CULTURALLY COMPETENT RESEARCH WITH AMERICAN INDIANS AND ALASKA NATIVES: FINDINGS AND RECOMMENDATIONS OF THE FIRST SYMPOSIUM OF THE WORK GROUP ON AMERICAN INDIAN RESEARCH AND PROGRAM EVALUATION METHODOLOGY[1]

Joyce Y. Caldwell, B.S., Jamie D. Davis, Ph.D., Barbara Du Bois, Ph.D., Holly Echo-Hawk, M.S., Jill Shepard Erickson, M.S.W., A.C.S.W., R. Turner Goins, Ph.D., Calvin Hill, B.S., Walter Hillabrant, Ph.D., Sharon R. Johnson, M.A., Elizabeth Kendall, Ph.D., Kelly Keemer, B.S., Spero M. Manson, Ph.D., Catherine A. Marshall, Ph.D., Paulette Running Wolf, Ph.D., Rolando L. Santiago, Ph.D., Robert Schacht, Ph.D., and Joseph B. Stone, Ph.D.[2]

This article describes the collective experience of a multidisciplinary network of researchers, practitioners, and program evaluators who support appropriate research and evaluation methods in working with Native peoples. Our experience underlines the critical importance of culture in understanding and conducting research with the diverse populations of American Indians and Alaska Natives, and documents the need for community-based, collaborative, participatory action research. We discuss the major findings of the first American Indian Research and Program Evaluation Methodology national symposium, and articulate a set of 20 guiding principles for conducting research and program evaluation.

Keywords: American Indians and Alaska Natives, Community-based Participatory Research, Participatory Action Research, Culture

This article presents a call for systematic change in how research and program evaluation are conducted in Indian Country.[3] The authors do not intend to offer innovative research and evaluation methods; rather, we draw upon our collective experience, much of it based on working with individuals who have chronic illnesses and disabilities, to offer consolidated documentation for requiring that research and program evaluation in Indian Country be participatory. Further, we offer 20 guiding

principles, derived through the First Symposium of the Work Group on American Indian Research and Program Evaluation Methodology (AIRPEM), that we believe are basic to culturally respectful research and program evaluation. While the purposes of research and program evaluation activities often differ, the methods employed may be quite similar; for this reason, reference to research throughout this article can generally be assumed to apply to program evaluation as well.

The special circumstances of American Indians and Alaska Natives (AI/ANs) affect research, program evaluation, and service delivery in Indian Country. In this regard, two fundamental considerations merit particular mention: tribal sovereignty and diversity. Tribal sovereignty means that AI/AN communities are sovereign political entities, each with its own form of governance, culture, and history. Second, AI/ANs are often mistakenly viewed as a single ethnic minority population (also referred to as the homogeneity assumption). In fact, over 560 Native nations and tribal entities exist in this country, constituting distinct cultural as well as political groups. In Alaska, for instance, there are at least four different cultural groups often referred to as Alaska Natives: Eskimos, Aleuts and Alutiiq, Athabascan Indians, and Northwest Coastal Indians.[4]

Members of Native communities and research ethics require that research and program evaluation in Native communities benefit those communities and that research be carried out (from inception to conclusion) in collaboration with participating communities, and that the research be conducted in culturally competent ways. The authors affirm the critical importance of culture for policy, planning, funding, and service delivery as well as for research and program evaluation. Research that focuses on AI/ANs should be conducted in a culturally competent manner, and programs serving these populations should be designed to meet their needs in culturally appropriate ways.

The AIRPEM symposium discussions of research, evaluation, and service delivery recognized that human beings are all, to varying degrees, culture bound. People view the world through the lens of their own culture; for researchers, this reality affects our science (Du Bois, 1983; Gergen, Gulerce, Lock, & Misra, 1996; Hughes, Seidman, & Williams, 1993). Our cultural lens operates as both window and blinders, giving us different perspectives, while simultaneously obscuring our ability to perceive in terms other than our own. In a pluralistic society, members of the dominant group may be particularly limited in their understanding of other groups. Political, economic, and other pressures may force members of minority cultures to learn about the dominant culture. Conversely, members of the majority group tend to be free from pressures to understand minority cultures. Consequently, relatively few have in-depth understanding of and experience with Native communities and their cultures. This paper was written to address problems associated with

research conducted in Indian Country by investigators who lack understanding of the history, cultures, needs, and circumstances of AI/AN communities and their residents.

Culture as Essential Context in Research and Service Provision

Psychologists Segall, Lonner, and Berry (1998) asked, "Can it still be necessary, as we approach the millennium, to advocate that all social scientists...take culture seriously into account when attempting to understand human behavior?" (p. 1101). Discussions at the AIRPEM symposium underlined the importance of recognizing that culture informs the design and process of research, instrumentation, interpretation of results, and dissemination. Failure to understand the cultural context can result in misunderstanding the causes and consequences of human behavior. Critical to understanding, and thus to valid results and information, is appreciation of the inter- and intra-tribal diversity among AI/ANs—diversity that affects research design and service delivery in Indian Country.

In order for researchers and program evaluators in Native communities to be effective, they must be culturally competent and sensitive to traditional values, taking into account definitions and expectations of behavior within the community and myriad factors that affect the research. For example, AI/AN families and families in the Euro-American culture may differ in many ways, such as in the definition and meaning of extended family and in child rearing practices (Cummings, Ireland, Resnick, & Blum, 1999). The dominant culture defines the extended family as three generations living in the same household, while in some AI/AN communities, extended family is defined as a network of relations, distinct from one's clan or tribe. For members of such cultures, extended family affects one's identity and role in the community, transmits culture, and conserves family patterns (Red Horse, Lewis, Feit, & Decker, 1978). The definition of self as a member of the extended family in such Native cultures affects key variables such as family values, independence, individual responsibility, and child rearing practices. Different interpretations of extended family can influence issues like child custody and living arrangements in Indian Country, where high rates of morbidity and mortality may result in the death or loss of a custodial parent or guardian. Growing up in several different extended family households may be considered a strength. From the dominant culture perspective, changing households might be seen as a sign of instability and as injurious to the child. In a Native community, growing up in the homes of different extended family members might be viewed as a sign of positive social relations for the child and an opportunity to develop in multiple supportive environments.

Attention to cultural factors is required for ethical research and for effective service provision in Indian Country. It is important to consider the potentially negative impacts of the research process on indigenous communities as well as the expected benefits of research (Tapp, Kelman, Triandis, Wrightsman, & Coelho, 1974). Lang (1998) noted the problem of "proselytizing western-based individualism" in service delivery. Unless they are working in partnership with the communities being studied, researchers can be certain that their own cultural expectations, values, and biases influence the framing of their research questions, choice of methods, interpretation of data, conclusions, and recommendations (Segall et al., 1998). This culture-centric error tends to occur regardless of the quantitative or qualitative nature of the research.

The Historical Context

Understanding and appreciating the circumstances of contemporary AI/AN communities requires some knowledge of their history since first contact with Europeans—a history of invasion; violent dispossession of property, homeland, culture, language, and religion; and attempts at genocide through the use of biological agents (Stone, 2002). The first reservation, established in Connecticut in 1638, officially signaled the beginning of the relocation efforts that would tear at the fabric of all American Indian communities (Equity Center Infoline, 1999). A second phase of extensive relocation and forced removals followed during the early- to mid-1800s with the result that some Native communities and entire tribes were destroyed. The next phase, beginning in the late 1870s, was characterized by federally mandated assimilation through compulsory boarding schools for Native youth. Many reservations saw children forcibly removed from their homes and sent to these schools. By the early 1900s, such schools were located in over 15 states and territories (The Brown Quarterly, 2001; Equity Center Infoline, 1999). Forced assimilation was destructive to Native individuals and communities. The pernicious effects of the federal Indian boarding school era reverberate in Indian communities today, influencing community, health, family and other relationships, and politics. At boarding schools, children were punished for speaking their language, practicing their religion, or engaging in traditional activities and ceremonies. Many children were subjected to emotional, physical, or sexual abuse by school officials. Older children were taught to enforce the prohibitions on Native language and culture (Stone, 2002).

The Termination Act of 1954, a U.S. government experiment from 1953-1962, attempted to manage the "Indian problem" by declaring that specific reservations and tribes were null and void, no longer recognized by the federal government (American Indian Lawyer Training Program, 1988). Research has found that following termination, the test scores of tribal members revealed a rate of posttraumatic stress disorder 10 times

greater than that of the U.S. population at large (Ball, 1998). Thus, the post-colonial history of Indian Country reveals a legacy of trauma and grief that continues to influence AI/AN communities across and within generations, immersing tribal families in a crucible of stress. Post-colonial trauma is associated with a high level of posttraumatic stress among Native individuals, families, and communities, with secondary consequences similar to those exhibited by Jewish Holocaust and Khmer Rouge survivors (Last & Klein, 1984; Nadler, Kav-Venaki, & Gleitman, 1985; Rowland-Klein & Dunlop, 1998; Sack, Clarke, & Seeley, 1995; Yehuda et al., 1998). High rates of psychiatric disorders, substance abuse, and social problems, including violence, also have been observed in Native communities (Ball, 1998; Beals et al., 2002; Gagne, 1998; Weaver & Yellow Horse Brave Heart, 1999). The effects of prolonged and complex trauma on psychological functioning (Herman, 1992), similar to those seen in long-term sexual abuse survivors and combat veterans, are critical to understanding the symptoms and issues faced by AI/AN individuals and communities (Ford, 1999; Ford & Kidd, 1998; Zlotnick, Zakriski, Shea, & Costello, 1996).

Implications for Research

These historical events and their painful and oppressive dynamics continue to affect Native people and their communities. Critical issues facing the current generation of AI/ANs include poverty; substance abuse; psychiatric disorders; culturally, economically, and politically oppressive political and racial systems and agendas; culturally inappropriate child protection efforts and treatment methods; and the cumulative effects of several generations of post-colonial stress. On the other hand, many American Indian tribes and Alaska Native communities have survived, are growing, and are working to achieve their goals and aspirations. The AIRPEM Symposium discussions emphasized that researchers be aware of the resilience AI/AN communities have demonstrated across generations—strength for physical survival, for community resurgence, and for spiritual integrity (McCubbin, Thompson, Thompson, & Fromer, 1998).

Historical views (including ignorance of history) and societal norms influence ways researchers interact with people and their communities. A parallel relationship exists between the historical treatment of AI/ANs and the research methods used to study them. Formal research has been conducted on AI/ANs since the early 19th century. Research reported during the period of early contact reflects Eurocentric beliefs about AI/ANs, referring to them as savages to be conquered and socialized (e.g., Dowler, 1857). This paternalistic approach continues to exist in some research. Although all American Indians were granted U.S. citizenship in 1924, AI/ANs continued to be exploited by researchers (American Indian

Lawyer Training Program, 1988). Many researchers in Indian Country have collected and/or disseminated data without the full knowledge and consent of participants and without respect for local culture and tradition (Hodge, Weinmann, & Roubideaux, 2000; Macaulay, 1994; Shafer, 2004).

Although the paternalistic approach has continued in some research, significant improvement has occurred. The Indian Self-Determination and Education Assistance Act of 1975 [Public Law 93-638] supported the autonomy of AI/AN communities (Kunitz, 1996) and, since the early 1960s, the Indian Health Service has set forth guidelines and oversight for research (Indian Health Manual, 2001). During this period, increased numbers of AI/ANs were obtaining advanced degrees and beginning to influence the research process (Medicine, 2001; Trimble, 1977). Carolyn Attneave, a Delaware and Cherokee psychologist, is one such example. Her work on the importance of culture for families and communities helped change the way research is thought about and conducted in Indian Country (Attneave, 1982). Since the 1970s, researchers have increasingly involved community members in planning and conducting research (Brelsford, 1977; Patrick & Tyroler, 1972; Taylor, 1975).

Nevertheless, the history of maltreatment and exploitation is reflected today by mistrust and suspicion of research. Actual violations of trust by researchers in AI/AN communities, such as the Barrow alcohol studies (Foulks, 1989; Norton & Manson, 1996) and the Havasupi medical genetics case (Shafer, 2004), have compounded these attitudes, negatively affecting willingness to participate in the research process. While strides have been made in involving AI/ANs as *partners* in the study of physical, emotional, social, educational, and environmental problems (Manson, Garroutte, Goins, & Nez Henderson, 2004), researchers and others working in Indian Country must simultaneously ensure *both* that their work does no harm to Native communities *and* that it builds upon the strengths of these communities.

Increasing Tribal Control of Research

During the last 10-15 years, tribes, Native villages, and consortia have taken an increasingly active role in challenging as well as generating research, program evaluation, and service delivery. These entities are seeking opportunities to influence research agendas and funding priorities. At a minimum, tribes are exercising power to reject unwanted research on their lands and with their people. These trends reflect increasing tribal autonomy in education, health care services, employment, training, welfare, and other programs formerly operated by federal and state agencies. The emergence of requirements of research by institutional review boards (IRBs) has also facilitated the influence of tribes on research conducted in their communities. Federal sponsors of research have begun

to consult with tribes and tribal organizations (e.g., National Indian Health Board, National Congress of American Indians, National Indian Education Association) regarding research agendas in Indian Country. Congress and federal agencies are soliciting input from tribes and tribal organizations with respect to research goals and budgets. Some tribes have constituted their own IRBs to review all research that involves tribal members as research subjects.

Some cultural factors affecting perceptions of and participation in research may seem obvious, such as the need to present information in a participant's primary language, but others are more subtle, such as norms about the expression of disagreement or conflict, interaction among related individuals, and models of health and disease. In addition, service delivery and research in Indian Country have been based on Western theory, which may markedly differ from tribal value structures and worldviews. Tribal sovereignty, data ownership, cultural barriers, and appropriate methods and dissemination (Ericksen, 1996; Manson, 1997; Mihesuah, 1993; Stubben, 2001; Trimble, 1977) continue to challenge service delivery, research, and evaluation efforts.

Conducting research in Indian Country presents even the most seasoned and careful researcher with numerous methodological issues. Two of the most salient issues represent complex and interwoven challenges: appropriate understanding and acknowledgement of post-colonial stress in tribal communities, and the use of collaborative, participatory research models and methods in a culturally competent manner (Brydon-Miller, 1997; Duran & Duran, 1995; Locust, 1995; Lewis, Duran, & Woodis, 1999; Marshall, Johnson, Martin, Saravanabhavan, & Bradford, 1992; Park, 1999; Walters & Simoni, 1999; Weissberg & Greenberg, 1998; Yellow Horse Brave Heart, 1998).

Culturally Competent Research

Despite the problems of the past, AI/AN communities often recognize the need for research and evaluation in multiple arenas. Research that primarily considers the interests of the community, rather than larger society and academia, can bring significant benefits to the community. Community-based, collaborative, and participatory research makes tribal people full partners, benefits the communities studied, and empowers people to define and address the issues that affect their lives; in this process, community members set the agenda of research that affects them. Scientists and community members must share equally in the research planning, implementation, evaluation, and results dissemination phases, as well as in any resulting benefits (Davis & Reid, 1999). Such a process would also lead to what has been termed culturally anchored methodology (Hughes et al., 1993). The ultimate goal of

participatory research is to empower communities to assume ownership of the research process and to utilize the results to improve their quality of life (Macaulay et al., 1998).

Participatory action research is an ongoing process of interaction between the researcher and research participants that allows the examination of Native strengths and emphasizes the use of Native knowledge to address issues (Fisher & Ball, 2002a; 2002b). Participatory research and program evaluation processes provide opportunities for AI/AN communities to incorporate "re-traditionalization" into methods. The concept of wraparound services (e.g., interagency services addressing emotional, physical, mental, and spiritual needs of the child and family), introduced into the clinical literature in the mid 1980s (Stroul & Friedman, 1986), is not a new concept in Indian Country (Kendziora, Bruns, Osher, Pacchiano, & Mejia, 2001). Cross and colleagues identified a number of re-traditionalization themes inherent in the structures of five out of eight tribal Comprehensive Community Mental Health for Children and their Families programs (Cross, Earle, Echo-Hawk Solie, & Manness, 2000). Themes included the use of extended family, traditional teachings, culturally specific approaches, and cultural restoration (mentors, crafts, language). In addition, these programs incorporated methods that promote healing of Indian identity and self-efficacy; build community connections, culture, group, clan, and extended family; and are based on spiritual beliefs and support systems. Additionally, methods were identified that incorporated elders or intergenerational approaches; individual and family skill building for living in two cultures; traditional helping values; and conventional and cultural methods to recognize and treat historic cultural, intergenerational, and personal trauma.

The systems of care in some of these communities were grounded within programs offered by their respective tribal, social, and health programs and sponsored by their tribal governments. Of great interest is the development and validation of culturally appropriate assessment instruments that could be used to document the effectiveness of traditional healing methods. For instance, a Navajo tribal grant community's service delivery structure is based on "K'é," which means to have respect for all things and maintain balance by acknowledging clan and kinship (Cross et al., 2000). Accordingly, tribal staff developed a behavioral management specialist position designed to use culturally relevant approaches to counseling, and coordinating traditional treatments as appropriate. In the Passamaquoddy tribal community, younger children, families, and the community itself are provided with service opportunities to reintegrate Passamaquoddy culture into their lives. This method works to reestablish tribal values and traditions, ultimately assuring the continued survival of tribal culture.

It has taken decades for the scientific community to recognize that Native communities can identify their needs, determine courses of

action, and achieve the goals they have set for themselves. These few examples illustrate how tribal communities are creatively using contemporary research, evaluation, and service structures to address simultaneously their pressing needs and their inherent strengths. Participatory and collaborative research balances the needs and wants of the community with those of the researchers. Without this balance, trust may be broken, and significant problems may arise. Research is a give-and-take relationship and authentic partnership calls for both researchers and tribal communities to initiate and identify issues to be researched. Engaging in reciprocity allows community members and researchers to remain equal partners. If researchers make use of participants' ideas and time, they must give back by providing resources, skills, employment, and/or training (Davis & Reid, 1999). It is our hope that respectful, culturally competent and empowering research approaches will bring support from policy makers and funding sponsors to ensure that research, program evaluation, and service delivery in AI/AN communities meet the concerns and needs of those communities and build on their strengths, both manifest and subtle.

Practical Issues Associated with Increasing Participation in Research

Hiring tribal members to assist in research activities can have several benefits, such as increasing employment, contributing to the tribal economy, and promoting skill acquisition. Having tribal members participate on the research team has other benefits: The research team is less likely to exploit research participants, expose them to unnecessary risk, or demean them; and researchers are less likely to employ or express invalid stereotypes, or to express, explicitly or implicitly, prejudicial perceptions, opinions, or expectations about the tribe or Native village. Furthermore, enhanced communication and rapport between researchers and study participants may improve data quality.

On the other hand, employing tribal members on the study team may also be associated with a variety of costs. Hiring, training, and using tribal members on a research team can increase both the time required to complete the project and project costs. Using tribal members to collect data can also create special problems for study participant confidentiality. Study participants may conceal taboo or socially undesirable expectations, beliefs, or behaviors from other tribal members; paradoxically, such expectations, beliefs, or behaviors might be less concealed from outside investigators whom the research participants are unlikely to encounter in the future.

It is customary for researchers to describe the anticipated benefits, risks, and costs of the research when preparing grant proposals and in submissions to IRBs. Prior to tribal control of research, discussions of

anticipated research benefits in Indian Country tended to be abstract. Requiring researchers to explicitly outline concrete costs and benefits to the participating tribe(s) tends to clarify thinking and make assumptions and expectations explicit. In our experience, this process is beneficial to all parties involved.

Research in Indian Country, like research everywhere, is conducted within a social and political context. Perceptions of benefits and costs associated with a particular study may vary. For example, managers of tribal programs can perceive costs and benefits of a study differently than members of the tribal judiciary or legislature. Advocates for change and proponents of traditional values and approaches may have differing opinions. While involvement of tribal stakeholders with conflicting agendas or perspectives can improve study acceptance, such involvement can also mire the research in conflict, leading to disorganization or even project abandonment. Finally, depending on their interests, stakeholders may embrace or repudiate research findings.

Tribes often do not object to the identification of the tribe or communities in research reports. However, when research is conducted on sensitive topics, a tribe may insist that the research report not identify the tribe or communities participating in the research. Protecting the privacy of research participants and keeping their identity anonymous can pose a special challenge for small tribes and communities. As one example, if the program being evaluated is small, it can be almost impossible to maintain the anonymity of key informants.

In general, research in Indian Country may have neither more nor fewer ethical problems and dilemmas than research conducted elsewhere. Still, issues such as cultural competence, relatively high rates of poverty, illness, and prevalent rural infrastructure deficits can exacerbate ethical problems. Making judgments about ethics and values can be challenging to researchers because of potentially conflicting roles and circumstances. For instance, the sponsor of the research may have agendas, rules, and expectations that are different from or in conflict with those of the tribe(s) participating in the study. In such circumstances, it is prudent for the researcher to seek guidance from a project advisory committee, the research sponsor, and/or legal authorities without disclosing information that would violate the identity of the research participant(s) or violate the confidentiality of participant data.

Guiding Principles for Research

The AIRPEM symposium generated practice-based recommendations, presented here as 20 guiding principles of collaborative, participatory, and culturally competent research with AI/ANs. These principles build on valuable precursors (e.g., Fisher & Ball, 2002a; 2002b; Stubben, 2001), including Dr. Justin D. McDonald's "A Model for Conducting

Research with American Indian Participants" (2000). Not all of the following principles will be applicable to every situation, but together they constitute a basis for planning research and program evaluation with AI/ANs. It is important to note that there is no universal model of research. We do believe, however, that these principles are basic to culturally respectful and appropriate research activities.

1. Research with AI/ANs should be conceptualized, framed, carried out, and reported in accordance with the principles, methods, processes, and procedures of *community-based, collaborative and participatory research*, and should be *informed by understanding of the issues and dynamics of postcolonial trauma and stress* faced by individuals, families, and communities. This approach can help transform research from being a cause of trauma to being a source of healing.

2. Research with AI/AN communities must be *relational research;* research conducted in relationship and partnership with the communities. Recognizing the privilege of being in relationship with families and communities fosters the respect, open-mindedness, and humility that encourage both good relationship and good science.

3. Research projects should be *authentic partnerships*. Differences between researchers and tribes or communities should be understood as differences in responsibilities, not differences in status.

4. AI/AN *community partners should be involved in the oversight of research* from inception to completion of the project, including data interpretation and dissemination, authorizing publication, and ownership of data. Specific guidelines for balancing tribal or community oversight with researcher responsibility should be established collaboratively between community and researcher, and in line with IRB regulations; see also Principle #15.

5. Researchers should be informed and directed by existing *ethical guidelines and research codes of ethics*, specifically those developed by AI/AN communities.[5] In general, researcher obligations include continuous consultation and collaboration on all aspects of the research, involving the community through active participation rather than passive acceptance, transferring new skills to the community during the research process, and being available to help address any health or human services issues raised because of the research.

6. The factors of *tribal, cultural, and linguistic diversity* need to be taken into account in the development of research designs. Researchers are not expected to be experts on the cultural diversity among all AI/AN communities, but should understand the history, culture, and circumstances of the Native community or tribe with which they are going to partner in research.

7. Research design, instrumentation, data collection and interpretation, dissemination and other post-research activities should give prominent attention to the *strengths and cultural protective factors*

of Native communities rather than basing research agendas and designs primarily on deficit models.

8. Research should involve *culture-specific interventions and locally meaningful constructs*. In experimental research, consideration should be given to deriving experimental variables from tribal beliefs and values. This approach can facilitate bringing research and service delivery into the cultural rebuilding process known as re-traditionalization.

9. Researchers must explicitly identify *how the research findings will benefit the tribe* and its members. Requiring researchers to relate costs and benefits to the participating tribe or community tends to clarify thinking and make assumptions and expectations explicit—results often beneficial to the proposed research, the researcher, the participating tribe, and other stakeholders.

10. *Training and employment of tribal members* as research or evaluation project staff should be a priority; such employment might include local or on-site research coordinators and evaluation specialists. The potential implications for participant anonymity and confidentiality must be carefully addressed.

11. Researchers must *be concerned that the research protocol does not harm* the tribe, its members, and the environment. Any potential negative effects of participation must be made clear at the outset, and informed consent obtained from participants (or tribal authorities, when they claim this responsibility for tribal members). Preventing harmful effects includes the need to embed presentations of research findings in the historical and cultural context necessary for accurate interpretation.

12. Research participants must be *guaranteed confidentiality and anonymity*. These guarantees must be extended also to tribal communities and to tribes, when called for by community or tribal authorities. Tribal communities may not object to the identification of the tribe or of communities in research reports, but sometimes, especially when the research is on sensitive topics, a tribe may insist that a research report not identify the tribe or communities participating in the research.

13. *Tribal or community review of all research findings* is essential. This review must include the freedom to be critical and, if needed, to include dissenting opinions in any publication of research findings. Results should be presented in a form that is understandable and meaningful to the tribal council and community members as well as to service providers, academics, funding agencies, and policy makers and planners (Macaulay et al., 1998; Norton & Manson, 1996). Necessary language and conceptual translation should be provided, and direct, face-to-face communication of findings in the Native language should be made available.

14. Active *tribal or community involvement in data interpretation* is essential. It is important to note that many research and evaluation outcomes based on clinical, behavioral, and functional measures can be easily misconstrued or interpreted according to a Western theoretical

model. From a tribal community perspective, an entirely different, culturally grounded interpretation could be drawn based on knowledge of historical impacts as well as contemporary issues obvious only to community members.

15. *Community control of the data* throughout the research process can help ensure its appropriate uses (Macaulay et al., 1998) from the viewpoint of community or tribal representatives, who may wish to have the ultimate decision over how results are to be used, including whether to publish in scientific journals. However, sponsoring federal and state agencies may consider that they, too, have ownership of the data. This issue needs to be addressed explicitly at the outset and agreement reached before data collection begins.

16. Researchers need to work with Native communities and tribes to *define culturally appropriate standards for excellence* in research design, reporting, and methods of demonstrating research success. Funding agency criteria for research are not always appropriate to the needs, cultures, and capacities of tribes and other Native entities, due to sampling concerns, small and isolated communities, communications challenges, and so on.

17. *Capacity building* for research and program evaluation should be a part of every research project in Indian County. This guideline should include building capacity to meet both the currently prevailing evidence-based standards and for developing other kinds of methods and evidence more appropriate to the small samples and cultural contexts of indigenous populations.

18. Research scientists working in Indian Country may increasingly need to accept responsibility to support tribes and communities by *advocating for solutions* to problems identified in their studies. The role of scientist as advocate is not presently in the professional repertoire of most investigators; educators might consider addressing this need in graduate and professional curricula. Researchers may need to consider the policy implications of their work and be willing to communicate with policy makers of their research findings and recommendations.

19. *Linkages, networking, and multidisciplinary approach*: Creating and maintaining networks of communication and collaboration among professional disciplines and a diversity of agencies working in Indian Country is important, for exchange of knowledge and information and for joint activities to benefit Native communities. In particular, it is important to bring culturally sensitive research philosophy and practices into graduate and professional curricula. Within networks, each group and discipline needs to preserve its particular focus, in order to fulfill its mandate and to enrich the common effort.

20. *Research that focuses on individual tribes, Native villages, or communities* can be essential for local participation in research, for community relevance, and for community action planning. Individual

community focus allows researchers to avoid the problem of overgeneralization and the homogeneity assumption of results referred to earlier. Showing genuine concern as well as a willingness to learn and be a part of the community can foster both trust and efficacy.

Conclusion

The succinct historical and cultural perspective on research with AI/ANs presented here is based on the broad, multidisciplinary experience of researchers in the AIRPEM network. It underlines the critical importance of culture in understanding and conducting research with this diverse population, and strongly affirms the need for community-based, collaborative, participatory action research in Indian Country. This work rests on the foundation laid by previous scholars and practitioners (e.g., Deloria, 1995; Medicine, 1981; Pinto, 1973) whose work opened up for consideration the significant challenges and opportunities of research with indigenous communities. We recognize that at this time there are enough people in enough different disciplines—an emerging critical mass—to carry forward the development of positive models of community-based, participatory, culturally competent research that can bring genuine benefit to both indigenous communities and the broader society.

We hope that through appropriate and accurate needs assessments, substantive research, and program evaluations, AI/AN communities can see an increase in dollars for community development and problem-solving service delivery. We hope that the experience, findings, and recommendations of the AIRPEM network will be used by researchers, evaluators, and service providers. Specifically, we encourage incorporating these principles into university and graduate school training and curricula for research theory and practice. We ask for serious consideration of the principles by research sponsors in making their funding decisions, and hope they are of both educational and practical use to planners and policy makers at the federal, national, state, and tribal levels.

AIRPEM researchers and program evaluators are called to communicate and to act with conviction in disseminating our research. We affirm that our research processes must be and are influenced by the cultures of AI/ANs. We are certain that this awareness and the research it allows us to create in partnership with community members allow for the enhanced validity of our research. We trust that our research can thus demonstrate its value and usefulness to the people whom we aspire to serve as researchers and practitioners. Although the focus of this paper is the indigenous peoples of what is now the United States, the need to develop true collaborations with indigenous people has no boundaries. International collaborations that focus on research methods and indigenous issues, to include where these topics intersect with issues of chronic illness and disability, are needed; researchers in the United

States can learn from the experiences of the world's indigenous peoples and researchers in other countries as they work to define research practices that take culture as essential context in research.

Paulette Running Wolf, Ph.D.[6]
First Nations Behavioral Health Association
103 Four Winds Lane
P.O. Box 345
Babb, MT 59411
www.fnbha.org
E-mail: pauletterunningwolf@hotmail.com.

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Footnotes

[1] The first AIRPEM symposium, "Research and Evaluation Methodology: Lifespan Issues Related to American Indians/Alaska Natives with Disabilities," was held April 26-27, 2002, in Washington, DC. The symposium was administratively supported by the American Indian Rehabilitation Research and Training Center (AIRRTC), Institute for Human Development, Northern Arizona University. The Indian Health Service and the National Institute on Disability and Rehabilitation Research, through a supplemental grant to the AIRRTC, funded the symposium. Significant staff support was provided by the Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration. The resulting monograph, *Symposium on Research and Evaluation Methodology: Lifespan Issues Related to American Indians/Alaska Natives with Disabilities* (Davis et al., 2002), represents the current experience, thinking, and recommendations of this collegial effort and provided the substantive base for this article. The authors of the monograph included: Jamie D. Davis, Ph.D., and Kelly Keemer, "A Brief History of and Future Considerations for Research in American Indian and Alaska Native Communities"; Walter Hillabrant, Ph.D., "Research in Indian Country: Challenges and Changes"; Paulette Running Wolf, Ph.D., Robin Soler, Ph.D., Brigitte Manteuffel, Ph.D., Diane Sondheimer, Ph.D., Rolando L. Santiago, Ph.D., and Jill Shepard Erickson, M.S.W., A.C.S.W., "Cultural Competency Approaches to Evaluation in Tribal Communities"; Catherine A. Marshall, Ph.D., Sharon R. Johnson, M.A., CRC, Elizabeth Kendall, Ph.D., Howard Busby, Ph.D., Robert Schacht, Ph.D., and Calvin Hill, B.S., "Community-Based Research and American Indians with Disabilities: Learning Together Methods That Work"; and Jennifer Olson, Ph.D., Philip Olson, Ph.D., Teresa Pingayak, Katherine W. Sterling, M.A., and Lenea Pierzchanowski, M.H.R., "Learning From and Working With Yup'ik

Professionals." Critiquing the papers and offering insight into the challenges of conducting research with indigenous communities that is both scientifically sound and culturally appropriate were three distinguished American Indian social scientists and social policy experts: Dr. Velma Mason, Director for the Office of Alcohol and Substance Abuse Prevention in the Office of the Assistant Secretary of Indian Affairs, U.S. Department of the Interior, speaking on "Implications for Policy and Practice"; Dr. Spero Manson, Professor and Head, American Indian and Alaska Native Programs, Department of Psychiatry, at the University of Colorado Health Sciences Center, on "Research Methods"; and Dr. Joseph Stone, Program Manager and Clinical Supervisor, Confederated Tribes of the Grande Ronde Behavioral Health Program in Oregon, on "Cultural Issues in Research: Developing and Implementing Native American Postcolonial Participatory Action Research." Holly Echo-Hawk, M.S., organizational behavior and management consultant, facilitated the one and a half days of discussion.

[2] The authors of this article are listed in alphabetical order; their time and involvement in both writing and reviewing this article have varied as it has evolved.

[3] Throughout this paper reference is made to American Indians and Alaska Natives, Native people, or indigenous people, reflecting issues of specificity versus generalizability as well as the challenges of rhetoric. Communities are also referred to as Native or indigenous communities. "Indian Country" refers to any lands owned by Indian tribes, Alaska Native villages, and areas where large numbers of American Indians and Alaska Natives reside such as the states of Alaska and Oklahoma.

[4] Many fail to appreciate the unique circumstances of Alaska. For example, it is farther from Anchorage to half-way through the Aleutian Islands than from Washington, DC to San Francisco, CA. Most Alaska Native villages have a single, unpaved road with an airstrip at one end. While there may be 20 trucks and cars in the village, they can leave the road only in winter when the tundra, lakes, and rivers freeze hard.

[5] E.g., the Code of Research Ethics developed with the Native Mohawk community of Kahnawake in Canada (Macaulay et al., 1998); the Model Tribal Research Code developed by the American Indian Law Center, Inc., (1999); and Principles for the Conduct of Research in the Arctic (Retrieved August 1, 2005 from http://arcticcircle.uconn.edu/SEEJ/ethics.html). Also, see the comprehensive guidelines of the Australian Institute of Aboriginal and Torres Strait Islander Studies (2000) as well as extensive research information available through the Alaska Native Science Commission (http://www.nativescience.org).

[6] Dr. Running Wolf is the corresponding author for this article.

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