Published in final edited form as:

J Community Health. 2015 February ; 40(1): 138–146. doi:10.1007/s10900-014-9911-1.

Importance of Social Support in Preventing Alcohol-Exposed Pregnancies with American Indian Communities

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Abstract

Background—Recent research concludes that prevention of alcohol-exposed pregnancies (AEP) must occur with preconceptional women, either by reducing alcohol consumption in women at-risk or planning pregnancy *or* preventing pregnancy in women drinking at risky levels. One AEP prevention program currently underway with non-pregnant American Indian women is the Oglala Sioux Tribe (OST) CHOICES (Changing High-risk alcohol use and Increasing Contraception Effectiveness Study) Program. The OST CHOICES Program shows promise in lowering the AEP risk in American Indian women, and it is a natural next step to evaluate the potential impact that social support can have on further encouraging behavioral changes.

Methods—Focus groups with community members and key informant interviews with health and social service professionals were completed. To uncover and interpret interrelated themes, a conventional content analysis methodology was used.

Results—Eight focus groups were held with 58 American Indian participants, including adult women of child-bearing age, elder women, and adult men. Key informant interviews were completed with 25 health and social service professionals. Based on input from the focus groups and key informant interviews, several subthemes regarding social support in the prevention of AEP stood out, including the role of family (especially elders), the impact community can have, and the important function of culture.

Conclusions—In this study, we highlighted the important influence that social support can have on AEP prevention, especially among the American Indian population, where social support has cultural and historical significance.

Keywords

Alcohol-exposed pregnancies; American Indians; Alcohol consumption; Birth control/contraception

Background

Alcohol consumption during pregnancy is a public health concern because of the possibility for lifelong physical and cognitive effects [1, 2]. Fetal Alcohol Spectrum Disorders (FASD) is the continuum of outcomes in those born prenatally exposed to alcohol and includes a diagnosis of fetal alcohol syndrome (FAS) [3]. FAS, the most damaging outcome, is characterized as having facial abnormalities (i.e., palpebral fissures, thin vermilion, smooth philtrum); evidence of growth retardation; and evidence of delayed brain growth [2, 4, 5]. In addition to physical features, prenatal exposure to alcohol is linked to conduct disorders (i.e., delinquency and aggressiveness), mental illness (i.e., depression, anxiety disorders), and psychosocial functioning [6-8].

FASD is especially concerning for American Indian communities. Indian Health Service (IHS) reported that up to 56% of pregnant patients reported drinking alcohol during pregnancy [9, 10]. Rates of FAS among Northern Plains American Indians range as high as 9 per 1,000 births [11], which is among the highest rate in the United States. Unfortunately, lack of consistent diagnostic methods ensures no consistent screening and therefore no clear statistics on the total number of individuals impacted by prenatal exposure to alcohol.

Traditionally, interventions to prevent FASD have focused on pregnant women, although recent research concludes that prevention of FASD must begin preconceptionally, or before a woman even becomes pregnant, by either reducing alcohol consumption in women at-risk or planning pregnancy or preventing pregnancy in women drinking at risky levels [12]. Studies have shown between 10-26% of sexually active women are at-risk for AEP [13], and in many American Indian tribal communities, rates are higher. A previous project with three Northern Plains tribes found the number of drinks in an average drinking week was about 18. For this same sample population, nearly 30% were not using birth control to protect against pregnancy [14]. Another study from the South Dakota Tribal Pregnancy Risk Assessment Monitoring System found that 43% of American Indian women surveyed were binge drinking in the 3 months prior to pregnancy [15]. Among this same sample, 65% who were sexually active (but *not* trying to get pregnant) were not using any birth control at conception.

One AEP prevention program currently underway with non-pregnant American Indian women is the Oglala Sioux Tribe (OST) CHOICES (Changing High-risk alcohol use and Increasing Contraception Effectiveness Study) Program. This is based on the original Project CHOICES curriculum focused on reducing risk for AEP through alcohol reduction and pregnancy prevention using an in-person brief intervention and motivational interviewing sessions [13, 16-20]. Motivational interviewing is a counseling style that “guides the individual to explore and resolve ambivalence about changing [behavior], highlighting and increasing perceived discrepancy between current behaviors and overall goals and values” [17]. Elements of the brief motivational intervention utilized for the intervention include personalized feedback about drinking and utilization of birth control compared to population norms and goal setting regarding birth control and drinking [17]. The intervention also includes a separate session to discuss birth control methods.

One of the components of the OST CHOICES Program includes asking participants to identify a person who can help them in their drinking and birth control goals and *how* they can help. This question is utilized specifically to discuss the important role of social support in reaching behavioral goals. Social support is defined as the “availability of helping relationships and the quality of those relationships” [21] and the “functional content of relationships where individuals provide aid, assistance, and comfort to others” [22]. There are various types of social support, including emotional (provision of empathy, love, and trust), instrumental (provision of tangible aid and services), and informational (provision of advice, suggestions, and information) [23]. Social support as a whole has been found to have “important causal effects on health” and that “having at least one strong intimate relationship is an important predictor of good health [23]. Effective social support is usually produced from individuals who are “socially similar” to the support recipients and who have experienced similar stressors or situations [23]. Of note is that women are more likely to be both the providers and recipients of social support [23].

In general, research shows the impact that social support can have on the two behavioral AEP risk factors, risky drinking and being at-risk for an unplanned pregnancy. First, previous research has found that social support can both reduce [24, 25] and also increase [25-27] drinking, depending on the behaviors and support of friends, romantic partners, relatives, and even coworkers and neighbors [24-28]. Many women who continue drinking during pregnancy reported frequently drinking with family members and also substance abuse problems in the woman's siblings [29]. On the other hand, a brief intervention with a general population of pregnant women and their partners concluded that goal selection and social support was successful in encouraging pregnant women to abstain from drinking alcohol [30].

Likewise, a review of literature concluded that peer networks play a critical role in risk for substance use among American Indians [31]. For example, being surrounded by family and peers who use alcohol or other drugs predicted relapse for American Indian women following discharge from residential treatment [32]. Conversely, American Indian patients from residential treatment who reported high levels of social support had nearly three times the odds of abstaining from substance use than did American Indian patients who had lower social support levels [33].

In addition to impacting alcohol consumption, social networks have a significant impact on contraceptive use and thus risk for unplanned pregnancy. Women garner the opinions of family, friends, sexual partners, and healthcare professionals in regards to contraception [34-38], and a significant factor in deciding to use contraceptives is the perception of social networks [37, 39, 40]. Older female relatives appear to have an influence on contraception decisions—such as input from mothers, aunts, and grandmothers—and *negative* opinions about contraception by elders is also related to a woman's decreased likelihood of contraceptive use [36-38, 41, 42]. As well, a woman is more likely to use contraception if there is a high rate of contraception use (or perceived use) among those whom she has strong interpersonal connections [37, 38, 43]. Friends, mothers, and family with first-hand experience were considered more valuable resources than physicians, likely because

information from one's social network may be considered more reliable and convincing than information from healthcare providers, particularly in regards to side effects [36].

There is a need to explore the health-protective potential of social support for American Indian women at-risk for AEP, where a decrease in either alcohol consumption or risk of unplanned pregnancy can decrease a woman's overall risk of AEP. The existing OST CHOICES Program shows promise in lowering the AEP risk in American Indian women, and it is a natural next step to evaluate the potential impact that social support from a CHOICES participant's network can have on encouraging behavioral changes. To begin this process, a community needs assessment was conducted to gather community-driven data on expanding this tribally-run AEP prevention program. The goal of this article is to describe how tribal community members view the important role of social support within AEP prevention for American Indian women.

Methods

Before beginning data collection, approval was acquired from all the appropriate institutional boards, including the tribal research review board for the tribe involved in this research, as well as the Indian Health Service institutional review board, who oversees research for the tribes in this area. The project utilized qualitative research methods to better understand the issue of social support within AEP prevention. Focus groups were held with American Indians living in communities where the OST CHOICES Program is available. Focus group methodology is especially important with American Indian participants as it captures group norms and illustrates how points-of-view are constructed and expressed in group members' own words [44]. As well, key informant interviews were completed with health and social service professionals who work with American Indians in a variety of capacities, such as health care centers serving American Indians, Healthy Start, or tribally-run non-profit organizations. The open-ended, semi-structured questions are listed in Table 1 and were asked using language and a format that was understandable to participants.

Data collection occurred in the spring and summer of 2013. Recruitment for focus groups was completed by advertising in local newspapers, distributing flyers across the communities, and through community contacts and word-of-mouth; recruitment for key informant interviews occurred through current contacts. Focus groups occurred in large, private meeting rooms at nonprofit organizations in the respective communities, while key informant interviews occurred in the professionals' offices or clinic rooms. Written informed consent was obtained before data collection began. The data collection lasted approximately one hour with each interviewee/focus group participant and was facilitated by an individual from the research team with a second person present to take notes and to assist in facilitation. Each participant was offered a gift card of \$25 to thank them for their time participating. Also, food was served at each focus group per standard protocol in working with a tribal community.

Data Analysis

The interviews and focus groups were tape-recorded with the participants' permission, transcribed verbatim, and then entered into Qualitative Solutions and Research International

NVivo 10 software program to organize and code the data. A team of two individuals utilized a random selection of five transcriptions to create a codebook based on initial impressions. They met with a third person, the principal investigator, to resolve any disagreements in coding and to finalize the codebook. To uncover and interpret interrelated themes on the prevention of AEP in the American Indian communities, a conventional content analysis methodology was used [45]. For this particular investigation into the role of social support, a single coder read through all transcripts to uncover impressions about the role of social support in preventing AEP, letting the data emerge directly from the text.

Results

A total of eight focus groups were held with 58 American Indian participants: three with adult women of child-bearing age (n=20), two with elder women (n=20) and three with adult men (n=18). The focus groups included an average of approximately seven participants (range 4-15). Key informant interviews were completed with 25 health and social service professionals. See Table 2 for additional demographics of the study participants. Based on input from the focus groups and key informant interviews, several subthemes within social support stood out, including the role of family (especially elders), the impact community can have, and the important function of culture.

Family

The role of family, especially elders, in preventing AEP was viewed as paramount by the participants. Much of this support from family comes from elder female relatives, such as grandmothers and “aunties,” as many American Indian women have special relationships with their older female relatives and were often raised by these female relatives. One male focus group participant felt that a goal should be to work with the “wisdom holders” to teach young women traditional ways by “connect(ing) them with the past.” As a male focus group participant stated, “Consult the elders, or the elders could teach them the ways and stuff. Elder would be really helpful.” Participants felt that elder female relatives could connect young women to culture and thus impact harmful health behaviors, such as risky alcohol consumption. There is also a high respect for elder female members of the family, which a male focus group participant stressed through discussing the role of “aunties”:

“I think you need to get the aunties involved, cuz aunties will chew you out all the way. Especially Lakota Aunties, you know. Aunties they will talk to you and let you know what's going on.”

Another male focus group participant agreed with this sentiment, concluding:

“Get aunties involved. If that was my auntie sittin' there, and chewed me out, get under the table, you know I would hear what she said and it would make me think.”

As well, participants felt that parents of women at-risk for AEP, especially young and adolescent females, could provide social support in the prevention of AEP. It was felt that parents need to be more involved in their daughters' lives and should “take the time to fight with their kids” as stated by a female focus group participant. This type of sentiment implies the important role of parents in emphasizing that risky alcohol and sexual behaviors are

unacceptable. A female elder summed this up by saying, “I think prevention starts at home.” Another female elder focus group participant felt that the parents themselves might need support in discussing both alcohol and contraception with their daughter:

“They should send them to somebody who can explain things to them. You know, like I said, you know a lot of this teaching starts at home with the parents.”

Besides elder female relatives and parents, including male sexual partners in the prevention of AEP was also viewed as important by study participants. Within an intervention, a female elder focus group participant felt that a program should, “bring (the) boyfriend in for support” and that, like what was stated above, elders can be included by “talking to men (about providing AEP prevention) for social support” to their female partners. One of the key informant interviewees agreed, stating that men could go “to counseling together with (their) spouse.” The reasons that the inclusion of men in AEP prevention is vital are defined by study participants. As one female participant concluded, “Because what these young boys, you know, they could...they could be an influence on the girls.” Another elder female participant surmised,

“I guess the other thing I was just thinking now was you know we're talking about all these things for our daughters and granddaughters, but you know if they're already involved with the boyfriend, if he's not supportive they won't come (to the CHOICES program). So I think maybe you have to think about how can we get these young men involved too, so that as a couple together...that the boys can be educated too.”

Community

In addition to family, study participants felt that the entire community can provide the social support necessary to prevent AEP. The meaning of having community support in preventing AEP is because, as one key informant interviewee stated, “Young women need someone to talk to.” A male focus group participant summed up the role of community as “teamwork in the community” that includes “individuals in the community who are the definition of community service.” Community could be included in AEP prevention efforts by holding “community get-togethers” (male focus group participant), including a “buddy system (interviewee), or having “sponsors” within the program (female focus group participant). Role models or a “trusted person” within the committee were also seen as vital, with a key informant interview participant finding that role models can “help younger women make good choices.”

Within the community, peers were seen as important in the prevention of AEP among American Indian women. Many of the participants felt that peers have a powerful influence on the behaviors of American Indian women and may have more of an impact on alcohol or contraception decisions than family or other community members. Participants felt that peers could be utilized as positive influencers, and one elder woman concluded that,

“The grandparents, you know, we could talk our heads off to our kids but when they're with peer groups... you know they'd you know they'd rather believe their friends than they believe their own parents.”

Community social support includes providing an intervention in a group setting in order to promote “social and sober interaction” (female focus group participant). One of the interview participants was also in support of providing an intervention in a group setting “because people learn from each other and support each other.” A female focus group participant felt a group AEP prevention intervention would be met positively by American Indian women because, “I think a lot of women are looking for that sober interaction.” A group setting would also be culturally appropriate as seen in the idea of “talking circles,” where a group sits in a circle and “get the emotions and your feelings out. Hearing the views of others help(s) you resolve whatever's going on” (male focus group participant). Also, as summed up by another male focus group participant,

“If you get someone who's experienced in the talking circle and let out all (their) emotions and what happened to him or her in their life and these other, other kids see that and then they emotionally get involved and they tell the whole truth...and they just let it all out and so talking circles are very powerful. I've been to many of them and it's awesome.”

Culture

According to participants, social support for AEP prevention should also include a cultural component. Beyond the use of a group intervention, or “talking circle,” participants mentioned various cultural events and activities, such as group beading and sewing, sweats, and community powwows. One female focus group participant mentioned “groups at summer camp with culture and values.” The role of female role models was again relevant, with one elder woman concluding that “mom and daughter programs would be great to instill traditional ways back with the daughters.” As another elder woman stated,

“It's kind of like we need to re-implement something like that with our daughters and you know, before they even start their monthly, you know...you sit down with them in a traditional way and-and teach them about all of these things and the risks that they have if they do choose to have sex. And to be protected.”

These types of events allow for a discussion about being “a Lakota woman” and “Lakota parents” (female focus group participant) where alcohol consumption is not a traditional way of life. This will, again, often include elders and the idea of elders as teachers of community culture. An elder female focus group participant explained,

“The Indian families, you know, have a person who is from the same tribe or something, you know, be the teachers. And the elders or whoever has knowledge of the traditional ways you know. Teach them.”

However, this type of culturally-based, social support-focused AEP prevention program that includes elders and the community must occur quickly, as summed up by one elder female focus group participant:

“We seem to be losing our elderly at a fast rate. So if something like this is going to be implemented, we need to get, get it done right away. And find those elderlies who know how to do these women's ceremonies, who can, who can teach us and we can teach our children while they're still young.”

Discussion

In this study, we highlighted the important influence that social support has on AEP prevention, especially among the American Indian population. Through community engagement, by use of focus groups and key informant interviews, our study obtained the necessary qualitative data to support the paramount role that social support plays in alcohol consumption and contraception use. Several subthemes within social support stood out, including the role of family (especially elders), the impact community can have, and the important function of culture.

Our study indicates that community members recognize the importance of having social support and would like to make it easier for women to obtain the help and support needed to reduce risk for an AEP. There are current efforts to prevent AEP through the implementation of tribal CHOICES program, where motivational interviewing is utilized with at-risk women in order to encourage reduction in alcohol consumption and utilization of contraception. While these efforts have been successful in decreasing risk for AEP, the inclusion of social support has the potential to further improve initiating and sustaining any behavioral change. For example, American Indian patients in residential treatment who reported high levels of social support had nearly three times the odds of abstaining from substance use than did AI who had lower social support levels thirty days after discharge [33].

Likewise, women have described their social networks as being highly influential in gathering contraceptive information and in their decision-making [36]. Women strongly consider individuals in their social network to be important sources of experiences and information; readily accepting advice about contraceptive methods from family and friends [36, 43]. Most support network members include relatives, friends, partners, and even health professionals [42], although one study found that the contraceptive opinions of friends, mothers, and sisters were considered more valuable and “true” than the recommendations of clinicians, who were considered impartial bearers of information without personal experience [36].

In addition, the inclusion of social support to AEP prevention efforts is important for American Indian communities, where the family structure is the most important social network. Culturally appropriate intervention models must incorporate community members and structures, especially elders. As well, group discussion and consensus is essential for the reduction of health disparities. For example, American Indians have long used “talking circles” as a means of facilitating open communication to address health issues [46], believing that “healing and transformation should take place in the presence of a group” and that AIs “can always use the support of fellow brothers and sisters to move away from something and toward something else” [47]. In addition, the use of providing social support through group communication is consistent with the AI focus on oral traditions and on providing support through personal interaction and group consensus [48, 49].

Therefore, the inclusion of a social support component to an AEP prevention effort will further benefit at-risk women as when the woman completes the CHOICES program, she still has that identified social support person to rely on, to touch base with when she needs to

talk, and to ask for help and support in maintaining behavioral goals. We have established through focus groups and key informant interviews that there is great significance placed on the role of the community and elders among the community, and that these important social networks can be included in an AEP prevention program such as the OST CHOICES Program. As well, partners and significant others can be incorporated into addressing AEP, as participants in our study strongly believe that if boyfriends/sexual partners are not involved or supportive, then the young women will not likely be participating in AEP prevention programs such as the OST CHOICES.

That being said, it is important to note that social networks can often have a negative impact on health behaviors. The individual may be concerned about losing friends or embarrassing family members by seeking help to prevent AEP or alcohol issues and is therefore reluctant to seek treatment services [50], or being surrounded by family and peers who use alcohol could *encourage* ongoing alcohol consumption [32]. The individual views a possible alienation from their support network, usually because drinking or drinking behavior had deviated from that of others around them [27]. Therefore the goal of any AEP or alcohol intervention must be to strengthen ties to “pro-social members” of a social network and to weaken bonds to destructive members [51]. The role of an interventionist must be to motivate and educate the woman and her social support person to maximize the spontaneous exchanges of support provided and to reduce the social stigma surrounding being involved in a AEP prevention program.

Limitations

This study is not without limitations. First, the participants in the focus groups and many of the key informant interviews were primarily Northern Plains American Indians and were, therefore, not necessarily representative of all American Indian communities. Also, as with any qualitative study, there is the potential for analysis bias, recall error, reactivity of the participant to the interviewer, and self-serving responses [52]. However, qualitative data is especially important with American Indian participants as the researcher may not be familiar with the variety of responses this population deems relevant. Many cultural elements can only be uncovered through open-ended, qualitative interviews [53].

Conclusions

The current study did not uncover descriptions of how social support could be negative or harmful; in fact, participants in our study viewed any type of social support regarding the decrease of substances as positive. However, while social networks were viewed as potentially positive, participants noted a general lack of instances of social support. While there are organizations and programs that can support a woman to prevent AEP, the participants in our study felt there needs to be more emphasis on how social support could be utilized to further facilitate positive health behaviors with American Indian women. Inclusion of social support within an AEP program is therefore key. The social support individuals will also have a more complete understanding of the cultural and social context of the participants behaviors and can provide unique input to the interventionist [51]. Unfortunately there is lack of support for those who are seeking help along with a lack of social encouragement to seek help.

Therefore, more emphasis must be made on the positive role that social support and social networks can play in reducing risk for AEP, either by reducing alcohol consumption or preventing unplanned pregnancy through contraceptive use. In general, research shows the health-protective potential of social support and the need to explore the impact it has on American Indian women at-risk for AEP. The OST CHOICES Program has begun a process of including social support within the intervention, including providing the intervention in a group format. Similar future interventions can also add social support components or important social networks within their programming to further impact behaviors related to AEP prevention.

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Table 1
Key Informant and Focus Group Questions

Main Question	Follow-up questions or prompts
Tell me about some successful public health programs in your community.	Prompt: For example, for women, families, youth
What pregnancy prevention programs currently exist in your community? What about for alcohol cessation?	Follow-up question: What are some good things about these current programs? Follow-up question: How could these current programs be improved?
Tell me your thoughts on preventing alcohol-exposed pregnancies with women that aren't currently pregnant.	Prompt: What is the best way to prevent alcohol-exposed pregnancy? Prompt: Do you think alcohol-exposed pregnancy is an issue in your community?
Now I am going to describe the CHOICES and <i>Yuonihan</i> programs. What are your overall thoughts on these programs?	Prompt: What are some good aspects, what are things that could be improved? Follow-up question: How could these programs be utilized in this community or healthcare setting?
If CHOICES was to be implemented in your community, would CHOICES be identical to what I described or how would it be different?	Follow-up question: What do you think of the use of "talking circles" to prevent alcohol-exposed pregnancies? Prompt: What would be the focus population (for example, adult women only)? Prompt: Where would an intervention best take place (i.e., school, media campaign, etc.)?
What barriers do you see in implementing an alcohol-exposed pregnancy prevention program?	Prompt: For example, logistics in putting the intervention into practice (e.g., time to get approval, staff time, and other issues)?
You mentioned several barriers to implementing an alcohol-exposed pregnancy prevention program. (For example) What are some solutions to these barriers?	
One challenge that other public health-based programs face is sustainability. Tell me how you would keep the alcohol-exposed pregnancy (AEP) prevention program running long-term (for example, for the next 5 years, 10 years, etc.).	a. Follow-up question: In what ways would you like to be involved?

Table 2
Demographics of Participants

Characteristics	Key Informants (n=25)	Focus Groups (n=58)	Total (n=83)
Gender			
Female	24 (96.0)	40 (69.0)	64 (77.1)
Male	1 (4.0)	18 (31.0)	19 (22.9)
Race*			
American Indian	10 (40.0)	54 (93.0)	64 (77.1)
White	12 (48.0)	2 (3.5)	14 (16.9)
Native Hawaiian/Pacific Island.	-	2 (3.5)	2 (2.4)
Marital Status**			
Married, living together	14 (56.0)	6 (10.3)	20 (24.1)
Partnered, living together	2 (8.0)	8 (13.9)	10 (12.0)
Partnered, not living together	1 (4.0)	3 (5.2)	4 (4.8)
Separated	-	5 (8.6)	5 (6.0)
Divorced	1 (4.0)	17 (29.3)	18 (21.7)
Single, never married	5 (20.0)	13 (22.4)	18 (21.7)
Widowed	1 (4.0)	6 (10.3)	7 (8.4)
Employment Status			
Employed	25 (100.0)	26 (44.8)	51 (61.4)
Unemployed	-	15 (25.9)	15 (18.1)
Self-employed	-	3 (5.2)	3 (3.6)
Homemaker	-	2 (3.4)	2 (3.4)
Student	-	1 (1.7)	1 (1.2)
Retired	-	6 (10.3)	6 (7.2)
Unable to work	-	3 (5.2)	3 (3.6)
Education Level**			
Less than high school	-	5 (8.6)	5 (6.0)
High school/GED	-	15 (25.9)	15 (18.1)
Some college	1 (4.0)	18 (31.0)	19 (22.9)
2-year college degree	3 (12.0)	11 (19.0)	14 (16.9)
4-year college degree	6 (24.0)	8 (13.8)	14 (16.9)
Master's degree	13 (52.0)	-	13 (15.7)
Doctorate degree	1 (4.0)	-	1 (1.2)
Professional degree	-	1 (1.7)	1 (1.2)
Mean Age (range)	40.5 (23-66)	42.5 (20-83)	

* Missing n = 3

** Missing n = 1