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Mental Health and Substance Abuse Issues Among Native Americans Living on a Remote Reservation: Results from a Community Survey

Theodore W. McDonald
Boise State University

Mary E. Pritchard
Boise State University

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Theodore W. McDonald
Department of Community and Environmental Health
Boise State University, Boise, ID

Mary E. Pritchard
Department of Psychology
Boise State University

ABSTRACT

The purpose of the study was to document the perceived and actual mental health and substance abuse issues of residents living on a remote reservation in the Northwestern United States. Surveys were completed by 138 Native Americans, who reported on mental health status and problems, perceptions of personal and community health issues on the reservation, and patterns of substance use and abuse (e.g., how often respondents use alcohol, what drugs present the most serious problems on the reservation). The respondents perceived their own mental health to be quite good. However, they reported that several mental health problems were prevalent in their community including alcohol/drug abuse, mood disorders, and spousal abuse/domestic violence. In addition, although respondents themselves reported little substance abuse, the most serious perceived problems in both their families and the community were related to substance abuse. Respondents not only recognized the problems caused by substance abuse on the reservation; they also had valuable suggestions for how to reduce this problem, including recreational/after school programs, education about substance abuse, cultural activities, and appropriate treatment services, including traditional or faith-based healing methods.

INTRODUCTION

Although fewer than 25% of Americans live in rural and frontier geographic regions, these regions actually make up 75% of the landmass in the United States. Given the distance between some rural and metropolitan areas, it is perhaps not surprising that many rural residents face unique challenges to obtaining quality physical and mental health care (Brems & Johnson, 2007; McDonald, Harris, & LeMesurier, 2005; Reschovsky & Staiti, 2005). Not only can inadequate access to health care cause significant health risks in and of itself (e.g., lack of preventive care and early detection can lead to more serious illnesses; Brems & Johnson), but also certain kinds of mental health issues (e.g., comorbid mental health disorders, some types of substance abuse,

suicide rates) may be more prevalent in rural communities (Borders & Booth, 2007; Falck et al., 2007; Fiske, Garz, & Hannell, 2005; Gfroerer, Larson, & Colliver, 2007; Simmons & Havens, 2006). In fact, it has been suggested that the reason comorbid mental health issues and substance abuse issues are higher in rural areas is a direct result of residents attempting to self-medicate to treat their mental health issues (Simmons & Havens).

Although rural residents have the same incidence and prevalence of mental health issues such as depression and anxiety as urban residents (Simmons & Havens, 2006), with a lifetime prevalence rate of 46.4% (Kessler et al., 2005), Native Americans, who often live on isolated reservations in rural areas, are afflicted by mental problems at even higher rates, with estimates as high as 68% (Novins, Beals, Shore, & Manson, 1996). Native Americans appear to be particularly vulnerable to depression (Chester, Mahalish, & Davis, 1999; Curyto, Chapleski, & Lichtenberg, 1999), anxiety (Zvolensky, McNeil, Porter, & Stewart, 2001), posttraumatic stress disorder (Beals et al., 2005; Westermeyer, 2001), and domestic violence (Evans-Campbell, Lindhorst, Huang, & Walters, 2006).

In addition, Native Americans have the highest alcohol addiction rate of any demographic group in the United States (Beals et al., 2005; French, 2004; Venner, 2002), with estimates as high as 50% (Denny, Holtzman, & Cobb, 2003; Shore, Manson, & Buchwald, 2002). Alcohol-related mortality rates are much higher among Native Americans than for the general population as well, particularly when stemming from chronic liver disease and unintended accident or injury (Denny et al., 2003; Li, Smith, & Baker, 1994). Perhaps it is not surprising that alcohol abuse is the leading cause of death in Native Americans (Koss et al., 2003), including death from suicide (LeMaster, Beals, Novins, & Manson, 2004).

Not only has there been concern about the rapid growth of problems connected to alcoholism in Native Americans, such as fetal alcohol syndrome, fetal alcohol effect, and inhalation abuse, but there has also been concern about the low treatment success rate (French, 2004). Some researchers have suggested that the addiction rates can be attributed to psychocultural marginality (French, 2004; Jones-Saumty, 2002); however other researchers claim that this is not the underlying cause (Johnson, VanGeest, & Cho, 2002). Oetzl et al. (2006) suggest that there is no single reason, but that obstacles to both mental health and substance abuse treatment include self-reliance, privacy issues, quality of care, and communication/trust. Furthermore, 71% of Native Americans report at least one of these obstacles during treatment, and 61% report experiencing two or more of these obstacles (see also Duran et al., 2005). Regardless of the reasons for the increased rates of mental health and substance abuse issues in Native American populations, there is clearly a need for effective treatment programs that focus on prevention and skills needed to stop drinking (Thomason, 2000). In fact, research has suggested that many treatment and prevention programs have been largely ineffective in Native American populations because of a lack of cultural sensitivity of mental health care providers (Gone, 2004; La Fromboise, Trimble, & Mohatt, 1990; Renfrey, 1992; Yurkovich, Clairmont, & Grandbois, 2002; Yurkovich, & Lattergrass, 2008).

In sum, rural Americans face substantial obstacles to receiving quality mental health care (Brems & Johnson, 2007; Reschovsky & Staiti, 2005). These obstacles may be further exacerbated in Native American populations living on a small, rural reservation (Duran et al., 2005; Gone,

2004; La Fromboise et al., 1990; Oetzl et al., 2006; Renfrey, 1992; Yurkovich et al., 2002). Furthermore, Native Americans may face an increased risk of certain mental health and substance abuse issues (Beals et al., 2005; French, 2004; Novins et al., 1996; Venner, 2002). As Yurkovich et al. (2002) suggest, Native Americans themselves have not been asked what mental health services would be more culturally appropriate and effective. Native Americans have also not been asked what they perceive to be the most prevalent mental health issues on reservations. Thus, although research has identified Native Americans as an at-risk population for substance abuse and other mental health issues (e.g., depression, anxiety), little research has asked Native Americans living on reservations: 1) what they perceive to be the greatest mental health and substance abuse issues and consequences of those issues in their communities, 2) whether the issues cited match the actual mental health and substance abuse problems reported by the residents, and 3) what should be done to reduce the scope and magnitude of these problems. The purpose of this project was to identify the actual and perceived mental health and substance abuse problems on a remote reservation in the Northwest U.S. and what Native Americans believe should be done about these issues.

METHOD

Participants

The participants included 138 adults living on the target reservation who responded to a mail survey. All respondents were asked for basic demographic information, and most of them supplied at least some information on their personal and household characteristics. Responses to the demographic items revealed that the respondents were disproportionately female (65.5% reported themselves to be women), older than the U.S. median age (82.5% reported themselves to be at least 35 years of age), and relatively poor (40.3% reported their household income to be less than $17,500 dollars). Slightly over one-third (33.6%) of the respondents reported that they did not have health insurance.

Measure

The survey measure was a 53-item questionnaire, with individual items organized into eight conceptual subscales (Background Information; Health Insurance; Physical Health Issues; Mental Health Issues; Exercise; Family and Community Issues; Substance Abuse; and Health Services). Some of the items were ones used by tribal health officials in previous health assessments, some were modeled upon items on public domain health assessment instruments, and some were created to assess specific issues of interest to the researchers and tribal officials. In the context of this article, items on the Mental Health Issues (self-reported mental health; whether respondents had been diagnosed with mental health problems; what mental health problems respondents perceived to be most prevalent in the community), Family and Community Issues (perceived severity of various problems, for example abuse, illegal substance use, teenage pregnancy), and Substance Abuse (how often respondents use alcohol and illegal substances; perceived most prevalent substance abuse problems in the respondents' families and in the community) subscales will primarily be discussed.

Procedure

The researchers, working with tribal officials, conducted a community health needs assessment over a period of several months. As part of this health needs assessment, the researchers and tribal health officials conducted a survey of adults in all 398 households on the reservation (this research project was approved by both the tribal council and the Institutional Review Board at the researchers' university). Surveys were sent by mail to each household, inviting an adult to complete the survey, and additional adults in the household (i.e., adults other than the one listed on the mailing address) were invited to complete a survey by collecting one at several prominent locations on the reservation (e.g., the tribal health center, the sole reservation general store). To encourage responding, a two-part raffle ticket was attached to each survey, and respondents were instructed to remove and retain one part of the ticket and leave the other attached to their completed survey when they placed it in one of the drop boxes. The potential respondents were informed that if they completed the survey, they would be eligible to win one of three gift certificates worth up to $300 at the reservation general store.

There were 138 completed, usable surveys returned by respondents to one of three secure drop boxes located throughout the reservation. It is impossible to calculate an exact "response rate," because reservation residents were allowed to pick up surveys at various locations around the reservation, and how many did so was not documented (therefore, the researchers were unable, for example, to simply divide the number of completed surveys by the number of households that were sent surveys). However, given that only 398 households are listed on the reservation, it seems reasonably conservative to estimate that at least 25% (or approximately 100) of them were represented by the 138 respondents.

Statistical analysis

Survey variables were entered into the SPSS (SPSS Inc., Chicago, Ill) statistical software package. As this was an exploratory study of reservation residents' attitudes, beliefs, and behaviors, we used simple frequency analyses for all questions.

RESULTS

Mental Health

When respondents were asked to rate their current overall mental health on a 7-point scale, (on which the value of 1 indicated "very poor" and the value of 7 indicated "excellent") the mean reported mental health rating was 5.91 (SD = 1.35). Thus, overall, the respondents reported that their mental health was very good. When asked whether they had ever been diagnosed with a psychological problem, 14.7% reported having been so diagnosed. Those who reported having been diagnosed with a psychological problem were asked to indicate, in their own words, what the psychological problem was. A qualitative content analysis procedure was used to group responses into conceptually consistent themes. Among those who listed at least one diagnosed mental health problem, the most commonly diagnosed problems included depression (reported by 72.2% of those who reported at least one diagnosed problem), PTSD (22.2%), stress (18.2%), and anxiety (18.2%). The respondents were also asked whether they believed they might suffer

from a psychological problem that had not been diagnosed, and 9.0% reported believing that they suffered from an undiagnosed psychological problem. These respondents were asked to indicate what type of psychological problem they believed they might suffer from, and 33.3% of those who answered this question reported that they did not know. However, 16.7% each reported believing that they suffered from undiagnosed alcohol/drug addiction, anger, anxiety, depression, and obsessive-compulsive disorder.

The respondents were also asked to list up to five mental health problems that they believed presented the most serious challenges to their community. The responses to this item were also evaluated through the use of a content analysis procedure. Three mental health problems emerged as being considered the most prevalent in the community. These were alcohol/drug abuse (reported by 72.0% of those who reported a community mental health problem), mood disorders (45.1%), and spousal abuse/domestic violence (18.3%) (it is noteworthy that two of these three problems—namely alcohol/drug abuse and abuse/domestic violence, are often conceptualized more as "behavioral health" problems than "mental health" problems in the traditional sense; the conceptual overlap in these two related types of problems was found throughout this study).

Substance Use

A separate set of items asked the respondents to comment on issues related to substance use and abuse. The first of these items asked the respondents about their own alcohol use. For example, respondents were asked about how many drinks (defined as 12 ounces of beer, four ounces of wine, or one ounce of liquor or spirits) they typically consumed in one sitting. Interestingly, more than two-thirds (68.9%) of the respondents reported consuming no drinks at all. Among the respondents who reported consuming at least one drink in a typical sitting, 12.1% reported 1-2 drinks, 11.4% reported 3-4 drinks, and 7.6% reported five or more drinks. The respondents were then asked how often they consumed alcohol. The most common response, reported by over three-fourths (76.7%) of the respondents, was "never or rarely." Among those respondents who reported consuming alcohol with at least some frequency, 13.5% reported drinking 1-2 times a month, 4.5% reported drinking 1-2 times a week, and 5.3% reported drinking 3-4 times a week. The respondents were also asked how often they consumed alcohol to the point of intoxication. More than four-fifths (82.1%) reported never or rarely drinking to intoxication, whereas 12.7% reported doing so 1-2 times a month, 2.2% reported doing so 1-2 times a week, and 3.0% reported doing so 3-4 times a week. Finally, the respondents were asked how often they engaged in binge drinking (defined as consuming five or more drinks in one sitting). Again, over four-fifths of the respondents (81.5%) reported "never or rarely" drinking this heavily. Of the respondents who acknowledged at least occasionally binge drinking, 14.8% reported doing so 1-2 times a month, 0.7% reported doing so 1-2 times a week, and 3.0% reported doing so 3-4 times a week.

One issue of particular importance to the tribal officials who commissioned this study was what issues the residents of the reservation considered to be the most serious problems facing their families and the community. To address this, the respondents were asked to rank from 1 (most serious) to 7 (least serious) nine different issues (spousal abuse, child abuse/neglect, elder abuse/neglect, sexual assaults/rape, teenage pregnancy, substance abuse during pregnancy,

alcohol abuse, illegal drug use, and prescription drug abuse) both within their families and within their community. Rankings were then averaged for each issue to determine the seven issues with the lowest average rankings (indicating the most serious problems) for both families and community. As seen in Table 1, the issues perceived to be the most serious in both families and the community were related to substance abuse (although it should be noted that the perceived seriousness of the individual issues were slightly different for families and the community, as evidenced by the different ranked orders of alcohol abuse and illegal drug use).

Table 1
Most Serious Perceived Family and Community Problems

Rank	Most Serious Family Problems	Most Serious Community Problems
1	Alcohol abuse	Illegal drug use
2	Illegal drug use	Alcohol abuse
3	Prescription drug abuse	Prescription drug abuse
4	Child abuse/neglect	Child abuse/neglect
5	Elder abuse/neglect	Spousal abuse
6	Teenage pregnancy	Elder abuse/neglect
7	Spousal abuse	Teenage pregnancy

The respondents were asked to report whether any members of their immediate families or households had a problem caused by alcohol, drugs, or violence and whether any members of their families not living in their household had a problem caused by alcohol, drugs, or violence. As seen in Table 2, the prevalence of these problems, both within the household and among non-household family members, was reported to be quite high. Over 40% of the respondents reported that a household member had experienced a problem with alcohol abuse, as did over 70% of the respondents about a non-household family member. Reported drug abuse rates were lower than alcohol abuse rates, however, at nearly 28% and 65% for household members and non-household family members, respectively, drug abuse also seemed quite prevalent. Reported violence rates were the lowest of the three types of problems, however, violence was reported to have been a problem for more than one-fifth of household members, and for over half of non-household family members. Thus, the aggregate responses indicate that alcohol abuse, drug abuse, and violence have touched the lives of many of the respondents' loved ones, both inside and outside their households.

Table 2
Perceived Problems Caused by Substance Abuse and/or Violence

Problem Experienced	Person(s) Affected by Problem	
	Immediate Family/Household Member	Family Member Not in Household
Alcohol	39.2	70.5
Drugs	27.9	64.8
Violence	20.3	53.6

Note. Percentages are calculated out of all 138 respondents who had an opportunity to complete this item. Because the respondents were allowed to select more than one response category, the total percentage may exceed 100.

Next, the respondents were asked to rank the five most serious substance abuse problems for themselves, the members of their family, and their community from a list of psychoactive substances (e.g., alcohol, marijuana, cocaine, methamphetamines), with the ranking of 1 indicating the most serious issue and 5 indicating the fifth-most serious issue. Ranks were then averaged for each issue. As seen in Table 3, alcohol was the psychoactive substance perceived as the greatest problem for the respondents themselves, their families, and the community. Methamphetamines and marijuana were perceived as the second- and third-most common problem in all three response categories, although it is noteworthy that the order of the rankings for these last two substances varied across the three response categories, with marijuana being reported to be a greater problem for the respondents themselves and methamphetamines being reported to be a greater problem for family members and the community.

Table 3
Most Serious Perceived Substance Abuse Problems for Respondents, Members of their Families, and the Community

Rank	Most Serious Problems for Respondents	Most Serious Problems for Family Members	Most Serious Problems for Community
1	Alcohol	Alcohol	Alcohol
2	Marijuana	Methamphetamines	Methamphetamines
3	Methamphetamines	Marijuana	Marijuana
4	Pain Killers	Pain Killers	Pain Killers
5	Cocaine	Depressants	Cocaine

Finally, the respondents were asked to rank the five most serious results (e.g., domestic violence, car accidents, death, injuries) of the use of alcohol and drugs in the community, with 1 indicating the most serious result and 5 indicating the fifth-most serious result. Ranks were then averaged for each result. The five most commonly ranked issues reported by the respondents who appropriately ranked at least one serious result were: 1) domestic violence; 2) family problems; 3) child abuse; 4) aggression/physical violence; and 5) death.

DISCUSSION

Previous research suggests that rural Americans face unique health care challenges that may prevent them from receiving adequate mental health care (Brems & Johnson, 2007; Reschovsky & Staiti, 2005). Native Americans living on isolated rural reservations may face even more of these challenges (Duran et al., 2005; Gone, 2004; La Fromboise et al., 1990; Oetzl et al., 2006; Renfrey, 1992; Yurkovich et al., 2002). As a result, Native Americans have higher prevalence rates of certain mental health and substance abuse issues (Beals et al., 2005; French, 2004; Novins et al., 1996; Venner, 2002). To further compound the issue, Native Americans themselves have not been asked what mental health services would be more culturally appropriate and effective (Yurkovich et al.). The present study attempted to remedy this problem by examining the actual and perceived mental health issues on a remote reservation in the Northwestern United States, as well as what Native Americans believe should be done to combat these issues. Results will be discussed below.

Mental Health

Rural and urban adult Americans suffer from similar rates of diagnosable mental health problems (Simmons & Havens, 2007). Previous research (e.g., Beals et al., 2005; Chester et al., 1999; Curyto et al., 1999; Novins et al., 1996; Zvolensky et al., 2001) has suggested that mental health problems may be even more prevalent in Native American communities. When the percentage of respondents to this survey that reported having been diagnosed with a mental health problem (14.7%) is combined with the percentage that believed they suffered from an undiagnosed mental health problem (9.0%), the sum is 23.7%. Thus, it seems that the prevalence of mental health problems among the respondents in the present study is similar to, or perhaps somewhat lower than, that among adult Americans nationally (Kessler et al., 2005).

Substance Abuse

According to a number of scholars (e.g., Robin, Chester, Rasmussen, Jaranson, & Goldman, 1997), much more evaluation and intervention is needed to address rates of alcoholism and substance abuse among Native Americans. Recent studies have shown that Native Americans have the highest alcohol addiction rate of any demographic group in the United States (French, 2004; Venner, 2002), with estimates as high as 50% (Shore et al., 2002), and alcohol abuse is the leading cause of death in this population (Koss et al., 2003). The present survey results reveal something of a paradox in terms of what they portray about alcohol use and abuse on the reservation studied. On one hand, the respondents' reports of their own alcohol use—particularly as it relates to alcohol consumption—suggest that substance abuse levels are relatively low on this reservation. National comparisons suggest the respondents to this survey likely consume alcohol less often than both Native Americans nationally and Americans nationally. However, large percentages of the respondents reported that a family or household member had a problem caused by alcohol, and alcohol abuse was consistently identified as the most serious problem facing individuals, families, and the community, as well as a primary cause of numerous problems, including domestic violence, child abuse, and death. Drug use was also consistently identified as a problem on the reservation, with the drugs presenting the most serious challenges being methamphetamines and marijuana. The paradox seems to lie in the discrepancy in the reported levels of substance use and abuse among the respondents and their perceptions of the pervasiveness of these problems in the community. Although this paradox may seem difficult to understand, we suspect we should take the responses at face value: Although substance use and abuse may not directly be problems of the respondents, they observe the effects of these behaviors and habits in others and in the community, and they recognize and fear the consequences.

The respondents seemed not only to recognize the problems caused by substance abuse on the reservation; they also had valuable suggestions for how to reduce this problem. Respondents were allowed to write in suggestions to reduce the problem on the survey. They suggested more recreational/after school programs, education about substance abuse, cultural activities, and appropriate treatment services, including traditional or faith-based healing methods. These suggestions are consistent with Napoli, Marsiglia, and Kulis (2003), who found that when Native Americans have a strong sense of belonging, they are less likely to abuse alcohol. Many of the proposed activities would help increase a sense of belonging among tribal members.

Limitations

Our study has several limitations. First, only one tribe was represented in this study and previous research has shown that substance use patterns, in particular, can vary widely from tribe to tribe (Nez Henderson, Jacobsen, & Beals, 2005). Second, all data were self-report in nature. The survey data were not validated with hospital chart review or objective testing. Studies have indicated that self-report data, in particular data concerning substance abuse, can be biased toward the perceived socially desirable response (Murray, Connett, Lauger, & Voelker, 1993).

CONCLUSION

The present study found that respondents' perceived and actual mental health and substance abuse issues may not match up entirely. In particular, although respondents viewed substance abuse as the most prevalent problem on the reservation, they themselves reported fairly low use of drugs and alcohol. Future research should consider this when designing and implementing culturally sensitive interventions on reservations. In addition, future research should ask the Native Americans themselves what they believe would be effective treatment and prevention techniques for their particular tribe or on their particular reservation. Efforts such as these may help ensure that problems related to substance abuse and mental health are appropriately measured, prevented, and treated on Native American reservations, and therefore improve the quality of the lives of reservation residents and their communities.

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