American Indians and Suicide: A Neglected Area of Research

Lenora M. Olson and Stéphanie Wahab

Trauma Violence Abuse 2006; 7; 19
DOI: 10.1177/1524838005283005

AMERICAN INDIANS AND SUICIDE
A Neglected Area of Research

LENORA M. OLSON
University of Utah

STÉPHANIE WAHAB
Portland State University

Suicide is a major public health problem for American Indians in the United States. Published studies indicate that American Indians experience the highest rate of suicide of all ethnic groups in the United States. This article synthesizes the epidemiology and risk factors associated with suicide among American Indians, barriers to research, prevention, mental-health services, and recommendations for research and practice. The authors' recommendations arise from the current literature as well as interviews with practitioners and academics in the field of suicide prevention. The authors present significant substantive and methodological issues that inform research on suicide in American Indian communities, as well as existing contemporary interventions. Overall, socioeconomic characteristics, substance abuse, barriers to mental health services and acculturation play a role in the occurrence of suicide in American Indian communities. These findings suggest suicide is an important public health problem that needs to be addressed for American Indians.

Key words: *suicide; mental health; American Indian; interventions; services; recommendations*

SUICIDE IS A MAJOR public health problem in the United States. Every year, approximately 30,000 people die by suicide and 650,000 people receive emergency treatment for a suicide attempt (Moscicki, 1999). Suicide is the third leading cause of death among youth aged 15 to 18 years, and the 11th for people of all ages (Moscicki, 1999). Suicide is defined as a "fatal self-inflicted destructive act with explicit or inferred intent to die" (Institute of Medicine, 2002a, p. 27). The rates of suicide among some populations are exceedingly high; for example, American Indian and Alaska Natives[1] experience the highest suicide rates of all ethnic groups in the United States (Wallace, Calhoun, Powell, O'Neil, & James, 1996). The rate of suicide among Native Americans in the United States is approximately 1.7 times higher than the rate of the nation as a whole (Indian Health Service, 1998-1999). Suicide is the sixth leading cause of death among American Indians (Andrew & Krouse, 1995). Clearly, self-destructive

AUTHORS' NOTE: Partially supported by funding from the National Injury Prevention Tribal Steering Committee.

TRAUMA, VIOLENCE, & ABUSE, Vol. 7, No. 1, January 2006 19-33
DOI: 10.1177/1524838005283005

behavior, including suicide and suicide attempts, are a significant health and social problem for American Indians. This article synthesizes the epidemiology and risk factors associated with suicide among American Indians, barriers to research, mental-health services, prevention programs, and recommendations for research and practice. Our recommendations arise from the current and past literature as well as interviews with practitioners and academics in the field of suicide prevention.

KEY POINTS OF THE RESEARCH REVIEW

- Epidemiology of suicide within American Indian communities.
- Risk factors for suicide within Native American communities.
- Lack of recognition and funding for suicide prevention in American Indian communities.
- Substance abuse interventions for youth within Native American communities.
- Accessibility of mental health services.
- Future recommendations.

EPIDEMIOLOGY

The Indian Health Service (IHS) serves approximately two thirds of all Indians living on and near reservations and provides the most complete records of completed suicides for American Indians (Andrew & Krouse, 1995; Middlebrook, LeMaster, Beals, Novins, & Manson, 2001). Most studies regarding suicide among Native Americans have been reservation based, yet, currently more than half of American Indians live in urban areas away from their home reservations (Zuckerman, Haley, Roubideaux, & Lillie-Blanton, 2004). Unfortunately, data for American Indians living in urban environments is not readily available due to difficulties in correctly identifying race and ethnicity on death certificates (Middlebrook et al., 2001; Wallace et al., 1996). In addition, data on suicide attempts is scarce for the nation as a whole and in particular for American Indians (Institute of Medicine, 2002a). As a result, this article concentrates on data related to deaths from suicide among American Indians.

Recent IHS data (1998 and 1999) shows that the overall age-adjusted suicide rate for the American Indian population was 19.3/100,000, approximately one and a half times higher than the rate of 11.2/100,000 for the U.S. general population. The overall rate of suicide for American Indians hides a disturbing trend, the excess of suicide deaths among adolescent and young adults; especially males aged 15 to 24 years. The adjusted rate of suicide death for that age group (37.1/100,000) is 2.5 times higher than the rate for those same-aged individuals in the general population (Wissow, 2000).

Tremendous diversity of cultures exists among American Indian tribes in the United States with approximately 560 federally recognized tribes residing in rural and urban areas of 35 U.S. states (Centers for Disease Control, 2003). Tribes vary widely in reported suicide rates, with some tribes reporting an annual suicide rate as high as 150 per 100,000 and others reporting a rate as low as zero per 100,000 (May & Van Winkle, 1994; Range et al., 1999). While acknowledging tribal diversity in American Indian suicide patterns, May (1987), identified several general characteristics of American Indian suicides from more than 40 studies on suicide among various Indian groups. May noted that suicide among American Indians, (a) occurs primarily among young males, (b) American Indians tend to use highly violent or lethal methods such as firearms or hanging to commit suicide, (c) Native American suicides are more frequently alcohol-related, (d) tribes with loose social integration which emphasize a high degree of individuality generally have higher suicide rates than those with tight integration that emphasizes conformity, and (d) tribes undergoing rapid change in their social and economic conditions and acculturation stress experience higher suicide rates than those who are not.

RISK FACTORS

Generally, the risk factors for suicide among Native Americans are the same as for other populations. These include mental and addictive disorders (especially alcohol addiction), access to lethal means, previous suicide attempt(s), physical or sexual abuse, recent and severe

stressful life events (Borowsky, Resnick, Ireland & Blum, 1999; DeBruyn, Hymbaugh, & Valdez, 1998; Garrett & Carroll, 2000; Moscicki, 1999; Wissow, 2000). However, some risk factors are different and others differ in their importance for American Indian communities. For example, several studies have shown that previous suicide attempts, family disruption, loss of ethnic identity, and lack of identification of themselves as religious or spiritual people places American Indian adolescents at higher risk for suicide compared to the general adolescent population, and that a more frequent relationship between alcohol and suicidal deaths occurs in American Indians compared to the general population (Borowsky et al., 1999; Grossman, Milligan, & Deyo, 1991; Johnson & Tomren, 1999; May et al., 2002; Middlebrook et al., 2001; Range et al., 1999; Shaughnessy, Doshi, & Jones, 2004). In addition, it has been shown that Indian youth exhibit more serious problems than other U.S. ethnic groups in such areas as depression, anxiety, and general health (Cameron, 1999; Johnson & Tomren, 1999).

Acculturation (the modification of the culture of a group or individual as a result of contact with a different culture) and other social change has occurred in American Indian cultures, disrupting tribal unity and creating a challenge to the traditional way of life, values, and relational systems (Johnson & Tomren, 1999). For some tribal communities, acculturation has led to conflict resulting in chaotic families, child neglect, divorce, and alcoholism (May & Van Winkle, 1994; Range et al., 1999). Several studies have found that in less traditional tribes, where pressures to acculturate have been great and tribal conflict exists concerning traditional religion, governmental structure, clans, and the importance of extended families, the suicide rate in the adolescent and young adult population is high (Angell, Kurz, & Gottfried, 1997; Garrett & Carroll, 2000; Johnson & Tomren, 1999; May & Van Winkle, 1994; Range et al., 1999).

Substance Abuse

Substance abuse, especially alcohol dependence, is one of the leading health problems facing American Indians today (Andrew & Krouse, 1995; Garrett & Carroll, 2000). Although several studies have shown that the use of marijuana and inhalants is a greater problem among the Indian population compared to the general population, alcohol misuse is the leading and perhaps most costly risk factor among Native Americans underlying many causes of premature death, including suicide (Andrew & Krouse, 1995; Cameron, 1999; Kunitz & Levy, 2000; Garrett & Carroll, 2000; May, 1986; May et al., 2002; Duran et al., 2004). Compared to non-Indian populations, Indian populations experience a more frequent relationship between alcohol use and suicidal death (May et al., 2002). A recent study of suicide deaths in New Mexico found that although alcohol is a common precipitating factor in many suicides in the general population (44%), it is found at a greater frequency and higher level (66%) in Native populations (May et al., 2002). Hlady and Middaugh (1988) reported more alcohol-related suicides and a greater frequency of blood alcohol concentrations above intoxication levels among Alaska Natives (79% and 54%, respectively) compared to non-Natives (48% and 20%, respectively). Some researchers have argued that the pattern of alcohol involvement in suicide among American Indians is characteristic of a young population that drinks in binges and is prone to impulsively ending life by suicide (Kunitz & Levy, 2000).

Recent IHS data (1998 and 1999) shows that the overall age-adjusted suicide rate for the American Indian population was 19.3/100,000, approximately one and a half times higher than the rate of 11.2/100,000 for the U.S. general population.

Surveys of Indian youth have found that they use alcohol as frequently as or more frequently than other youths in the United States (May & Moran, 1995). What may be the biggest difference between Indian youth and other youth is the age of first involvement with alcohol. For example, when compared with other youth, Indian youth's age of first involvement with alcohol is younger, the frequency and the amount of drinking is greater, and the negative consequences are more common (Garrett & Carroll, 2000; May & Moran, 1995). Similar to all youth,

Indian youth who abuse alcohol report close ties to alcohol- and drug-abusing peers, poor school grades and attendance, weak identification with the Indian culture, a family history of alcohol abuse and little hope for the future (May & Moran, 1995).

The body of literature on American Indians' use of alcohol suggests that the continued use and harm of American Indians' use of alcohol is shaped by a number of factors, including cultural values and norms regarding alcohol, federal policies, tribal laws and regulations, the drinking styles of neighboring populations, socioeconomic differences within tribes, and alcohol availability. Of these factors, availability, including controlling the supply or prohibition has been the most widely used and studied policy with mixed results reported. For example, Landen and colleagues (1997) found alcohol prohibition to be associated with lower rates of suicide in several Alaskan villages, whereas May (1992) reported higher rates of suicide associated with prohibition in reservations located in the lower 48 states compared to reservations that have legalized alcohol. It appears that in Alaska, where individuals and communities are fairly isolated from the nonreservation supply of alcohol, prohibition is effective in limiting alcohol availability and possibly moderating suicide rates, but in the lower 48 states, where access to alcohol is relatively easy for many reservation areas, legalization of alcohol, not prohibition, is associated with lower suicide rates.

Mental Health

Native Americans appear to be at a higher risk for many mental health disorders than other racial and ethnic groups in the United States and consistently overrepresented among high-need populations for mental-health services (Indian Health Service, 1995; Nelson, McCoy, & Vanderwagen, 1992). Generally, Native Americans, both adults and children, appear to suffer most from the most common risk factors for suicide—depression complicated by anxiety and the use of alcohol and other drugs. Other common mental-health problems experienced by American Indians are major anxiety, including panic disorders, psychosomatic symptoms, and emotional problems resulting from distressed interpersonal and family relationships (Duran et al., 2004; Nelson et al., 1992).

Although some studies suggest that American Indians, especially youth, appear to be at higher risk than other U.S. ethnic groups for mental-health problems, there have been relatively few published studies of the prevalence of mood disorders among Indian populations. To date, no large-scale epidemiological studies of American Indians and mental health prevalence have been published (Cameron, 1999; Duran et al., 2004; Manson, 2000; Wissow, 2000).

Several small-scale mental-health studies have been conducted among Cherokee children in the Great Smoky Mountains and among Northern Plain adolescents. These studies indicated that while the rates of mental-health problems were similar to non-Indian children, the behavioral health service-use patterns for Indian youth differed from non-Indian youth. For example, Cherokee youth were more likely to receive mental-health treatment through the juvenile justice system and inpatient facilities compared to non-Indian children, despite the fact that free mental-health services were available to Cherokee children through the Indian Health Services (Manson, 2000). Almost 60% of the Indian children in the Northern Plains study who met criteria for a psychiatric disorder never used treatment services during their lifetime (Nelson et al., 1992). Some investigators suggest that these differential service-use patterns reflect funding emphases, programmatic biases, and organizational barriers, whereas others argue that cultural differences in beliefs about behavioral health services are more significant determinants of help-seeking behavior (Cross, Earle, Echo-Hawk Solie, & Mannes, 2000; Hoberman, 1992; Wallen, 1992).

Smaller scale studies of mental-health disorders among older American Indians have reported rates of depression ranging from 10% to 45%, which is generally higher than most non-American Indian populations (Duran et al., 2004; May, 1988; Wilson, Civic, & Glass, 1995). Duran and colleagues (2004) screened Ameri-

can Indian women in a primary-care clinic for the presence of mental-health disorders and found that study participants had higher rates of alcohol-use disorders, anxiety disorders, and anxiety and/or depression co-morbidity when compared to samples of non-American Indian women in similar settings.

Mental-health problems, including depression, among American Indians may arise from the difficult life circumstances many Native families experience, including poverty, inadequate employment, and minimal education opportunities. The relationship between ill health and socioeconomic status has been well documented and the oppressed socioeconomic conditions of American Indians may be an important contributing factor to the poor mental-health status and high death rates from suicide. Native Americans rank at or near the bottom of nearly every social, health, and economic indicator. Approximately a quarter of Native Americans—more than twice the national average—live in poverty and more than half of low-income American Indians are uninsured. More than three quarters of the U.S. population obtains a high school degree compared to 65% of the American Indian population. Unemployment statistics show the same trend; 16% of American Indian males and 13% of American Indian females are unemployed compared to 6.5% for the United States (Indian Health Service, 1997).

In addition, Native American individuals and communities face racial discrimination, geographic isolation, and cultural identity conflicts, which may lead to depression and other mental-health problems and ultimately to suicide attempts and suicide. Some of these factors have historical roots, including personal and group rejection in many forms, disenfranchisement, and relocation of entire communities from traditional lands to distant and often barren reservation sites. Environmental circumstances, coupled with low self-esteem, substance abuse, and life frustrations increase vulnerability to impulsive self-destruction acts among many American Indian individuals and families.

BARRIERS

Recognition and Funding

Compared to other racial and ethnic groups in the United States, Native Americans make up a relatively small proportion of the population (0.9% of the U.S. population), and their percentages are often too minute to register on government-reported statistics. In addition, the reservation geographic location leaves those who live or work on reservations isolated from the rest of society. These factors and the belief that the Indian Health Service is an adequate source of care for most Native populations often results in American Indians being overlooked and forgotten in terms of funding and policies related to the prevention of suicide and associated health problems.

The relationship between ill health and socioeconomic status has been well documented and the oppressed socioeconomic conditions of American Indians may be an important contributing factor to the poor mental-health status and high death rates from suicide.

Decreased recognition of the magnitude of suicide among American Indians also affects funding for mental health and suicide and alcohol and other drug-prevention programs. In terms of funding, there has been in the past and is currently a mismatch in terms of the federal dollars devoted to health care for American Indians (U.S. Commission on Civil Rights, 2003), contributing to health disparity in health status among Native communities. The unmet health care needs of Native Americans remain among the most severe of any group in the United States (U.S. Commission on Civil Rights, 2003). The IHS operates with about 50% of what is needed to provide adequate health care and as a result, IHS spends less on its service users than the government spends on any other group receiving public health care. These barriers affect the provision of prevention and intervention funds for suicide and mental health and other services needed in American Indian communities.

How funds are allocated to tribes to run programs such as substance-abuse prevention also present barriers. For example, tribal agencies often negotiate yearly for scarce resources, taking much time and effort to do so. Other times funding is not released until late in the fiscal year, limiting programs and operations. As a result, basic operating costs are constantly at peril, which can result in loss of trained staff and program momentum. This continuous battle for scarce and limited resources leaves American Indian communities at risk.

Suicide-prevention programs among American Indians appear to have taken a combination of three main approaches, (a) broad public-health-based interventions that implement opportunities for young people to gain self-esteem and avoid substance abuse, (b) targeted prevention strategies to identify at-risk individuals, and (c) prevention at the individual level, targeting those who have made previous attempts or expressed suicidal thoughts.

In other areas of funding, such as the federal block-grant monies allocated for substance abuse and mental-health services, American Indian communities have always been included among populations that states enumerate as the basis for their respective allocations. However, the American Indian communities often have not shared proportionately in the services supported by the allocated funds. Recognition of this funding inequity led to a change in the authorizing language for the Substance Abuse and Mental Health Service Administration (SAMHSA), allowing tribes to apply directly for SAMHSA block-grant funds to support substance-abuse prevention and treatment services independent of the programs offered by the states in which they reside. No identical provision is available with respect to mental-health block grants administered by SAMHSA.

Research

Despite consistent epidemiological evidence that indicates American Indians are at an elevated risk for suicide, the lack of research in this area makes it difficult to understand and explain the higher rate of suicide in this population. Research efforts have generally been descriptive and limited in both scope (mostly mortality and on reservation samples) and sample size. One of the most important correlates for youth suicide is a previous suicide attempt, yet very little information on suicide attempts among American Indian youth is collected systematically (Wissow, 2000). In addition, the majority of suicide studies lack any kind of cultural contextual information—lifestyle, belief systems, and socioeconomic and education levels—that could illuminate risk factors (DeBruyn et al., 1998). Barriers exist concerning who conducts the research. Many of the studies examined for this report were conducted by epidemiologists and were primarily statistical or quantitative. Very few studies included contextual information or were conducted by social scientists and Native researchers—practitioners conducted even fewer studies. These groups in turn affect the development of effective suicide-intervention programs.

Complications with the categorization of race, ethnicity, and population also hamper suicide studies among Indian populations. American Indians are viewed homogenously by many researchers despite cultural, geographic, and environmental diversity among Indian populations. Definitions of ethnicity are often arbitrarily assigned or based on death certificates only with no cross checking or corroboration from IHS records or other population databases (Sugarman, Soderberg, Gordon, & Rivara, 1990). Jurisdictional issues also arise when studies focus on Indian populations in specific states, as these boundaries do not necessarily correlate with tribal boundaries. Valuable information may be lost about tribal-specific suicide rates when tribal boundaries are obscured by state geography.

Mental Health Treatment

There are significant barriers to receiving effective mental-health services for American Indians living off and on the reservation. One of

the barriers relates to funding—greater than one third of the demands on health facilities in Indian country involve mental health and social service–related concerns, yet the IHS line-item mental-health budget has hardly increased in the past 20 years (Duran et al., 2004; Nelson et al., 1992). The Indian self-determination act (Public Law 93-638) provides tribes with opportunities to manage and operate their own health and mental-health programs, which has improved sensitivity and responsiveness of mental-health programs to local concerns. However, issues of adequacy and accountability for mental-health funds have been raised since the enactment of the public law. In addition, an increased emphasis is being placed on collection of third-party revenues (e.g., private insurance, Medicaid, Medicare) by IHS mental-health service programs. The third-party revenues collected for mental-health services are sometimes used to expand these services. However, more commonly, service units pool these collections with other funds and allocate them to areas of greatest perceived overall health needs, which may or may not include mental-health services (U.S. Commission on Civil Rights, 2003).

Many of the barriers around service accessibility relate to availability of mental-health professionals (e.g., psychiatrists, psychologists, psychiatric nurses, and social workers). For example, there are approximately 101 American Indian mental-health professionals available per 100,000 American Indian population compared with 173 per 100,000 for the general population (see http://www.mentalhealth.samhsa.gov/cre/ch4_availability.asp, retrieved January 31, 2003). Recruitment and retention of mental-health treatment staff, particularly professionals, is often difficult. Salary levels for many professional disciplines in IHS and tribal programs are lower than those in the private sector, making it hard to attract or retain staff. Geographic isolation combined with harsh conditions of some reservation and tribal locations can create problems of adaptation for professional staff, particularly those who are non-Native and who have little or no experience with Native Americans (U.S. Commission on Civil Rights, 2003). The high demand for services in many mental-health programs, combined with the complexity and seriousness of mental-health needs, frequently results in high rates of burnout and turnover among mental-health professionals who work with Native populations. As a result, staffing of mental-health professionals remains at less than 50 percent of what is needed to provide minimally adequate ambulatory mental-health services to American Indians (Nelson et al., 1992).

Availability of services does not mean that the services will be utilized. Several studies show that Native Americans tend to underutilize mental-health services, experience higher therapy dropout rates than other ethnic groups, and have negative opinions about non-Native mental-health providers (see http://ihs.gov, retrieved February 10, 2003). In terms of facilities, when the IHS was created, most American Indians lived and worked on or near a reservation and the IHS facilities were nearby. Today, with more American Indians living off the reservation, the location of most IHS clinics and hospitals is a major barrier to treatment. At present, only 20% of American Indians report access to IHS clinics located primarily on reservations (see http://www. mentalhealth .samhsa .gov/cre/ch4_availability.asp, retrieved January 31, 2003). Affordability is also an issue. Medicaid is the primary insurer for 25% of American Indians and only about 50% of American Indians have employer-based insurance coverage, compared with 72% of Whites and almost a quarter of American Indians do not have any health-care insurance, compared with 16% of the U.S. population (see http://www .mentalhealth.samhsa.gov/cre/ch4_availability .asp, retrieved January 31, 2003). In addition, due to budget constraints and personnel problems the majority of mental-health care for American Indians is crisis-orientated with very few specialized mental-health services for populations such as children and elderly. A recent report found that there were only 17 child-prepared mental health professionals within the entire IHS system and in 4 of the 12 IHS service units, there are no child or adolescent-trained mental-health care providers (Manson, 2000).

PREVENTION AND INTERVENTION PROGRAMS

Suicide Programs

Suicide-prevention programs among American Indians appear to have taken a combination of three main approaches, (a) broad public-health-based interventions that implement opportunities for young people to gain self-esteem and avoid substance abuse, (b) targeted prevention strategies to identify at-risk individuals, and (c) prevention at the individual level, targeting those who have made previous attempts or expressed suicidal thoughts (Wissow, 2000). However, relatively few of the suicide prevention programs have been reported in the literature (Centers for Disease Control, 1998; Middlebrook et al., 2001). As a result, the effectiveness of most programs is unknown. Middlebrook and colleagues (2001) conducted a review of nine selected suicide-prevention programs, targeting Native populations identified in the published literature. Five of the programs were developed and implemented specifically to address suicide rates in an American Indian community, whereas the other programs were part of broader spectrum efforts to address problem behaviors such as alcohol or other drug use and teen pregnancy.

The majority of programs identified in the review supported two themes; the need for cultural relevance in all aspects of program development, and implementation, and the importance of community involvement. The authors found that none of the nine programs offered evidence that the targeted risk or protective factors were correlated with or precede or mediate suicide. All programs provided some information regarding the risk status of the target population but few provided sufficient detail regarding how individuals were determined to be at risk. Only one program reported detailed information about the content intervention and none of the programs employed a random design; only two programs identified any type of research design (pre- and post-tests, and quasi-experimental with intervention and no intervention). Four of the programs reported that process evaluations were conducted and only one included any outcome data. In summary, the authors found that information on the effectiveness of suicide programs among Native American communities is scarce. There are few descriptions of the programs in the literature, and even fewer with any type of evaluation effort or a specific research design. In addition, the generalizability of the results are limited. However, the authors felt that core-reported program components can be tailored to other Indian communities because many of the basic risk factors cross cut among Indian communities. The authors cited the need for American Indian communities to be comprehensive when identifying ways of addressing the problem of suicide, considering suicide's relationship with other life events. It is likely that other suicide-prevention programs and interventions are conducted by and for American Indians but the results are not available in the published literature.

A conversation with Pat Serna (personal communication, March, 24, 2003), Director of the Behavioral Health Unit for the Jicarilla Apache Nation, provided information on the Native American Community Suicide Center and Prevention Network, which as formed through partnerships with the tribal council and tribal health programs, the IHS and the Centers for Disease Control and Prevention. The program utilized multiple agencies in the community, including the IHS Clinic, tribal mental health and substance-abuse programs, the high school, and law enforcement. As a result of this partnership, the Jicarilla Apache community has had a comprehensive youth-suicide prevention program since 1989, targeting 15- to 18-year-olds in school and in the community with a variety of initiatives including public education, risk assessment, counseling, and alcohol abuse prevention initiatives. Although rates of suicidal acts have varied among Jicarilla youth after program implementation, the rates have remained substantially lower than before the program began and the program has resulted in medical and other economic cost savings totaling U.S. $123,000 annually (Centers for Disease Control, 1998; Zaloshnja et al., 2003). According to Serna, aspects of the program that possibly contributed to the decrease include the multiple pre-

vention and intervention strategies within a centralized population and a full-time staff person dedicated to the program.

Substance Abuse Programs

Most of the substance-abuse programs have centered on reducing alcohol and very little attention has been given to reducing other drug use. In regards to alcohol-prevention programs, May and Moran (1995) conducted an extensive review of health promotion efforts (both treatment and prevention), regarding alcohol misuse among American Indians. Their review found several protective factors that could be used to shape health-promotion programs related to alcohol prevention. Among Indian youth, protective factors included a strong attachment to families where culture and school are valued and abusive drinking is neither common nor positively valued, and the ability to function well in both tribal society and the modern Western world. The level of acculturation seems to play an important role in chemical dependence among American Indians. The highest levels of substance abuse exist among Native Americans who were most closely identified with non-Native American values and the lowest levels exist among those who expressed an ability to adapt comfortably to both Native American and non-Native American values (Garrett & Carroll, 2000). This finding was echoed by May and Moran (1995) who reported that youth who were able to move between American Indian and Western culture with little tension tended to have lower substance-abuse rates compared with youth who identified only with one culture or with neither. May and Moran (1995) report that the more successful alcohol-prevention programs recognized the heterogeneity of American Indians, were relevant to local norms and values, were either led or included local leaders and advocates in the planning and implementation, used more than one strategy or approach, and were community-based. Unfortunately, many of these programs examined lacked good documentation of their success. The authors stress the need for substance-abuse programs to begin early in American youth's life to be the most effective.

Mental Health Programs

Ambulatory mental-health services programs have been developed at more than 130 service units operated by either IHS or a tribal entity. Each service unit is responsible for a defined geographic area that may be a reservation or a population concentration. The most common model used by the service units is a crisis-oriented outpatient service staffed by one or more mental-health professionals with the assistance of a local tribal mental-health technician (Nelson et al., 1992). At present, approximately 70% of the IHS Behavioral Health Unit's efforts and funds are geared to treatment rather than prevention of mental-health problems (John Perez, personal communication, April 7, 2003). However, the Mental Health and Social Services program at IHS is transitioning to a community-oriented clinical and preventive-service program whose activities are part of a broader, multidisciplinary behavioral health approach where the behavioral health teams at IHS units are composed of psychologists, mental-health counselors, psychiatrists, social workers, substance-abuse counselors, and traditional healers (see http://ihs.gov, retrieved February 10, 2003). Inpatient mental-health services are still generally provided under contract with psychiatric units in local general hospitals. There are few, if any, transitional living, or child-residential mental-health programs within IHS or tribal organizations; therefore, these services must be obtained from local or state resources when available. Native healers are active in most Native American communities. Utilization of Native healers is usually a private matter, although in many communities, traditional medicine is coordinated with other health and mental-health services (John Perez, personal communication, April 7, 2003).

Overall, the general empowerment and access to resources among tribal groups is needed to revitalize tribal and individual perceptions of tribal cultures and put traditional strengths to work on solutions to the prevention of suicide as well as alcohol abuse and other mental-health issues.

RECOMMENDATIONS

Despite the public-health significance of suicide among Native populations, progress has been slow in developing a scientific understanding of the incidence, prevalence, nature, and consequences of suicide and in measuring the efficacy of interventions to prevent or reduce the effects of suicide among American Indians. In addition, a number of methodological issues and constraints as well as lack of funding have hampered research in this area. Overall, the general empowerment and access to resources among tribal groups is needed to revitalize tribal and individual perceptions of tribal cultures and put traditional strengths to work on solutions to the prevention of suicide as well as alcohol abuse and other mental-health issues. The literature suggests that these efforts need to be approached from both traditional and Western perspectives.

The recommendations in this section are based on available information from journal articles and book reviews and interviews with practitioners and academics in the field of suicide prevention and intervention. The recommendations are organized into five categories: recognition and funding, research, suicide and substance prevention and intervention programs, mental health services, and collaboration among tribal, state, and federal agencies.

Recognition and Funding

A lack of funding, as well as recognition, of the suicide problem among Native communities was identified as a barrier for both research and services related to suicide prevention, including the provision of mental-health services. As a result, we make the following recommendations.

- Employ timely and accurate data that can be used to broaden federal agencies' awareness regarding the sequelae of suicide among American Indian populations. Educate legislators and policy makers on the importance of the problem and the need for increased and consistent funding for suicide and other prevention programs for both on- and off-reservation American Indian populations.
- Conduct a case study on the process for how the authorizing language for the SAMHSA block grant monies was changed so that tribes could apply directly to SAMHSA for programs to support substance abuse and prevention treatment services. Use the case study to advocate for changes in the authorizing language of other funding sources so that tribes can apply directly to federal agencies for block-grant funds to support substance-abuse prevention and treatment services independent of the programs offered by the states in which they reside.
- Explore novel approaches to funding because current funding mechanisms are not adequate. For example, Hunt (2004) describes a tribal and local county partnership and the use of Medicaid funding to support a tribal mental-health program that could be used by other tribes interested in exploring alternative funding.

Research

The paucity of research regarding completed suicide and suicide attempts, contextual background, and mental-health problems among Native American populations demonstrates the need for accurate, timely, and valid qualitative and quantitative data on suicidal behavior among American Indians.

Due to the large number of different American Indian tribes and their diversity, research on suicide needs to aggregate data across these diverse groups as well as explore suicide qualitatively and in depth across and within tribal communities. By analyzing both tribal specific as well as general or common social, psychological, and economic elements regarding suicide in American Indians, a general as well as applied approach can be used to plan suicide prevention and intervention programs (May & Van Winkle, 1994).

We also suggest that research address the role of religion and the use of traditional healers, rural versus urban contexts, and the changing cultural patterns as different tribes grapple with acculturation and other influences that affect suicide in American Indian tribes (Echohawk, 1997; Range et al., 1999).

There is a need to expand information on American Indian suicide deaths by conducting psychological autopsies and in-depth case studies of suicide and self-destructive behaviors among Native populations both on and off the reservation.

In addition, very little is published on suicide attempts among American Indians. Studies

need to expand to include attempts as well as deaths (Wissow, 2000). These studies should include the examination of the social and cultural factors that shape and form suicidal behavior among Native populations, especially youth, including descriptions of victims' motivations, interrelationships, mental health, and histories of help-seeking behavior (Rieckmann, Wadsworth, & Deyhle, 2004).

Future research needs to be meaningful from a Native perspective not just for the reporting of mortality statistics. Studies should involve tribal leaders and members in the planning, implementing, and evaluation of the studies, using multiple-research methods, applying expertise from multiple disciplines, and using past successes and failures in future planning.

In addition, injury morbidity and mortality rates among populations are often examined when allocating funds for prevention and intervention efforts. Therefore, the data used to calculate such rates should be reliable and valid. A consensus meeting with national experts, including tribal leaders is needed to make recommendations on how to compensate for the biases in identity and reporting of American Indians in official statistics.

Suicide and Substance-Abuse Program Implementation and Evaluation

The lack of published research on the suicide and substance-abuse programs among Indian populations indicates that research on the development, delivery, and evaluation of suicide-preventive interventions in reducing suicidal behavior and substance abuse among Indian populations needs to be better supported (Middlebrook et al., 2001; Wissow, 2000).

In general, programs for suicide prevention and substance abuse (especially alcohol abuse) among American Indian populations should be developed, tested, expanded, implemented, and published through funding from appropriate agencies, including IHS, Center for Substance Abuse Prevention, National Institute of Mental Health, Centers for Disease Control and Prevention, and Substance Abuse and Mental Health Services Administration. Comprehensive and community-based programs such as the Gathering of Native American curriculum (see http://p2001.health.org/CTI05/Cti05ttl.htm, retrieved September 2005) that address multiple-risk factors are needed in Indian communities for the prevention of both suicide and alcohol abuse.

More information is needed on what is generally effective for suicide and alcohol prevention in American Indian communities. As a result, program evaluations need to gather and analyze information on what program components are generally needed to make a prevention and/or intervention program work. Prevention and intervention trials in Native communities must be carefully designed with appropriate controls and evaluated with long-term follow-up in order to know what works (Middlebrook et al., 2001).

Programs conducted and evaluated within one tribal group or Native population must be assessed to determine if they are generalizable to other Native populations.

Mental Health Services

It is clear that programs that offer mental-health treatment and suicide prevention and intervention to American Indian populations are fewer in number than what is actually needed and that funding for mental-health services are inadequate. In addition, limited information is available on epidemiology of mental-health problems among Native populations.

Due to the paucity of data on psychiatric disorders, there is a need to conduct descriptive epidemiological studies of suicide and related psychiatric disorders among Native populations. This need was echoed by John Perez, Director of IHS Behavioral Health Unit (personal communication, April 7, 2003) who stated there was an urgent need for timely and accurate data on mental-health needs among Native populations to educate legislators and policy makers on the importance of the problem and the need for increased and consistent funding for mental-health programs among Native populations.

Future research should center on developing standardized record keeping and monitoring systems for mental-health problems in IHS, tribal

clinics, and other clinics that serve American Indians to collect in-depth information on mental health problems and the relationship to suicide among both reservation and off-reservation populations. The development of a culturally sensitive diagnostic manual and casebook for mental problems among Indian populations would aid this effort. The monitoring systems should include culturally sensitive tools for assessing suicidal behavior among Native populations. In addition, the evaluation of the efficacy of broadly applied clinical instruments as to their sensitivity and reliability in Indian communities is needed (Bechtold, 1994; Duran et al., 2004).

Alcohol has been identified as a major risk factor for American Indian suicide and a leading cause of mental-health disorders, necessitating increased research on the role of alcohol policies and their effect on suicide among Native populations.

Studies are also needed on help seeking behavior of Native American populations so that culturally appropriate strategies to increase access and utilization of mental-health services can be employed.

Alcohol has been identified as a major risk factor for American Indian suicide and a leading cause of mental-health disorders, necessitating increased research on the role of alcohol policies and their effect on suicide among Native populations.

Given that some research (Garrett & Carroll, 2000; Johnson & Tomren, 1999; May & Van Winkle, 1994; Range et al., 1999) has identified acculturation as a possible risk factor, future research may choose to pay additional attention to its effects on suicide.

Last, increased and sensitive recruitment of American Indians in the controlled clinical trials used to develop treatment guidelines for the major mental disorders in the United States is needed (Powe & Gary, 2004).

Several recommendations can be made in regards to mental-health service providers:

- Increase the availability and access of both traditional and Western treatments and practitioners on and off reservation for Native populations.
- Determine the most effective means (including the use of outreach and academic scholarships) of recruiting and training mental health clinicians, particularly Native clinicians, to work in tribal areas (Katz, 2004).
- Develop culturally meaningful ways of training mental-health providers who work with Indian populations to recognize, assess, treat, and manage the spectrum of psychiatric disorders.
- Increase the number of child-prepared psychiatrists who are available to treat American Indian adolescents.

A recent Institute of Medicine report on educating public health officials emphasizes cultural competency (Institute of Medicine, 2002b) and encourages public-health professionals in practice and academic settings to increase their own awareness and educate others regarding American Indian health issues. Public health officials may turn to Cross, Bazron, Dennis, and Isaacs's (1988) project and the Office of Minority Health's (2001) "National standards for culturally and linguistically appropriate services in health care" for original thoughts and constructions of cultural competence (see http://www.omhrc.gov/omh/programs/2pgprograms/finalreport.pdf).

Collaboration among Tribal, State, and Federal Entities

Too often, services and funding for suicide prevention and/or intervention and mental-health services and programs for American Indians are fragmented among local, tribal, state, and federal agencies. There is a strong need to increase and improve collaboration among agencies and personnel concerned with suicide, substance abuse, and mental health among Native Americans. As a result, we make the following recommendations.

- Conduct organizational research on successful interagency approaches and barriers to effective delivery of mental-health services. Establish mechanisms for federal, regional, and state interagency public-health collaboration toward improving monitoring systems for suicide and suicidal behaviors and develop and promote standard terminology in the systems. Interagency collaboration has been supported by several Presidential Executive Orders requiring federal and/or tribal consultation and government-to-government relationships, specifically, Executive

Order 13175 in 2000, and an executive memorandum from President Bush in September 2004 (see http://www.hhs.gov/ofta/tribalconsultations.html).
- Suicide does not occur in a vacuum and several studies have suggested that multiple intervention and prevention strategies are needed to lower American Indian suicide rates. As a result, it is important to integrate a variety of mental health and social services in communities, including mental health and substance-abuse and/or alcohol-abuse treatment, treatment and prevention of suicide, treatment and prevention of intimate partner violence and child abuse, and legal assistance (for divorce, educational entitlements, financial, and housing assistance) into suicide-prevention programs.

CONCLUSION

Suicide remains a serious public health problem among American Indian populations. In Native communities that experience high levels of suicide, the effects may be as devastating as the effects of war or acts of terrorism. Some argue that the high rates of suicide among American Indians are due to the historical effects of oppression, and relocation coupled with current conditions of poverty, geographic isolation, minimal education opportunities, and cultural identity conflicts. Overall, a formulation of a broad set of policies and recommendations are needed to reduce suicide among American Indians. These policies and recommendations should include the current state of knowledge, describe general and specific priorities for research, and mental-health services, as well as funding that are needed to reduce suicide among American Indian populations.

IMPLICATIONS FOR PRACTICE, POLICY, AND RESEARCH

- Adopt macro interventions that will support the rebuilding of institutions in Native American communities, provide employment, and provide training opportunities.
- Utilize interventions that support self-determination, empowerment, and pride.
- Be mindful of the complex social constructions of race and ethnicity.
- Increase funding.
- Evaluate existing programs.
- Explore suicide contextually across the different tribes.
- Establish and utilize culturally appropriate operational definitions of suicide, help-seeking behavior, healing, medicine, and healer.

Study design

Consider utilizing more participatory methods of inquiry.

Samples

- Recruit from more diverse settings, including reservations, urban areas, cultural centers, educational institutions, and various social-service venues to understand the entire spectrum of suicide prevention.
- Explore some of the risk and protective factors identified in the literature for the population at large.
- Explore the role of substance abuse in suicide, as well as incorporate substance-use counseling and resources in interventions.
- Explore the role of acculturation in suicide.

NOTE

1. Native Americans, American Indians, indigenous peoples, and Native populations are used interchangeably throughout this document to refer to the Native peoples of continental United States and Alaska.

REFERENCES

Andrew, M. M., & Krouse, S. A. (1995). Research on excess deaths among American Indians and Alaska Natives: A critical review. *Journal of Cultural Diversity*, 2(1), 8-15.

Angell, G. B., Kurz, B. J., & Gottfried, G. M. (1997). Suicide and Native American Indians: A social constructivist perspective. *Journal of Multicultural Social Work*, *6* (3/4), 1-26

Bechtold, D. W. (1994). Indian adolescent suicide: Clinical and developmental considerations. *American Indian and Alaska Native Mental Health Research*, *4* (4), 71-80.

Borowsky, I. W., Resnick, M. D., Ireland, M., & Blum, R. W. (1999). Suicide attempts among American Indian and Alaska Native youth. *Archives of Pediatric and Adolescent Medicine*, *153* (6), 573-580.

Cameron, L. A. (1999). Understanding alcohol abuse in American Indian/Alaska Native youth. *Pediatric Nursing*, *25* (3), 297-301.

Centers for Disease Control. (1998). Suicide prevention evaluation in a Western Athabaskan American Indian Tribe—New Mexico, 1988-1997. *Morbidity Mortality Weekly Report*, *47* (13), 257-261.

Centers for Disease Control. (2003). Health disparities experienced by American Indians and Alaska Natives. *Morbidity Mortality Weekly Report*, *52* (30), 697.

Cross, T. L., Bazron, B. J., Dennis, K. W., & Isaacs, M. R. (1988). *Toward a culturally competent system of care. A monograph on effective services for minority children who are severely emotionally disturbed. Volume I*. Washington DC: The Georgetown University Child Center for Child and Human Development.

Cross, T., Earle, K., Echo-Hawk Solie, H., & Mannes, K. (2000). *Cultural strengths and challenges in implementing a system of care model in American Indian communities. Systems of care: Promising practices in children's mental health, 200 Series, Volume I*. Washington, DC: Center for Effective Collaboration and Practice, American Indian Institutes for Research.

DeBruyn, L. M., Hymbaugh, K., & Valdez, N. (1998). Helping communities address suicide and violence: The special initiatives team of the Indian health service. *American Indian and Alaska Native Mental Health Research*, *1* (3), 56-65.

Duran, B., Sanders, M., Kipper, B., Waitzkin, H., Malcoe, L., Paine, S., *et al*. (2004). Prevalence and correlates of mental disorders among Native American women in primary care. *American Journal of Public Health*, *94* (1), 71-77.

Echohawk, M. (1997). Suicide: The scourge of Native American People. *Suicide and Life Threatening Behavior*, *27* (1), 60-67.

Garrett, M. T., & Carroll, J. J. (2000). Mending the broken circle: Treatment of substance dependence among Native Americans. *Journal of Counseling and Development*, *78* (4), 379-388.

Grossman, D. C., Milligan, C., & Deyo, R. A. (1991). Risk factors for suicide attempts among Navajo adolescents. *American Journal of Public Health*, *81* (7), 870-874.

Hlady, W. G., & Middaugh, J. P. (1988). Suicides in Alaska: Firearms and alcohol. *American Journal of Public Health*, *78*, 179-180.

Hoberman, H. M. (1992). Ethnic minority status and adolescent mental health services utilization. *Journal of Mental Health Administration*, *19* (3), 246-267.

Hunt, R. A. (2004, fall). Utilizing Medicaid billing and partnership with a county to fund a tribal mental health program. *Pathways Practice Digest*. Portland, OR: National Indian Child Welfare Association.

Indian Health Service. (1995). *National plan for Native American mental health services, amended*. Rockville, MD.: Public Health Service, U.S. Department of Health and Human Services.

Indian Health Service. (1997). *Trends in Indian health*. Rockville, MD: Public Health Service, U.S. Department of Health and Human Services.

Indian Health Service. (1998-1999). *Regional differences in Indian health*. Rockville, MD: Public Health Service, U.S. Department of Health and Human Services.

Institute of Medicine. (2002a). *Reducing suicide: A national imperative*. Washington, DC: National Academies Press.

Institute of Medicine. (2002b). *Who will keep the public healthy? Educating public health professionals for the 21st Century*. Washington, DC: National Academies Press.

Johnson, T., & Tomren, H. (1999). Helplessness, hopelessness, and despair: Identifying the precursors to Indian youth suicide. *American Indian Culture and Research Journal*, *23* (3), 287-301.

Katz, R. J. (2004). Addressing the health care needs of American Indians and Alaska Natives. *American Journal of Public Health*, *94* (1), 13-14.

Kunitz, S. J., & Levy, J. E. (2000). *Drinking, conduct disorder and social change: Navajo experiences*. New York: Oxford University Press.

Landen, M. G., Beller, M., Funk, E., Propst, M., Middaugh, J., & Moolenaar, R. L. (1997). Alcohol-related injury death and alcohol availability in remote Alaska. *Journal of the American Medical Association*, *278* (21), 1755-1758.

Manson, S. M. (2000). Mental health services for American Indians and Alaska Natives: Need, use and barriers to effective care. *Canadian Journal of Psychiatry*, *45* (7), 617-627.

May, P. A. (1986). Alcohol and drug abuse prevention programs for American Indians: Needs and opportunities. *Journal of Studies on Alcohol*, *47* (3), 187-195.

May, P. A. (1987). Suicide among American Indian youth: A look at the issues. *Children Today*, *16* (4), 22-25.

May, P. A. (1988). Mental health and alcohol abuse indicators in the Albuquerque area of Indian Health Service: An exploratory chart review. *American Indian and Alaska Native Mental Health Research*, *2* (1), 33-46.

May, P. A. (1992). Alcohol policy considerations for Indian reservations and bordertown communities. *American Indian and Alaska Native Mental Health Research*, *4* (3), 5-59.

May, P. A., & Moran, J. R. (1995). Prevention of alcohol misuse: A review of health promotion efforts among American Indians. *American Journal of Health Promotion*, *9* (4), 288-299.

May, P. A., & Van Winkle, N. W. (1994). Durkheim's suicide theory and its applicability to contemporary American Indians and Alaska Natives. In D. Lester (Ed.), *Emile Durkheim: Le suicide 100 years later* (pp. 296-318). Philadelphia: The Charles Press.

May, P. A., Van Winkle, N. W., Williams M. B., McFeeley, P. J., DeBruyn, L. M., & Serna, P. (2002). Alcohol and suicide death among American Indians of New Mexico: 1980-1998. *Suicide and Life-Threatening Behavior*, *32* (2), 240-255.

Middlebrook, D. L., Le Master, P. L., Beals, J., Novins, D. K., & Manson, S. M. (2001). Suicide prevention in American Indian and Alaska Native communities: A critical review of programs. *Suicide and Life-Threatening Behavior*, *31* (Suppl.), 132-149.

Moscicki, E. K. (1999). Identification of suicide risk factors using epidemiological studies. In D. G. Jacobs (Ed.), *The Harvard Medical School Guide to suicide assessment and intervention* (pp.40-51). San Francisco: Jossey-Bass.

Nelson, S. H., McCoy, G. F., & Vanderwagen, W. C. (1992). An overview of mental health services for American Indians and Alaska Natives in the 1990's. *Hospital and Community Psychiatry*, *43* (3), 257-261.

Office of Minority Health. (2001). *National standards for culturally and linguistically appropriate services in health care*. Rockville, MD: U.S. Department of Health and Human Services. Also available for download at http://www.omhrc.gov/omh/programs/2programs/finalreport.pdf

Powe, N. R., & Gary, T. L. (2004). Clinical trials. In B. M. Beech & M. Goodman (Eds.), *Race and research: Perspectives on minority participation in health studies* (pp. 61-78). Washington, DC: American Public Health Association.

Range, L. M., Leach, M. M., McIntyre, D., Posey-Deters, P. B., Marion, M., Kovac, S. H., *et al*. (1999). Multicultural perspectives on suicide. *Aggression and Violent Behavior*, *4* (4), 413-430.

Rieckmann, T. R., Wadsworth, M. E., & Deyhle, D. (2004). Cultural identity, explanatory style, and depression in Navajo adolescents. *Cultural Diversity and Ethnic Minority Psychology*, *10* (4), 365-382.

Shaughnessy, L., Doshi, S. R., & Jones, S. E. (2004). Attempted suicide and associated health risk factors among Native American high school students. *Journal of School Health*, *74* (5), 177-182.

Sugarman, J. R., Soderberg, R., Gordon, J. E., & Rivara, F. P. (1990). Racial misclassification of American Indians and its effect on injury rates in Oregon, 1989 through 1990. *American Journal of Public Health*, *83* (5), 681-684.

U.S. Commission on Civil Rights. (2003). *A quiet crisis: Federal funding and unmet needs in Indian Country*. Washington, DC: Author.

Wallace, L.J.D., Calhoun, A. D., Powell K. E., O'Neil, J., & James S. P. (1996). *Homicide and suicide among Native Americans, 1979-1992*. Centers for Disease Control and Prevention, National Center for Disease Prevention and Control. Violence Surveillance Summary Series, No. 2.

Wallen, J. (1992). Providing culturally appropriate mental health services for minorities. *Journal of Mental Health Service Administration*, *19* (3), 288-295.

Wilson, C., Civic, D., & Glass, D. (1995). Prevalence and correlates of depressive syndromes among adults visiting an Indian Health Service primary care clinic. *American Indian Alaska Native Mental Health Research*, *6*, 1-12.

Wissow, L. S. (2000). Suicide attempts among American Indian and Alaskan Natives. In E. R. Rhoades (Ed.), *American Indian health* (pp. 260-280). Baltimore: The Johns Hopkins University Press.

Zaloshnja, E., Miller, T. R., Galbraith, M. S., Lawrence, B. A., DeBruyn, L. M., Bill, N. *et al*. (2003). Reducing injuries among Native Americans: Five cost-outcome analysis. *Accident Analysis and Prevention*, *35*, 631-639.

Zuckerman, S., Haley, J., Roubideaux, Y., & Lillie-Blanton, M. (2004). Health service access, use, and insurance coverage among American Indians/Alaska Natives and Whites: What role does the Indian Health Service play? *American Journal of Public Health*, *94* (1), 53-59.

Lenora M. Olson, Ph.D., is an assistant professor at the University of Utah Department of Pediatrics and co-director at the Intermountain Injury Control Research Center at the University of Utah. Her research interests focus primarily on the public health approach to reducing intentional injuries. Dr. Olson has more than 15 years of research experience in public health and injury control. She is currently conducting research on suicide notes and their use for prevention. Recent publications include articles in Annals of Emergency Medicine, American Journal of Health Education, Obstetrics and Gynecology, Suicide and Life Threatening Behavior, *and* Accident Analysis and Prevention.

Stéphanie Wahab, Ph.D., is an associate professor at the Portland State University's Graduate School of Social Work. Her areas of specialization are domestic violence, commercial sex work, social-work practice, motivational interviewing, diversity, and social justice. She has published in the areas of mental health, feminist theory, and empowerment of marginalized populations. Dr. Wahab has 12 years of clinical social-work practice and 10 years of research experience in the areas of health and mental health. Recent publications include articles in Qualitative Inquiry, Journal of Sociology and Social Welfare, Affilia, International Journal of Psychiatry in Medicine, Journal of Social Work, *and* Qualitative Social Work.