Washington University in St. Louis Washington University Open Scholarship

Brown School Faculty Publications

Brown School

3-25-2014

Alcohol Screening and Brief Intervention as Standard Practice in Indian Country

David A. Patterson Silver Wolf (Adelv unegv Waya) PhD Washington University in St Louis, Brown School, dpatterson22@wustl.edu

Bonnie Duran University of Washington - Seattle Campus

Catherine N. Dulmus PhD University at Buffalo, SUNY, Buffalo Center for Social Research

Amy R. Manning University at Buffalo, SUNY. School of Social Work

Follow this and additional works at: https://openscholarship.wustl.edu/brown facpubs Part of the Clinical and Medical Social Work Commons, Community-Based Research Commons, Race and Ethnicity Commons, Social Work Commons, and the Substance Abuse and Addiction

Commons

Recommended Citation

Patterson Silver Wolf (Adelv unegv Waya), David A. PhD; Duran, Bonnie; Dulmus, Catherine N. PhD; and Manning, Amy R., "Alcohol Screening and Brief Intervention as Standard Practice in Indian Country" (2014). Brown School Faculty Publications. 19. https://openscholarship.wustl.edu/brown facpubs/19

This Journal Article is brought to you for free and open access by the Brown School at Washington University Open Scholarship. It has been accepted for inclusion in Brown School Faculty Publications by an authorized administrator of Washington University Open Scholarship. For more information, please contact digital@wumail.wustl.edu.

Alcohol Screening and Brief Intervention as Standard Practice in Indian Country

Abstract

Alcohol use and the resulting problems associated with high-risk drinking in the American Indian/Native Alaskan (AI/NA) population are well-documented, as alcohol misuse has taken an incredible toll on many AI/NA communities. Presently, both overall health issues and alcohol use occur disproportionately within this population. This article provides an updated overview of the impact of alcohol use in the United States and within AI/NA communities specifically. It also provides recommendations for an alcohol-related screening and brief intervention instrument that social workers can begin using in their practice and can be utilized within the AI/NA community.

Key Words: American Indians/Native Alaskans; Evidence-based Practice; Alcohol; Screening and Brief Intervention

Introduction

Although American Indians/Native Alaskans (AI/NAs) are commonly perceived as residing on remote reservations, separated from the rest of America, the majority live in urban

1

areas, while only about 1/3 live on reservations and tribal trust lands (U.S. Census Bureau, 2010). The United States Census Bureau reports that there are approximately 3 million people who reported their sole race as American Indian/Alaska Native, and 2.3 million people report their race as combined American Indian/Alaska Native and one or more other races (U.S. Census Bureau, 2011). These numbers evidence an interesting shift from the census in 2000, where 2.5 million people reported their sole race as American Indian/Alaska Native and 4.1 million people reported their race as combined American Indian/Alaska Native and one or more other races (U.S. Census Bureau, 2011). Although the reporting prevalence rates have shifted, there is a significant population of Al/NA peoples in the United States.

This population's problems related to alcohol are well documented. We conducted a thorough search of the alcohol literature using Academic Search Premier, CINAHL Plus, MasterFILE Premier, PsycINFO, and MEDLINE. Search terms included: alcohol use; alcohol misuse; AI/NAs; Evidence-Based Practice; alcohol; screening and brief intervention. Initially, the search focused on recently published studies (2005 to current); however, once the results were reviewed, the search was conducted again without publication date limitations.

Alcohol use consequences in the United States

In the United States, alcohol use and misuse pose both individual and public issues, and consequences can be severe. Within the population of the United States, AI/NAs have the highest prevalence of substance abuse among all racial and ethnic groups (Falk, Yi & Hiller-Sturmhofel, 2006; Frank, Moore, & Ames, 2000). A meta-analysis of non-traffic related deaths that involved alcohol revealed that the presence of alcohol intoxication can be a significant contributing factor in these fatalities (Smith, Branas, & Miller, 1999). Using a cutoff of 100 mg/dL in blood alcohol content as an indicator of significant alcohol involvement; studies on unintentional injury-related

deaths by drowning, hypothermia, falling, fire or poisoning showed that between 26 and 90 percent of people who experienced an unintentional injury death tested positive for alcohol involvement at the time of death (Smith et al, 1999). Vehicle-related injuries and deaths involving alcohol have been viewed as a social problem for several decades. Among drivers between the ages of 20 and 40, of those who were fatally injured in traffic accidents, roughly 50 percent were found to be intoxicated at time of death (Smith, et al, 1999).

Alcohol use can increase the risk of a person becoming a victim of violence (Moore & Foreman-Peck, 2009; Smith, et al, 1999). In the studies analyzed, between 30 and 57 percent of homicide victims tested positive for alcohol involvement at time of death (Smith, et al, 1999). Among victims of violence, including intimate partner violence and child abuse, over 1/3 reported that their perpetrators were under the influence of alcohol at the time of the incident (Greenfield, 1998). Specifically, among incidents of intimate partner violence, studies have shown that as many as 2/3 of all incidents are associated with alcohol (Greenfield, 1998).

Alcohol use and misuse are associated with high risk sexual behaviors such as unprotected sex, multiple sex partners, and increased risk of sexual assault, unintended pregnancy and sexually transmitted infections (Naimi et al., 2003; Patterson & Buckingham, 2010; Patterson, Hall, Golder, 2009; Wechsler et al., 1994). Alcohol is a significant cause of miscarriage and stillbirth among childbearing women, as well as a significant precursor of birth defects (Kesmodel et al., 2002).

Long term health consequences from alcohol misuse can be devastating. Chronic diseases associated with continued alcohol misuse include cardiovascular problems (Rhem et al., 2003), cancer of the liver, colon, breast, throat (Baan et al, 2007), cirrhosis of the liver (Heron, 2007), Hepatitis C (Schiff, 1997), pancreatitis (Chick & Kemppainen, 2007) and other

gastrointestinal issues (Kelly et al., 1995). Neurological and psychiatric issues associated with alcohol misuse include dementia, stroke (Carrao et al., 2004; Carrao et al., 2002), depression, anxiety and suicide (Castaneda et al., 1996). People who misuse alcohol are at higher risk of unemployment and decreased productivity (Booth & Feng, 2002).

According to The National Center for Chronic Disease Prevention and Health Promotion (2007) in the United States, roughly 16 percent of adults, aged 18 and older, practice behaviors that would categorize them as binge drinkers. Binge drinking is characterized in men as having 5 or more drinks on one occasion or in women having 4 or more drinks on one occasion. Heavy drinking is characterized among women as averaging more than one drink per day, and among men as more than two drinks per day. In the United States, 4 percent of women and 6.1 percent of men are considered to be heavy drinkers (The National Center, 2007). The National Epidemiologic Survey on Alcohol and Related Conditions (NESARC, 2004) places the prevalence of alcohol abuse in the United States at 4.65 percent overall, with people between 18-29 and 30-44 years of old having rates of alcohol abuse slightly higher than the overall total at 6.95 percent and 5.95 percent, respectively. These figures translate into 9.6 million people total, with 3.1 million 18-29 year olds and 3.8 million 30-44 year olds meeting the criteria for high risk alcohol usage.

Alcohol use consequences in the AI/NA population

Alcohol use and the resulting problems within the AI/NA population are well-documented. AI/NAs have the highest prevalence of substance abuse among any racial and ethic groups throughout the United States (Falk, Yi & Hiller-Sturmhofel, 2006; Frank et al., 2000). Different factors have been speculated as the cause for levels of drinking patterns within the AI/NA population, such as modeling the drinking patterns of European colonists (Beauvais,

1996); different levels of acceptable behaviors (Levey & Kunitz, 1971), and socioeconomic conditions of reservations (Liban & Smart, 1982; Austin et al., 1993).

Regardless of the reason for this high rate of problem drinking, research indicates that among the AI/NA population, people begin drinking at a young age and experience the resulting effects of overall poor health and high mortality rates. According to the Office of Applied Studies (2006), in 2002-2005 AI/NA youth aged 12 or older were more likely than any other racial group to have a past year alcohol use disorder (10.7 vs. 7.6 percent).

Hoffman, et al., (2000) used survey data collected from three large comparable samples of students (n=27,335, 23,860, and 19,321 respectively) in grades 7-12 in New York State during the years 1983, 1990, and 1994 to analyze trends in combinational use of alcohol and illicit drugs. Similar to national trends of other AI/NA 7th – 12th graders, AI/NA respondents exceeded alcohol and illicit drug use percentages, compared to their counterparts. The total percentage that reported using alcohol and marijuana together in the past six months in 1983 was 25 percent, compared to 34 percent for AI/NAs. In 1990, all percentages decreased across respondents and the total sample consisted of 12 percent reporting combined use in the past six months. In comparison, the rate among AI/NAs remained significantly higher, with 25 percent reporting use of alcohol and illicit drugs.

Investigations into alcohol use in AI/NA population can also be a bit distorted. While there are low overall rates of alcohol use, rates ranked as heavy drinking (e.g., defined as binge drinking 5 times a month or more) are very high among AI/NA aged 26 and older (NSDUH, 2012; Substance Abuse and Mental Health Services Administration, 2002). It has been a challenge to specifically generalize alcohol use data across different segments of AI/AN communities. However, with all the limitations of AI/NA data, alcohol use and the problems

associated with drinking alcohol are found within this population.

AI/NA Intervention Literature

In a review of the literature on substance abuse interventions directed towards AI/NA adolescents, Hawkins et al (2004) reported that specific empirical research on AI/NAs in mainstream psychological journals is lacking. While representative epidemiological information exists, applicable treatment innovations are sparse. It would be difficult to search for evidence-based practices for the entire AI/NA population due to the lack of existing generalizable data. For example, although Motivational Interviewing (Miller & Rollick, 2002) was adapted to study AI/NAs located mainly in the Western part of the US (see; Villanueva, 2002; Tomlin et al., 2005), AI/NAs in the Northeastern part of America may have different responses to motivational techniques due to possible differences in cultural identities, community beliefs, and/or local teachings. For this reason, it is important for human service practitioners to understand existing screening and intervention tools in order to begin the task of confronting this alcohol-related problem within multiple AI/NA populations.

Overview of a Useful Alcohol Screening and Intervention

Identifying those who are at risk for alcohol misuse or who are abusing alcohol is an important component of combating the potential negative outcomes of alcohol. Screening individuals regarding current personal practices and use of alcohol may prevent alcohol misuse. Several instruments can be used for screening people for alcohol use and misuse:

• The Daily Drinking Questionnaire-Revised (DDQ-R) (Collins, Parks & Marlatt, 1985) is a brief questionnaire that assesses the average number of drinks each day of the week, the number of days alcohol was consumed and any significant episodes of heavy drinking for an individual over the past three months.

- The Rutgers Alcohol Problems Index (White & Labouvie, 1989) is a 23 item measure that looks at negative consequences that an individual may experience while misusing alcohol.
- The Alcohol Use Disorder and Associated Disabilities Interview Schedule-IV
 (AUDADIS-IV) looks at negative consequences as well as other addictions and disorders that can be associated with alcohol misuse (Ruan et al, 2008).

Other measures look at positive consequences of alcohol misuse or a combination of positive and negative consequences. Examples of such measures include the Brief Comprehensive Effects of Alcohol questionnaire (B-CEOA) (Ham et al., 2005) and the Positive Drinking Consequence Questionnaire (PDCQ) (Corbin et al., 2008). When used alone, each of these measures can provide valuable information for medical and mental health professionals. In direct practice, the use of a screening measurement can assist in determining who could benefit from a complete assessment and, potentially, from an intervention. However, these measures alone are not a direct intervention tool for use with individuals, and in a busy practice, the results of such a screening could conceivably fall by the wayside. Another factor that needs to be taken into consideration is ensuring that the screening process uses culturally relevant practices. Even with the higher rates of alcohol use and misuse among AI/NAs, this population is often underrepresented in reliability and validity studies of alcohol screening measurements.

Alcohol misuse-related interventions can include a variety of components. Some are implemented in doctors offices and have several follow-up components (Fink et al., 2005) and can be lengthy (20 minutes each intervention meeting). Others are offered concurrently with tobacco cessation treatment (Fu et al., 2008) in an effort to improve overall health outcomes. Interventions such as these can be costly, but the economic impact of preventing alcohol misuse

and abuse can be substantial both for individuals and for society. General medical practice can easily adopt a brief intervention that records the same positive outcomes without the financial burden and time commitment. Bien and colleagues (1993) reported that brief interventions in health care facilities have been tested against untreated control trials in 14 nations. Of the dozen studies designed to increase referral follow-ups to alcohol specialists, all but one found significant effects (Bien et al.,1993). According to Holder et al., (1991), a brief counseling intervention is among the most strongly supported and cost effective intervention modalities in health care settings for alcohol problems, based on current published clinical trials.

NIAAA's Recommended Brief Alcohol Screening and Intervention

According to the National Institute on Alcohol Abuse and Alcoholism (2004), at-risk drinking and alcohol problems are common throughout the United States. While much effort and funded services go into treating the alcohol-dependent person, findings from the 1992 National Longitudinal Alcohol Epidemiological Survey indicate that high-risk drinkers make up 20 percent of respondents, much higher than the 4 to 5 percent measuring as alcohol-dependent. Rehm and colleagues (2003) have determined that heavy drinkers have a greater risk of hypertension, gastro-intestinal bleeding, sleep disorders, major depression, hemorrhagic stroke, cirrhosis of the liver, and several cancers.

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) has developed an evidence-based alcohol screening and brief intervention guide specifically for high-risk drinkers (NIH, 2005), which applies to all populations in their current community settings, regardless of race, ethnicity or gender. NIAAA created and tested this guide with primary care medical providers in order to facilitate and test an integrated alcohol intervention within standard medical care services. The overall goal was to assist medical professionals, who are in prime positions to

make a difference, in screening for at-risk drinking and providing a brief intervention for their patients. According to Fleming et al. (2002), clinical trials have shown that providing a brief intervention can lead to significant and long-lasting reductions in drinking levels in patients considered at-risk drinkers. Clinical trials have also demonstrated that repeated, brief, alcohol-focused interventions with a health care provider can lead to significant improvements for dependent drinkers (Willenbring & Olson, 1999). In one study of primary care practices, for example, patients with alcohol dependence only received the recommended quality of care, including assessment and referral to treatment, about 10 percent of the time (McGlynn et al., 2003). According to Miller et al. (2006), most patients did not object to clinicians screening them for alcohol use and they were open to hearing advice afterward.

The step-by-step clinician guide begins with a simple one-question prescreening (e.g., do you sometimes drink beer, wine, or other alcoholic beverages?). If answered yes, the next step would be collecting more information, using the Alcohol Use Disorders Identification Test (AUDIT) (NIH, 2005) recommended brief intervention for at-risk drinkers and both dependent and non-dependent drinkers. The NIAAA screening and intervention protocol utilizes the ten question AUDIT for self-report screening purposes. This measure asks questions on alcohol consumption, duration, and consequences of alcohol usage. Physician question protocol coincides with the AUDIT, and patient response to each question dictates the brief intervention steps to be taken. Each brief intervention component includes an educational element with information about risk for alcohol abuse or dependence. This educational piece provides a concrete visual of where the individual falls on a continuum in comparison to others of the same age and gender. The intervention is continued at the next patient visit with a follow-up question asking how the patient is doing in relation to goals/intentions set at the previous appointment. In

total, the screening and intervention, including follow-up, may take 2-10 minutes.

The Institute of Medicine's 1990 report states that if alcohol problems are to be significantly reduced, people with a mild or moderate alcohol problem should be the foremost focus of interventions. Given the clear evidence that the implementation of an alcohol screening and brief intervention in health care settings produces widespread, positive outcomes (Babor et al., 1999, 2000, 2004, 2005, 2006; Bien et al., 1993; Kahan et al., 1995; Fleming & Manwell 1999; Holder & Blose, 1992), implementing these efforts throughout systems of health-related care is imperative.

Connecting Research with Social Work Practice – Screening alcohol risks with AI/NAs

Social workers are strategically located within many community-based organizations capable of addressing the needs of those AI/NAs disproportionately affected by alcohol and other drug problems (Patterson & McKiernan, 2012). According to Brekke (2012), social workers provide more health and human services to population throughout the life span than any other profession. This included psychiatry, psychology and even nursing services. As part of their overall services, social workers can, and should, implement this NIAAA Evidence-Based Practice as a *standard practice of care* with all clients, including AI/NA clients.

As a profession, social work values and is guided by such principles as a person's autonomy, strengths, and working towards overall social justice. Furthermore, social workers are also helping professionals, specifically trained and qualified to work with AI/NAs. According to Weaver (1999), when working with AI/NA clients, the core social work components must remain in the forefront of everyday practice; they are not just vague principles. In working with a non-Native client, the principle of autonomy is just that – a guiding ideal or moral standard. However, working with AI/NA clients under the tenet of *sovereignty* requires that social workers

understand and respect that principle throughout practice. Tribal sovereignty and cultural identity are inextricably linked concepts among AI/NAs.

The United States recognizes the right of these tribes to self-government and supports their tribal sovereignty and self-determination; they possess the right to form their own governments, to enforce their laws (both civil and criminal), to tax, to establish their own membership, to license and regulate their own activities, as well as to zone and to exclude persons from their tribal territories (available at, http://usinfo.state.gov). Social work's value of working from a strengths perspective is a prerequisite for working with AI/NAs. A people who have survived more than 500 years of violence, who continue to maintain the poorest overall health and social status (e.g., Kasprow & Rosenheck, 1998; Kavanaugh et al., 1999), as well as continue to defend their right to exist, must be worked with from a strengths perspective. Social workers, or any service providers, who continually search for a deficit to therapeutically correct will prove to be futile.

The advocacy skills of social workers, in pursuit of social justice, are very relevant to AI/NAs seeking services, specifically for alcohol and drug use. Stigma may be connected to AI/NAs, such as a *drunken Indian* stereotype, and social workers must be at the forefront of dismantling this wayward viewpoint. In order to combat this bias, social workers should begin to educate themselves regarding NIAAA's recommended guide to helping those with ongoing drinking concerns. This guide is web-based and provides step-by-step guides to integrating this service into community-based organizations. Making it a routine standard service allows for better assessments, better treatment plans, and could lower the stigma of alcohol abuse in any community, and more specifically within AI/NA communities. The social work profession works toward connecting research to practice, so knowing the data related to health effects of high-risk

drinking within AI/NA communities is crucial. Evidence suggests that the NIAAA guide could be successful. The next step of filling this research-to-practice gap is learning this evidence-based practice and adopting it throughout social service organizations as a standard practice.

References

- Austin, G.; Oetting, G.; &Beauvais, F. (1993). Recent research on substance abuse among American Indian youth: Prevention research update #11. Portland, OR: Northwest Regional Laboratory. (ERIC Document Reproduction Service No. 363008)
- Beauvais, F., (1996). Trends in drug use among American Indian students, 1975–1994 with an adjustment for dropouts. *American Journal of Public Health* 86, 1594–1598.
- Baan R, Straif K, Grosse Y, Secretan B, El Ghissassi, F., Bouvard, V., Benbrahiam-Tallaa, L. et al. (2007). On behalf of the WHO International Agency for Research on Cancer Monograph Working Group. Carcinogenicity of alcoholic beverages. *Lancet Oncology*, 8, 292–293.
- Babor, T.F., Aguirre-Molina, M., Marlatt, A. & Clayton, R. (1999). Managing alcohol problems and risky drinking. *American Journal of Health Promotion*, 14(2), 98–103.
- Babor, T.F. & Higgins-Biddle, J.C. (2000). Alcohol screening and brief intervention:

 Dissemination strategies for medical practice and public health. *Addiction*, 95(5), 677–686.
- Babor, T.F., Higgins-Biddle, J.C., Higgins, P.S., Gassman, R.A. & Gould, B.E. (2004). Training medical providers to conduct alcohol screening and brief interventions. *Substance Abuse*, 25(1), 17–26.
- Babor, T.F., Higgins-Biddle, J., Dauser, D., Higgins, P. & Burleson, J. (2005). Alcohol screening

- and brief intervention in primary care settings: Implementation models and predictors. *Journal of Studies on Alcohol*, 66(3), 361–269.
- Babor, T.F., Higgins-Biddle, J., Dauser, D., Burleson, J.A., Zarkin, G.A. & Bray, J. (2006). Brief interventions for at-risk drinking: Patient outcomes and cost-effectiveness in managed care organizations. *Alcohol and Alcoholism*, *41*(6), 624–631.
- Barnes, G.M., Welte, J.W., & Hoffman, J.H. (2002). Relationship of alcohol use to delinquency and illicit drug use in adolescents: Gender, age, and racial/ethnic differences. *Journal of Drug Issues*, 2(1), 153-178.
- Bien, T.H., Miller, W.R., & Tonigan, S.J. (1993). Brief interventions for alcohol problems: A review. *Addiction*, 88, 315-336.
- Booth, B., & Weiwei F. (2002). The impact of drinking and drinking consequences on short-term employment outcomes in at-risk drinkers in six southern states. *The Journal of Behavioral Health Services and Research*, 29(2),157–66.
- Brekke, J.S. (2012). Shaping a science of social work. *Research on Social Work Practice*, 22(5), 455-464.
- Castañeda R, Sussman N, Westreich L, Levy R, O'Malley M. (1996). A review of moderate alcohol intake on the treatment of anxiety and mood disorders. *Journal of Clinical Psychiatry*, *57*, 207-212.
- Centers for Disease Control and Prevention, National Center for Health Statistics (2007).

 *Deaths: Leading Causes for 2004. National Vital Statistics Report, 56, (5). Hyattsville, MD: Heron, M. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56 05.pdf (PDF). Accessed March 28, 2010.
- Chick J, Kemppainen E (2007). Estimating alcohol consumption. *Pancreatology*, 7, 157–

- Collins, R.L., Parks, G.A. & Marlatt, G.A. (1985). Social determinants of alcohol consumption:

 The effects of social interaction and model status on the self-administration of alcohol. *Journal of Consulting and Clinical Psychology 53*, 189–200.
- Corbin, W. R., Morean, M. E., & Benedict, D. (2008). The Positive Drinking Consequences Questionnaire (PDCQ): Validation of a new assessment tool. *Addictive Behaviors*, *33*(1), 54-68.
- Corrao G, Rubbiati L, Zambon A, Arico S. (2002) Alcohol-attributable and alcohol-preventable mortality in Italy. A balance in 1983 and 1996. *European Journal of Public Health*, 12, 214–223.
- Corrao G, Bagnardi V, Zambon A, La Vecchia C. (2004). A meta-analysis of alcohol consumption and the risk of 15 diseases. *Journal of Preventative Medicine*, 38, 613–619.
- Falk, D.E., Yi, H-Y., & Hiller-Sturmhofel, S. (2006). An epidemiologic analysis of co-occurring alcohol and tobacco use and disorders: Findings from the National Epidemiologic Survey on Alcohol and Related Conditions. *Alcohol Research and Health*, 29, 162-171.
- Fink, A., Elliott, M. N., Tsai, M., & Beck, J. C. (2005). An evaluation of an intervention to assist primary care physicians in screening and educating older patients who use alcohol. *Journal of the American Geriatrics Society*, 53, 1937–1943.
- Fleming, M., & Manwell, L.B. (1999). Brief intervention in primary care settings. *Alcohol Research & Health*, 23 (2), 128-137.
- Fleming, M.F., Mundt, M.P., French, M.T., Manwell, L.B., Staauffacher, E.A., & Barry, K.L. (2002). Brief physician advice for problem drinkers: Long-term efficacy and cost benefit analysis. *Alcoholism, Clinical and Experimental Research*, 26(1), 36-43.

- Frank, J. W., Moore, R. S., & Ames, G. M. (2000). Historical and cultural roots of drinking problems among American Indians. *American Journal of Public Health*, 90(3), 344–351.
- Fu, S. S., Kodl, M., Willenbring, M., Nelson, D. B., Nugent, S., Gravely, A. A., et al. (2008).
 Ethnic differences in alcohol treatment outcomes and the effect of concurrent smoking cessation treatment. *Drug and Alcohol Dependence*, 92, 61-68.
- Greenfield, L.A., 1998. Alcohol and crime: An analysis of national data on the prevalence of alcohol in crime. U.S. Department of Justice, Washington, DC. Retrieved from http://bjs.ojp.usdoj.gov/content/pub/pdf/ac.pdf (PDF) Accessed March 31, 2010.
- Ham, L. S., Stewart, S. H., Norton, P. J., & Hope, D. A. (2005). Psychometric assessment of the comprehensive effects of alcohol questionnaire: Comparing a brief version to the original full scale. *Journal of Psychopathology and Behavioral Assessment*, 27, 141-158.
- Hawkins, E.H. Cummins, L.H., & Marlatt, G.A., (2004). Preventing substance abuse in American Indian and Alaska Native youth: promising strategies for healthier communities. *American Psychological Association*, 130(2), 304–323.
- Hoffman, J.H., Barnes, G.M., Welte, J.W., & Dintcheff (2000). Trends in combinational use of alcohol and illicit drugs among minority adolescents, 1983-1994. *American Journal of Drug & Alcohol Abuse*, 26(2), 311-324.
- Holder, H.D. & Blose, J.O. (1992). The reduction of health care costs associated with alcoholism treatment. *Journal of the Studies on Alcohol*, *53*, 293-302.
- Institute of Medicine. (1990). Broadening the base of treatment for alcohol problems.

 Washington, DC: National Academy Press.
- Kahan, M., Wilson, L. & Becker, L. (1995). Effectiveness of physician based interventions with

- problem drinkers: A review. Canadian Medical Association Journal, 152, 851-859.
- Kasprow, W.J., & Rosenheck, R. (1998). Substance use and psychiatric problems of homeless AI/NA veterans. *Psychiatric Services*, 49(3), 345-350.
- Kavanaugh, K., Absalom, K., Beil, W., & Schliessmann, L. (1999). Connecting and becoming culturally competent: A Lakota example. *Advances in Nursing Science*, 21(3), 9-31.
- Kelly J.P., Kaufman D.W., Koff R.S., Laszlo A., Wilholm B.E,. & Shapiro S. (1995). Alcohol consumption and the risk of major upper gastrointestinal bleeding. *American Journal Gastroenterology*, 90(7), 1058–1064.
- Kesmodel U., Wisborg K., Olsen S.F., Henriksen T.B., & Sechler N.J. (2002). Moderate alcohol intake in pregnancy and the risk of spontaneous abortion. *Alcohol & Alcoholism*, *37*(1), 87–92.
- Levy, J. E., & Kunitz, S. J. (1971). Indian reservations, anomie, and social pathologies. Southwestern Journal of Anthropology, 2, 97-128.
- Liban, C.B., & Smart, R.G. (1982) Drinking and drug use among Ontario Indian students. *Drug* and Alcohol Dependence, 9, 161-171.
- Miller, W. R. & Rollnick, S. (2002). *Motivational Interviewing: Preparing people for change* (2nd Ed). New York: Guilford Press.
- Miller, P.M., Thomas, S.E., Mallin, R. (2006). Patient attitudes toward self-report and biomarker alcohol screening by primary care physicians. *Alcohol and Alcoholism*, *41*(3), 306-310.
- McGlynn, E.A., Asch, S.M., Adams, J., Kessyey, J., Hicks, J., DeChristofaro, A., & Kerr, E.A. (2003). The quality of health care delivery to adults in the United States. *New England Journal of Medicine*, 348(26), 2635-2645.
- Moore, S.C. & Foreman-Peck, J. (2009). Alcohol consumption predicts violent victimization,

- impulsive decision making predicts violence. *The Open Behavioral Science Journal*, *3*, 28-33.
- Naimi TS, Lipscomb LE, Brewer RD, Colley Gilbert B. (2003). Binge drinking in the preconception period and the risk of unintended pregnancy: Implications for women and their children. *Pediatrics*, 111, 1136–1141.
- National Center for Chronic Disease Prevention and Health Promotion (2007). *Alcohol & Drug Use*. Healthy Youth. http://www.cdc.gov/HealthyYouth/alcoholdrug/index.htm. Accessed March 31, 2010.
- Chen, C.M., Yi, H., Falk, D.E., Stinson, F.S., Dawson, D.A., & Grant, B.F. (2006). *Alcohol Use and Alcohol Use Disorders in the United States: Main Findings from the 2001–2002 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC)*. NIH Publication No. 05-5737. Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism.
- National Institute on Alcohol Abuse and Alcoholism. (2004). Unpublished data from the 2001-2002 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), a nationwide survey of 43,093 U.S. adults aged 18 or older.
- National Institute of Health. (2005). *Helping patients who drink too much: A clinician's guide*.

 [Online]. Retrieved from

 http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.

 htm. Accessed March 31, 2010.
- National Survey on Drug Use and Health (NSDUH). (2012). Substance use among American Indian or Alaska Native adults. Office of Applied Studies, Substance Abuse and Mental

- Health Services Administration . Retrieved from http://www.oas.samhsa.gov/2k10/182/AmericanIndian.htm#footnote5
- Office of Applied Studies. (2006). Results from the 2005 National Survey on Drug Use and Health: National findings (DHHS Publication No. SMA 06-4194, NSDUH Series H-30). Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Patterson, D. A., & Buckingham, S. L. (2010) Does motivational interviewing stages of change increase treatment retention among persons who are alcohol and other drug dependent and HIV-infected? *Journal of HIV/AIDS and Social Services*, 9(1), 45-57.
- Patterson, D. A., Hall, M., & Golder, S. (2009). Beliefs and behaviors regarding substance use and HIV risk among men who have sex with men (MSM) in a mid-sized U.S. community. *Journal of HIV/AIDS and Social Services*, 8(2), 188-201.
- Patterson, D.A., & McKiernan, P.M. (2010). Organizational and clinical implications of integrating an alcohol screening and brief intervention within non-substance abuse serving agencies. *Journal of Evidence-Based Social Work*, 7(4), 332-347.
- Rehm J., Gmel G., Sepos C.T., Trevisan M. (2003) Alcohol-related morbidity and mortality. *Alcohol Health*, 27(1), 39–51.
- Rehm J., Room R., Graham K., Monteiro M., Gmel G., & Sempos C.T. (2003). The relationship of average volume of alcohol consumption and patterns of drinking to burden of disease:

 An overview. *Addiction*, 98(9),1209-1228.
- Ruan, W.J., Goldstein, R.B., Chou, S.P., Smith, S.M., Saha, T.D., & Pickering, P.R. et al.
 (2008). The alcohol use disorder and associated disabilities interview schedule-IV:
 Reliability of new psychiatric diagnostic modules and risk factors in a general population sample. *Drug and Alcohol Dependence* 92, 27–36.

- Smith, G. S., Branas, C. C., Miller, T. R. (1999). Fatal nontraffic injuries involving alcohol: A metaanalysis. *Annuals of Emergency Medicine*, *33*, 659-668.
- Schiff E.R.(1997). Hepatitis C and alcohol. *Hepatology*, 26 (Suppl 1): 39S–42S.
- Tomlin, K., Walker, R.D., Grover, J., Arquette, W., & Steward, P. (2005). *Motivational interviewing: Enhancing motivation for change. A learner's manual for the American Indian/Alaska Native counselor.* Portland, OR: One Sky National Resource Center and Oregon Health & Sciences University.
- U.S. Census Bureau. (2011, March). Overview of Race and Hispanic Origin:2010. [on-line.]

 Retrieved from, the Population Division, Population Estimates Program:

 http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf, March 16, 2012.
- U.S. Census Bureau. (2010, October). *Population by race only, race in combination only, race alone or in combination, and Hispanic or Latino origin, for the United States: 2000* [Data table]. [on-line.] Retrieved from, the Population Division, Population Estimates Program: http://www.census.gov/aian/pdf/Appendix-B.pdf, October 22, 2011
- Villanueva, M., Tonigan, J., S., and Miller, W., R. A. (2002). Retrospective study of client treatment matching: Differential treatment responses of AI/NA Alcoholics in Project MATCH. *Alcoholism: Clinical and Experimental Research*, 26 (Abstract).
- Wechsler H, Davenport A, Dowdall G, Moeykens B, Castillo S.(1994). Health and behavioral consequences of binge drinking in college: A national survey of students at 140 colleges. *Journal of the American Medical Association*, 272, 1672-1677.
- Weaver, H.N. (1999). Indigenous people and the social work profession: Defining culturally competent services. *Social Work, 44*(3), 217-225.
- White, H.R., & Labouvie, H.E. (1989). Towards the assessment of adolescent problem drinking,

Journal of Studies on Alcohol 50, 30–37.

Willenbring, M.L., & Olson, D.H. (1999). A randomized trial of integrated outpatient treatment for medically ill alcoholic men. *Archives of Internal Medicine*, *159*(16), 1946-1952.