

# MENOMINEE PERSPECTIVES ON COMMERCIAL AND SACRED TOBACCO USE

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*Abstract: The Menominee Indian Tribe of Wisconsin has the highest smoking rate in the state. To address the resultant health disparities, the tribe conducted a qualitative pilot project to examine tobacco use. The findings indicated mainstream models of addiction did not capture the tribe's context well; the Indigenist Stress-Coping Model was most applicable. Participants suggested that Menominee-centric ways of knowing related to commercial and sacred tobacco use should be included in all levels of prevention as a key strategy. Recommendations include primary prevention targeted specifically to youth, pregnant women, and adults who care for children, as well as access to commercial tobacco products.*

## INTRODUCTION

Smoking rates in American Indian/Alaska Native (AI/AN) communities are among the highest in the U.S., with overall prevalence at 31.4% in 2010, as compared to 21.0% for Whites and 20.6% for African Americans (Centers for Disease Control and Prevention [CDC], 2011). Many tribes in the five-state Indian Health Services (IHS) Bemidji area (Illinois, Indiana, Michigan, Minnesota, Wisconsin) have smoking rates that exceed 50% (CDC, 1996). Data published by the Great Lakes Intertribal Council Epidemiology Center (2010), based on recent CDC Behavioral Risk Factor Surveillance Survey results, indicate 82 of 141 participants (58%) reported current smoking (aggregated over five years) in the tri-state area of Michigan, Minnesota, and Wisconsin. One Bemidji-area tribe, the Menominee Indian Tribe of Wisconsin, has over 8,700 members and the highest smoking prevalence rate in the state, at roughly 34% (Palmerheim, Voskuil, & Glysch, 2011). The high prevalence of smoking among the Menominee is also a likely contributor to the

197% increase in lung cancer mortality (from 37.4 to 111.2 deaths per 100,000) in Menominee County between the years 1979-1983 and 1994-1998. This increase was also the largest in Wisconsin for that timeframe (Ostenso, Remington, & Ahrens, 2001).

Researchers have already made a case in the literature for the impact of historical trauma on AI/AN health disparities, such as high smoking and alcohol abuse rates (e.g., Duran & Duran, 1995; Duran, Duran, Brave Heart, & Yellow Horse-Davis, 1998). For the Menominee, perhaps the most clear and far-reaching impact of colonization and historical trauma is the 1954 Indian Termination Act (Public Law 108). Termination reconstituted Menominee tribal lands into the 72nd county in the State of Wisconsin on July 3, 1959, and resulted in the abject poverty of the Menominee people. After a series of legal maneuvers by tribal leadership, the Menominee Restoration Act was signed into law in December 1973 and finalized in 1975, reestablishing Menominee identity and reservation lands.

After restoration, the tribe found itself more dependent on the Bureau of Indian Affairs and IHS for funding, and was forced to close its tribal hospital and clinic due to a lack of funding for state-mandated improvements. The clinic was not reopened until 1977. During that time period, health care disparities for the Menominee rose precipitously compared with those of other races in Wisconsin. Presently, Menominee County ranks 72nd among the 72 Wisconsin counties for health outcomes (e.g., mortality rate), health determinants, including overall health behaviors (e.g., cigarette smoking in general, smoking during pregnancy), and socioeconomic factors (e.g., income; household poverty, for which the Menominee rate is 31.6%, while the overall rate in Wisconsin is 11.6%; Menominee Indian Tribe of Wisconsin, 2005; 2011). In 2008 the Menominee Tribal Clinic conducted an exploratory pilot project to address one of its most disparate health outcomes—high smoking rates for commercial tobacco. The clinic partnered with two academic institutions, as well as with the Spirit of EAGLES Project/Mayo Clinic, to conduct its own examination of tobacco use and addiction patterns, related health outcomes, and possible treatment strategies—both mainstream and Menominee-centric—for the tribe. The researchers expected the data would inform prevention and intervention efforts on a community-wide level, given that cancer has now passed heart disease as the leading cause of death for the Menominee (Wisconsin Department of Health Services, 2012), and lung cancer is the most prevalent cancer (Wisconsin Bureau of Health Information, 2008).

### **Models of Smoking Cessation Treatment**

Cessation treatment is an important secondary prevention approach that can affect smoking prevalence rates, and may also help to reduce the health disparities associated with smoking-related diseases (Cox, Okuyemi, Choi, & Ahluwalia, 2011). Models to understand and treat tobacco addiction and cessation generally fall within three orientations: (1) negative reinforcement models,

(2) positive reinforcement models, and (3) cognitive-social learning models. However, none of these models accommodate the broader historical contexts of AI/AN persons and communities, or the connection of these contexts with commercial tobacco use rates. Nor do these models account for the core role sacred tobacco has played in many AI populations' Indigenous ways of knowing regarding wellness.

The Indigenist Stress-Coping Model (Walters & Simoni, 2002) was developed to address these contexts. The model “posits that the effect of life stressors (e.g., historical trauma) on health is moderated by cultural factors...that function as buffers, strengthening psychological and emotional health and mitigating the effects of stressors” (p. 521). These cultural buffers can mediate the development of particular negative health outcomes, such as nicotine addiction. This model both brings an Indigenist perspective and acknowledges the existence and possible impact of Indigenous knowledge, understanding, and science—in the present case, traditional teachings about and manners of using sacred tobacco.

Many Indigenous populations consider the tobacco plant a sacred means of communicating with the spirit world; it is not to be ingested via the forms available for commercial use. Further, the Menominee have Original Instructions, or teachings that formalize covenants with the plants used in sacred tobacco, to invoke their medicinal energies. Indigenous ways of knowing emphasize a reciprocal relationship of respect when using the medicinal properties of plants (Cajete, 1999). These plant medicines (e.g., the red or white willow barks in Kinnickinnick, or sacred pipe tobacco, which contain salicin, a chemical similar to aspirin [acetylsalicylic acid]) have been used for thousands of years without the addictive nature of commercial tobacco. This knowledge is indeed important for anyone working to reduce health disparities among Indigenous populations, as the understanding of substance abuse, addiction, and intervention is embedded within a historical-cultural knowledge base. The Indigenist Stress-Coping Model articulates the relationship among stress and trauma; coping (e.g., cultural buffers); and medical, behavioral, and mental health conditions (e.g., substance abuse, such as smoking commercial tobacco; anxiety disorders).

### **Cessation Treatment with AI/ANs**

There is little extant research on cessation treatment among AI/ANs (e.g., Choi et al., 2006; Daley et al., 2012), with fewer than a dozen studies in AI communities overall (for more see Henderson, Rhoades, Henderson, Welty, & Buchwald, 2004), and virtually none examining such from an ethnocentric or culturally adapted mainstream framework. New evidence-based cessation treatments (including medications and counseling techniques) may increase the likelihood of successful quitting (Fiore et al., 2008), but these have not been tested with AI/AN smokers.

A small number of randomized clinical trials are examining cultural tailoring of cessation treatments for AI/AN smokers (e.g., Choi et al., 2011; Smith et al., 2010); however, final results are not yet available. Additionally, cultural and historical aspects of tobacco use by AI/ANs, such as those discussed earlier, must be considered (Pego, Hill, Solomon, Chisholm, & Ivey, 1995; Struthers & Hodge, 2004), and challenges to conducting research in AI/AN communities (e.g., lack of trust, inadequate funding) must be overcome (Burhansstipanov, Christopher, & Schumacher, 2005; Norton & Manson, 1996; Oberly & Macedo, 2004; Petereit & Burhansstipanov, 2008).

In response to this paucity of research and evidence-based treatments, the Menominee Tribe and the Menominee Tribal Clinic (MTC) initiated the present qualitative exploratory pilot project with a sample of 14 Menominee participants to examine perceptions of commercial and sacred tobacco use. Using the four aforementioned models, the researchers aimed to explore points of prevention and intervention related to commercial tobacco use, addiction, health outcomes, and treatment; they also sought to identify Menominee-specific needs and strengths. The team also explored the utility of these models in addressing smoking cessation with AI/AN communities.

The project's specific goals included discerning: (1) the individual smoking stories of Menominee participants; (2) the individual smoking cessation stories of Menominee participants; (3) participants' perceptions of the Menominee community context regarding tobacco, and (4) what role, if any, sacred tobacco use may play for participants. The Indigenist Stress-Coping Model provided a theoretical framework for examining participants' stories. Findings were also examined using the negative and positive reinforcement models, as well as the cognitive-social learning model.

## METHOD

The Extended Case Method (ECM; Burawoy, 1991; 1998) was selected as the analytic framework for this project due to its congruence with traditional AI/AN information-gathering and meaning-making processes (Rouse Arndt & Davis, 2011). The ECM accommodates both micro- (e.g., individual) and macro- (e.g., tribal ecology) level exploration, offering the opportunity to fully examine participants' historical and sociopolitical contexts. Emphasis is placed on anomalous cases as possible exemplars of gaps in current theories or models that might require reconstruction (i.e., adding new and critical elements, or further delineating the theory or model with new details on existing elements). Thus, sample size is determined by social significance, or the broadly defined cultural relevance of the data possessed by the participants, rather than by numerical or statistical significance. The role of the researcher is that of insider-participant-expert, collaborating with the community and participants in the data collection and knowledge construction processes. Reflexive and reflective processes (described below) are utilized throughout ECM to affect triangulation and trustworthiness.

### **Participants and sample characteristics**

Fourteen Menominee participants were interviewed for this pilot project. They were identified and recruited by the MTC Wellness Director and staff via nomination sampling (i.e., social significance) and due to their non-smoking status. Inclusion criteria consisted of self-identification as Menominee, being 18 years of age or older, and having a history of smoking cigarettes. Six participants were female and eight were male. All were non-smokers at the time of their interview, but had smoking histories ranging from a low of 9 years to a high of 51 years (mode, 45 years). Participant ages ranged from 42-75 years.

### **Interview protocol**

The interview instrument was a semi-structured protocol developed by MTC staff who consulted with university-based researchers on methodology. The instrument reflected diverse perspectives regarding both commercial and sacred tobacco use. Additionally, a Menominee traditional knowledge holder provided consultation regarding the use of sacred tobacco. He guided the interviewers in developing the questions and also provided cultural context for analysis. A total of 40 questions were used to stimulate conversation, and participants were encouraged to express themselves with minimal influence by the interviewer. The interview questions addressed the project's four aims, discerning: (1) the individual smoking stories of Menominee participants (e.g., "Please talk about the reasons you do/did smoke."); (2) the individual smoking cessation stories of Menominee participants (e.g., "What resources have you/would you used/use for a quit attempt?"); (3) participants' perceptions of the Menominee community context for tobacco use (e.g., "What are the strengths of the Menominee community that can help people to quit smoking?"); and (4) what role, if any, sacred tobacco use may play in participants' smoking and cessation stories (e.g., "Do you use tobacco for spiritual/ceremonial purposes? Please describe."). MTC staff obtained tribal approval for the interviews. University-based researchers were not involved in the data collection process, but were later invited by the Menominee Tribe to collaborate on the formal qualitative analysis of the interview data reported here, as a secondary data set.

### **Research team and consultant characteristics and biases**

The qualitative analysis research team included seven enrolled Menominee (four women and three men, three of whom never smoked). The team consisted of the primary investigator (PI), who was an RN and the MTC Wellness Director; the tobacco cessation counselor (enrolled Menominee); two doctoral-level trainees in Counseling Psychology (one of Métis heritage); a bachelors-level intern (enrolled Menominee); a university-based outreach specialist funded by

the Spirit of EAGLES project (Kaur, Dignan, Burhansstipanov, Baukol, & Claus, 2006); the MTC Director (enrolled Menominee); an associate professor of Clinical Psychology specializing in smoking cessation research; and an assistant professor trained in Counseling Psychology and ECM (of Métis heritage). A Community Advisory Board (CAB) of Menominee Tribe members also provided input to the analytic processes. All CAB members were non-smokers while serving and were selected for their respected roles within the community, with three having significant knowledge of sacred tobacco use.

## **Procedure**

Thirteen interviews were conducted by the PI alone. The fourteenth was conducted by the Menominee intern under the supervision of the PI. All interviews were conducted at the MTC to provide comfort and confidentiality, were audiotaped (with participant consent), and ranged from 1.5 to 2 hours in length. Participants received \$50 for their participation. Audio recordings were transcribed and individually coded by four team members, then audited by the assistant professor, who served as the qualitative analyst.

### **Procedural Reflexivity and Trustworthiness**

The project incorporated ECM's reflective and reflexive processes in conjunction with Lincoln and Guba's (1985) recommendations for trustworthiness and generalizability, and in consultation with insider-experts such as the traditional knowledge holder. These procedures helped ensure trustworthiness in data analysis. Reflexivity was benchmarked via two reflexive process meetings, one with the entire research team and one with only the analysts. During the group sessions, which resembled talking circles, research team members shared personal and professional perspectives that could affect research and analysis. Topics included ethnic/cultural and professional background, personal smoking/nonsmoking/cessation history, the Menominee community and its views on commercial and sacred tobacco, and analysis methods. During the sessions, the PI took notes, which were used to triangulate findings and check for biases in final outcomes.

The assistant professor who led the analysis consulted with the research team and four CAB members to develop the project's inductive data analysis, focusing on themes that emerged from the data. The deductive domains of analysis were imposed on the data; these domains were driven by the mainstream models of tobacco addiction and cessation (negative reinforcement, positive reinforcement, and cognitive-social) and the Indigenist Stress-Coping Model, as well as by deductive paradigms—commercial tobacco prevention, use, addiction, health outcomes, and

treatment—found in existing literature on smoking cessation. Reflexivity in negative case analysis (important in ECM) and triangulation were also emphasized in the design via consultation with research team and CAB members.

## Analysis

The assistant professor, cessation counselor, and two doctoral trainee team members each individually read and coded the transcripts, first within and then across cases. Data were first categorized by abstracting large domains for the aims identified deductively, utilizing an ecological perspective to find information related to the project’s paradigms of prevention, use, addiction, health outcomes, and treatment. Once the data were analyzed for the deductive domains, the aforementioned team members conducted an inductive analysis on the data and found no additional large domains.

Each participant case was analyzed independently by the cessation counselor and the assistant professor; data were then merged across cases. Domains were further rendered to themes utilizing an inductive analysis process; thus, themes were not imposed by the researchers, but emerged from the Menominee-centric data. The final phase of analysis involved auditing checks by two team members (the two doctoral students). The data were then analyzed with respect to the mainstream models (negative and positive reinforcement, and cognitive-social). While ECM offers the researcher the opportunity to remain the “expert scientist” and take a position on data analysis based on theory that may be contrary to that of the analysis team, there was no divergence among the analysis in this project.

## FINDINGS

The data were examined for the core tenets of the deductive paradigms (prevention, use, addiction, health outcomes, and treatment), revealing that 4 of the 14 participants had a first smoking experience at 12 years of age. Two indicated 13 or 14 years of age, and six reported 15 or 16 years of age. Only two did not first use commercial tobacco until 18 years of age. Most participants indicated they were introduced to smoking by a relative, often smoking first with a sibling or cousin and obtaining cigarettes from an adult caretaker. Total years smoking were reported as <10 for one participant, 10-19 for one individual, 20-29 for two participants, 30-39 for three participants, 40-49 for five individuals, and >50 for one participant. Aside from their own stories, participants perceived a generally elevated smoking rate within the Menominee community, exposing younger generations to the habit (e.g., “I see that a lot” [#8, 12, 16]; “Pretty common. Always has been.” [#1]).<sup>1</sup>

Participants reported similar struggles to those of other populations experiencing tobacco addiction, particularly around smoking-related habits (e.g., driving [#3], eating meals [#1, 2, 3, 5, 11, 15], drinking coffee [#1, 3, 11, 12, 14, 16, 17]). These findings also demonstrated expected health outcomes for smokers, given the Menominee Tribe's low health rankings, with participants reporting difficulty breathing and concerns for coronary and overall health due to smoking. Perhaps most noteworthy is the frequency with which these data appeared and the sense of urgency participants felt about their health (e.g., "...scared straight. Doctor said there was something wrong...the only thing I could do better is by quitting smoking, so I quit" [#10]). The frequency of these data reflects the overall health disparities reported for Menominee County and the Menominee Tribe.

Participants related data regarding their quit stories and cessation treatment, including information from the six women regarding their smoking practices during pregnancy. Three reported complete abstinence during each of their pregnancies (e.g., "Oh, I quit completely with both pregnancies" [#4]), and three indicated partial abstinence (e.g., "...my first baby I never smoked. My second baby very little..." [#14]). Finally, participants shared stories of successful cessation, including a variety of pharmacological means. Chantix (Varenicline) was mentioned most commonly [#2, 4, 13, 14, 15], with patches [#13, 15] and inhalers [#15] also reported.

Seven themes emerged from the inductive (Menominee-centric) data: Menominee Tribal Community, Family, Remarkable Stressors, Alcohol, Financial Issues, Menominee Culture, and Sacred Tobacco.

### **Menominee Tribal Community**

Participants discussed how the Menominee tribal community provided both risk and buffering factors for cigarette smoking. Risk factors included the community's overall high smoking prevalence, which was understood in a more specific manner than just the number of smokers and was identified as a potential trigger for a relapse or a first-time smoking opportunity. Participants commented on the variety of locations in which they and others were exposed to secondhand smoke (e.g., "...smoke everyplace you go" [#15]; "...being around it in the community" [#1]; "...bad for everybody around you" [#12]). Specific locations were mentioned as particularly troubling, including workplaces that were not smoke-free (e.g., "Work meetings" [#11]; "Being around it at work" [#1]) and the tribal casino (e.g., "Gambling" [#12]; "...at the bingo hall and the friend I was with left her cigarettes on the table and they went to the other room so I grabbed one" [#8]).

Participants also viewed the high prevalence of smoking as a contributor to abuse rates for other substances (e.g., "I think a lot of it has to do with probably the drugs on the reservation, which is horrible...very few that don't...a lot of drinking on the reservation" [#17]; "...a lot of people chew in addition to smoking" [#2]; "...a normal part of life up here" [#4]). Participants recognized

the toll of poor health outcomes on the entire community due to smoking (e.g., “...to see how much they suffer...asthma...diseases” [#3]; “...we need to realize the importance of our non-smoking habits [impact on entire community]” [#2]).

According to participants, the Menominee community also provided buffering factors. They recognized that the programming and staff at the MTC were critical elements in the prevention process. Participants acknowledged the MTC’s trusted status and established successes in prevention and intervention efforts, mentioning specifically the Wellness Director and physicians (e.g., “... people can go to you [Wellness Director] *and* doctors turn them [patients] over to you” [#14]). MTC programming was broadly recognized as effective in addressing secondary and tertiary health outcomes related to smoking, as well (e.g., “...this reservation here is really blessed with the things that they got”; “...here on this reservation have got so many different things going for [smoking cessation]” [#14]).

Participants also shared recommendations, including continued and pervasive education efforts (e.g., “...community-specific education campaign...tribal newspaper or maybe billboards or posters or anything like that. Education in primary and middle school age” [#11]; “Keeping that information out there...learning what it does to unborn children...premature babies” [#3]; “Pound it into their heads from kindergarten...educate them” [#17]). They also made recommendations regarding community-wide policy issues that could help curb smoking rates and exposure to secondhand smoke (e.g., “...settin’ laws for tobacco on the reservation...making all the buildings smoke free which they never were in the past...make them [cigarettes] illegal” [#16]). An overarching perspective was that the community can capably address its own smoking rates and related health disparities in a Menominee-centric way (e.g., “...being a tribal member. We can do it if we stick together. There is power in numbers as a community” [#10]).

## Family

Family presented both risk and buffering factors, according to participants. They discussed risk related to secondhand smoke exposure (e.g., “The secondhand smoke is bad. Children get more ear infections...more colds and lung diseases...get cancer from secondhand smoke. It makes them grumpy...” [#8]). Participants indicated that youth were often subjected to parents and/or grandparents who smoked, and that these influences gave the impression that commercial tobacco is harmless (e.g., “...parents are going to smoke in the house, so are the children” [#3]). They also detailed the burden on families caring for smokers who suffered related health consequences (e.g., “My heart attack affected my family...worrying about me. I’m sure that’s likewise for other people” [#11]). There was a pervasive recognition that quit attempts and smoke-free homes created significant health benefits, particularly for children (e.g., “...makes it better for your kids” [#16]).

Participants often cited buffering factors related to family. Many detailed the emotional and practical support that family members could provide to a relative trying to quit smoking (e.g., "... by being involved with the person, giving them family support, not just specific to smoking, but supporting them in all ways because when we give up that addiction we do need help" [#2]; "Tell them that they love them and they want them to stay around" [#10]; "...leave them alone, don't drink around them, don't argue or nothing..." [#5]; "If you get family and friends to back you up on that you can do it and you straighten your mind out that you want to quit yourself" [#12]). Participants related that support could be helpful even if other family members chose to continue smoking (e.g., "...not smoking around them [other family/friends] if they continue to choose to smoke themselves" [#2]). A role-modeling responsibility to others was also noted in this theme, focusing heavily on responsibility to next generations: "...[by] setting examples [as non-smokers]" [#17]; "I tried with my grandson...to talk to him [about a healthy lifestyle]"[#5]). Likewise, participants reported the family was a primary motivation to quit smoking, explicitly citing the positive impact of children and/or grandchildren (e.g., "My family and my wife...grandkids" [#12]).

### **Remarkable Stressors**

Participants shared data on how stress was connected to their smoking stories; the stressors discussed were remarkable in their magnitude, and often traumatic. Some participants indicated traumatic backgrounds due to family violence (e.g., "...when I was growing up...my father...used to always beat up my mother, and...we'd seen that since we were day-one. I could say...we didn't care, we just started [smoking], 12 years old I think we [siblings] all started" [#5]). Others shared histories of traumatic stress due to military service (e.g., "...one was my PTSD [post-traumatic stress disorder]" [#13])—not surprising given that the Menominee serve in the military at the highest per capita rates of all races/ethnicities in the U.S., including other AI/AN populations (Warrington, 2011). This theme also involved the common experience of losing loved ones—a unique risk factor given the Menominees' high rate of completed suicide as well (e.g., "stress...suicide of a youth caused a relapse" [#4]; "...death of a family member" [#2]).

The reality of historical trauma and colonization effects was not lost on participants. There was an understanding that disruption of enculturation had negative consequences for the Nation, families, and individuals. Participants acknowledged the resilience of the Menominee as a primary buffer and asset in the fight to reduce smoking-related health disparities, e.g.,

The price that Menominee people have paid and hung onto their [way of life], part of their original land base, faced with such vast overwhelming opposition. I think

they could tie that into maintaining Menominee people in looking for longevity?... Long life, trying to obtain that would be a real spark I guess to try to stop smoking and help others to stop smoking to keep the Menominee Nation strong. [#11]

### **Alcohol**

As with many studies of disparities in Indian Country, particularly in the Plains regions, alcohol emerged as a theme and an ever-present risk factor (Beals et al., 2003). Participants perceived alcohol not just as a social trigger for smoking, but as a distinct health disparity. They shared the need to address abstinence for both substances (e.g., “...drinking will get me into smoking...” [#13]; “...if I spent time in the tavern...cigarette tastes better with a beer...drinking” [#3]).

### **Financial Issues**

Menominee County is the poorest in Wisconsin, and the financial toll caused by participants’ smoking habits was noted in the data (e.g., “...I don’t have money” [#8]; “Cost and money!”[#1]). Consequently, participants related stories of the joy they felt when they quit, in saving the money they had previously spent on cigarettes. They also shared data detailing their excitement in being able to purchase things they couldn’t afford before (e.g., “you save money” [#8]; “extra money” [#14]).

### **Menominee Culture**

The protective nature of traditional Menominee culture was well articulated by several participants. An interesting element of this theme was the view of first-time smoking as a “rite of passage” [#2]. In accordance with ECM’s focus on anomalous data and cases, the research team found that this wording (rather than, for example, the more common “to be grown up”) resonated with the loss of traditional ways of marking the developmental transition to adulthood. Some participants recognized that the loss of ceremonial rituals marking life events (e.g., puberty rites)—particularly in a culture like Menominee that might have incorporated sacred tobacco into many such events—created large-scale disruption for the Menominee Tribe as a whole.

Likewise, some participants recognized that they could act as role models by having a traditional cultural or spiritual relationship with sacred tobacco. For example, one individual stated:

Well, I think our traditional cultural way of looking at life[...]we are all connected and I think whether we are grandparents, aunts, uncles, as adults we are role-modeling to our young people and it is important for us—we want people not to smoke and to be non-smokers ourselves, to show them we chose the lifestyle—that I *chose* and *this is what I choose for you*. [#2]

Many participants shared their perspectives on cultural buffers that they viewed as either AI/AN- or Menominee-specific, including a strong sense of community and ethnic identity, a hard-won battle for sovereignty, and an Indigenous or traditional orientation. Overall, participants reported that their ability to quit smoking was strongly tied to both community and familial support. Participants noted that community support was bolstered by the sovereign status of the Menominee Tribe (e.g., the tribe's ability to influence local tobacco laws). They also highly valued their tribal resources, both modern (e.g., the MTC) and, at times, those rooted in Original Instructions (e.g., sacred tobacco use).

### **Sacred Tobacco**

Two-thirds of participants reported that they used sacred tobacco. Participants acknowledged that the relationship with sacred tobacco differs from use of commercial tobacco: the former is healthy and the latter is abusive. Some noted that there is a belief that tobacco used outside of sacred customs harmed the traditional ways of the Menominee. Most who used sacred tobacco reported having a spiritual relationship with the plant:

I use tobacco [if] something is going on with the family or something like that..., grandchildren getting sick or [someone] gonna pass on...I'll grab some tobacco out of mine [tobacco pouch] and I'll face the [cardinal direction] and I'll hold it in my... hand and I'll pray to the Great Spirit and to the spirits around and I'll ask them for help in a situation that I'm in. I'll just offer it and put it down by a tree. [#13]

...with the spiritual pipe...you don't inhale and it is herbs from the earth and when you smoke the pipe you are making that connection from Mother Earth to the Creator on behalf of the person you are praying for. [#2]

One individual detailed a cultural (rather than spiritual) practice of using tobacco to respect another's spiritual practice at an event or ceremony (e.g., "No, just at funerals [to be respectful of others' practices]" [#17]). Two participants indicated they used sacred tobacco specifically to aid them in their quit attempts, indicating prayer for cessation (e.g., "It's what got me off of smoking the last [final] time" [#3]).

Many commented on how sacred tobacco use could play a role in addressing Menominees' commercial tobacco-related health disparities (e.g., "I would go back to our basic teaching that we were told by our elder—if you pray sincerely with your tobacco your prayers will be answered, and not enough people pray with tobacco today" [#2]). Others stated:

I had...[my]...grandchildren with me, they're all teenagers, and I told them that I wanted to quit smoking and, um, they all, the oldest one said "Grandma, we'll help you." So I said, "Let's [offer]...the tobacco...and offer it to the Great Spirit and you guys say some really good prayers so that I'll quit smoking." So we actually did...everybody said their own prayers and just like that the next day I didn't even crave, I have not craved, and it's been going on 5 years...the other day I asked my one granddaughter, I said, um, "Do you think you, did you pray really hard for me when I, when you helped me to quit smoking?" She says, "I prayed really hard Grandma." So they helped me spiritually and I think the tobacco helped too, offering the tobacco. [#3]

The Menominees do different things with tobacco...I just put mine out in the morning or if there are hard times for someone then I will put tobacco out and pray...Everybody else has different ways of doing their tobacco. Through prayer. [#4]

In the lodge they tell that, tobacco is sacred, it's supposed to be used in a, in a sacred way. That's why the Great Spirit gave it to us and to use it like people do around here [commercial tobacco]...that ain't right...You're supposed to use it in a sacred way. [#13]

And "...[they explain] why it's being used the ceremonies and not to carry it into society, that's for ceremony use only." [#16]

A number of participants also pointed out that many individuals use commercial tobacco in place of sacred tobacco, and may not understand the differences between the two, possibly never having learned the Original Instructions about sacred tobacco. Participants noted that this use was prevalent at funerals, and presented a danger and potential relapse trigger for some:

...the cigarettes were in a bowl at the funeral home by the door...I tried that [pray for the deceased with a commercial cigarette instead of sacred tobacco]...at a friend's funeral and I got so ill after I lit up a cigarette and I took a couple of puffs. I had the most horrible headache and stomachache and I was nauseous and I just felt totally ill, physically, mentally, spiritually, and every which way. [#2]

### **Additional Information**

Finally, the closing interview question asked participants to share anything additional they wanted to discuss, that had not been asked by the interviewer. This opportunity yielded considerable additional information, beyond what the researchers had seen in other such projects. This information included participants' accounts of interactions with spirit beings via both waking and dream events, as well as details regarding traditional teachings and learning processes. Details are not included here because much of the information was of a sacred nature. These data were detailed for the Menominee Tribe's confidential use only.

## **DISCUSSION**

The primary purpose of this project was to examine points of prevention and intervention related to commercial tobacco use, addiction, health outcomes, and treatment. We used ECM to explore mainstream models of addiction and cessation (negative reinforcement, positive reinforcement, and cognitive-social) and to elucidate our deductive findings. While many of the findings mirrored those found in other racial/ethnic populations, some were unique to AI/AN populations and to the Menominee in particular.

Although many participants saw the Menominee community as presenting particular risks for smoking (e.g., the casino and other workplaces allow smoking), the Menominee Tribe's sovereign status also well positions it to manage its high smoking rate by instituting bans and promoting tribal clinic resources, especially prevention and intervention services. Likewise, the emphasis on family as both a buffer and a risk factor for smoking for this sample implies that making these prevention and intervention efforts family-focused will be beneficial. The family unit can promote long-lasting change and development of healthy coping strategies. Such prevention and intervention efforts also can have intergenerational impact and can contribute to the healthy management of the remarkable stressors faced by many participants. Given the number of individuals who expressed that alcohol exposure and use were risk factors for smoking, healthy habits regarding both substances could be taught within the family unit. And given the Menominee Tribe's high poverty rate and the toll that both smoking and alcohol use can take on individual and family finances—which in turn negatively affects the entire community—such education seems especially important.

Some participants viewed Menominee traditional teachings as a primary aspect of prevention and intervention for cessation, and reported that tribal collectivism and relationships were the most elemental of their Menominee values, closely followed by the responsibilities that each generation has to others (a Seventh Generation perspective).

In addition to bolstering family-focused services, the idea of intergenerational prevention and intervention is embedded within traditional teachings. While details about tobacco and spirit interactions could not be reported in the findings, it is clear that many participants have a core reverence for traditional teachings, regardless of their religious or spiritual orientation. This finding suggests that integration of traditional teachings into commercial tobacco use prevention and intervention programs offers a primary avenue for addressing the Menominee Tribe's high smoking prevalence and resultant health outcomes.

Community role models and knowledge holders could be incorporated into both new and existing (e.g., youth and school outreach) prevention and intervention efforts to offer traditional options for healthy lifestyles and coping strategies. These efforts could also incorporate input from those who manage the traditional tobacco program at the Historic Preservation Department.

### **Models of Tobacco Addiction and Cessation**

The negative reinforcement model did help explain smoking as a stress reliever, but no data were identified that could contribute to further reconstruction of this model. The positive reinforcement model of smoking cessation seemed to garner more data from participants. The findings on first use, positive social experiences with peers, family and community role models, and habits (e.g., caffeine or alcohol use), and participants' reports of conscious and informed decision-making regarding smoking, may encourage researchers and treatment professionals to examine current prevention and intervention efforts to add to the understanding of commercial tobacco use from a positive reinforcement perspective. Treatment plans for Menominee smokers should acknowledge the impact of both historical trauma and present-day stressors to fully understand the positive reinforcement cycle for effective treatment.

The cognitive-social learning model seemed to accommodate some of the findings of this project, but not the deeper contextual issues unique to the population, its complex tribal community setting, or the historical factors influencing its many present-day health disparities. Thus, while the model did provide a framework for understanding the social reinforcement for smoking behavior (e.g., exposure to smoking in social situations like the casino), it did not effectively accommodate the historical, cultural, or spiritual contexts of Menominee smokers (e.g., loss and reestablishment of sovereign tribal recognition, importance of tribal community and family, role of sacred tobacco and use of cigarettes in its place at funerals).

The Indigenist Stress-Coping Model was the primary theoretical orientation used for this project and did present an intriguing forum for analysis. It accommodated many of the data reported (e.g., regarding stressors unique to the Menominee), but did not especially address the more biological elements included in the other models (e.g., accounting for cravings).

While the project was not designed to gather information specific to all three health areas of the Indigenist Stress-Coping Model (i.e., stressors, buffers, and outcomes), data were reported in each area. The findings indicate that commercial tobacco use had been part of stress-coping efforts to manage negative colonization effects for many participants. Further, Menominee County's low rankings in a variety of biopsychosocial measures demonstrate the resultant negative health outcomes (often related to historical factors), many of which were identified by participants. However, most participants also shared data relating the strength of their tribal community and the strength available through traditional ways in coping with challenges.

The full contextual-sociological perspective reported by participants was also difficult to address within the Indigenist Stress-Coping Model as it currently exists. Participants perceived some behaviors (e.g., pervasive smoking within the community) as cultural, despite the fact that such behaviors are not traditional, but reflect colonization's impact on the culture.

### **Future Research**

It may be useful for future researchers to gather information on Menominees' traditional ways in relationship to their health and other habits. For example, findings from this project suggest that clinicians need to assess for smoking settings and triggers that may be unique to Menominee, such as the use of tobacco for hunting or during recreational activities such as camping. Cessation therapists and MTC would benefit from gaining knowledge of such activities and settings, which can aid them in providing skills training to manage the temptation to use commercial tobacco. In addition, it may be helpful for researchers to adapt and test the models, particularly the cognitive-social learning and Indigenist Stress-Coping models. All the models examined for this project would benefit from exploring how such culturally specific findings might further inform their structures.

### **Implications for Commercial Tobacco Cessation**

There was no paucity of information shared in this project on health outcomes, and their devastating impact on Menominee families and the entire community, as a result of commercial tobacco. The results indicated that the Menominee participants in this study experienced many of the same issues related to tobacco addiction faced by White smokers (e.g., cravings, alcohol use associated with smoking), although the Menominee tend to have higher prevalence rates, which may be related to younger first use experiences. This prevalence finding is noteworthy, particularly given that cancer is now the leading cause of death for the Menominee (Wisconsin Department of Health Services, 2012), and that lung cancer is the most prevalent form (Wisconsin Bureau of Health Information, 2012). A recent trend analysis (1992-2003) by Davis, Hartman, and Gibson

(2012) has suggested that, as a group, Native Hawaiians, American Indians, and Alaska Natives had the largest decrease in current smoking by race, and, should that pattern continue, they could have smoking prevalence rates in line with those of the general population in the years to come. The data reported here, however, seem to reflect an increase.

These data imply that primary prevention efforts will be essential in addressing the health needs of the Menominee, and should start with early elementary school youth and proceed throughout the lifespan, with special attention to pregnant women and families. A strong link has been established between prevention efforts with youth and reduced risk for tobacco addiction (U.S. Food and Drug Administration, 2012). Important aims for primary prevention also include educating adults—particularly parents and caretakers of youth—to control access to commercial tobacco products, and to raise awareness of the effects of secondhand smoke exposure.

Regarding cessation, many tribal members likely have had lengthy tobacco addiction periods, as did many of the participants before they quit. Thus, they may require long periods of treatment to address their more established smoking habits. Given the abundance of data that participants shared about the benefits of traditional teachings (e.g., regarding medicinal properties of plants), a logical next step would be to include such knowledge in cessation efforts in a meaningful and coordinated manner. For example, traditional knowledge holders could teach about the medicinal properties of plants used in ceremony, as well as about the harmful qualities of commercial tobacco. Finding ways to share traditional teachings on plant relationships may provide a needed bridge back from commercial tobacco use to sacred tobacco use. Participants also noted the utility of many mainstream cessation strategies, including medications. However, since the Menominee continue to face a variety of stressors and challenges, commercial tobacco prevention and intervention efforts must be holistic, addressing factors such as polysubstance abuse and co-occurring disorders. These data directly affected the tribe's decision to next engage academic partners in a tribally driven smoking cessation clinical trial—the first of its kind—comparing standard treatment (ST; counseling + Varenicline) and a culturally tailored intervention (ST + cultural elements such as traditional tobacco stories and a pouch for sacred tobacco). That project is currently underway.

It was also clear that participants thought the tribe and tribal leaders had a responsibility to regulate commercial tobacco use, particularly in settings that they considered more likely to encourage smoking. For example, many felt that working at or frequenting the tribal casino subjected them to smoking triggers or dangerous levels of secondhand smoke.

It is likely that the Menominee Tribe will benefit from addressing the issue through policy efforts, although some actions could lead to conflict, and economic consequences (e.g., loss of revenue caused by regulation of tobacco sales on tribal lands) will need to be considered. However, options such as smoke-free environments and regulations on sales and display of tobacco could

help to change a culture that, according to participants, facilitates tobacco addiction. Such issues will become increasingly relevant, given that U.S. Food and Drug Administration regulations now apply to sovereign nations (unless restricted by a specific treaty), creating a forum for nations to implement new prevention efforts.

### **Limitations**

The initial design of this project had limitations in that the qualitative expert was not originally involved in developing the interview, but was asked by the Menominee researchers to serve as a consultant after the data were collected. However, the project design represents best practices in community-driven research, particularly given the goal of examining both mainstream models (negative and positive reinforcement, cognitive-social learning) and a model that seems more congruent with AI/AN worldviews (Indigenist Stress-Coping). Given the socially selected sample, it would be beneficial to conduct additional interviews to explore the additional themes that might emerge through a larger sample. In addition, the questions asked participants to think retrospectively. Certainly memory may be flawed, though the team remains convinced that the essential validity of the data is not affected (particularly within a community such as Menominee with an oral history orientation). Finally, the need to keep confidential some of the data on sacred tobacco use constrained the full reporting of findings and comprehensive reconstruction of the models. These data are available to the responsible individuals within the Menominee Tribe and will help guide services at the MTC, but will not be shared through publication.

### **CONCLUSION**

Smoking prevalence for AI/ANs remains disproportionately high compared to that of other races. The MTC staff conducted this pilot project as an initial exploration to help them develop a prevention and intervention program for the community, which has seen a steady increase in poor health outcomes related to smoking. The findings illuminate the Menominees' unique traditional ways of managing the health crisis, which are rooted in traditional teachings on establishing a healthy relationship with tobacco. Participants shared their belief that, as a community, the Menominee will overcome their high rates of commercial tobacco use and related health disparities using mainstream prevention and intervention efforts, informed by traditional teachings and supported by Menominee leadership. Such efforts may include employment of the Menominee Tribe's sovereign status to engage needed changes in treatment and policy on commercial tobacco.

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### FOOTNOTE

<sup>1</sup> Participant codes appear after quotations. Participants were not coded numerically from 1-14, but received numbers from 1-17.

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