



## **Relationship Building for a Healthy Future: Indigenous Youth Pathways for Resiliency and Recovery**

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Native Hawaiian • Native American • American Indian • substance abuse • reasons for quitting • recovery • adolescents • young adults • mixed methods • resiliency

### **Abstract**

This study investigated why Indigenous youth (Native Hawaiians, Pacific Islanders, Native Americans, American Indians, First Nations, and Alaska Natives) decided to abstain from substance abuse behaviors. The authors used both qualitative methods (grounded theory) and quantitative methods (exploratory factor analysis) to develop a story line of the rationale participants used to abstain from substance abuse behaviors and to provide a voice from participants to enhance future Indigenous-relevant curriculum and social work related intervention development. This project was based on the guiding principles set forth by a tribally relevant research code. Aggregate data from Global Appraisal of Individual Needs (GAIN) intakes were used. Results included the importance of maintaining relationships as a driving factor in the quit process. Youths also stated that maintaining a healthy lifestyle and having strong self-will not being an addict were resiliency factors in the path to recovery. Finally, Indigenous youth used their perceptions of future



planning (school and career) and past experiences with the legal system as a means of support. The developing theory, grounded in the perceptions and experiences of the Indigenous youth involved, was given the name *relationship building for a healthy future and better life control*.

Indigenous people (Native Hawaiians, Native Americans, American Indians, First Nations, Alaska Natives, and Pacific Islanders) today are consciously aware of what constitutes a healthier lifestyle. Although many Indigenous communities offer programs that educate Indigenous peoples on issues of diabetes, obesity, depression, heart disease, and stroke, the resources and support to sustain a healthier lifestyle are not available. As a result, rates of chronic disease among Indigenous people continue to increase, (Health Canada, 2003; MacMillan, MacMillan, Offord, & Dingle, 1996; Shewell, 2004), leading to increased health disparities among both Indigenous youth and adults.

According to the Statistical Profile on the Health of First Nations in Canada Report (Health Canada, 2003), Indigenous people under the age of thirty years make up over half of the total Indigenous population. As the population of Indigenous people continues to increase, so do many of the issues and problems Indigenous youth are facing. The Report by the Royal Commission on Aboriginal People (1996) describes how Indigenous youth are enduring the loss of cultural identity, high rates of poverty, limited employment opportunities, overcrowding and inadequate living conditions, weakened social structures, and racism. For many Indigenous youth, these demoralizing conditions have contributed to increased substance abuse, suicide, violence, and mortality (Freeman, 2004; White Bear, 2003; Olson & Wahab, 2006; Strickland, Walsh & Cooper, 2006; Chandler & Lalonde, 1998).

A report by SAMHSA (2007) describes Indigenous youths aged 12 to 17 as having higher rates of tobacco usage, alcohol, and illicit drugs than those from other racial or ethnic groups. Overall, SAMHSA statistics exhibited that Indigenous peoples as a whole had higher rates of abuse of illicit drugs and alcohol than other persons from other racial/ethnic groups.

Another growing concern within many Indigenous communities is the usage of methamphetamines. Studies show rates of methamphetamines use of 1.7% for American Indians/Alaskan Natives and 2.2% for Native Hawaiians compared to rates in Whites (0.7%), Hispanics (0.5%), Asians (0.2%) and African-Americans (0.1%) (SAMHSA, 2005). In fact, the National Indian Child Welfare Association (NICWA) estimates that 80-85% of the Indigenous families in child welfare systems have drug or alcohol abuse issues (The National Congress of American Indians, 2006).

### **THEORIES: REASONS FOR QUITTING**

Previous work in the field of reasons for quitting has drawn on various human behavior theories. One of these is social learning theory, which argues that individuals acquire beliefs from role models, close friends, social environmental situations, and their parents (Bandura, as cited in Petraitis, Flay, & Miller, 1995). In relation to substance use behaviors, social learning theory states that experience with peers, environmental situations, parents, and extended family members may shape a person's reasons for substance use and his or her patterns, beliefs, and attitudes about use. These developments may be either positive or negative; People may internalize negative models of substance use, or they may learn about resiliency factors.

Other studies have also incorporated the transtheoretical model of stage change in explaining why people reduce substance abuse behaviors. This model has been found to be informative across diverse ethnic populations (Kohler, Fish, & Davies, 2004). The transtheoretical model of change has also been used for health-related concerns that affect Native American societies (Griffin, Gilland, Perez, Helitzer, & Carter, 1999; Klecan, n.d.). According to the transtheoretical model, people pass through five stages of change: precontemplation, contemplation, preparation, action, and maintenance (Prochaska, Diclemente, & Norcross, 1992).

A third theory, healthy mind-setting, is based directly in Native American quit stories in the field of recreational tobacco cessation (Haring, 2007; Haring 2010). The theory charts a pattern in the stories of quitting set in action by adult Indigenous members becoming aware of smoking-related concerns, developing a deeper realization of their initial concerns about smoking, implementing a mind-set, and, finally, reflecting on past experiences.

In conclusion, theories such as healthy mind-setting, social learning, and the transtheoretical model of change form the foundation for studies of quit behaviors for Indigenous peoples. Special attention needs to be directed toward the principles of culturally grounded interventions and the continued development of emerging theories that pertain to Indigenous philosophy. Despite the theoretical approaches discussed above, the field needs continued theory building related to Indigenous resiliency and pathways to recovery.

### **RESEARCH METHODS**

The development of the proposal was based on the guiding principles set forth in the *Model Tribal Research Code* (American Indian Law Center, 1999). The goal of this project is to build Indigenous - constructed social work guided intervention processes for Indigenous populations that are based on the resiliency factors of Indigenous substance abusers. Because this study is a secondary data analysis, the

analysis process did not include any type of deception. The principal investigator is an enrolled member of a Native American tribe, and elder Indigenous advisors assisted in data review. Furthermore, no individual responses were identifiable, and all tribes, Native centers, and sites that contributed data were sent a copy of the findings. Finally, because the data represented a variety of tribal nations across the United States, the results are intended to be generalized, to some extent, across the Indigenous landscape of the United States.

The sample were drawn from the “reasons for quitting” subsection of the aggregate “Global Appraisal of Individual Needs” (GAIN) intake data set and from a wide range of Center for Substance Abuse Treatment grantees, who provided consent to be part of the secondary data analysis. The instrument used for this project included the GAIN, which has been validated psychometrically (Dennis, 1998; Dennis, Scott, Godley, & Funk, 1999). A copy of the instrument can be found at <http://chestnut.org/LI/GAIN/>. Indigenous youth responses on the useable secondary data included a total of 417 valid cases for the exploratory factor analysis and 389 verbatim responses for the qualitative analysis. Indigenous youth were both male and female and were under the age of 18.

### **QUALITATIVE METHODOLOGY**

One qualitative research method that proved beneficial in this study was grounded theory (Glaser, 1978; Strauss & Corbin, 1998), a mechanism to develop emerging theory from information that is systematically collected and analyzed through the research process. It provides a framework to increase the relevance of theory building, grounded in data, and is a basis for social action (Strauss & Corbin, 1998). Grounded theory is also culturally sensitive because it does not impose a preconceived theory on people; rather, it helps generate a theory based on the emergent and co-constructed behaviors of the individuals involved. Further, grounded theory has previously been used in the arena of substance abuse research and Indigenous populations (Haring, 2007; Haring 2010). Hence, grounded theory has the ability to explain Indigenous youths’ reasons for quitting and also to share their unique understandings of how these behaviors came to be.

Indigenous youth answers in the form of written responses to the GAIN question “What is your ‘main’ or most important reason for wanting to quit now?”—were analyzed using grounded theory. The data were analyzed by two qualitative data analysts to improve methodological rigor; to avoid any gender bias during analysis, one of the analysts was an Indigenous man and the second was an Indigenous woman. Qualitative analysis incorporated the Atlas.ti Software for data management as well as Microsoft Word.

This large qualitative sample provided sufficient qualitative data to offer the analysis team a qualitative data saturation point. Grounded theory was primarily used to construct a model of categorical processes that explained the meanings Indigenous youth assigned to substance use, their experiences with substance use, and their main reasons for quitting. Specific qualitative analysis and process data were conducted by open coding each verbatim response several times to identify and label substantive codes that revealed participants' main reasons to quit.

Codes were then compared, and like codes were grouped into categories. Throughout the analysis, the properties and dimensions of categories were developed. Some categories were eventually included within other categories. "Memoing" was also an important element of this grounded theory analysis. Written memos were used to document thoughts and ideas about emerging categories and models. These memos formed the framework for explanations of our reasoning and left an audit trail that allowed the coders a means to follow how the data were analyzed and how theoretical models were developed (Strauss & Corbin, 1998).

Further, in light that two of the qualitative data analysts' contributions could generate tables, charts or graphs from computer programming, the analysts agreed that no one form of qualitative analysis would proceed over the other and that focus of this study was to center and highlight the responses of Indigenous youth. Therefore, tables, charts and graphs were limitedly created.

## **QUANTITATIVE METHODOLOGY**

Exploratory factor analysis is a collection of methods used to examine how underlying constructs influence the responses on a number of measured variables. Often, statistical methods are used to study the relationship between independent and dependent variables. Exploratory factor analysis is different; it is used to investigate the patterns of relationships among many dependent variables, with the general goal of discovering something about the nature of the independent variable that affect them. The constructs of the conducted exploratory factor analysis used was based on the fact that the nature of the construct(s) had not been theoretically defined.

As research suggests, ideally factor loadings should approach 1. However, empirical studies often consider loadings which exceed 0.4-0.5 to be sufficient for the manifest variables to be included in a factor. To obtain a more clear solution with no cross-loadings, the loadings less than 0.45 were excluded from the analysis. This is supported by Fabringar, Wegener, MacCallum, and Strahan (1999), who indicated that using more factors as opposed to fewer factors can be beneficial in this type of exploratory factor analysis approach. Although the factor analysis for the entire sample produced a 6-factor solution, the results should be interpreted

with caution because the scale employed in the assessment instrument was binomial. Though still acceptable, this scale may have resulted in biased estimation. Further, factors 4, 5, and 6 found during analysis of the entire sample contained two manifest variables each and although factors with two variables are still acceptable in empirical studies, the least number of variables within a factor is preferred to be at least three. Finally, several variables did not fall into any factor and were omitted from the analysis because of the low loadings.

## RESULTS

In a parallel fashion to exploratory factor analysis, which allows numerous inter-correlated variables to be condensed into few dimensions (factors), grounded theory (qualitative) was also utilized as part of a mixed methods approach to increase methodological compare and contrast results and process. Results of the quantitative analysis and the qualitative analysis were independently developed between the three analysts. This process was included to increase rigor of the analytic process through triangulation. Once the independent findings were completed, each team member then shared findings with the group. After constructive discussion, main process components were developed between all three analysts for the final outcome and recommendations.

One of the main results of the qualitative analysis was the importance of maintaining relationships, with an emphasis on family, as a driving factor in the quit process. Youth noted that maintaining a healthy lifestyle in both mind and body was a key factor as a reason to abstain. This qualitative finding was supported by the statistical findings which found that avoidance of health problems was a strong factor for the entire sample (Table 1). This overall finding of motivation to change behavior in order to alleviate anxieties associated with growing health concerns is similar to the results of previous studies with Indigenous peoples (Quintero, 2000).

In addition, youth said that having self-will and proving to others and themselves that they could quit were both part of their quit process, which ultimately would lead to a better chance for higher education and a good career. This qualitative finding was also supported by the statistical finding shown by the entire sample in the youths' effort to take back life control. These factors were also congruent with Quintero (2000) which found motivations and values associated with the desire for success were part of the quit process for Native peoples. Finally, Indigenous youth used their perceptions and experiences of the legal system and the potential or current legal ramifications of substance use as a means to quit. These too were evident in both exploratory factor analysis as well as the qualitative findings.

**TABLE 1: FACTOR ANALYSIS OUTCOME: SIX-FACTOR SOLUTION:  
ENTIRE SAMPLE OF INDIGENOUS YOUTH**

<b>Factor</b>	<b>Manifest Variables</b>	<b>Factor Loadings</b>
<b>1</b> Life Control	Think clear	.586
	Like self better if quit	.531
	Memory will improve	.689
	Get more things done	.768
	Have more energy	.770
	Life control	.557
	Save money	.471
<b>2</b> Avoidance of Health-Related Problems	Use will shorten life	.679
	Hurting life	.571
	Will have health problems	.752
	Others have health problems	.495
<b>3</b> Search for Social Acceptance	Will have praise if quit	.475
	People upset if don't quit	.797
	Embarrasses family	.582
	To stop the nagging	.540
<b>4</b> Avoidance of Social Inconveniences	Use is not cool	.705
	Not leaving social situations	.566
<b>5</b> Self-Esteem	Proving to self	.544
	Proving to self not addict	.896
<b>6</b> Avoidance of Legal Issues	Testing policies in legal system	.720
	Legal problems related to use	.581

A separate exploratory factor analysis was performed to compare potential gender differences and to explore whether differences in factor structure existed between Indigenous boys and girls. The results for girls demonstrate that a five-factor solution fitted the data best (Table 2). The avoidance of social inconveniences factor did not emerge for girls. The composition of factors also changed. For example, the life control factor in the female sub-sample contained five variables instead of the seven in the factor analysis for the entire sample. The loadings for the search for social acceptance factor were slightly higher for girls than for the entire sample. A similar factor analysis was conducted for the boys in the sample. The results demonstrated that a six-factor solution fitted the data best. The factors for boys are found in Table 3.

**TABLE 2: FACTOR ANALYSIS OUTCOME: SIX-FACTOR SOLUTION FOR INDIGENOUS GIRLS**

<b>Factor</b>	<b>Manifest Variables</b>	<b>Factor Loadings</b>
<b>1</b> Life Control	Get more things done in a day	.740
	Have more energy	.855
	Hair and clothes don't smell	.540
	Control of life	.550
	Save money	.584
<b>2</b> Avoidance of Health-Related Problems	Think clear	.832
	Like self better	.498
	Improved memory	.615
	Shortens life	.530
	Hurting health	.540
	Future health problems	.544
<b>3</b> Search for Social Acceptance	Close people will be upset	.721
	Don't want to embarrass family	.688
	People stop nagging	.572
<b>4</b> Self-Esteem	Prove to self not addicted	.567
	Show self they can quit	.760
<b>5</b> Avoidance of Legal Issues	Drug test policies	.885
	Legal problems	.496

A summary of the gender analysis revealed that in most cases the variables were allocated into similar factors for both boys and girls. The exception was avoidance of social inconveniences, which did not emerge as a distinctive factor for girls. Accordingly, social avoidance issues may be less important for girls than for boys. Secondly, the health-related problems factor contained more manifest variables in the female subgroup, which indicates that girls' perceptions of health-related issues may include a broader range of components. Lastly, the life control factor's composition was different for boys and girls. For example, girls' perceptions of life control did not include questions related to memory and clear thinking. This may be an indicator of differences in perceptions between boys and girls. The overall differences between Indigenous boys and girls suggest that boys perceived reasons for quitting differently than girls.

**TABLE 3: FACTOR ANALYSIS OUTCOME: SIX-FACTOR SOLUTION FOR INDIGENOUS BOYS**

Factor	Manifest Variables	Factor Loadings
1 Life Control	Think clear	.586
	Like self better	.531
	Improved memory	.689
	Get more things done	.768
	More energy	.770
	Control of life	.557
2 Avoidance of Health-Related Problems	Will shorten life	.679
	Hurts health	.571
	Future health problems	.752
	See others with health problems	.495
3 Search for Social Acceptance	People upset if didn't quit	.797
	Embarrass family	.582
	People stop nagging	.540
4 Avoidance of Social Inconveniences	Becoming less cool	.705
	Won't have to leave social functions	.566
5 Self-Esteem	Prove to self not addicted	.544
	Show self they can quit	.896
6 Avoidance of Legal Issues	Drug test policy	.720
	Legal problems	.581

To summarize the findings, a developing theory grounded in the perceptions and experiences of the Indigenous youth can be given the name *relationship building for a healthy future and better life control* (Figure 1.) and is described as follows: The reasons for abstinence for Indigenous youth across the country were based on family relationship building and the youths' need to prove to their family (nuclear and extended), as well as themselves, that they could and would quit. In particular, the respondents were aware that quitting would improve their mental and physical well-being. They also knew that through their self-will and determination, they would quit (or had already quit) negative health behaviors. They also realized that continued substance use would have legal ramifications that would hinder their future success in life, including schooling and a career.

**FIGURE 1: THEORY: RELATIONSHIP BUILDING FOR A HEALTHY FUTURE AND BETTER LIFE CONTROL**



Ultimately, the qualitative and quantitative results suggested a number of factors and dimensions. Future social work intervention considerations and research should focus on life control measures, substance-using youths' desire to build relationships with their family, health-related issues, and the effect of legal consequences on youths' school and career goals.

## DISCUSSION

The theory of relationship building for a healthy future and better life control is closely related to the disciplinary perspectives in social work in numerous ways. In fact, health-based components have been described and incorporated in previous

addiction literature related to youth social work intervention programming within the Native American landscape (Schinke, Moncher, & Singer, 1994; Schinke, Singer, Cole, & Contento, 1996). However, these components were not the crux of practice or theory. Rather, they served as gears within non-health based grand theories in which health was intertwined. Hence, a new theory developed for social work practice using the notion of relationship building for a healthy future and previous theory structuring based in healthy mind-setting (Haring, 2007) has had limited use in guiding social work practice with Native youth.

Theory helps us to recognize relationships that assist in bringing order to complexities of contemporary practice and concerns. Further, theory brings order to practice by helping put into perspective facts, impressions, and experience grounded in the individual, family, group, or community (Turner, 1996). Turner (1996, p.4) also stated that new theory in social work is developed when certain criterion are met including when ideas are new and are generated by a thought system that gives new insights into a significant aspect of the human condition or into a significant group or society. New social work theory should also be useful by a significant component of the profession and a beginning body of empirically tested knowledge supports the new ideas emerging. Further, the intervention emerging from the theory is ethical and the intervention can be learned, understood, and useful in a broad spectrum of practice.

Both developing theories, relationship building for a healthy future and better life control and healthy mind-setting (Haring, 2007) meet some but not all of these components. Both theories are new terminology grounded in the experiences of the Indigenous peoples involved. Both theories also shed new insights into the nature of addictive behaviors, quit factors, and resiliency patterns. Further, they provide a look into individual and family systems and examined how they have been part of the resiliency process.

On the opposite side of the spectrum, complete interventions emerging from these developing theories are yet to be used. This growing base of knowledge stands as a theory in the infant stage of development. The theories also lack usage data that indicate how the theory, empirically and in a performance sense, addresses a broad spectrum of practice and methodologies.

In summary, meeting slightly over half of the criteria suggested by Turner (1996), the combination of these two theories seem to lie just over the middle. Thus, the combined theories may fall closer to the description of middle range theory cited in the nursing literature. These parameters include being testable and intermediate in scope, having adequate empirical foundations, being neither too broad nor too narrow, and being substantively specific (Liehr & Smith, 1999). The joining of these two theories

may fit well within this description. They have the ability to be tested in the practice setting. It has been produced with growing adequacy of empirical foundations through culturally relevant and sensitive grounded theory research methodologies. Lastly, it is not overstretching in use, nor is it so narrow that it could not be used.

## RECOMMENDATIONS

The recommendation section serves as a means to filter results into Indigenous communities and should not be seen as an extension of the results. Rather, it takes the research findings and passes them into the hands of tribal workforces, Indigenous human service centers, and social work practitioners working in the Indigenous landscape. Through these findings and recommendations, the project has the ability to set pace for future generations.

Recommendation 1: Future social work intervention development may focus on the importance of building or maintaining familial relationships. Relationships of importance include both nuclear and extended familial bonds. Social work intervention development should consider incorporating family as an integral part of the treatment process. Interventions should also try to determine which family members have strong influences on the youth, including extended family such as cousins, aunts, grandparents, or second cousins.

Recommendation 2: Social work interventions should teach positive role-modeling skills to family (both nuclear and extended). Quite possibly, interventions should be not so much youth focused as family focused. Interventions may include in-depth role-model education training for family members who have the most influence over youths in family environments or community contexts.

Recommendation 3: Image was one of the reasons for behavior change given by the youths in this study. Accordingly, social work interventions should incorporate mechanisms to improve youths' image, understand image as it relates to social imaging and perception, and develop mechanisms for Indigenous youth to affect how they are perceived in their chosen environment.

Recommendation 4: An early foundation of prevention seems well warranted to enhance or contribute to quit processes for Indigenous youths. According to the results of this project, both mental health and physical health should be incorporated in such efforts. Mental health intervention techniques should focus on improved memory and focus (especially for boys), whereas physical health interventions should certainly include education about how substance use patterns interfere with athletic abilities and general overall health. Promotion of life control, or taking back one's life, should also be incorporated.

Recommendation 5: Incorporating self-will strategies into social work intervention development is important. In the present study, highlighting the attributes of self-will seemed a successful means to help Indigenous youth quit. Of particular note for intervention development is the art of proving oneself. Intervention programs should be tailored to help Indigenous youth prove to themselves and to their parents, other relations, and their community that they have the ability to quit.

Recommendation 6: Social work interventions should also focus on the blanket of legal ramifications of continued substance use. Legal teams (lawyers, judges, probation officers, etc.) should be brought in to discuss how the continued use of substances will block future success. This is an important education piece for Indigenous youth, yet such discussion should be held in an open forum for Indigenous youth to voice their concerns and inquiries. Family should also be part of this group to reinforce relationship building.

Recommendation 7: Finally, social work intervention building should always look ahead. Future planning should be incorporated into the reasons-for-quitting process. That is, the intervention should include discussion of the importance of continuing education and what that means for a successful career. Family members (nuclear and extended) should also be part of this phase.

Recommendation 8: A focus on gender should also be included in the social work intervention. According to the results of this project, the influence of women in youths' life seemed to be a driving factor in the quit process. Interventions should consider including positive Indigenous female groups or elders in the programming efforts.

## **CONCLUSION: CONTRIBUTIONS TO THE FIELD OF SOCIAL WORK**

This project presents findings that focus on the stories of wisdom and guidance told by Indigenous youth. These narratives and responses ultimately provide an emerging theoretical model of how Indigenous youths successfully experienced pathways to recovery. The final product of these stories and responses is an emerging theory titled *relationship building for a healthy future and better life control*. The study was approved by all tribal entities, Native centers, and Indigenous communities involved. A culturally aware institutional review board provided review and approval. Finally, an elder Indigenous advisory group, the Grandparents Club, served as expert reviewers and honored the project with respectful guidance and mentorship.

Epidemiological data indicated the level of substance use problems experienced by Indigenous peoples is endemic. Large numbers of Indigenous youth are using alcohol and drugs, an area at great risk for negative consequences. The need for effective prevention and treatment services is paramount (Hawkins, Cummins, &

Marlatt, 2004). However, positive messages resound from the growing abstinence-based cultural literature. These findings inform that Indigenous peoples have higher abstinence rates than the U.S. population in general and with increased education and stable employment, many Indigenous peoples go from a pattern of problematic substance use behaviors towards a controlled pattern of use and eventually achieve long-term sobriety (Lemert, 1982; Whitacker, 1982; Moss, et al., as cited in Coyhis & White, 2006). This project is significant because it offers the field of social work and Indigenous communities a current theoretical model of youths' reasons for quitting substance use behaviors. This model was based on the techniques and strategies used by Indigenous youths, who provided a pathway of how they experienced or perceived the road to recovery and showcased resiliency factors.

Future social work investigation and development may include exploration of Indigenous populations' reasons for quitting various addictive behaviors (e.g., unhealthy eating patterns). Future research projects may also look at how media influences Indigenous youth recovery behaviors as well as why culture does not play a role in the youths' reasons for quitting in the present study. Finally, a crucial step is the development (or incorporation) of Indigenous-specific, social work orientated, intervention models for use with Indigenous youths and adolescents.

## References

- American Indian Law Center. (1999). *Model tribal research code*. Retrieved from [www.ihs.gov/MedicalPrograms/Research/pdf\\_files/mdl-code.pdf](http://www.ihs.gov/MedicalPrograms/Research/pdf_files/mdl-code.pdf)
- Assembly of First Nations (2006). Royal Commission on Aboriginal people at 10 years: A report card. Ottawa: Assembly of First Nations.
- Coyhis, D. L., & White, W. L. (2006). *Alcohol problems in Native America. The untold story of resistance and recovery—"The truth about the lie"*. Colorado Springs, CO: White Bison, Inc.
- Chandler, M. J., & Lalonde, C. (1998). Cultural continuity as a hedge against suicide in Canada's First Nations. *Transcultural Psychiatry*, 35(2), 191-219. Retrieved from <http://web.uvic.ca/~lalonde/manuscripts/1998TransCultural.pdf>
- Dennis, M. L. (1998). *Global Appraisal of Individual Needs (GAIN)*. Bloomington, IL: Chestnut Health Systems.
- Dennis, M. L., Scott, C. K., Godley, M. D., & Funk, R. R. (1999). *Comparisons of adolescents and adults by ASAM profile using GAIN data from the Drug Outcome Monitoring Study (DOMS): Preliminary data tables*. Bloomington, IL: Chestnut Health Systems. Retrieved from <http://www.chestnut.org/li/posters/asamprof.pdf>

- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory analysis in psychological research. *Psychological Methods, 4*, 272-299.
- Freeman, B. (2004). *Resiliency of a people: A Haudenosaunee concept of helping*. (Unpublished master's thesis). McMaster University, Hamilton, Ontario.
- Glaser, B. G. (1978). *Theoretical sensitivity*. Mill Valley, CA: Sociology Press.
- Government of Canada. (1996). Report of the Royal Commission on Aboriginal People (RCAP). Ottawa: Government of Canada.
- Griffin, J. A., Gilland, S. S., Perez, G., Helitzer, D., & Carter, J. S. (1999). Participant satisfaction with a culturally appropriate diabetes education program: The Native American Diabetes Project. *Diabetes Educator, 3*, 351-363.
- Haring, R. C. (2010). Bridging research to practice: Native American stories of becoming smoke-free. *Journal of Indigenous Voices in Social Work, 1*(1).
- Haring, R. C. (2007). *Describing the process of meaningful change: Seneca stories of becoming smoke free*. Retrieved from <http://gradworks.umi.com/32/61/3261960.html>
- Hawkins, H. H., Cummins, L. H., & Marlatt, G. A. (2004). Preventing substance abuse in American Indian and Alaska Native youth: Promising strategies for healthy communities. *Psychological Bulletin, 130*(2), 304-323.
- Health Canada. (2003). *Statistical profile on the health of First Nations in Canada in year 2000*. Ottawa: Government of Canada.
- Klecan, D. A. (n.d.) *Tobacco cessation project for Native American youth*. [Abstract]. Retrieved from <http://cancercontrol.cancer.gov/grants/abstract.asp?ApplID=6175239>
- Kohler, C. L., Fish, L., & Davies, S. L. (2004). Transtheoretical model of change among hospitalized African American smokers. *American Journal of Behavior, 28*, 145-150.
- Liehr, P., & Smith, M. J. (1999). Middle range theory: Spinning research and practice to create knowledge for the new millennium. *Advances in Nursing Science, 21*(4), 81-91.
- MacMillan, H. L., MacMillan, A. B., Offord, D. R., & Dingle, J. L. (1996). Aboriginal Health. *Canadian Medical Association Journal, 155*(11), 1569-1578.
- National Congress of American Indians. (2006). *Methamphetamines in Indian country: An American problem uniquely affecting Indian country*. Retrieved from [http://www.ncai.org/ncai/Meth/Meth\\_in\\_Indian\\_Country\\_Fact\\_Sheet.pdf](http://www.ncai.org/ncai/Meth/Meth_in_Indian_Country_Fact_Sheet.pdf)
- Office of Applied Studies, Substance Abuse and Mental Health Services Administration. (2005). *Methamphetamine use, abuse, and dependence: 2002, 2003, and 2004*. The National Survey on Drug Use and Health Report (NSDUH).

- Olson, L. M., & Wahab, S. (2006). American Indians and suicide: A neglected area of research. *Trauma, Violence & Abuse, 7*(1), 19-33.
- Petratis, H., Flay, B. R., & Miller, T. Q. (1995). Reviewing theories of adolescent substance use: Organizing pieces in the puzzle. *Psychological Bulletin, 117*, 67-86.
- Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. *American Psychologist, 47*, 1102-1114.
- Quintero, G. (2000). "The lizard in the green bottle": "Aging out" of problem drinking among Navajo men. *Social Science & Medicine, 51*, 1031-1045.
- SAMHSA. (2007). *Substance Use among American Indian or Alaska Natives*. The National Survey on Drug Use and Health Report. Retrieved from <http://www.drugabusestatistics.samhsa.gov/2k3/AmIndians/AmIndians.pdf>
- Schinke, S. P., Moncher, M. S., & Singer, B. R. (1994). Native American youth and cancer risk reduction: Effects of software intervention. *Journal of Adolescent Health, 15*, 105-110.
- Schinke, S. P., Singer, B., Cole, K., & Contento, I. R. (1996). Reducing cancer risk among Native American adolescents. *Preventive Medicine, 25*, 146-155.
- Shewell, H. (2004). *'Enough to keep them alive' Indian welfare in Canada, 1873-1965*. Toronto, Canada: University of Toronto Press.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.
- Strickland, C. J., Walsh, E., & Cooper, M. (2006). Healing fractured families: Parents' and elders' perspectives on the impact of colonization and youth suicide prevention in a Pacific Northwest American Indian tribe. *Journal of Transcultural Nursing, 17*(1), 5-12.
- Turner, F. J. (1996). *Social work treatment*. New York, NY: The Free Press.
- White Bear, J. (2003). *National Aboriginal youth participation and evaluation report*. Ottawa, Canada: National Aboriginal Health Organization.

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