drinking?	Male (%)	73.9	13.0	8.7	0.0	4.3
		Female (%)	80.5	12.2	2.4	4.9	0.0
6.	How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Male (%)	82.6	8.7	0.0	0.0	8.7
		Female (%)	90.2	7.3	0.0	2.4	0.0
7.	How often during the last year have you had a feeling of guilt or remorse after drinking?	Male (%)	60.9	13.0	130	8.7	4.3
		Female (%)	75.6	9.8	9.8	2.4	2.4
8.	How often during the last year have you been unable to remember what happened the night before because you had been drinking?	Male (%)	56.5	21.7	8.7	13.0	0.0
		Female (%)	82.9	9.8	4.9	2.4	0.0

Table 1, continued

			No	Yes[a]	Yes[b]
9.	**Have you or someone else been injured as a result of your drinking?**	**Male (%)**	60.9	30.4	8.7
		Female (%)	78.0	9.8	12.2
10.	**Has a relative or friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?**	**Male (%)**	47.8	26.1	26.1
		Female (%)	90.2	0.0	9.8

*n=23 males & 41 females

[a] Not in the last year. [b] During the last year.

Why do people drink?

Respondents started drinking because of curiosity, wanting to have fun, or peer pressure. A young woman described progressing from recreational drinking to addictive drinking:

> When you first start drinking, you start to have fun—it's fun! You are socializing, and then pretty soon, the more you drink…then you became dependent on it…so anything that triggers you to it from anger to pain to anything, you get dependent on it. You need to have that drink to feel good...

The most common reasons given for drinking were addiction, coping with problems, and forgetting painful experiences. A female respondent stated:

> My dad, he was a pretty bad alcoholic and a drug addict, too...At the time of my conception, I think my mom and my dad were using, and my mom continued to drink with me when she was pregnant…I had a hard time learning in school…I had my first kid when I was 19, and I was in a very abusive relationship. I turned to alcohol to numb the pain.

Individuals stated alcohol was easily accessible, and often family members taught them to drink. A young lady remarked:

> I went to jail…at 12 years old for trying a sip of my sister's mix with Southern Comfort and 7-Up… She was always telling me to watch her…She asked me things like, "Watch me. Make sure nothing happens to me. Make sure nobody touches me or make sure nobody don't try to fight with me, and watch what I do just in case I don't remember"…When I was 12, she let me try it…and pretty soon, the cops came in and took us all to jail.

The stress, confusion, and depression caused by the dramatic cultural changes of the twentieth century were described as a major influence on alcohol consumption. The introduction of Western-style cash economy, military culture, police and court systems, religious practices, and educational institutions resulted in dramatic changes. Jobs became available for women. Many men were no longer their families' primary providers. Few men continued full-time subsistence activities. While some men worked, others were supported by their wives, often with severe emotional consequences. A female focus group volunteer noted:

> Even our men, I think that's why they are so suicidal or use and abuse women, rape them because they got lost from the alcohol and their self worth.…When alcohol came and grocery stores, they weren't really needed and money was really hard….They don't feel like they contribute and the women say, "I support you." So, they are ashamed and they turn to drinking. They have anger that makes them want to physically abuse or verbally or mentally abuse.

Parental authority was undermined as children were taught new ways of thinking by teachers and missionaries. Acts of violence committed while intoxicated resulted in feelings of profound shame and guilt. Older individuals described intergenerational grief from loss of contact with traditional ways that had brought a sense of identity, worth and self-esteem, and from witnessing the devastation occurring around them. A female focus group participant related:

> A whole family drowned one Sunday… a total of nine people drowned from when they were drinking and going to town. And then on the same day, two people killed themselves…And my dad said…"I feel like my people are like the Jews." They never get over it, all the horror…They are still living in horror and shock and shame…

Younger individuals described feeling torn between desires to conform to their parents' wishes and wanting to achieve ideals they learned about on television and in school. A young female participant noted:

> In the villages, I think it is more intense, too, with a loss of direction…They have the elders and the people… banging it into their heads…, "Live the old way, live the old way," whereas they are going to school…they don't know which way to go: to go to their old traditional ways, or to go to college…They get lost right in between.

Despair was common in both age groups, sometimes leading to attempted suicide by hanging, firearms, or walking out into the snow.

Alcohol-related problems

Among patients completing AUDIT questionnaires, 47.8% of men and 24.4% of women met criteria for problem drinking. Common symptoms, experienced by about half of men, included being advised to cut back on their drinking, sometimes being unable to stop drinking, and experiencing memory blackouts. Common symptoms among women, seen in about one-fourth of patients, included guilt feelings after drinking, alcohol-related injury to themselves or others, blackouts, and failure to meet their responsibilities.

Focus group discussion participants described 44 problems related to drinking (see Table 2). Alcohol was reportedly associated with violent behavior, injury, and death. Deaths clustered in families where multiple members abused alcohol. A male inpatient related:

> That was the way I was brought up, you know, watching my step-dad…and my mom drink. I lost all [four] of my brothers before they were 30 years old, two of them due

> to alcohol…One died in a DWI accident this year, and the other one died in 1987. He froze to death….I lost two of my uncles to alcohol. One burned in a fire and one drowned. And I had an aunt that died from exposure.

Table 2

Focus Group Findings: Alcohol-related Problems

family violence	victimization (violent crime)
suicide	death
hunger	sexual abuse
accidents	loss of self esteem
lost in the snow/cold	loss of stability
exposure	isolation
fighting	job problems
arrest	loss of culture
loss of children	not teaching subsistence customs to children
economic problems	family disintegration
disorderly conduct	loss of male identity
guilt/shame	poisoning from non-beverage alcohol
illness/medical problems	alcohol overdose
romantic arguments/breakups	premature babies
marital infidelity	child abuse/neglect
overwork of children	pregnancy/having children out of wedlock
violent crimes	keeping others awake
sexual promiscuity	drowning
fetal alcohol effects	murder
verbal abuse of others	threats of violence
depression	pass out
diversion of government benefits received for children	memory blackouts

Since the 1960's, alcohol-related suicide has been a major problem. A focus group discussion member involved in early suicide investigations described:

> We gathered statistics…because we really didn't know what was causing it….We found out that we had 14 suicides in nine months only…and that set an alarm to everybody….They had nine in one village last June…It's a continuing problem, and it's mostly young males between the ages of…17 and 30.

A young man who had lost four friends to suicide became despondent as he related:

> My best friend was struggling, I guess because his girlfriend was with someone else…He isn't much older than I am. I guess he couldn't cope with it and that's

> why he did it…He never mentioned nothing…He just talked about being sad and depressed. I guess that was a sign…But he did end up killing himself.

Government institutions faced increasing numbers of alcohol-related arrests, court proceedings, and medical problems. An Alcohol Advisory Board member related that 95% of the 1,400 individuals convicted of crime the previous year had committed alcohol-related offenses.

Family impact

Interviewees described alcohol-related physical and sexual abuse, child neglect, hunger and marital conflict. A middle-aged man raised by his grandmother described:

> My mother would drink with my uncles….She would never know that she hit me because she would have those blackouts, but that was because she would be drinking so much, you know, that she don't remember hitting me at all…I tried to run away, run to my grandparents' house, and…one day they happened to see the bruises on my arms and they pulled up my shirt… She said, "Well, where did these come from?"

Effects on nuclear families included separations, divorces, and loss of children who left home, were adopted out or became wards of the state. A female respondent described her childhood:

> [My mother] was an alcoholic and a drug addict….I grew up… in a very violent home…My uncles and aunts used to drink and I would be scared to go to sleep…not knowing what I am going to wake up to…and everybody always drinking….I moved out of my mom's house when I was 16. I dropped out of high school and then I got adopted to my grandma.

Concerned family members responded to heavy drinking with arguments, rebukes, or threats. Children assumed adult responsibilities such as cooking, cleaning, or childcare. A female discussant related:

> I had to babysit my mom's younger sister's kids. My mom would worry about those kids, and she would order me to go take care of them because the parents chose to

> drink. …She would say, "Get them out as soon as they go home," because they would start to fight and get abusive.

Some family members excused acts of drunkenness or counseled their spouses about quitting. Other family members tried pouring out the alcohol, physically restraining their intoxicated spouses, locking them out of the house, or calling the police. While many older participants described growing up in traditional Inupiat villages, some younger participants grew up in the town in families where few Inupiat customs were observed and life revolved around drinking. Anger was the most frequent emotion described by family members, followed by guilt. Respondents wondered whether the "damp" ordinances which prohibited local sales of alcohol but allowed importation and private consumption had actually increased family violence. After local bars closed, most alcohol consumption occurred in homes, and alcohol-related violence was often directed at family members.

Community impact

Societal, educational and work consequences were identified as problems detrimental to the community as a result of drinking and drug use. Societal consequences included disorderly conduct, assaults and violent crimes, juvenile delinquency, sexual abuse, drug dealing, elder abuse/neglect, underage drinking, individuals in need of disability because of fetal alcohol syndrome (FAS), homelessness and imprisonment. Educational consequences emphasized the need for special education to address the needs of children afflicted by FAS. Work consequences included unreliable employees and the small labor pool resulting from failed drug testing by prospective employees.

Factors associated with reduced consumption of alcohol in the communities

Focus group discussion participants and interviewees described 33 factors that have helped to reduce drinking and alcohol-related problems (see Table 3). Most frequently mentioned were liquor control ordinances, threats of legal action, inpatient alcohol treatment, Alcoholics Anonymous, religion and church involvement, elders' assistance in supporting sobriety, and personal willpower. Many felt that ordinances which restricted alcohol supply had reduced drunkenness, public intoxication, and alcohol-related violence. A male elder stated:

> The hospital doctor made a statement. He said, "What's the emergency over at the hospital?" Well, all the bars and liquor stores were open. Somebody would get beat up…It was just a terrible situation here. But, when they stopped the drinking, it was peace, quiet peace. No more disturbances or killings from liquor.

Table 3
Focus Group Findings: Factors Which Have Reduced Alcohol-related Problems

liquor ordinances (damp, dry)	aging
willpower/personal decision to quit	severe consequences of drinking
Alcoholics Anonymous	revulsion
sobriety council/movement	spouse
participation in formal alcohol treatment program	parenting responsibilities
	help from missionaries
legal action (jail, child custody proceedings)	involuntary treatment
high cost of alcohol	talking to sober friend
church	concurrent abstinence of both spouses
other spiritual/religious factors besides church	cultural revival
spirit camps	family involvement in treatment
celebrations without alcohol	elders teaching parenting skills
advertising sobriety	elders teaching anger management
whole village involvement/community organization	elders teaching how to resist cravings
	elder companionship
drug testing	elders teach taking legal action for family violence
financial obligations	
influence of family	neighbors intervening

For numerous participants, recovery from problem drinking started with entering alcohol treatment to avoid jail sentences or the loss of child custody. Inpatient alcohol treatment and Alcoholics Anonymous helped many attain sobriety. Culturally-based interventions—integrating Inupiat values into formal alcohol treatment, recruiting elders to teach subsistence activities while also teaching tactics for managing anger and resisting craving, etc.—were helpful to others. A focus group participant described the creation of a statewide Sobriety Council:

> We started a statewide program to push sobriety…It caught on and all over the state, sobriety would be in the weekend fun...What we said was for nondrinkers to get out of the closet and start pushing sobriety…[After a time] you would go to a party and it would be non-alcoholic drinks…So, that helped. It made it easier for nondrinkers and people who are recovering from drinking to exist in our community.

Traditional Christian religious practices such as church attendance, prayer, and faith in a Higher Power were important recovery factors for some. An elder described his aunt's experience:

> [She] got addicted and she wanted to quit, but she couldn't. She heard or questioned the missionaries about there being a God. And one day when she heard about God, she got down on her knees and said, "God, I need help." All her desire for drinking just disappeared when that happened, and she became a very involved Christian after that.

Suggestions for reducing alcohol-related/drug problems

Suggestions made by focus group members centered around developing effective treatment resources for those with severe drinking problems, developing alternative recreational activities for youth, utilizing spiritual resources, and advocating for necessary services. Two dominant themes regarding alcohol treatment emerged from discussions: creating family treatment programs and integrating more Inupiat customs and values into treatment efforts. Participants described the need for alcoholic spouses to obtain treatment together and for on-site childcare. Many expressed a desire for integrating Inupiat subsistence practices into treatment programs. Local plans for a therapeutic "spirit camp" modeled after another Alaska Native treatment center were described:

> The Alcohol Advisory Board is trying to see if we could set up a camp away from [town] and away from the villages and make it a realistic program, where not only the victim or the one that is taking the alcohol and drugs but the whole family could go and start a healing process all together.

Participants elaborated on details they would like to see incorporated into treatment programs. For example, participants want to see flexibility for families to stay in rehabilitation programs for as long as they feel that they need to. Participants wanted to see support for people completing rehabilitation programs and returning to the community. One participant said:

> We want programs put into place so that the people will start helping their own people get healed again.

Further, participants hoped to build a cadre of families geared to assisting other families as they return from treatment. They described the potential impact of a group of such strength:

> It might take just a few families the first few years, but once it catches on, you know, I think you will lead a lot of others that are alcoholics.

Other culturally-based suggestions included establishing more sobriety clubs, using more Native peer counselors, and establishing tribal courts for handling minor drug and alcohol-related offenses. Two participants suggested creating integrated community plans that would involve local efforts at restitution and forgiveness after a legal offense as well as treatment for the offender's addiction problems. To develop such a plan, participants envisioned bringing together the elders' council, the tribal council, and the ministers. Young people suggested more alcohol-free recreational facilities. Two others mentioned the importance of church attendance and a deeper relationship with God.

Participants mentioned the need for advocacy at the state level for programs to benefit recovering community members, with statements such as:

> We [young mothers] shouldn't act like nothing is wrong. It is important that we discuss these things...I hope that sometime soon we have the opportunity to travel to Anchorage to listen and discuss different concerns.

Finally, participants described the need to educate parents about values that reflect important legacies in their culture. In particular, self-discipline and discipline of children were described as major underpinnings of family structure. Participants were concerned that problems arose when community members became focused on money, began playing bingo, and used scarce resources for the game. Instead, they suggested,

> We need to stop and take time, and take charge of our children and their children. The gift [from previous generations] was how they used discipline, which helped

> them to keep control and give us a strong life. We need to discipline ourselves to be healthy and think about the legacy we will leave for the [next] generation. It's just to try to rekindle this age old way of discipline…There should be a lot of positive reinforcement and a lot of good talk.

Discussion

This study provides unique insights into alcohol problems in this Alaska Native culture by allowing cultural "insiders" to describe their evolution over the past century. To our knowledge, it is the second study in the past two decades to attempt a quantitative analysis of problem drinking among Alaska Natives, although like the other study, it offers quantitative results which should be considered exploratory rather than definitive (Hazel & Mohatt, 2001). Binge drinking patterns are similar to those seen in other North and South American Indian groups (Weisner, Weibel-Orlando, & Long, 1984; Westermeyer & Baker, 1986; Robin, Long, Rasmussen, Albaugh, & Goldman, 1998; Seale, Seale, et al., 2002). While genetics may influence Native drinking patterns (Long et al., 1998; Wall, Garcia-Andrade, Thomasson, Cole, & Ehlers, 1996), cultural change also appears to be a significant contributor (Herman-Stahl, Spencer & Duncan, 2003). Evolving drinking patterns described by focus group discussion participants and interviewees parallel those observed among other North American Indian groups (Frank, Moore, & Ames, 2000) and a Venezuela Carib group which had a long history of binge drinking (Seale, Shellenberger, et al., 2002). In each case, individuals in cultures without clear cultural guidelines regarding alcohol use followed the example of heavy-drinking role models (soldiers, traders, etc.) with disastrous consequences. The apparent common denominator was not a lack of previous exposure to alcohol, but a lack of cultural guidelines for appropriate use of the "new beverages" and exposure to role models who were problem drinkers.

Our findings suggest differences in the motivations for drinking between the Inuit and the Caribs. Sadness, depression and despair were major reasons for drinking in Alaska, while Caribs reported drinking to celebrate and socialize. Our findings support those of other investigators who have found depression and intergenerational grief related to discrimination and historical loss to be strongly associated with alcohol problems among American Indians and Alaska Natives (Brave Heart & DeBruyn, 1998: Duran & Duran, 1995; Segal, 1999; Gray & Nye, 2001;

Whitbeck, McMorris, Hoyt, Stubben, & LaFromboise, 2002; Whitbeck, Chen, et al., 2004). Focus group discussion participants frequently linked descriptions of problem drinking to the rapid, widespread disruption of indigenous culture and loss of male identity that has occurred in Alaska over the past century. Such changes have been less drastic in Venezuela, where most Carib families continue their traditional subsistence activities and men continue to function as leaders in their families. Of interest is the fact that the community-based spirit camp treatment approach advocated in focus group discussions emphasizes Inupiat cultural activities and encourages men to uphold leadership functions in their families. Other researchers have found a traditional cultural orientation to be protective against substance use disorders among American Indians and Alaska Natives (Herman-Stahl, et al., 2003; Mohatt, et al., 2004), and treatment approaches which engage participants in traditional practices have been shown in other tribes to protect against depressive symptoms (Whitbeck et al., 2002).

Differences in history and culture may also account for differing consequences of alcohol use between the Inuit and Venezuelan Caribs. Among the Inuit, alcohol-related suicide, family violence, and disruption of the nuclear family are frequent, while in Venezuela, hunger, economic problems and intentional injuries are the most common consequences (Seale, Seale, et al., 2002). Financial resources in Alaska from numerous government sources and Alaska Native mineral rights appear to have limited the economic consequences of problem drinking, thereby limiting alcohol-related hunger. Such resources are not available in Venezuela; thus, families face severe economic consequences if their primary breadwinner is alcohol-impaired. Intentional injury in the Caribs (Seale, Shellenberger, et al., 2002) and suicide in Alaska natives (Cameron, 1999; Kettl & Bixler, 1993) have escalated with increasing alcohol availability. These differences may be related to long-standing practices in each culture. Carib focus group discussion participants reported a link between drinking and fighting in their cultural festivals that predates commercial alcohol availability (Seale, Shellenberger, et al., 2002), while anthropologic studies report a long-standing practice of suicide in circumpolar cultures (Leighton & Hughes, 1955; Misfeldt & Senderovitz, 1989; Thorslund, 1990). Cultural upheaval and the struggle with whether to give up traditional customs may lead to disillusionment, depression and ultimately to suicide for some Alaska Natives (Kettl, 1998; Reimer, 1999; Reimer, 2002). These issues are much less prominent in Carib culture. Environmental factors may play a part as well. Some investigators have found associations between the Arctic's lack of

daylight and long severe winters and the prevalence of depression and alcoholism (Haggarty et al., 2002; Booker & Hellekson, 1992; Sher, 2004). By contrast, Venezuela, where suicide is rare, has light year round and a moderate climate. These differences suggest that individual cultures manifest unique alcohol-related vulnerabilities, creating the need for individualized harm reduction strategies.

This study found higher current drinking rates among Inuit women than in recent studies of other American Indian and Alaska Native women (O'Connell, Novins, Beals, Spicer, & AI-SUPERPFP Team, 2005), and found evidence of severe family consequences associated with high rates of problem drinking among both men and women in Inuit families. Many focus group discussion participants described the emotional trauma of growing up in violent homes with addicted parents, aunts and uncles. In their review article on intimate partner violence in American Indian and Alaska Native communities, Oetzel and Duran (2004) emphasized the importance of addressing this issue with multi-level interventions tailored to the cultural context of the individual tribal group. Two other urgent priorities for future programs include exploring and addressing the factors contributing to high rates of problem drinking among women, and addressing the needs of the high-risk youth from alcoholic families, who are at increased risk for learning disorders, addiction, mental illness, risky sexual behavior and deviant behavior (Potthoff et al., 1998; Silverman & Schonberg, 2001).

Focus group discussions also highlighted the cultural diversity within the Inupiat culture and the diversity of their solutions to problem drinking. Some look to achieve sobriety in village spirit camps, while others attend Alcoholics Anonymous meetings and fly to Anchorage for inpatient treatment. We found, as did Hazel and Mohatt (2001), significant numbers of individuals who found a more formal Christian-based spirituality to be a support in staying sober, and others who saw the church as an obstacle to sobriety and pursued sobriety via Alaska Native spiritual traditions. Future programs face the challenge of providing services to clients from both traditional and non-traditional cultural and spiritual perspectives.

Finally, focus group discussions revealed the importance of employing a systems perspective, which takes into account issues related to family, community, environment, and culture, to view the problems and possible solutions to alcohol problems. Some interventions designed to decrease alcohol problems brought about unexpected results by impacting other aspects of the Inuit cultural system. For example, ordinances restricting alcohol supply have helped decrease murder rates,

accidental deaths, alcohol-induced birth defects, emergency injuries, alcohol-related police calls, and outpatient hospital visits (Albrecht, 1981; Landen et al., 1997; Berman, Hull, & May, 2000; *Oversight hearing*, 2000). However, some focus group discussion participants wondered whether family violence increased as alcohol-related violence moved from the streets into homes. In another example, one participant questioned whether public assistance programs, which have decreased hunger in some alcoholic families, may have prevented the severe economic consequences that often motivate substance abusers to seek treatment, thereby delaying treatment until their addiction reached a more advanced stage. Prevention and intervention approaches may assist in obviating unwanted or unexpected outcomes by anticipating and addressing the impact of changes in one aspect of the system on the system as a whole. Systems approaches may also allow growth and change in individuals and systems while at the same time maintaining the positive aspects of Alaska Native culture. For example, internal conflict, such as the stress experienced by adolescents when deciding whether to adhere to traditional ways or go to college, was linked by focus group discussion participants to depression and alcohol abuse. A systems-oriented solution may promote dialogue within families and communities to clarify choices and discover ways of maintaining old traditions while taking advantage of new opportunities.

Limitations

Because substantial tribal differences exist in the prevalence of substance abuse disorders (May, 1996; Mitchell, Novins, & Holmes, 1999), findings of this study may not be generalizable to other Alaska Native groups. Nonetheless, this study provides important information on alcohol problems among the Inupiaq and Yup'ik, thereby fulfilling the mandate of the U.S. Surgeon General to generate specific information regarding the mental health burden borne by American Indians and Alaska Natives (U.S. Department of Health and Human Services, 2001). While AUDIT questionnaire data obtained from a small sample of clinic patients is helpful in amplifying information obtained in focus group discussions, it has very limited statistical power and may not accurately reflect the prevalence of problem drinking. In addition, the AUDIT may have underestimated problem drinking rates because its twelve-month assessment period does not detect infrequent binge drinkers who have not consumed alcohol in the past year. Nonetheless, the prevalence of problem drinking seen is consistent with rates observed by Shore

et al. (2002) among urban American Indian and Alaska Native primary care patients in Seattle and by Koss et al. (2003) in six other American Indian tribes. Information obtained in focus group discussions could be incomplete because of participants' hesitance to discuss sensitive issues with outside researchers. Nonetheless, the frequent discussion of sensitive topics such as suicide and family violence seem to indicate a relatively high level of openness among participants. Including large numbers of recovering persons in our focus group discussions may have provided an exaggerated view of the severity of alcohol-related problems in this population. Nonetheless, their viewpoints were consistent with those of other individuals who participated in focus group discussions and interviews.

Summary

This rapidly-changing indigenous culture has responded to escalating alcohol-related problems with unique culturally-based approaches. Inupiat culture teaches that a sense of well-being (*ahregah*) derives from being in balance with the environment. Drinking and drug use and the concomitant social and family problems may detract from the balance. Participants in our focus group pointed to a way out of the cycle of problems, emphasizing the importance of building on the multigenerational legacies of their culture. Legacies they named included promoting discipline of self and children, teaching subsistence traditions and allowing family, church, friends, and communities to participate in healing of personal and family problems.

Inupiat leaders should be integrally involved in planning, implementing and evaluating culture-based treatment programs. Family treatment, depression and suicide prevention, services for high-risk youth, and research on female alcoholism are high priorities for future efforts. Successful grassroots projects (Noe, Fleming, & Manson, 2003) can serve as models for addressing problems of substance abuse in Alaska Native communities.

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References

Alaska Federation of Natives. (1989). *The AFN report on the status of Alaska Natives: A call for action.* Anchorage: Alaska Federation of Natives.

Alaska Natives Commission. (1994). *Final report volume I. Joint Federal–State Commission on Policies and Programs Affecting Alaska Natives*. Alaska: Alaska Federation of Natives.

Albrecht, C. E. (1981). *Alcohol abuse in rural Alaska. 1980 study—Bethel, Alaska*. Alaska: State Office of Alcoholism.

Anchorage Daily News. (1989). *A people in peril.* Anchorage: Anchorage Daily News.

Beals J., Novins, D. K., Whitesell, N. R., Spicer, P., Mitchell, C. M., & Manson, S. M. (2005). Prevalence of mental disorders and utilization of mental health services in two American Indian reservation populations: Mental health disparities in a national context. *American Journal of Psychiatry, 162*(9), 1723-1732.

Berman, M., Hull, T., & May, P. (2000). Alcohol control and injury death in Alaska native communities: Wet, damp and dry under Alaska's local option law. *Journal of Studies on Alcohol, 61*(2), 311-9.

Booker, J. M., & Hellekson, C. J. (1992). Prevalence of seasonal affective disorder in Alaska. *American Journal of Psychiatry, 149*, 1176-82.

Borowsky, I. W., Resnick, M. D., Ireland, M., & Blum, R. W. (1999). Suicide attempts among American Indian and Alaska Native youth: Risk and protective factors. *Archives of Pediatrics & Adolescent Medicine, 153*(6), 573-580.

Brave Heart, M. Y. H., & DeBruyn, L. M. (1998). The American Indian Holocaust: Healing historical unresolved grief. *American Indian and Alaska Native Mental Health Research, 8*(2), 56-78.

Brems, C. (1996). Substance use, mental health, and health in Alaska: Emphasis on Alaska Native peoples. *Arctic Medical Research, 55*(3), 135-147.

Cameron, L. A. (1999). Understanding alcohol abuse in American Indian/Alaskan Native youth. *Pediatric Nursing, 23*(3), 297-300.

Center for Substance Abuse Prevention. (2002, November 22). American Indians/Alaska Natives and substance abuse. *Prevention Alert, 5(16)*, 1. Retrieved April 9, 2005 from http://ncadi.samhsa.gov/govpubs/prevalert/v5/10.aspx

Denny, C. H., Holtzman, D., & Cobb, N. (2003). Surveillance for health behaviors of American Indians and Alaska Natives: Findings from the Behavioral Risk Factor Surveillance System, 1997-2000. *Morbidity and Mortality Weekly Report Surveillance Summaries, 52*(SS-7), 1-13.

Duran, E., & Duran B. (1995). *Native American postcolonial psychology.* Albany, NY: State University of New York Press.

Fisher, P. A., & Ball, T. J. (2003). Tribal participatory research: Mechanisms of a collaborative model, *American Journal of Community Psychology, 32*, 207-216.

Frank, J. W., Moore, R. S., & Ames, G. M. (2000). Historical and cultural roots of drinking problems among American Indians. *American Journal of Public Health, 90*(3), 344-51.

Gallup Organization (Kroliczak, A., Chattopadhyay, M., & Larsen, M. D.). (1998). *Executive Summary: Technical Report. Alaska Adult Household Telephone Survey. Statewide and Substate Planning Regions.* In Alaska Department of Health and Social Services (1999, December), *A summary of recent findings regarding substance abuse in Alaska* (pp. 7-14). Alaska: Department of Health and Social Services, Division of Alcoholism and Drug Abuse.

Gray, N., & Nye, P. S. (2001). American Indian and Alaska Native substance abuse: Co-morbidity and cultural issues. *American Indian and Alaska Native Mental Health Research, 10*(2), 67-84.

Gudmundsdottir, E., & Tomasson, K. (1996). Alcohol abuse and mental distress of psychiatric and neurologic patients. *Nordic Journal of Psychiatry, 50*(2), 153-159.

Guevara-Arnal, L., Zapata, L., Kaplan, M., Vargas-Vorackova, F., Marquez, M., Galindo, R., et.al. (1995). Hazardous alcohol consumption among Mexican inpatients: A multicenter study. *American Journal on Addictions, 4*(2), 170-176.

Haggarty, J. M., Cernovsky, Z., Husni, M., Minor, K., Kermeen, P., & Merskey, H. (2002). Seasonal affective disorder in an Arctic community. *Acta Psychiatrica Scandinavica, 105*(5), 378-384.

Hazel, K. L., & Mohatt, G. V. (2001). Cultural and spiritual coping in sobriety: Informing substance abuse prevention for Alaska native communities. *Journal of Community Psychology, 29*(5), 541-562.

Herman-Stahl, M., Spencer, D. L., & Duncan, J. E. (2003). The implications of cultural orientation for substance use among American Indians. *American Indian and Alaska Native Mental Health Research, 11*(1), 46-66.

Hild, C. M. (1981). A community's approach to solving its major health problem. In B. Harvald & J. P. Harthansen (Eds.), *Circumpolar health: Proceedings of 5th International Symposium on Circumpolar Health: Vol. 81* (pp. 502-505). Oulu, Finland: Nordic Council for Arctic Medical Research.

Hild, C. M. (1987). Which way to turn? Inuit culture, alcohol, and change. *Alaska Medicine, 29*(3), 83-94.

Holmila, M. (1995). Intoxication and hazardous use of alcohol: Results from the 1992 Finnish Drinking Habits Study. *Addiction, 90(6)*, 785-792.

Hughes, D., & DuMont, K. (1993). Using focus groups to facilitate culturally anchored research. *American Journal of Community Psychology, 21,* 775-806.

Kettl, P., & Bixler, E. O. (1993). Alcohol and suicide in Alaska Natives. *American. Indian and Alaska Native Mental Health Research, 5*(2), 34-45.

Kettl, P. A. (1998). Alaska Native suicide: Lessons for elder suicide. *International Psychogeriatrics, 10*(2), 205-211.

Koss, M. P., Yuan, N. P., Dightman, D., Prince, R. J., Polacca, M., Sanderson, B., et al. (2003). Adverse childhood exposures and alcohol dependence among seven Native American tribes. *American Journal of Preventive Medicine, 25*(3), 238-244.

Landen M. G., Beller M., Funk, E., Propst, M., Middaugh, J., & Moolenaar, R. L. (1997). Alcohol-related injury death and alcohol availability in remote Alaska. *JAMA: The Journal of the American Medical Association, 278*(21), 1755-1758.

Leighton, A. H., & Hughes, C. C. (1955). Notes on Eskimo patterns of suicide. *Southwestern Journal of Anthropology, 11*(4), 327-38.

Long, J. C., Knowler, W. C., Hanson, R. L., Robin, R. W., Urbanek, M., Moore, E., et.al. (1998). Evidence for genetic linkage to alcohol dependence on chromosomes 4 and 11 from an autosome-wide scan in an American Indian population. *American Journal of Medical Genetics, 81*(3), 216-221.

Marshall, D., & Soule, S. (1998). Accidental deaths and suicides among Alaska Natives, 1979-1994. *International Journal of Circumpolar Health, 57*(Suppl 1), 497-502.

May, P. A. (1996). Overview of alcohol abuse epidemiology for American Indian populations. In G.D. Sandefur, R.R. Rindfuss, & B. Cohen (Eds.), *Changing numbers, changing needs: American Indian demography and public health* (pp. 235-261). Washington, D.C.: National Academy Press.

Miller, L., Tolliver, R., Druschel, C., Fox, D., Schoellhorn, J., Podvin, D., et al. (2002). Fetal Alcohol Syndrome-Alaska, Arizona, Colorado and New York, 1995-1997. *Morbidity and Mortality Weekly Report 51(20),* 433-435.

Mills, P. A. (2003). Incorporating Yup'ik and Cup'ik Eskimo traditions into behavioral health treatment. *Journal of Psychoactive Drugs, 35*, 85-88.

Misfeldt, M., & Senderovitz, F. (1989). Suicide in Greenland. *Arctic Medical Research, 48*(3), 122-123.

Mitchell, C. M., Novins, D. K., & Holmes, T. (1999). Marijuana use among American Indian adolescents: A growth curve analysis from ages 14 through 20. *Journal of the American Academy of Child & Adolescent Psychiatry, 38,* 72-78.

Mohatt, G. V., Rasmus, S. M., Thomas, L., Allen, J., Hazel, K., & Hensel, C. (2004, November 17). "Tied together like a woven hat:" Protective pathways to Alaska native sobriety. *Harm Reduction Journal*. Retrieved December 13, 2005, from http://www.harmreductionjournal.com/content/1/1/10

Mohatt, G. V., Hazel, K. L., Allen, J., Stachelrodt, M., Hensel, C., & Fath, R. (2004). Unheard Alaska: Culturally anchored participatory action research on sobriety with Alaska Natives. *American Journal of Community Psychology, 33*, 263-273.

Noe, T., Fleming, C., & Manson, S. (2003). Healthy nations: Reducing substance abuse in American Indian and Alaska Native communities. *Journal of Psychoactive Drugs, 35*(1), 15-25.

O'Connell, J. M., Novins, D. K., Beals, J., Spicer, P., & AI-SUPERPFP Team. (2005). Disparities in patterns of alcohol use among reservation-based and geographically dispersed American Indian populations. *Alcoholism: Clinical and Experimental Research 29*(1), *107-116*.

Oetzel, J., & Duran, B. (2004). Intimate partner violence in American Indian and/or Alaska Native communities: A social ecological framework of determinants and interventions. *American Indian and Alaska Native Mental Health Research, 11*(3), 49-68.

Oversight hearing on alcohol and law enforcement in Alaska. Before the Senate Committee on Indian Affairs, 106th Congress. (October 4, 2000). (Testimony of Julie Kitka). [Internet]. Retrieved May 4, 2005 from http://indian.senate.gov/2000hrgs/alea_1004/kitka.pdf

Potthoff, S. J., Bearinger, L. H., Skay, C. L., Cassuto, N., Blum, R. W., & Resnick, M. D. (1998, February). Dimensions of risk behaviors among American Indian youth. *Archives of Pediatrics & Adolescent Medicine*, *152*(2), 157-63.

Reimer, C. (1999). *Counseling the Inupiat Eskimo*. Greenwood, CT: Greenwood Press.

Reimer, C. (2002). The relationship of suicide, alcohol abuse, and spirituality among the Inupiat. Workshop presented at the meeting of Healing our Spirit Worldwide, Albuquerque, NM.

Rigmaiden, R., Pistorello, J., Johnson, J., Mar, D., & Veach, T. (1995). Addiction medicine in ambulatory care: Prevalence patterns in internal medicine. *Substance Abuse, 16*, 49-57.

Robin, R., Long, J. C., Rasmmussen, J. K., Albaugh, B., & Goldman, D. (1998). Relationship of binge drinking to alcohol dependence, other psychiatric disorders, and behavioral problems in an American Indian tribe. *Alcoholism, Clinical & Experimental Research, 22*(2), 518-523.

Saunders, J. B., Aasland, O. G., Babor, T. F., de la Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption – II. *Addiction*, *88*(6), 791-804.

Schmidt, A., Barry, K. L., & Fleming, M. F. (1995). Detection of problem drinkers: The Alcohol Use Disorders Identification Test (AUDIT). *Southern Medical Journal, 88*(1), 52-59.

Seale, J. P., Seale, J. D., Alvarado, M., Vogel, R. L., & Terry, N. E. (2002). Prevalence of problem drinking in a Venezuelan Native American population. *Alcohol and Alcoholism, 37*(2), 198-204.

Seale, J. P., Shellenberger, S., Rodriquez, C., Seale, J. D., & Alvarado, M. (2002). Alcohol use and cultural change in an indigenous population: A case study from Venezuela. *Alcohol and Alcoholism, 37*(6), 603-8.

Seale J. P., Martinez-Leal R., & Girton, F. (2003, September). *Problem drinking in an urban South American indigenous population*. Paper presented at the 36th Society of Teachers of Family Medicine Spring Conference, Atlanta, GA.

Segal, B. (1983). Alcohol and alcoholism in Alaska: Research in a multicultural and transitional society. *International Journal of the Addictions, 18*(3), 379-392.

Segal, B. (1991). Adolescent initiation into drug-taking behavior: Comparisons over a five-year interval. *International Journal of the Addictions, 26*(3), 267-279.

Segal, B. (1999). *Alaska Natives combating substance abuse and related violence through self-healing.* Anchorage, AK: Center for Alcohol and Addictions Studies, University of Alaska.

Segal, B., & Hesselbrock, V. (1997). *Drinking practices and personality traits among Alaska Natives in treatment for alcoholism*. Poster session presented at the annual meeting of the Research Society on Alcoholism, San Francisco, CA.

Sher, L. (2004). Alcoholism and seasonal affective disorder. *Comprehensive Psychiatry, 45*(1), 51-56.

Shore, J., Manson, S. M., & Buchwald, D. (2002). Screening for alcohol abuse among urban Native Americans in a primary care setting. *Psychiatric Serices, 53*(6), *757-760.*

Silverman, K., & Schonberg, S. K. (2001). Adolescent children of drug-abusing parents. *Adolescent Medicine, 12*(3), 485-491.

Spicer, P., Beals, J., Croy, C. D., Mitchell, C. M., Novins, D. K., Moore, L., et al. (2003). The prevalence of DSM-III-R alcohol dependence in two American Indian populations. *Alcohol: Clinical and Experimental Research, 27*(11), *1785-1797*.

Stillner, V., Kraus, R. F., Leukefeld, C. G., & Hardenbergh, D. (1999). Drug use in very rural Alaska villages. *Substance Use & Misuse, 34*(4-5), 579-93.

Thorslund, J. (1990). Inuit suicides in Greenland. *Arctic Medical Research, 49*(1), 25-33.

U.S. Department of Health and Human Services. Indian Health Service. Alaska Division of Planning, Evaluation and Health Statistics. (2001). *Alaska Native Mortality 1980-1998*. [Internet]. Retrieved September 21, 2005 from http://www.ihs.gov/FacilitiesServices/AreaOffices/Alaska/dpehs/pdf/mortality-98-report.pdf

U.S. Department of Health and Human Services. (2001) *Mental health: Culture, race and ethnicity. Supplement to Mental health: A report of the Surgeon General.* Rockville, MD: U.S. Public Health Service.

Varkevisser, C. M. (1991). Module 10C: Focus group discussion. In C.M. Varkevisser, I. Pathmanathan, & A. Brownlee (Eds.), *Designing and conducting health system research projects, part I: Proposal, development and fieldwork* (pp. 171-184). Ottowa: International Development Research Center.

Wall, T. L., Garcia-Andrade, C., Thomasson, H. R., Cole, M., & Ehlers, C. L. (1996). Alcohol elimination in Native American Mission Indians: An investigation of interindividual variation. *Alcoholism, Clinical & Experimental Research, 20*(7), 1159-1164.

Weisner, T. S., Weibel-Orlando, J.C., & Long, J. (1984). "Serious drinking," "White man's drinking," and "teetotaling": Drinking levels and styles in an urban American Indian population. *Journal of Studies on Alcohol, 45*(3), 237-50.

Westermeyer, J. J., & Baker, J. M. (1986). Alcoholism and the American Indian. In N. J. Estes & M. E. Heinemann (Eds.), *Alcoholism: Development, consequences and interventions, 3rd edition* (pp.173-282). St. Louis, Missouri: Mosby.

Whitbeck, L. B., Adams, G. W., Hoyt, D. R. & Chen, X. (2004). Conceptualizing and measuring historical trauma among American Indian people. *American Journal of Community Psychology, 33*, 119-130.

Whitbeck, L. B., Chen, X., Hoyt, D. R. & Adams, G. W. (2004). Discrimination, historical loss and enculturation: Culturally specific risk and resiliency factors for alcohol abuse among American Indians. *Journal of Studies on Alcohol, 65*, 409-418.

Whitbeck, L. B., McMorris, B. J., Hoyt, D. R., Stubben, J. D., & LaFromboise, T. (2002). Perceived discrimination, traditional practices, and depressive symptoms among American Indians in the Upper Midwest. *Journal of Health and Social Behavior, 43*(4), 400-418.

Zebrowski, P. L., & Gregory, R. J. (1996). Inhalant use patterns among Eskimo school children in western Alaska. *Journal of Addictive Diseases, 15*(3), 67-77.

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