

PREGNANCY PREVENTION AMONG AMERICAN INDIAN MEN AGES 18 TO 24: THE ROLE OF MENTAL HEALTH AND INTENTION TO USE BIRTH CONTROL

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Abstract: The Fort Peck Sexual Health Project: A Contextual Analysis of Native American Men is a community-based participatory research (CBPR) project that explores the extent to which knowledge, attitudes, and beliefs about sex, intimate relationships, and mental health influence sexual and reproductive health. For the purpose of this study, the influence of age, fatherhood, and mental health factors related to historical trauma and loss on young American Indian (AI) men's intention to use birth control was examined. In-depth interviews were conducted with 112 Native American men between the ages of 18 and 24 years. The mean age reported was 21 years. Thirty-eight percent of the young men reported having children. The young men reported experiences of historical trauma during their lifetime as well as emotional responses due to historical losses. Ninety-five percent reported that it was very important that they use some form of birth control to prevent their partner from getting pregnant within the next year. Logistic regression analysis indicated that, as age increased, young men were less likely to use birth control to prevent pregnancy. The young men who reported feelings of loss due to experiences related to historical trauma and loss were more likely to use birth control. Findings from this study suggest that public health efforts to educate AI men about planned pregnancies and the use of birth control may be most effective in adolescence. Public health programs that address mental health concerns such as the emotional responses due to historical losses may assist young AI men in their decision to use birth control.

INTRODUCTION

Sexual and Reproductive Health and Young American Indian (AI) Men

By age 20, 9 out of 10 males have had sexual intercourse (Alan Guttmacher Institute [AGI], 2002). Sexually experienced young males are at increased risk of having multiple sex partners as they progress into adulthood, which increases their chances of contracting a sexually transmitted infection or having an unintended pregnancy with a sex partner (AGI, 2002). While most young males report using a condom the first time they have sexual intercourse, condom errors are common, posing risks for unintended pregnancy; also, as young males become more sexually experienced, condom usage declines, causing them to be more reliant on female contraceptive methods which provide no protection from sexually transmitted infections (AGI, 2002). Moreover, the decline in condom use as men age and become more sexually experienced suggests that the use of contraceptive methods to prevent or plan pregnancies is the responsibility of women (Kraft et al., 2007). However, some studies have found that men do accept responsibility for contraceptive use and that within relationships there is shared decision-making regarding contraceptive use (Grady, Tanfer, Billy, & Lincoln-Hanson, 1996; Harvey, Bird, Galavotti, Duncan, & Greenberg, 2002; Soler et al., 2000).

Utilization of sexual and reproductive health services by young men is influenced by factors such as cultural attitudes, beliefs about masculinity, and access to insurance (Marcell, Ford, Pleck, & Sonenstein, 2007). Only 4% of Title X Family Planning clients are males, indicating that young males are not seeking or utilizing family planning services as a means to understand and address their sexual and reproductive health needs (AGI, 2002). In addition, unintended fatherhood is higher among young men from racially and ethnically underrepresented populations (Centers for Disease Control and Prevention, 2003). Specifically, compared to the national average, young AI men are more likely than those of any other racial or ethnic group to have sexual intercourse and are less likely to use contraceptives and condoms to prevent pregnancy. In addition, the incidence of AI teen fatherhood is higher than the national average (Kaiser Family Foundation, 2004).

Little is known about how to provide primary pregnancy prevention strategies for young AI men and their partners that is culturally relevant, supports AI beliefs about pregnancy, and is effective. While previous research has found that teen parenthood is viewed as a concern in AI communities, the high value placed on children, as well as cultural and familial positive beliefs about pregnancy, provided strong support for parenthood regardless of the parents' ages (Kaufman et al., 2007). Furthermore, some young people from Indigenous communities value pregnancy and childbearing as a traditionally held practice and an important element in a committed relationship (Devries, 2007). Despite positive cultural beliefs about pregnancy, other factors, such as low socioeconomic status, inadequate access to preventive sexual and reproductive health care services, and the destruction

of traditional ways and culture due to colonization, have also been suggested as possible influences on young AIs' high-risk sexual behaviors that may lead to unplanned pregnancy (Devries, Free, Morison, & Saewyc, 2008). In addition, Kaufman et al. (2004) found that stress and trauma play a role in sexual risk taking, which may influence use of birth control to prevent or plan pregnancies among AI youth. Mental health issues (e.g., depression) have also been associated with externalizing behaviors such as high-risk sexual activity among young men—specifically, those from culturally diverse populations (Buzi, Weinman & Smith, 2010). It continues to be unclear what types of sexual and reproductive health preventive strategies may be effective and culturally relevant for young AIs, particularly AI men (Garwick, Rhodes, Peterson-Hickey, & Hellerstedt, 2008; Kirby, 2002). The purpose of this paper is to present initial findings from *The Fort Peck Sexual Health Project: A Contextual Analysis of Native American Men*. Specifically examined is the extent to which mental health factors, such as historical trauma and loss, influence young AI men's intention to use birth control to prevent pregnancy with their partner.

The Fort Peck Reservation is located in Montana, where pregnancy and birth rates for AI teens ages 15 to 19 years exceed the state average. In 2005, the teen pregnancy rate for Montana's AIs was 127 per 1,000, compared with 49 per 1,000 for the state as a whole (Montana Department of Health and Human Services [MT DPHHS], 2008). The proportion of teen births to AI mothers has increased since 2000 to nearly 30% of all teen births in the state. Between 2001 and 2005, more than 60% of the babies born to a Montana teen in the age range of 18-19 years were born to an AI mother. At Fort Peck, teen and young adult pregnancy rates for 2001 through 2005 were significantly higher than both Montana's rates and national rates for the same time period. Furthermore, in Montana, efforts to gather information on the influence of AI males on sexual and reproductive health disparities have been limited due to competing priorities, scarce resources, and jurisdictional boundaries (MT DPHHS, 2008).

Mental Health

Mental health issues for young men, such as depression, anxiety, grief, and loss, are an increasing public health concern (Breland & Park, 2008). In particular, mental health conditions among AI populations have been associated with both historical and contemporary experiences (Grandbois, 2005). AIs in the United States have endured many historically significant events, including colonization, epidemics, warfare, and forced subjugation. It is widely believed that the cultural memory of their history is having a detrimental effect on contemporary AI communities (Brave Heart, 1999). Historical trauma and loss among AIs is believed to result from a combination of colonialism; acculturative stress; cultural bereavement; genocide; and cumulative, ongoing racism that has been generalized, internalized and institutionalized (Brave Heart, 1998; 2003;

Duran & Duran, 1995). To date, there is limited empirical research on historical trauma and loss in AI communities (Jervis, Beals, Croy, Klein, Manson, & the AI-SUPERPPF Team, 2006). The few studies that have been conducted on the role of historical trauma and loss as it relates to sexual and reproductive health issues have been exploratory and have specifically focused on HIV and sexually transmitted infection (STI) risk factors (Duran & Walters, 2004; Kaufman et al., 2007; Walters & Simoni, 1999). As part of *The Fort Peck Sexual Health Project: A Contextual Analysis of Native American Men* the relationship between the history of grief, loss, and trauma reported by the young men of the Fort Peck Reservation and its possible role in using birth control is explored.

Community-based Participatory Research

The Fort Peck Sexual Health Project: A Contextual Analysis of Native American Men was rooted in community-based participatory research (CBPR) principles. AIs have, historically, been reluctant to participate in research projects because traditional research methods, which emphasize the researcher as “the expert,” have not engaged them in the design and implementation of research projects or the interpretation and dissemination of results (Hellerstedt, Peterson-Hickey, Rhodes, & Garwick, 2006). CBPR has been identified as an effective and essential strategy for conducting research with AIs because of its emphasis on participation with the community and Tribal entities to address health disparities (Holkup, Tripp-Reimer, Salois, & Wienert, 2004). CBPR has also been identified as an emerging framework for transforming how research is translated into interventions that are designed, implemented, and evaluated with AI communities in order to reduce health and social disparities (Wallerstein & Duran, 2010). In particular, CBPR has been identified as an important framework for conducting sexual and reproductive health research because it requires the researcher to explore the social, cultural, and emotional context of the community in which decision making about these issues takes place (Reece & Dodge, 2004).

Development of this study began in November 2006 when researchers from Montana State University were invited to the Fort Peck Reservation to discuss a possible research project with the Fort Peck Tribes that would address the community’s sexual and reproductive health needs. Discussions with the Fort Peck Tribal Health Department, Indian Health Services, and other community organizations supported a collaborative project. In February 2007, a resolution to begin a partnership between the Fort Peck Tribes and Montana State University using CBPR to address sexual and reproductive health on the Fort Peck Reservation was passed by the Fort Peck Tribal Council. Subsequently, a Community Advisory Board was established to work in partnership with the research team to develop, implement, and evaluate the study.

The Community Advisory Board consisted of three members, two women and one man, who were recommended by the Fort Peck Tribal Council and the Fort Peck Tribal Health Department Director. Two of the three board members were Tribal members. The Fort Peck Tribal Health Department personnel that worked on the study were males who were 2-3 years older than the research participants; they also provided guidance and recommendations for the study. The Community Advisory Board met, on average, every other month to provide guidance on the overall direction of the project. More specifically, board members reviewed and gave comment on study materials such as informed consent documents and questionnaires. In addition, the board members made suggestions about how and where to recruit research participants. They were also provided the frequency distributions for each variable in the study by the project's Principal Investigator, Dr. Elizabeth Rink, so they could review the data results. Dr. Rink then discussed the data results with the board members, and the board members recommended specific variables for further analysis. This manuscript was written based on discussions between the Community Advisory Board and the research team. Furthermore, the board made recommendations for how to disseminate the study results on the reservation. Finally, the Fort Peck Tribal Council was informed of the progress of the study every three months. Their input and guidance were also sought during the various phases of the research process, including study design, review of data results, data dissemination, and manuscript review and approval.

METHODS

Participants

Data in this study were drawn from AI men, ages 18 to 24 years, from the Assiniboine and Sioux Tribes who live on the Fort Peck Reservation. The Fort Peck Reservation is located in a High Plains prairie environment of northeastern Montana and is bordered by the 47 ½ parallel to the north (just south of the border with Canada), Big Muddy Creek to the east, the Missouri River to the south, and Big Porcupine Creek to the west. The reservation spans approximately 2,093,310 acres. There are 12,000 enrolled members of the Assiniboine and Sioux nations; approximately 6,000 reside on or near the Fort Peck Reservation. The Sioux include Sisseton/Wahpetons, the Yanktonais, and the Teton Hunkpapa divisions; the Assiniboine comprise Wadopana (Canoe Paddlers Who Live on the Prairie) and Hudashana (Red Bottom) bands.

Eligible research participants were AI men between the ages of 18 and 24 years who were living on the Fort Peck Reservation at the time of the study and were members of the Assiniboine or Sioux Tribes. Approximately 578 of the men on the Fort Peck Reservation are between the ages of 18 and 24 years. In this study, 112 AI men, 20% of the target population, were interviewed. This

sample size, estimated for the finite, age-specific population size for the Fort Peck Reservation, provided an estimated 10% prevalence with 95% confidence intervals and 5% precision (Daniel, 1999). Overall, the response rate for the study was a little over 80%.

Participants were recruited for this study using purposive sampling techniques by partnering with community organizations, such as the Fort Peck Tribal Health Department, Fort Peck Indian Health Services, and the Fort Peck Community College. These organizations assisted in providing information about the study to young men in the community who met the study's eligibility criteria. The project was advertised via flyers, posters, presentations, community gatherings, the marquee for Indian Health Services in Poplar, Montana, and word of mouth.

Two male interviewers who were enrolled members of the Fort Peck Tribes conducted in-depth interviews with the target population. The interviewers were trained in interviewing techniques, protocols, and subject matter. In-depth interviews took place in a private setting, either in space provided by the study's partnering agencies or another private setting agreed upon by the interviewer and interviewee. Quantitative and qualitative questions comprised the in-depth interviews. Topics addressed in the interviews included 1) demographics, 2) perceived partner commitment, 3) contraceptive use, 4) pregnancy prevention, 5) STI and HIV prevention, 6) decision making in relationships, 7) monogamy and abstinence; 9) social norms, 10) religious and spiritual practices, 11) loss and mental health, and 12) sexual risk behaviors. The interviews lasted between 45 minutes and 1.5 hours and were audio-recorded; in addition, the interviewer completed a paper form cataloging the interviewee's responses. The recorded interviews were later transcribed and cross-checked with the paper responses for accuracy and clarity. All research participants completed an informed consent. As part of the informed consent process, interviewees were made aware that audio-taping, transcription, and cross-checking would take place. When appropriate, transportation was provided to participants in order to reduce logistical barriers. Participants received a \$25 gift certificate to a local convenience store to compensate them for their time. Institution Review Board approval was provided by Montana State University and Indian Health Services. The Fort Peck Tribes Health Board, which acts as the Fort Peck Tribes Institutional Review Board, also gave approval for the study.

Measures

The quantitative and qualitative measures used in this study are presented below.

Intention to Use Birth Control

Intention to Use Birth Control was measured as "Over the next year, how important or unimportant is it that you will use some form of birth control to not get your partner pregnant?" (Kraft et al., 2007). Response categories were a five-point Likert scale (1 = *Not very important*

to 5 = *Very important*). Due to low cell counts in the not at all important, a little important, and moderately important categories, the item was collapsed into two categories: 0 = not very important and 1 = very important.

Age

Age was measured as a discrete continuous variable ranging from 18 to 24 years.

Children

The number of children a participant had was measured as a discrete continuous variable, but was dichotomized for analysis to whether the participant had children or did not have children. Children was coded 0 = no and 1 = yes.

Mental Health

Perceived Losses

Perceived losses were measured using the Historical Loss Scale developed by Whitbeck, Adams, Hoyt, and Chen (2004). The Historical Loss Scale is a 12-item scale with a Cronbach's alpha coefficient of 0.94, suggesting high internal reliability. Questions on the Historical Loss scale relate to loss of land, language, traditional spiritual ways, culture, and respect by children and grandchildren for elders and traditional ways, as well as loss due to death. Response categories were coded as 1 = *Several times a day*, 2 = *Daily*, 3 = *Weekly*, 4 = *Monthly*, 5 = *Yearly or at special times*, and 6 = *Never*. The items on the Historical Loss Scale were recoded so that higher scores on the scale reflected higher levels of historical loss.

Emotional Response to Losses

Emotional Response to Losses was measured using the Historical Loss Associated Symptom Scale (Whitbeck et al., 2004). This scale is a 12-item scale with questions specifically related to how the perceived losses of AIs influence their mental and emotional health. Mental and emotional health indicators in the Historical Loss Associated Symptom Scale include feelings of sadness and depression, anger, anxiety or nervousness, discomfort around White people, shame, loss of sleep, and rage. The response categories were 1 = *Never*, 2 = *Seldom*, 3 = *Sometimes*, 4 = *Often*, and 5 = *Always*. The items on the Historical Loss Associated Symptoms Scale were recoded so that higher scores on the scale reflected higher levels of emotional responses due to losses. The Historical Loss Associated Symptoms Scale reports a high internal reliability with a Cronbach's alpha of 0.90.

Qualitative Question

A follow-up question was asked after the historical trauma and loss measures in order to assess the extent to which these feelings influenced decision making related to sex. The question stated, “When thinking about these feelings, do you think they influence decisions you make in your life about sex?” The question was coded 0 = *No* and 1 = *Yes*. Probes were asked after the yes/no question; these read: “If yes, how?” and “If no, why not?”

Statistical Analysis

Univariate and multivariate statistical techniques were used in this analysis. Frequency distributions were used to describe the sample population’s response categories for each variable. Logistic regression was used to quantify the extent to which young AI men’s experiences of historical trauma and feelings of loss were associated with their intention to use birth control. Significance levels were set at $p < 0.05$, $p < .01$, and $p < .001$. STATA version 9.0 was used to perform the analyses for this study (STATA Press, 2003). Upon completion of the statistical analyses, the results were shared with the study’s Community Advisory Board and research staff in order to assist in the interpretation of the results.

RESULTS

Frequency Distributions: Sample Characteristics

The age range of the men was 18 to 24 years, with the mean age reported as 21 years (SD = 1.9; see Table 1). Approximately 38.2% of the young AI men in the study reported having at least one child; 61.8% reported having no children. In all, 88.0% of the young AI men reported that it was very important to use some form of birth control within the next year to prevent a pregnancy with their partner. In comparison, 12.0% reported that it was not very important that they would use some form of birth control within the next year to prevent a pregnancy with their partner.

Table 1
Demographics and Intent to Use Birth Control

Characteristics (N = 112)	n	M(SD)	Percent
Age		21 (1.9)	
Children			
Yes	44		38.2
No	68		61.8
Intention to use birth control			
Very important	95		88.0
Not very important	17		12.0

The mean score reported for perceived losses due to historical trauma was 40 ($SD = 14$, range = 12-72; see Table 2). Perceived losses that the young AI men reported never experiencing included loss of land (29.7%), loss of family ties because of boarding school (35.1%), loss of family ties from the reservation due to government relocation (36.9%), loss of trust in Whites from broken treaties (34.2%), and loss of culture (22.5%). In comparison, examples of perceived losses experienced by the young AI men on a daily basis were loss of their language (23.4%), loss of culture (20.7%), loss of respect by children and grandchildren for elders (39.6%), and loss of their people through early death (28.8%). Approximately 27.9% of the young AI men reported experiencing on a daily basis losses from the effects of alcoholism on their people.

The mean score reported for the emotional response to losses was 25 ($SD = 9$, range = 12-50; see Table 3). The majority of responses to the emotional loss questions fell within the “sometimes,” “seldom,” and “never” categories. For example, 30.1% of the young AI men reported sometimes feeling sadness or depression as a result of losses, in comparison to 23.6% who reported seldom or never feeling sadness or depression due to losses. Approximately 37.8% of the sample reported sometimes feeling angry because of the losses their people have experienced, 23.4% reported seldom feeling angry about these losses, and 12.6% reported never feeling angry due to the losses. Feelings of anxiety or nervousness due to losses were reported at 21.6% (sometimes), 27.0% (seldom), and 36.9% (never). Feelings of shame when thinking about the losses were reported at 22.5% (sometimes), 17.1% (seldom), and 47.7% (never). Also, 28.8% of the young AI men reported a loss of concentration due to historical trauma, in comparison to 17.1% who reported seldom losing their concentration and 36.9% reported never losing their concentration as a result of historical trauma.

Table 2
Frequency of Perceived Losses

	Never	Yearly or Special Times	Monthly	Weekly	Daily	Several Times Daily
Loss of our land	29.7	19.8	16.2	11.7	15.3	6.3
Loss of our language	15.3	21.6	17.1	9.9	23.4	11.7
Losing our traditional spiritual ways	17.1	18.0	18.9	17.1	18.9	9.0
The loss of family ties because of boarding school	35.1	27.9	9.9	9.9	11.7	4.5
The loss of family ties from the reservation due to government relocation	36.9	20.7	15.3	10.8	10.8	5.4
The loss of self-respect from poor treatment by government officials	21.6	18.9	16.2	16.2	15.3	10.8
The loss of trust in Whites from broken treaties	34.2	17.1	9.0	13.5	16.2	8.1
Losing our culture	22.5	12.6	15.3	14.4	20.7	12.6
The losses from the effects of alcoholism on our people	4.5	5.4	9.9	17.1	34.2	27.9
Loss of respect by our children and grandchildren for elders	9.0	1.8	13.5	15.3	39.6	19.8
Loss of our people through early death	8.1	11.7	14.4	20.7	28.8	14.4
Loss of respect by our children for traditional ways	14.4	10.8	18.9	19.8	22.5	11.7

Table 3
Frequency of Emotional Response to Losses

	Always	Often	Sometimes	Seldom	Never
Often feel sadness or depression	2.7	10.9	30.1	23.6	23.6
Often feel anger	7.2	18.9	37.8	23.4	12.6
Often feel anxiety or nervousness	3.6	9.9	21.6	27.0	36.9
Uncomfortable around White people when you think of these losses	8.1	8.1	18.0	10.8	54.9
Shame when you think of these losses	3.6	9.0	22.5	17.1	47.7
Loss of concentration	2.7	5.4	28.8	26.1	36.9
Feel isolated or distant from other people when you think of these losses	0.9	8.1	22.5	22.5	45.9
A loss of sleep	0.9	3.6	17.1	12.6	64.8
Rage	0.9	6.3	22.5	17.1	53.2
Fearful of or distrust the intentions of White people	4.5	6.3	18.9	22.5	47.8
Feel like it is happening again	3.6	11.7	24.3	21.6	37.8
Feel like avoiding places or people that remind you of these losses	7.2	9.0	19.8	13.5	50.5

Logistic Regression: The Role of Mental Health and Intention to Use Birth Control To Prevent Pregnancy

Results from the logistic regression analysis for concepts of historical trauma and loss and intention to use birth control among our sample of young AI men suggest that, for every 1-year increase in age, the young AI men were less likely to consider it important to use birth control within the next year to prevent a pregnancy with their partner (see Table 4). This finding suggests that AI men in their late teens may be more receptive to receiving birth control counseling and services than AI men in their early to mid-twenties.

As emotional responses related to the losses experienced by their people increased among this sample of young AI men, they were more likely to consider it important to use some form of birth control within the next year to prevent a pregnancy with their partner (see Table 4). Therefore, mental health and feelings of sadness, anger, anxiety, and shame appear to be important factors to consider when providing birth control counseling and services to AI men. No association was found between whether young AI men already had children and their intention to use birth control within the next year to prevent a pregnancy with their partner. In addition, loss related to land, language, and culture, and losses from the effects of alcoholism, was not associated with young AI men's intention to use birth control within the next year to prevent a pregnancy with their partner.

Table 4
Logistic Regression for Mental Health and Intention to Use Birth Control

Characteristics	Odds Ratio	95% Confidence Interval
Age	.64	(.46-.91)*
Children		
Yes	2.5	(.66-9.1)
No	1.0	
Experience of Loss	.98	(.93-1.1)
Feelings Related to Loss	1.2	(1.1-1.3)*

* $p < 0.05$

Qualitative Follow-up Question

The research participants were asked a qualitative follow-up question in order to further explain how concepts of historical trauma and loss may influence their sexual and reproductive health. Seventy-five percent of the men interviewed stated that historical trauma and loss did not influence their decisions about sex. Of the 25% of the men who did state that historical trauma and loss influenced their decisions about sex, comments included the following: "It makes me think

about planning and wanting to know more,” “It makes me just want to focus on work,” and “I don’t know, it just does.” Thus, it may be that young AI men who report feelings of sadness, anxiety, anger, or shame related to historical losses may be ambivalent or unsure about parenthood and not able to articulate the connection between such feelings and their influence on sexual decision-making.

DISCUSSION

AI men are an understudied population facing unique sexual and reproductive health challenges such as young fatherhood and lack of access to reproductive health services. Approximately 43% of AIs live on reservations in rural and frontier settings (National Center for Frontier Communities, 2000). Furthermore, AI communities are becoming increasingly concerned with research that focuses on problems related to sexual and reproductive health among AIs, as opposed to presenting a balanced and holistic perspective on sexual and reproductive health disparities in Tribal communities (Chewning et al., 2001; Garwick et al., 2008). What is known about how to design and implement sexual and reproductive health intervention and prevention strategies comes from primarily White, Hispanic, and African American settings and is not likely to be generalizable to AIs from rural, frontier environments (Adimora, Schoenbach, & Doherty, 2006; Aral, O’Leary, & Baker, 2006; Farley, 2006; Thomas, 2006; Gaydos et al., 2006). The paucity of sexual and reproductive health literature on men in their late teens and twenties makes it difficult to determine factors that facilitate or impede the use of pregnancy prevention strategies and reproductive health services (Dominguez, 2008). Consequently, intervention and prevention strategies that are effective in an adolescent male population may not be effective in a young adult male population. Recent research by Kalmuss and Tatum (2007) suggest that the characteristics of successful sexual and reproductive health services for heterosexual men from culturally and ethnically unique backgrounds are unclear, and more research is needed to determine effective approaches for these populations. Furthermore, research conducted by Buzi and colleagues (2010) demonstrates that addressing mental health issues among young men from racially and ethnically diverse backgrounds as part of sexual and reproductive health services is warranted due to the correlation between mental health and sexual and reproductive health.

The initial findings from *The Fort Peck Sexual Health Project: A Contextual Analysis of Native American Men* provide insight into potential approaches to providing sexual and reproductive health care to young AI men. The average age of the young men in this study was 21 years old. The results from this study suggest that, as the young men transition from late adolescence into their early twenties, they are less likely to consider it important to use birth control as a pregnancy prevention strategy with their partner. It may be that more young men are in long-term committed relationships as they age and may, therefore, be more likely to want to have children. These findings

are consistent with previous research, which demonstrates that, as young men enter into young adulthood, they are less likely to view birth control as important (AGI, 2002). This study indicates that providing sexual and reproductive health services specifically designed for AI men in their early to late teens—before they reach their late adolescence and young adulthood—is warranted in order to educate and counsel them on the importance of their sexual and reproductive health. Furthermore these findings support research conducted by Garwick and colleagues (2008), who found that AI teens were receptive to and interested in getting sexual and reproductive health services in their communities through a variety of outreach strategies.

Research on historical trauma and loss in AI communities has primarily focused on adults and elders, as well as youth in their early teens (Whitbeck et al., 2004; Whitbeck, Walls, Johnson, Morrisseau, & McDougall, 2009). The young AI men in this study reported experiences of historical trauma and loss, emphasizing the potential influence of cultural and social history on their health behavior. Findings from this study indicate that AI young people do think about, and are concerned with, the histories of their communities. This study suggests that concepts related to historical trauma (e.g., loss of land, language, and culture; losses from the effects of alcoholism), as well as the emotional responses due to such losses, may have negative effects on young AIs as they transition into adulthood. However, it should be noted that the majority of the young AI men in this study reported sometimes, seldom, or never experiencing emotional responses to the losses affecting their people. Thus, it may be that while young AI men acknowledge and think about the past traumas and losses of their people, they do not necessarily report that their thoughts influence their mental health or their reproductive choices.

In our sample, the majority of respondents reported that it was very important to use birth control within the next year to prevent a pregnancy with their partner. Furthermore, young men who were experiencing emotional responses to the losses associated with historical trauma reported that it was important for them to use birth control to prevent pregnancy. In addition, qualitative results suggest that the young men who did report that their emotional responses to losses influenced their decisions about sex were concerned about delaying fatherhood until they were ready for the responsibilities of being a parent. However, based on the briefness of the young men's responses, they may have a difficult time making a connection between their feelings and their decisions about sex. These findings support the possibility that historical losses may influence contraceptive decision making among young AI men. While the results from this study demonstrate responsible decision making when it comes to using birth control, further investigation is needed to determine the extent to which young AI men associate use of birth control to prevent or plan a pregnancy to historical trauma and loss. Young AI men who are experiencing emotional problems due to historical trauma may have difficulty expressing their feelings or articulating their thoughts on the subject and how it

influences their contraceptive use. Thus, it may be that conducting focus groups or probing further during individual in-depth interviews regarding the relationship between birth control and feelings and thoughts related to historical trauma and loss may provide more insight into how to best address pregnancy prevention and planning with young AI men.

LIMITATIONS

There are limitations to this study. Responses were elicited from young AI men ages 18 to 24 years from the Fort Peck Tribes and cannot be generalized to other AI populations. Furthermore, the use of purposive sampling weakens the validity of the study's statistical findings, which may also make it difficult to generalize to other young men who are members of the Fort Peck Tribes. Data were derived from self-reports, which may be restricted to opinions or feelings rather than being based on facts or evidence. The historical loss measures were originally designed to assess grief and loss in older AI populations, with only limited application to younger AI populations in other studies (Whitbeck et al., 2004; 2009). Thus, more research is needed to determine how to appropriately measure historical losses and their impact on the emotional well-being of young AIs. Finally, the young AI men who participated in the study were only asked questions about their intention to use birth control to prevent pregnancy, and were not asked questions regarding whether they wanted their partner to get pregnant. Thus, the study's findings are limited to young AI men's intention to prevent pregnancy; they cannot be applied to their overall feelings and attitudes towards pregnancy.

CONCLUSION

This study revealed that young AI men do consider it important to use birth control with their partner in order to prevent pregnancy. However, they are less likely to consider birth control important as they transition into adulthood. This finding suggests that providing birth control counseling, education, and services may be most effective when AI men are in their early to middle teenage years. In addition, some young AI men report experiences of historical trauma and loss, as well as emotional responses to these losses, which influence the meaning they place on using birth control to prevent pregnancy. This study underscores the importance of further examining the interactions between mental health and sexual and reproductive health among young AI men. Further exploratory research, such as in-depth qualitative interviews, focus groups, and research with an intergenerational sample of AI men, may reveal deeper insights into how aging influences AI men's concepts of historical trauma and loss in relation to pregnancy prevention and planning. In addition, qualitative and intergenerational study designs may also assist in understanding how historical trauma and loss are internalized by AI men, and how this internalization influences sexual and

reproductive choices. Such research could inform the design of therapeutic interventions to address both young AI men's sexual and reproductive health and their emotional and mental well-being. For example, as a result of this two-year exploratory study, the Fort Peck Tribal Health Department, in partnership with Montana State University, has designed an intervention to educate young AI males about sexual and reproductive health and teach them effective strategies for communicating with their sex partners about topics related to sexual and reproductive health such as condom use, conflict resolution and pregnancy prevention. This intervention is now being implemented and evaluated for effectiveness with AI men ages 18 to 24 years living on the Fort Peck Reservation. One of the outcomes explored in The Fort Peck Men's Sexual Health Intervention and Evaluation Study is the extent to which men's emotional health (e.g., feelings of loss or sadness) influences their sexual decision making, use of contraception, communication with sex partners, and concept of healthy relationships. This intervention study aims to provide strategies for working with young AI men on topics related to their emotional health and its influence on their sexual and reproductive health.

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