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“But problems dwell so the urge is constant.....” Qualitative Data Analysis of the OST CHOICES Program

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Abstract

Background—Fetal Alcohol Spectrum Disorders (FASD) are a major public health concern including among American Indian (AI)/Alaska Native (AN) communities. Various studies have demonstrated higher alcohol consumption among AI/AN women during pregnancy compared to other groups. This paper intends to understand the milieu within which such consumption patterns flourish. The paper utilizes qualitative and quantitative data from the Oglala Sioux Tribe (OST) CHOICES Program, a tribally run public health program that aims to reduce alcohol-exposed pregnancy preconceptionally in AI women.

Methods—Alcohol consumption pattern (n=264) is analyzed using descriptive statistics. Consumption patterns included average drinks consumed daily, their choice of drinks (beer, whiskey, wine etc.), how much money participants were spending on alcohol and amount of calories consumed from alcohol. Qualitative data analysis included open coding of data from decisional balance exercise of the CHOICES program that looked at good things and not so good things about participants’ drinking.

Results—Women reported drinking an average of 12 drinks daily, ranging between 1 and 86. Women drinking at home spent a median of \$4,320 and \$12,960 if drinking at a bar. A median of 1200 calories per day from alcohol were reported. More women reported drinking beer compared to other types of alcohol within a domestic setting. Qualitative data analysis identified positive and negative aspects of drinking among the participants of OST CHOICES Program. Positive aspects included escaping from problems, socializing and relaxation. Negative aspects included impact on families and domestic violence.

Conclusions—While understanding their milieu, our study also unraveled different struggles (such as violence, peer pressure, financial burden and depression) encountered by Native women in their daily lives. According to the participants, positive aspects of drinking outweigh the negative aspects and they viewed their drinking as a solution and not a problem.

Keywords

American Indian; Alaska Native; Women; Alcohol; Fetal Alcohol Syndrome Disorder; Qualitative; CHOICES Intervention

Background

Any amount of alcohol consumed during pregnancy can potentially have damaging effects on the fetus, including poor growth, facial abnormalities, heart problems, and delayed development of important organs (Stratton et al., 1996; Hoyme et al., 2005; Hoyme et al., 2016). Fetal Alcohol Spectrum Disorder (FASD) is the umbrella term that describes the spectrum of effects caused by prenatal alcohol exposure, which include physical, social, and emotional effects (Sokol et al., 2003; Hoyme et al., 2005; Disney et al. 2008). The most recognized and extreme impact of alcohol exposure *in utero* is fetal alcohol syndrome (FAS). In addition to FAS, other diagnoses within the FASD spectrum include partial FAS, alcohol-related neurodevelopmental disorder (ARND), and alcohol-related birth defects (ARBD) (Hoyme et al., 2005; Hoyme et al., 2016).

FASD remains one of the leading preventable neurodevelopmental disorders in the world (May et al., 2014). Accurate data pertaining to the prevalence of FASD in the United States is difficult to obtain, largely due to issues of incomplete data, the complexities of sampling, sensitivities surrounding drinking during pregnancy, and lack of routine screening in prenatal clinics (May et al., 2009). However, May et al. (2018) report conservative estimate of prevalence of FASD in typical, mixed-racial, and mixed-socioeconomic populations of the U.S. to be at least 11.3 to 50 per 1,000 children. In addition, the prevalence of the entire spectrum of FASD in populations of younger schoolchildren may be as high as 98.5 per 1,000 children (May et al., 2018). In addition, conservative estimate of FAS ranged from 0 to 5.4% and 0 to 7.8% for the weighted prevalence estimate (May et al., 2018).

FASD is also a major public health concern within American Indian and Alaskan Native (AI/AN) communities (May et al., 2009; Montag et al., 2015). Although local, community-specific surveillance data is generally lacking, rates of FAS among Northern Plains AI/ANs range as high as 9 per 1,000 live births, which is one of the highest rates of FAS in the world (May et al. 2002). Various studies have demonstrated high prenatal alcohol consumption among select samples of AI/AN women (Khan et al., 2013; Gale et al., 1998; May et al., 2004). In a study of 125 AN/AI women from urban and remote rural areas surrounding Anchorage, Alaska, 35% reported using alcohol during the first trimester, and 8% reported consuming alcohol beyond first trimester (Khan et al., 2013). In another study, 16.2% of Northern Plains AI/AN women seen at a prenatal clinic reported drinking alcohol during pregnancy (May et al., 2004), in contrast to a national study which found that 10.2% of pregnant women drank (Tan et al., 2015). Although drinking typically decreases throughout pregnancy for AI/AN women, as is similar for all women, alcohol use within the first eight weeks of pregnancy, even if discontinued, can result in various health complications (Floyd et al., 1999).

In addition, while rates of alcohol use are generally lower among AI/AN adults compared with other racial/ethnic groups, AI/AN adults who *do* drink have a greater tendency to binge drink four or more drinks in a sitting for women (Kropp et al., 2013; Cunningham et al., 2016; Holm et al., 2010). Also, when compared to other racial groups, AI/AN women have a higher prevalence of weekly heavy drinking (Chartier and Caetano, 2010). Such risky behaviors even when not pregnant makes AI/AN communities vulnerable to FASD, as preconception binge drinking is correlated with drinking during pregnancy (Floyd et al., 2008), particularly if the pregnancy is unplanned. It should also be noted that alcohol consumption patterns differ between Native communities. For example, Beals et al. (2003) reported lower drinking rates for Southwest Indians compared to Northern Plains Indians and to the general U.S. population.

Many clinical interventions and programs have been designed aiming to prevent FASD. Within AI/AN communities, such programs have targeted pregnant women, as well as the community, by providing information about FASD prevention (Hanson et al., 2012; Ma et al., 1998; May et al., 1989; Plaisier, 1989; Rentner et al., 2012; Shostak and Brown, 1995; Williams and Gloster, 1999). More recently, targeting women at risk for alcohol exposed pregnancy (AEP) in the preconception time period has been another effective way to prevent FASD within AI/AN communities. Preconceptual prevention of FASD and alcohol-exposed pregnancies (AEP) entails encouraging women at risk for AEP by preventing unintended pregnancies and discouraging alcohol consumption in women at-risk for, or planning, pregnancy (Caetano et al., 2006; Floyd et al., 2008).

One such preconception prevention program is called CHOICES, an evidence-based program that reduces the risk for AEP through addressing alcohol and pregnancy prevention using in-person sessions over the course of several weeks (Floyd et al., 1999b; Floyd et al., 2007; Project CHOICES Intervention Research Group, 2002; Project CHOICES Intervention Research Group, 2003; Centers for Disease Control and Prevention, 2003; Velasquez et al., 2010). CHOICES utilizes motivational interviewing (MI), a counseling style that guides the individual to explore and resolve ambivalence by increasing perceived discrepancy between behaviors and values (Project CHOICES Intervention Research Group, 2003). Using various activities, including personalized feedback, decisional balance exercises, goal setting, and behavioral change plans, as well as a medical appointment to discuss birth control (Project CHOICES Intervention Research Group, 2003), CHOICES decreased the risk of an AEP two-fold in the intervention group (Floyd et al., 2007).

Oglala Sioux Tribe (OST) in the Northern Plains of the United States took this previous research and adapted CHOICES for use within the tribal community. OST's earliest AEP prevention efforts began with a CHOICES feasibility and acceptability study (Hanson and Pourier, 2015), which led to a community needs assessment (Hanson and Jensen, 2015) and validity study (Hauge et al., 2015). This formative research, along with a previous telephone intervention (Hanson et al., 2013), informed the team's OST CHOICES implementation study. The results from several years of data collection with AI/AN women who completed the OST CHOICES curriculum showed significant decreases for AEP risk at both the 3- and 6-month follow-ups when compared to baseline data (Hanson et al., 2017). However, the

majority of the impact on reducing risk for AEP was in increasing participants' contraception use, with less behavioral change seen in binge drinking.

This highlights the need to further explore alcohol consumption norms and drinking patterns in women from Northern Plains American Indian communities. For example, drinking behavior may be more normalized in some AI/AN communities when compared to others (Rinki et al., 2009). In addition, self-efficacy, or one's belief in their capabilities to achieve different accomplishments, such as reducing drinking (Bandura, 2006), can also impact drinking behaviors in AI/AN communities where resources and assistance to stop drinking are scarce. Low general self-efficacy was associated with higher alcohol use among AI/AN adults (Taylor, 2000), and AI/AN women with higher self-efficacy were at a decreased risk for relapse (Chong and Lopez, 2008).

This exploratory paper aims to understand alcohol consumption patterns and attitudes of one samples of AI/AN women. It should be noted that the data of this study stems from AI/AN women from the OST and surrounding communities and not a nationally representative sample of AI/AN women. However, we believe understanding their alcohol consumption patterns and beliefs surrounding their drinking are crucial in continuing to adapt efficacious and evidence-based FASD intervention models for AI/AN communities. We intend to understand the milieu within alcohol behaviors exist among AI/AN women by explaining the social and behavioral patterns of preconceptional AI/AN women participating in an FASD prevention program, as well as outlining their self-efficacy in reducing their drinking to below risky levels.

Methods

The development and implementation of OST CHOICES is described more thoroughly elsewhere (Hanson et al, 2017; Hanson and Pourier, 2015). The OST CHOICES participants included AI/AN women from the OST and surrounding communities and was a convenience sample. It was conducted in three different settings: including two located on the reservation and one in an urban location near the reservation. All participants were self-selected and were screened for AEP risk, defined as drinking at risky levels (e.g. 4 or more drinks on any one occasion and more than 7 drinks in a week), being sexually active, and not using birth control consistently or correctly (Hanson and Pourier, 2015). Recruitment for the program occurred through brochures, "word of mouth" and also via newspaper ads, flyers and referrals from health care providers.

Alcohol Measures: Quantitative

Once enrolled, alcohol consumption was assessed in a variety of ways at baseline and follow-up. Participants were asked about alcohol use in the past 90 days: 1) yes/no questions to binge drinking; 2) how many days per week she drinks; 2) how many standard drinks on any one day; 3) the number of days with a binge drinking episode; 4) the largest number of standard drinks in one day; and 5) how much money they would have spent on drinks if they were drinking at home or at a bar. The participants were also asked *what* they usually drank. We also calculated how many calories were consumed from drinking. The cost of alcohol is calculated by multiplying the number of drinks reported by \$1.00 if drinking at home and by

\$3.00 if drinking at a bar. Similarly, calories from alcohol were calculated by multiplying number of drinks by 100 calories.

We calculated self-efficacy regarding drinking using an 8-item “temptation and confidence” exercise. Using a 5-point scale, this measured: 1) temptation to drinking in specific situations (i.e., if the individual was stressed, felt social pressure, at a party); and 2) confidence to resist drinking in these same situations. Self-efficacy was quantified by subtracting the temptation score from the confidence score. For example, if the participant answered two for the question “how tempted would you be to drink alcohol if you were feeling stressed, upset, or down in general?”, but denoted their confidence with five to not drink in that same situation, then their self-efficacy for that scenario would equal three. The sum of the self-efficacy scores for each question was used to describe the participants’ overall self-efficacy regarding alcohol.

Alcohol Measures: Qualitative

Qualitative data for the study came from the OST CHOICES Program’s decisional balance exercises. Participants were asked to list the good things and not so good things about their drinking. Afterwards, the participants were asked to share their feelings about their list and outline any changes they wished to administer about their drinking. Data from this exercise were coded using an open-coding process to look for themes that characterized the experiences of the respondents. Examining the context, perspectives of the respondents and their ways of thinking about people, objects, processes, events and relationship also helped to derive codes from the data set (Bogdan and Biklen, 2007). Ultimately, these themes were used to help understand the participants’ social and behavioral pattern in drinking.

Two research staff familiar with the study coded the data to maintain rigor and methodological coherence of the qualitative data. Data analysis began with the primary coder carefully analyzing the transcripts through the process of open coding for emergent themes. Afterwards, the secondary coder also coded the transcripts utilizing the emergent themes. In addition, the secondary coder looked for additional emergent themes. In order to solidify the reliability of the findings of the study, both coders discussed the emergent themes they discovered. After several rounds of discussion, both coders decided to pursue four emergent themes. Both coders believed that the themes truly represented the social and behavioral pattern of the OST CHOICES participants when it came to alcohol consumption. Kappa scores for each theme were calculated to assess inter-rater reliability after the discussion between the coders. Kappa scores for these themes ranged between 0.55 to 0.63. These scores demonstrate good agreement between the coders (Macphail et al., 2015). Qualitative data was analyzed using textual analysis software Nvivo (version 11).

Results

Demographics

A total of 264 women were included in this study. All women identified as AI/AN, and the ages ranged from 18 to 46 (mean = 28.6). Nearly half of the women considered themselves as current smokers (116, 43.95%). In the past 90 days, most women (78.8%) reported

drinking more than seven standard drinks in a day, and even more reported drinking more than three standard drinks in a day (93.9%; Table 1) indicated binge drinking. Women reported drinking a median of 2 days per week and an average of 18.4 binge drinking days in the past 90 days. The largest number of drinks consumed in one day ranged from one to 129, with a median of 18 drinks. Top choices of alcohol were beer (47.35%), malt beverages (39.02%) such as Joose, Mike's hard lemonade and different types of liquor (33.71%).

Women who drank at home spent a median of \$12.00 per day, or \$4,320.00 per year. Women drinking at bars spent a median of \$36.00 per day and \$12,960.00 in a year (Table 1). Calories consumed from alcohol per day ranged from 100 to 8,600, with a median of 1,200 calories per day.

Alcohol self-efficacy ranged from -23 to 24, with an average of -0.04 (Table 2). The mean self-efficacy scores for individual questions ranged from -0.99 to 1.47. Highest self-efficacy score was related to the question where the participants were asked how tempted or confident they would be to drinking or not drinking alcohol if they were having trouble sleeping or if they were in physical discomfort or pain and the lowest score was given to the question where the participants were asked how tempted or confident they would be to drinking or not drinking alcohol if they were enjoying themselves at a party when everyone around them were drinking.

Perceived Positive Aspects of Drinking

Escape from problems—OST CHOICES participants stated they drank alcohol in order to forget about their problems and as a remedy for their problems. For example, one participant stated, "Sometimes when I think about things then I get the urge to drink then when I am with my little girl I do not think about it so much. But problems dwell so the urge is constant." It was common for participants to deal with numerous problems at one time so the urge to drink was constant. However, participants viewed drinking as a temporary solution as they understood that it was not a permanent fix to their problems. For example: "Feel more comfortable in my "skin" and "temporarily takes away my problems." Alcohol provided a getaway for them and helped them relieve stress temporarily. It seemed they found solace in alcohol after a busy day: even though the problems did not go away and perhaps were even compounded, when they were drinking, they did not have to think about them.

Helps with socializing—Many participants stated they used drinking to meet new people and socialize with them. Others stated that alcohol helped them to hang out and catch up with their friends. Most participants explained that alcohol helped them to have fun with their friends. Drinking usually occurred within a domestic setting and was often associated with celebratory occasions such as birthdays and anniversaries. One participant summarized that alcohol was used to, "celebrate (an) event, hang out and catch up with people... new experiences."

Most of the participants stated that alcohol made them feel good about themselves. In addition, it helped them to talk about their feelings. Some even stated that it helped them fit amongst their friends. They viewed their drinking as a good thing as it opened them up to

their friends and know each other at a personal level. One participant stated, “It helps me feel better, pick me up, socialize and helps me talk about my feelings.” The participants also expressed that it helped them to catch up with their friends as well as helped them to meet new ones. Meeting new friends and maintaining old relationships was important for our participants. As stated by one of the participants, it allowed her to meet friends and have new experiences by being “more outspoken and outgoing,” which led to, “good memories and unforgettable with friends and family.”

Alcohol helped participants to be outspoken and express themselves to others. Drinking was seen as a way to have a good time with friends and families. One participant stated that a positive aspect of drinking was “alone time with friends.” One participant summed this up well, stating, “I think the good things about my drinking are just the way it makes me feel and I guess I just have a good time with friends and family when I drink.”

Relaxing—Besides using it for recreational purposes, participants also mentioned using alcohol as a way to relax. Using alcohol to relax is another step in their way to cope with their reality, and they often combined it with out relax-inducing activities. For example, one participant stated, “I like to drink when I am swimming or doing something to have a better time. It helps me relax.”

Besides using alcohol to relax most of the participants also used it to soothe their physical pain. Most of the participants stated that alcohol allowed them to sleep better, ease their physical pain, and calmed them down. In a sense, the participants were using alcohol therapeutically. One participant stated that alcohol “helps with my head trauma pain.” In addition to relaxing, the participants also emphasized their drinking time was their alone time. Several women echoed this issue and stated they needed some time on their own to relax and unwind. They usually found comfort in drinking alone, and one participant stated that alcohol was used to “forget about daily stress-filled responsibilities for the night.” Overall, we found participants using alcohol for various purpose including alleviating physical discomforts and relaxing.

Negative Impact of Alcohol

Impact on Family—Many of the participants expressed the negative impact that alcohol was having on family life. One of the common problems participants expressed was the toll of their drinking upon their family members, as it kept them away from their children and family. The participants were unhappy that their drinking did not allow them to spend time with their family and some of them even mentioned losing custody of their children. This created conflict within their personal lives and drinking became a way to cope with their problems.

One participant stated that although she made sure bills were paid before buying alcohol, drinking made her, “stay away from my three younger kids while I am drinking or partying. I mostly feel guilty around my three younger kids.” Others agreed and felt guilt stemming from spending time and money on alcohol they could have otherwise spent on their kids or on their bills. One participant listed the following as ‘no so good things’ about drinking: “ditching my children, losing my job, legal problems, promiscuous behavior, and guilty

feelings from my sexual activity.” Another participant stated she felt guilty for drinking and not attending to her children and other responsibilities, stating, “I am tired of drinking ‘the can.’ I feel like I am missing out on things because everyone else is drinking...affects my kids.”

Domestic violence—Violence was another common emergent theme within the data. When asked about not so good thing about their drinking, many women responded that they experienced some type of violence due to their drinking. Most of them stated that they would fight with their partners due to their drinking (e.g., “causes trouble with my relationship”). Many of the participants were involved in some type of altercation due to their drinking. One participant stated, “When I have too much to drink, I get mad and miss out on people or try to fight.” Other participants stated that it was the conflict with a partner that directly led to drinking; for example, “fighting with my baby’s father, which can lead to me turning to alcohol” and “my ex-boyfriend and daughter’s dad is stressing me out (so I drink)”.

It is also important to note that these acts of violence have a pattern. Most of the women reported fighting with their partners due to alcohol. While most of the women reported fighting with their partners after drinking, some reported that they would get into fights because their partners did not condone their drinking. Whereas in other cases, women reported turning to alcohol because of violence and abuse. As one participant concluded, “The hangovers, go home family members are mad, did not go home all night, forgetting about my responsibilities.

Discussion

Findings of our study revealed a clearer picture of drinking behaviors of AI/AN women who were at-risk for an alcohol-exposed pregnancy. While rates of alcohol use among AI/ANs are generally lower compared to other racial/ethnic groups, AI/ANs who do drink tend to have higher rates of heavy or binge drinking (Cunningham et al., 2003; Holm et al., 2010; Kropp et al., 2013). In South Dakota, 14.3% of women in general binge drink, while 26.9% of South Dakota AI/ANs report binge drinking (Centers for Disease Control and Prevention, 2017). As an eligibility requirement, all women in our study were drinking at risky levels at baseline. However, the average largest number of drinks consumed in the past few months was alarmingly high, ranging from 1 to 129, with a median of 18 drinks. Because of the high levels of drinking at baseline, even women who decreased their alcohol intake because of the CHOICES intervention may still have been drinking at risky levels (Hanson et al., 2017). However, participants were also unhappy about the financial toll their drinking exerted upon their expenses. Most of the participants expressed their guilt after calculating the cost of their drinking, with the daily median ranging from \$12.00 to \$36.00. Many also expressed concerns about the amount of calories consumed from alcohol, which ranged from 100 – 8,600 per day.

The overall alcohol self-efficacy was almost neutral (−0.04), while the scores for each question varied slightly. The question with the lowest self-efficacy score (−0.99) was “How tempted/confident would you be to drink/not drink alcohol if you were enjoying yourself at a

party; if everyone around you was drinking?” The highest self-efficacy score (1.47) belonged to the question “How tempted/confident would you be to drink/not drink alcohol if you were having trouble sleeping; if you were in pain or physical discomfort?” Both pleasant times and physical discomfort were mentioned as reasons for drinking, and the self-efficacy score shows that participants have marginally higher confidence to not drink when they are experiencing physical discomfort, and less confidence when partying or spending time with others who drink. These self-efficacy measures indicate the powerful role that social networks played in the drinking patterns of AI/AN women.

In presenting our qualitative findings, we found it useful to present it as positive and negative impacts of alcohol because the participants listed their drinking behavior accordingly as part of the ‘decisional balance’ exercise in the OST CHOICES Program. It is important to note that we found more self-described positive views of alcohol, or ‘good things,’ when compared to the negative, or ‘not so good,’ impacts of alcohol. While the AI/AN women in this study did describe problematic impact of drinking on family life and more violence as a result of consuming alcohol, it appeared that for our sample, the positives of drinking far outweighed the negatives. The AI/AN women in our study, who were drinking at risky levels, described using alcohol to forget about their problems, to alleviate physical pain, to celebrate different events in their lives, to socialize with other people, and to have fun. While research might point to the harm of using alcohol for these categories, the women themselves felt that in these circumstances, alcohol was an overall beneficial thing for them. We view it as a cyclical problem where women use alcohol to resolve their problems – which for them is positive - but their drinking also caused them intrapersonal problems.

The benefit of alcohol was particularly seen in the social aspects of drinking in the community. Most of the women reported they used alcohol when they hung out with their friends. They also stated that drinking helped them in meeting new people and helped them socialize. In addition, most of the women also reported that they face pressure from their friends when it came to drinking. They stated that influence of their peers played a big role in their decision to drink. Many participants expressed that one of the ways they could change their drinking was if they were to stay away from their friends. Evidently, social networks are important part of their lives. It is within these networks where most of their drinking took place and if they want to change, there is potential of isolating themselves from their friends. Hence, when discussing their milieu as a contributing factor towards drinking, it is imperative to discuss the impact their social network exerts on their drinking.

These results, particularly the qualitative results, provide an introspective view of the daily milieu in AI/AN women’s lives who are drinking at risky level and the role that alcohol plays in this environment. This has important implications to preventing AEP, FAS, and for reducing drinking in AI/AN women in general. As we viewed it, the realities of consuming alcohol caused a plethora of problems, including domestic violence and other intrapersonal problems. Such problems often exacerbated the situation because the participants used alcohol as an escape from their daily problems. In addition, presence of alcohol in different spheres of their lives makes it difficult for them to get away from it. However, most of the women did not necessarily view their drinking as hugely problematic. This is an important

finding because if they view alcohol exerting positive impacts in their lives, it is more likely they will continue to drink.

It is important to note that the AI/AN women in the OST CHOICES Program were open to reducing their drinking rather than completely abstaining from alcohol. Participants who wanted to curtail their drinking felt that they were in control and could easily cut back their drinking whenever they wanted. Most of the AI/AN women in the OST CHOICES Program who wanted to curtail their drinking also stated they were either going to have fewer drinks or reduce the number of days they drink. However, this reduction in drinking, while significant in our follow-up study (Hanson et al., 2017), still did not put the AI/AN women in our sample in the 'below risky drinking' category because their baseline drinking was relatively high, with a median drinks of 12 drinks per day and a maximum median of 18 drinks in one setting. This is another aspect of their reality where our participants felt that they were in control of their drinking without realizing their drinking levels were quite high.

Our study complimented findings of previous studies that were conducted with AI/AN women who were at the risk of AEP. Interestingly, in comparing to other groups such as South African women who were vulnerable to AEP, we found similar circumstances as that of AI/AN women as to why they drank (de Vries et al., 2016). Specifically, South African women also reported drinking in order to escape their problems, socializing and relaxing (de Vries et al., 2016). In addition, social networks of family and peers surfaces as a consistent theme impacting women's drinking in previous studies with women from across the globe (May et al., 2008, de Vries et al., 2016, Montag et al., 2017).

Therefore, one of the implications of this study in regards to FASD prevention would be to enhance AI/AN women's social support and self-efficacy. Social support plays an important role for the prevention of AEP among AI/AN women due to its cultural and historical significance (Hanson & Jensen, 2014). One way to do so would be to provide AI/AN women at-risk of AEP with peer coaching. Peer coaches educate and support peers on how to successfully make the changes needed to recover, and also offer social support including emotional, informational, instrumental (concrete assistance), and affiliational (facilitate social connections) (Center for Substance Abuse Treatment, 2009). Studies have shown that participants of the peer coaching model have improved Addiction Severity Index and medical severity scores (Bernstein et al, 2005) increased rates of substance use treatment participation and retention (Tracy et al., 2011) and fewer substance use-related hospitalizations (Min et al., 2007) when compared to treatment as usual. In addition, participants of peer coaching also reported improved self-efficacy, social support, quality of life, and perceived stress (Min et al., 2007); improved connections to positive social supports (Deering et al., 2011); increased recognition of substance abuse as a problem (Mangrum et al., 2008); decrease in criminal justice involvement (Rowe et al., 2007, Dennis et al., 2007); and increased engagement in, or completion of treatment (Tracy et al., 2011, Gonzales et al., 2013, Burleson and Kaminer, 2007) when compared to those not in peer coaching.

Overall, the paper illustrates alcohol consumption pattern within everyday milieu of risky drinking AI/AN women from one Northern Plains community. The paper draws its strength from different situations depicted by AI/AN women during the completion of decisional

balance exercise of OST CHOICES program. While these experiences are unique to the participants, they have helped to portray a backdrop for other AI/AN women who share similar experience and are using alcohol for similar purpose. However, it is also important to note the heterogeneity of AI/AN communities and interventions should be modified appropriately for each community. We hope the findings of the study will be pertinent in designing efficacious AEP/FASD interventions in future for Native communities.

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Drinking patterns, costs of drinking and caloric intake from alcohol of CHOICES participants

Table 1

	Number (N = 264)	Percent
In the past few months, have you ever had more than 3 standard drinks in a day?	248	93.94%
In the past few months, have you ever had more than 7 standard drinks in a day?	208	78.79%
	Mean (n)	Range
On average, in the past few months, how many days per week did you drink?	2 days (252)	1–7 days
When you did drink in the past few months, on average, how many standard drinks would you have in a day?	12 drinks (252)	1–86 drinks
On how many days in the past few months have you had more than 3 standard drinks?	14 days (226)	1–90 days
In the past few months, what was the largest number of standard drinks you consumed in one day?	18 drinks (246)	1–129
Daily cost if drinking at home	\$12.00 (252)	\$1.00–\$86.00
Annual cost if drinking at home	\$ 4320.00 (252)	\$360.00–\$30,960
Daily cost if drinking at a bar	\$36.00 (252)	\$3.00 – \$258.00
Annual cost if drinking at a bar	\$12,960.00 (252)	\$1080 – \$92,880
Calories per day	1,200 (252)	100 – 8,600
Calories per year	438,000 (252)	36,500 – 313,900

Table 2

Alcohol self-efficacy of CHOICES participants

	Mean (SD) (n=143)	Range
Overall Alcohol self-efficacy	-0.04 (10.60)	-23.00 – 24.00
How tempted/confident would you be to drink/not drink alcohol if...		
You were feeling stressed, upset, or down in general?	-0.44 (1.99)	-4-4
You were having trouble sleeping; if you were in physical pain or discomfort?	1.47 (2.27)	-4-4
Something good happened and you felt like celebrating; if things were going well?	-0.43 (2.00)	-4-4
You needed to stop drinking, such as after 3–4 drinks or if you had to drive home?	0.56 (2.17)	-4-4
You were in the habit of having a drink; for example, every Friday night?	-0.32 (1.90)	-4-4
You had an argument with a friend, partner, or family member; if you weren't getting along with others at work or school?	0.34 (2.34)	-4-4
Someone pressured you to drink; if you were invited to someone's home and they offered you a drink?	-0.1 (2.11)	-4-4
You were enjoying yourself at a party; if everyone around you was drinking?	-0.99 (1.87)	-4-4