# Peyote Ceremonies Are Culturally Competent Components of Integrated Alcohol Abuse Treatment Plans for Native Americans

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**Abstract**

**Background:** The Native American Church (NAC) is the largest and most widespread Native American religion in North America. A common element of the religious practice within the NAC is the sacramental use of the peyote cactus (*Lophophora williamsii*), which contains the hallucinogen mescaline (β-3,4,5-trimethoxyphenethylamine).

**Methods:** Two groups were recruited that were comprised of NAC members and recreational users (non-NAC members). Both groups were required to have ingested peyote and/or other mescaline containing cacti to qualify for the study. A self-report survey was administered to a total of 153 people, of whom 126 were non-NAC members and 27 were NAC members. Participants were asked a series of questions regarding their alcohol and substance use history. Then they were administered the Friedman Well-Being Scale.

**Results:** On the Friedman Well-Being Scale, NAC members reported a higher overall well-being than non-NAC members. NAC members showed less alcohol use and less substance use than non-NAC members in all categories. NAC members also consumed fewer different substances than non-NAC members.

**Conclusions:** NAC members reported lower alcohol use rates and a higher sense of overall well-being than recreational users. To be culturally competent, substance abuse counselors should be open to recommending that their Native American clients try becoming members of the NAC as a part of an integrated alcohol abuse treatment plan. Peyote ceremonies are self-contained, time-limited experiences that, if pursued properly, can be used to produce a reliably healing outcome.

## Peyote Ceremonies Are Culturally Competent Components of Integrated Alcohol Abuse Treatment Plans for Native Americans

To pursue this discussion, it may be necessary to rid one's self of preconceived notions about hallucinogenic drugs and Native American culture. It is understandable that, as a substance abuse counselor, psychologist, social worker, or other type of helping professional, one might develop a hardnosed attitude against drug use. Most of the time this is the right view to hold. Although, in this specific situation it is crucial to soften one's opinion in order to become more culturally competent.

One tribal method of healing, that spans all tribes, is membership within the Native American Church (NAC). The NAC is the largest and most widespread Native American religion in North America, with eighty chapters and members belonging to seventy Native American Nations (Fikes, 1996). Fikes (1996) explained that, "except for the secular pow-wow, Peyote meetings are now the most popular Native American gatherings" (p. 3).

A common element of the religious practice within the NAC is the sacramental use of the peyote cactus (*Lophophora williamsii*), which contains the hallucinogen mescaline (β-3,4,5-trimethoxyphenethylamine). Peyote and mescaline are both defined as illegal Schedule I drugs in the United States. This means that they are illegal for recreational users to possess and consume. However, because of a 1994 amendment to the American Indian Religious Freedom Restoration Act, it is completely legal for NAC members in all states to be able to use peyote within the context of specified religious ceremonies (Feeney, 2007).

One of the main tenets of the NAC code is abstinence from alcohol and drugs (Garrity, 2000). This means that when a person becomes a member of the NAC, they become part of a community that abstains from alcohol use. Which, in turn, helps them abstain from alcohol use.

This view of abstinence is in agreement with most widely accepted 12-step substance abuse treatment programs, like Alcoholics Anonymous.

Many NAC members have found that peyote ceremonies help them feel like they have power over the alcohol. This is because past alcohol use is what has compelled a large number of Native Americans to become members of the NAC in the first place. Garrity (2000) explained that "power is highly elaborated within this healing tradition" (p. 529). During ceremonies, the road man will ask the creator to help the person by speaking to them through the peyote, as it acts as a messenger between the individual and the creator.

Another explanation for the abrupt cessation of alcohol use among peyote users are *peak experiences*. The emotional healing caused by peak experiences can occur during one session of ingesting a hallucinogenic drug, while this same healing could take years in traditional psychotherapy. According to Grof and Bennett (1993), “Non-ordinary states of consciousness tend to work like an inner radar system, seeking out the most powerful emotional charges and bringing the material associated with them into consciousness where they can be resolved” (p. 206). Yensen and Dryer (2007) explained that:

> Peak experiences are profound experiential portals that lead out of the angry, empty trap of despair, and false gratification. Instead of the illusion of escape that a mood-altering drug might induce biochemically, a peak experience is a fundamental shift in consciousness, a shift that profoundly motivates positive change. (p. 25)

Peak experiences can induce what many researchers refer to as the *afterglow*. According to Halpern (1996), “anti-craving properties” may be present across the entire class of hallucinogenic drugs, including LSD, ibogaine, and peyote. Halpern explained that the “potential

efficacy may be tied to their agonism and antagonism at specific serotonin receptor sites. After the administration of a hallucinogen, there is a positive 'afterglow' lasting weeks to months which might be extended through repeated dosing" (p. 1). Albaugh and Anderson (1974) observed that this afterglow lasted 7 to 10 days among Native American alcoholics that participated in peyote meetings within NAC.

From the literature available, it can be deduced that peyote use among the NAC could decrease alcoholism rates. However, a self-report survey was conducted to explore this topic further. The hypothesis was that NAC members would have lower alcohol use rates and a higher sense of overall well-being than recreational users.

## Methods

Subjects were recruited by advertising in a national Native American newspaper, emailing people on social networking websites, and creating a YouTube video. They were comprised of two groups: NAC members and recreational users (non-NAC members). Both groups were required to have ingested peyote and/or other mescaline containing cacti to qualify for the study. People were included that ingested other mescaline containing cacti because, for non-NAC members, these other cacti are more widely available than peyote. This is because hallucinogenic cacti, such as San Pedro, are sold legally throughout the United States. San Pedro has the same active constituents as peyote, therefore it was considered to be a similar enough substance for it to be a reliable source of data.

The self-report survey was administered through a website that was created specifically for this study. Before participants could complete the survey, they were required to read a description of the study and agree to an informed consent statement, which was approved by the Internal Review Board of Washburn University. Participants were asked a series of questions

regarding their alcohol and substance use history. Then they were administered the Friedman Well-Being Scale.

The Friedman Well-Being Scale is comprised of 20 bipolar adjectives, such as angry/calm, tense/relaxed, nervous/at ease, moody/steady, etc. Respondents rated themselves a score between 1 and 10 along the 20 bipolar adjectives. The overall well-being was calculated by adding up the scores for each of the 20 adjectives, with a range 0-200, and then dividing by 2. The scale is then scored on a 100 point rage (Friedman, 1992).

One section of the data was statistically analyzed using a two by four factorial ANOVA, which compared overall well-being scores of NAC members and non-NAC members with the amount of alcohol consumed in the last 30 days. Participants were given these choices: never, 1-5 drinks per month, 5-20 drinks per month, and 21 or more drinks per month.

Another section of the data was analyzed by comparing the number of substances used by NAC members and non-NAC members. Participants were asked to list the substances they used in the past 30 days. They were given these choices: Peyote, San Pedro, or Other Cacti containing Mescaline, Alcohol, Cannabis, LSD, DMT, MDMA, Cocaine, Crack, Methamphetamine, Heroin, Pharmaceutical drugs that I do not have a prescription for, Pharmaceutical drugs that I do have a prescription for, and Other. The rate of substance use was then calculated by adding the number of people that used each substance in both categories (NAC and non-NAC) then dividing by the total number of users in each category.

## Results

Self-report surveys were collected from a total of 153 people, of whom 126 were non-NAC members and 27 were NAC members. On the Friedman Well-Being Scale, NAC members reported a higher overall well-being than non-NAC members. NAC members reported a mean

score of 78.2, while non-NAC members reported a mean score of 65.7 (Table 1, Figure 2). The significance of this difference was to a statistical level of 0.003. It is also important to note that both groups reported a higher overall well-being than both normal adults and college students, whom traditionally have a mean score of 63.1 (Friedman, 1992).

When the number of substances used by NAC members and non-NAC members were compared, NAC members showed less substance use than non-NAC members in all categories. The rate of alcohol use was considerably lower for NAC members; 68% of non-NAC respondents used alcohol in the 30 days prior to the survey, while only 22% of the NAC respondents used alcohol in the 30 days prior to the survey. NAC members also consumed fewer different substances than non-NAC members (Table 2, Figure 1).

## Discussion

NAC members reported lower alcohol use rates and a higher sense of overall well-being than recreational users. This is most likely because of the manner in which peyote is used. Members of the NAC use peyote as a sacrament within a specific structure that contributes to their overall psychological and physical safety. They have a safe and supportive environment (setting), in which they ingest peyote. This contributes to their overall mental well-being and stability (set) going into the experience. The NAC often grows the peyote themselves (high quality substance) and members always have an experienced road man (guide or trip sitter) to help them along their journey. Afterward, members have the opportunity to discuss their experiences with their tribe, learn from each other about how to best use the knowledge they just obtained, and be open and honest about the peyote road they all just communally walked down (integration). This is greatly different from the average recreational drug user's experience with

ingesting peyote and/or other cacti that contain mescaline, like San Pedro, and is most likely one of the main factors in the success of the NAC.

**Safety of Peyote use within the NAC**

The use of peyote is not suggested for clients that are on certain prescription drugs, like insulin, barbiturates, or physostigmine (Erowid, 2008). Also, clients that are pregnant should avoid the use of peyote because of the possibility of fetal abnormalities (Erowid, 2008; NIDA, 2008). Beyond this, clients with pre-existing mental illnesses could be at increased risk for negative reactions to peyote because it might trigger their unstable tendencies (Inaba & Cohen, 2004).

Some of the side effects of peyote use are queasiness or upset stomach, nausea, anxiety, muscle tension, respiratory pressure (difficulty breathing), feelings of losing control, and feelings of fear (Erowid, 2008). Users also may experience increased body temperature and heart rate, uncoordinated movements (ataxia), profound sweating, and flushing (NIDA, 2008). Although, these *bad trips* do occur, it is important to emphasize that they usually only occur during 1 in 70,000 experiences (Erowid, 2008; Baggot, 1996).

Despite the side effects, peyote use could be considered *much safer* than the use of many other drugs. There have only been a handful of recorded deaths associated with the use of peyote in all of history, while alcohol is the third leading cause of mortality in the United States. It is attributed to cause 75,000 deaths each year (MSNBC, 2005). Even legal substances like tobacco cause 435,000 deaths each year (Jacobs, 1995). Also, hospital visits because of peyote intoxication and/or overdose happen very rarely, if ever. While hospitals routinely report dealing with cases of alcohol intoxication or poisoning; alcohol caused 26% of the hospital visits related to drug misuse or abuse in 2003 (NIDA, 2005).

A recent study suggested that peyote use among members of the NAC is not cognitively or psychologically damaging. Halpern et al. (2005) administered the Rand Mental Health Inventory (RMHI) and a battery of nonverbal neuropsychological tests to 61 Navajo long-standing participating members of the NAC. Then they compared this group with 79 Navajos reporting minimal lifetime use of peyote or any other substance, and 39 Navajos reporting at least five years of alcohol dependence, but currently sober at least two months.

Halpern et al. (2005) found that the peyote group showed no significant differences from the comparison group on all tests. Beyond this, the peyote group was associated with significantly better scores on several RMHI measures, such as Mental Health Index and Psychological Well-Being. This showed that, "long-term use of this hallucinogenic substance, at least when ingested as a bona fide sacrament, is not associated with adverse residual psychological or cognitive effects." In contrast, they found "...highly significant psychological deficits and a few significant neuropsychological deficits in the former alcoholic group" (p. 628). The alcoholic group showed poorer performance on the immediate condition of the Rey-Osterreith Complex Figure test (ROCF) and on total perseverations on the Wisconsin Card Sort Test (WCST).

The American Psychiatric Association (2000), in the DSM-IV-TR, explained that the "essential feature" of Hallucinogen Persisting Perception Disorder (HPPD) is "...the transient recurrence of disturbances in perception that are reminiscent of those experienced during one or more earlier Hallucinogen Intoxications." Halpern (personal communication, July 14, 2007) explained that the term *flashback is often used interchangeably with HPPD* but flashback "...only describes the remembrance of the experience; HPPD refers to not just a 'flashback' [but] a constellation of unsettling symptoms associated with it."

Most typically, flashbacks and HPPD are caused by use of the hallucinogen LSD. Halpern (personal communication, July 14, 2007) explained that in his "...interview of over 1000 Navajo members of the Native American Church, not a single NAC member validated ever having symptoms of HPPD from the entheogenic (sacramental) use of mescaline-containing peyote." Reiterating this point, Halpern et al. (2005) reported that peyote "does not appear to produce 'flashbacks' (Hallucinogen Persisting Perception Disorder) in the manner of LSD" (p. 630).

Peyote use is *not physically addictive*. The rate of tolerance increases too rapidly for a person to be able to become addicted. For example, let's hypothetically say that someone ingested a psychoactive dose of peyote on Monday. Then on Tuesday they wanted to ingest another psychoactive dose, they would have to take at least twice as much peyote as the day before to get a similar effect. This tolerance would rapidly increase each day, until (within only a few days) the peyote would no longer have an effect. Once this tolerance has built up, it dissipates just as quickly (Inaba & Cohen, 2004). This means that coming down from peyote causes no withdrawal, craving, or symptoms of addiction. This is a stark contrast to other Schedule I drugs, like heroin, that are highly addictive and produce compulsive drug-seeking behavior (Hyman & Malenka, 2001).

Peyote is not physically addictive like alcohol, but some believe it can be psychologically addictive (Inaba & Cohen, 2004). NAC members head off the possibility of psychological addiction by practicing moderation; as stated earlier, the average NAC member only uses peyote about once a month and some members use it as little as once a year.

The use of peyote can be viewed as a method of harm reduction very similar to that of controlled drinking. The controlled drinking vs. abstinence debate is a highly controversial issue

of its own (Hersey, 2001). However, people have had success beating alcoholism with controlled drinking, so it is worth mentioning in comparison. If you think about it, most social drinkers are controlled drinkers. It is very common to be able to have a few drinks in moderation and not become an alcoholic. The key issue here is *moderation*; a person only becomes an alcoholic when they can no longer moderate their behavior and it starts to negatively affect day-to-day aspects of functioning necessary to live a productive life.

## Conclusion

To be culturally competent, one should be open to recommending that their Native American clients try becoming members of the NAC as a part of an integrated alcohol abuse treatment plan. Research has shown that peyote use within the NAC is not psychologically or cognitively damaging, that it is not addictive, and that there have been no reported cases of HPPD or flashbacks.

NAC members report lower alcohol use rates and a higher sense of overall well-being than recreational users. This is most likely caused by the way peyote use is structured. Within the NAC, peyote is used in a safe and socially supportive environment. Attention is paid to proper set and setting, having an experienced guide present, and to integrating the experience afterward. This greatly differs from the average recreational user's experience. Peyote ceremonies are self-contained, time-limited experiences that, if pursued properly, can be used to produce a reliably healing outcome.

**Table 1. Overall Well-being of NAC vs. non-NAC compared across the level of alcohol consumption in the last 30 days**

| | Never (n=54) | 1-5 Drinks per Month (n=43) | 5-20 Drinks per Month (n=41) | 21 or more Drinks per Month (n=15) | Mean Well-being Across All Categories (n=153) |
|---|---|---|---|---|---|
| Non-NAC | 69.5 (34) | 65.4 (38) | 67.8 (41) | 60.0 (13) | 65.7 (126) |
| NAC | 75.8 (20) | 73.0 (5) | NA (0) | 86.0 (2) | 78.2 (27) |
| Both | 71.8 (54) | 66.3 (43) | NA (41) | 63.5 (15) | 71.1 (153) |

**Table 2. Rate Respondents Used Various Substances in the Last 30 days**

| | NAC | non-NAC |
|---|---|---|
| Peyote, San Pedro, and/or Other Cacti that Contain Mescaline | 0.59 | 0.40 |
| Alcohol | 0.22 | 0.68 |
| Cannabis | 0.22 | 0.77 |
| LSD | 0 | 0.19 |
| DMT | 0 | 0.17 |
| MDMA | 0 | 0.19 |
| Cocaine | 0 | 0.08 |
| Crack | 0 | 0.02 |
| Methamphetamine | 0 | 0.05 |
| Heroin | 0 | 0.04 |
| Prescription Drugs with a Prescription | 0.19 | 0.19 |
| Prescription Drugs without a Prescription | 0 | 0.28 |
| Other Drugs Not Listed | 0.04 | 0.35 |

**Figure 1. Rate Respondents Used Various Substances in the Last 30 days**

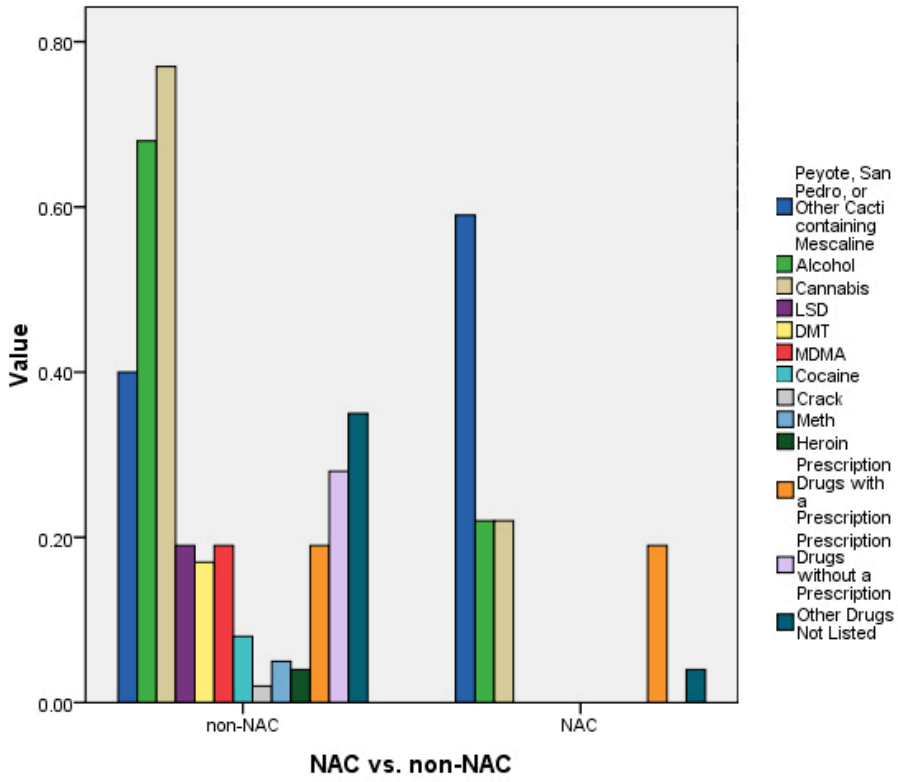
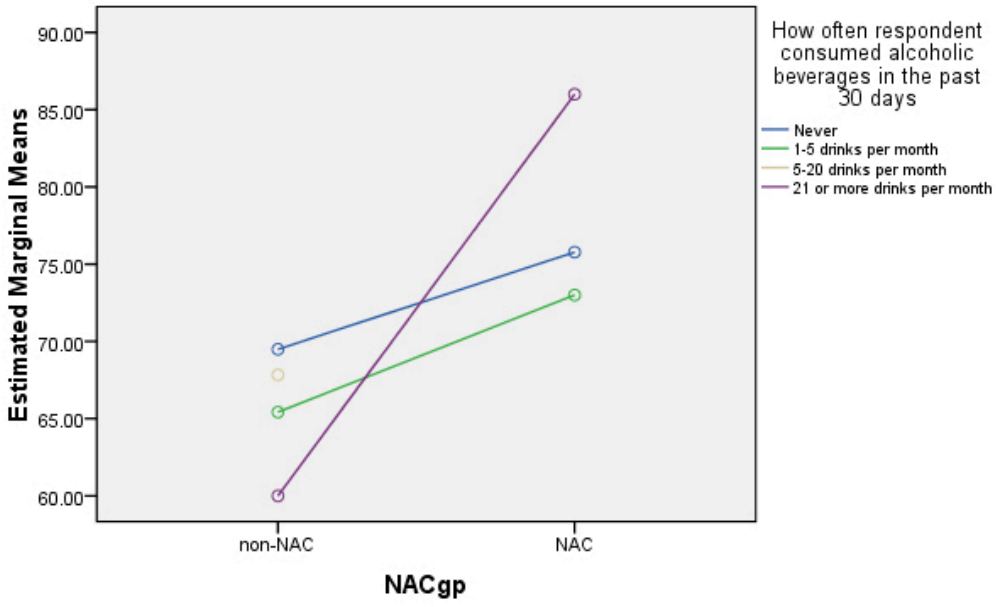



**Figure 2. Estimated Marginal Means of Total Well-being***




*Non-estimable means are not plotted.

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