

Practice-Based Evidence: Building Effectiveness from the Ground Up

Introduction

This project addresses the absolute priority to promote effective family-centered and community-based practices and supports for children with mental health disorders and their families by addressing the need for **culturally-relevant, individualized services**, addressing **stigma**, and incorporating the **concept of recovery** in children's mental health. The project is designed to expand the array of **evidence-based practices** through a participatory "ground up" process designed to develop and test approaches to describing, documenting, and evaluating practices that are highly valued and thought to promote wellness in children, youth, and families, but for which empirical evidence is largely lacking. The research team will operate on Participatory Action Research (PAR) principles, and include RTC staff and personnel from the National Indian Child Welfare Association (NICWA) and the Native American Youth Association (NAYA).

Project Goal: To increase knowledge about research methods that are appropriate for the evaluation of practice effectiveness for culturally specific and community-embedded services, with attention to research strategies that may also be more generally applied.

Project Objectives:

1. To add to the knowledge base about the appropriateness of "evidence-based practices" for diverse cultural and linguistic groups;
2. To develop and test "practice-based evidence" approaches to establishing the effectiveness of programs and practices which have not been subjected to rigorous evaluation, including culturally-specific programs and practices;
3. To promote the use of this new knowledge through effective dissemination, training, and technical assistance activities.

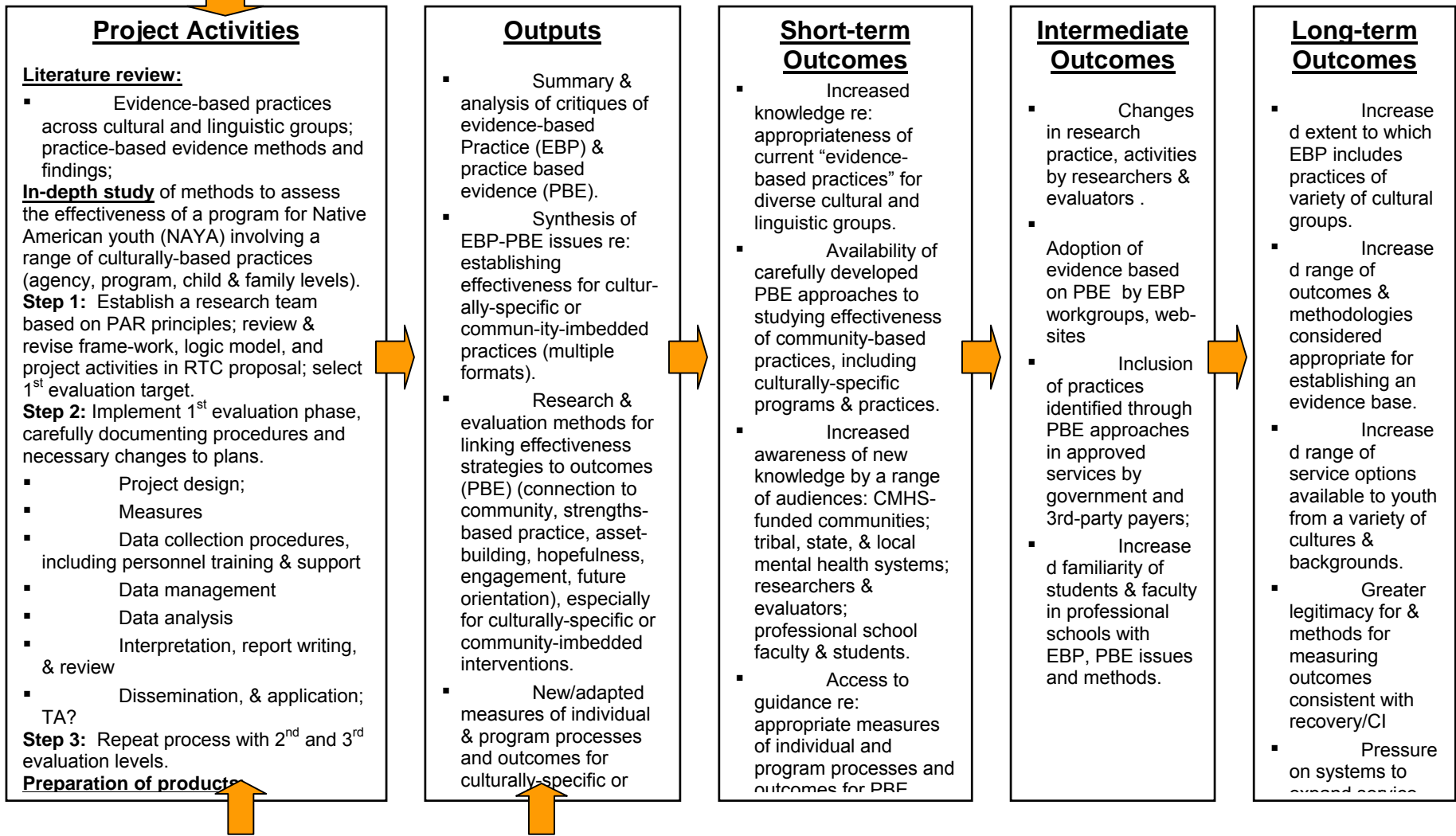
Project Partners

Through a subcontract to the National Indian Child Welfare Association (NICWA), Terry Cross, (Seneca) the Executive Director of NICWA, will serve as a co-principal investigator for the project. Jody-Becker Green, the lead evaluator for NICWA, will also be part of the research team through this contract, and through her role as a doctoral student in the Ph.D. Program in Social Work and Social Research. Terry Cross and Jody Becker-Green have extensive experience in working with Native American groups to conduct evaluation.

The second major partner in this research will be the Native American Youth Association (NAYA), based in Portland, Oregon, for which Nichole Maher is the Executive Director. NAYA is available to all self-identified American Indian and Alaska Native youth in the Tri-County area, which includes the Portland Metropolitan area. An estimated 31,000 American Indians/ Alaska Natives live in the Portland area; approximately 5,000 are under 18 years of age (Cross, Fox, Becker-Green, Smith, & Willetto, 2004). NAYA's goals are "to ensure the health of future generations by developing more options for youth, families, and the community" (Cross, et al., p. 42). NAYA provides and promotes youth participation in conferences, camps, support groups, cultural activities, lectures, and special events.

Figure (R-6.1) Practice-Based Evidence Logic Model

Inputs: Addresses the absolute priority for community integration (CI) as well as key program themes: evidence-based practice, individualized planning, participation, stigma, & culturally-relevant services. The project builds on the organizational capacity of RTC and the National Indian Child Welfare Association in the areas of cultural competence and program evaluation, and program vision, goals, acknowledged success, and acceptability of programming of the Native American Youth Association (NAYA)



Ongoing accessibility & utility monitoring: Feedback from advisors; participants in intervention, training & technical assistance; users of products and outputs.

An advisory committee includes NAYA staff and national experts representing areas of expertise relevant to the project. Holly Echo Hawk Solie is a national expert in the areas of Native American issues, culturally competent services. Kimberly Hoagwood is a nationally-recognized researcher in children's mental health and evidence-based practice. Beth Harry is a national expert in the areas of cultural competence, special education, and participatory research.

Literature Review

Statement of problem and background

In the search for effective mental health interventions for children and families, many researchers, policy makers and service providers have embraced evidence-based practices (EBPs) based on findings of scientific studies. This science-to-service model has promise as a strategy to promote high quality services, and is featured in the report of the New Freedom Commission on Mental Health (2003) as the means by which to achieve Goal 5: "Excellent mental health care is delivered and research is accelerated" (p.12). However, concerns exist about the limitations of the current evidence base for practice with diverse cultural and linguistic communities, and for populations with complex problems.

In children's mental health, the term "evidence-based" refers to knowledge obtained through scientific methods about the prevalence, incidence, or risks for mental disorders, or about the impacts of treatments or services on disorders (Hoagwood, Burns, & Weisz, 2002, p. 329). The evidence base refers to the quality, robustness, and validity of the scientific findings. The development of evidence-based practices has depended primarily on a "gold standard" of randomized controlled trials (RCTs), efficacy studies, quasi-experimental designs, or series of single case studies (Burns, 2002). Additionally, the use of a treatment manual is preferred and sample characteristics must be specified. Somewhat weaker criteria are applied to interventions judged to be "well-established" or "probably efficacious."

"Evidence-based practice" (EBP) is defined in a variety of ways. Two common uses of the term are (1) EBP as practices or programs that have been judged to be effective based through rigorous, scientific methods; and (2) EBP "As the basis for decision-making and action; a process for insuring that an individual or group of individuals gets the best possible intervention, service, or support based on an assessment of needs, preferences, and available options" (Friesen, 2004). Gibbs and Gambrill (2002) define EBP as the "conscientious, explicit, and judicious use of current best evidence in making decisions about the care of clients" (p. 452), and assert that many of the arguments against EBP are rooted in ignorance. In the children's mental health field there is considerable controversy associated with a lack of shared meaning, and a lack of trust on the part of those who express concern about EBPs. The predominant policy use of the term refers to the first definition, i.e., specific research-based programs or practices. Much of the concern appears to be based on the (realistic) fear that the use of EBPs will be mandated and applied to groups or populations for whom they are not indicated or have not been tested. Concerns expressed about the limitations of EBPs include:

- The determination of what constitutes evidence is narrow and focuses on linear cause-effect relationships (Webb, 2001).
- Randomized Control Trials (RCTs) exclude representative samples of children and families who receive mental health services in community settings, such as culturally diverse youth, youth with complex disorders, and families who are less able to participate because of socioeconomic or cultural factors, or family stress (Brannan, 2003; Espiritu, 2003; Krakau, 2000; Margison, 2003).

- EBP findings may lack relevance and generalizability to practice in community settings (Slaton, 2003; U.S. Public Health Service, 2000).
- EBPs exclude newly developed interventions, traditional healing practices, and therapies developed by specific cultural groups (Espiritu, 2003; Huang, Hepburn, & Espiritu, 2003).
- EBPs neglect the cultural and contextual influences on children and families (Espiritu, 2003; U.S. Public Health Service, 2000, Friedman, 2004).
- There is often a lack of attention to family choice, which is important to families and not easily examined in controlled studies (Brannan, 2003; Huang, Hepburn, & Espiritu, 2003).

There are many widely-used practices for which little or no evidence base has been developed, but that are believed to be effective and are highly valued by families, youth, and practitioners. Two types of such practices are: (1) Practices that can feasibly be described, tested, and brought to an “evidence-based” standard, using traditional research designs, including, but not limited to, randomized controlled trials. These approaches have elements and characteristics that have widespread appeal but often lack clear definition, and have not had much systematic evaluation. Examples of such practices include “strengths-based” practice and “empowerment practice.” (2) Practices that may not be feasible to test using traditional research approaches, either because of the nature of the practices themselves, available sample sizes, or because the philosophical and cultural context within which they are used would preclude the implementation of procedures such as random assignment, or even perhaps, observation. Examples of these practices might include a variety of traditional healing rituals and practices used by various cultural groups.

For both types of practices, there is a need for strategies for describing and documenting the practices, and for reviewing and/or developing evaluation approaches to identify the program theory and important activities and processes involved so that their effectiveness can be evaluated. In this way the evidence base for their use may be enlarged, and they may be recognized and supported as a part of acceptable practice.

As a complement to EBPs, an alternative service-to-science model, termed practice-based evidence (PBE) has been developed using evidence derived from routine service provision in community settings (Evans, Connell, Barkham, Marshall, & Mellor-Clark, 2003). The PBE model engages service providers in the collection of data and in analyses of that data which can inform practice in local and cultural contexts (Evans, et al.). We propose to use a “ground up” practice-based evidence approach for this investigation.

Practice/evidence dilemmas

The very qualities of interventions that are needed by children with serious, complex, mental disorders (individualization, flexibility, comprehensiveness, and provider/patient relationship) also make them difficult to describe and evaluate (Friedman, 2004). Friedman recommends studies of treatments that prescribe principles and general processes but that allow flexibility to involve families and practitioners in the adaptation of the interventions according to the strengths and needs of individual children and families (U.S. Public Health Service, 2000). To achieve this, he suggests a variety of research and evaluation methods, including in-depth qualitative studies of the experiences of children and families and the perspectives of multiple stakeholders, and incorporating theories of change. This approach does not, however, eliminate the need for rigorous evaluation of the processes and outcomes of service. Thus, the issue is not whether practice should be based on the best evidence available; but

rather, there is concern about naïve, awkward applications of EBP, and the underdeveloped state of today's evidence base.

Practice-based evidence as a strategy for building knowledge.

Practice-based evidence (PBE) has been proposed as a complement to EBP. However, just as with evidence-based practice, there are many definitions, philosophies, and research methods associated with the term, “practice-based evidence.” In general, PBE is information gathered from service providers and families used to identify effective interventions and areas for program or practice improvement (Evans, Connell, Barkham, Marshall, & Mellor-Clark, 2003; Lucock, et al., 2003).

Some proponents of PBE suggest that qualitative methods are the most appropriate. Margison, (2003), for example, observes that PBE is particularly well-suited to questions about the quality of interventions, including the extent to which they are comprehensive, relevant, acceptable, and accessible. Through naturalistic inquiry, practice-based research has also been used to examine unexpected results, such as early improvement related to hope, therapeutic engagement, or other common factors across interventions (Stiles, Barkham, Iveson, Iveson, Leach, Lucock, Shapiro, & Hardy, 2003).

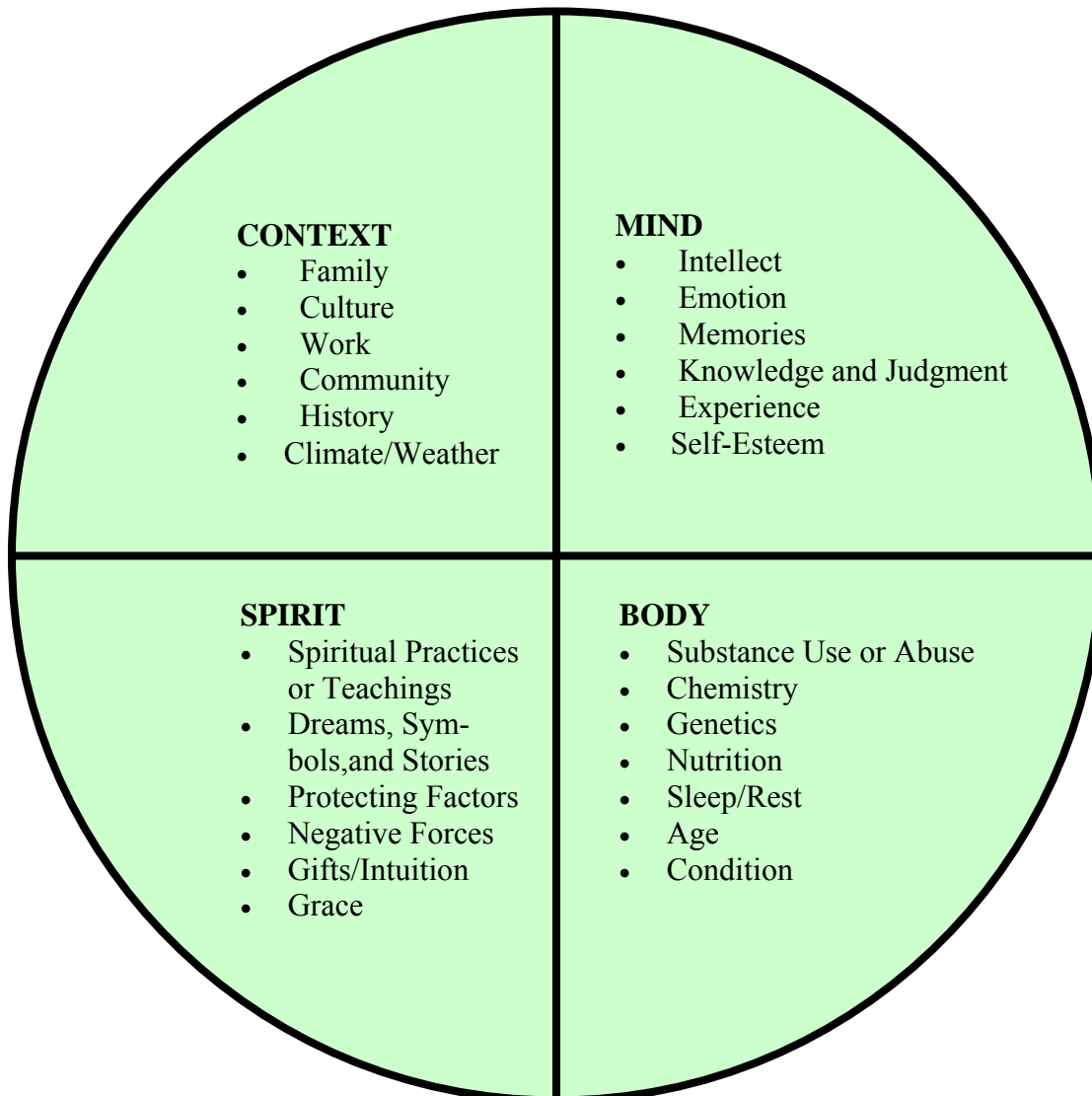
Other researchers, however, do not align PBE with qualitative methods alone. Barkham and Mellor-Clark (2003) propose a cyclical model in which service systems develop and build an evidence base rooted in practice. In turn, the evidence base informs the development of finely-tuned tests of specific hypotheses through efficacy research. Both types of research inform policy (Barkham & Mellor-Clark, 2003). To complement the EBP paradigm, a core outcome measure, the Clinical Outcomes in Routine Evaluation – Outcome Measure (CORE—OM) has been developed and widely used in the U.K. (Barkham, et al., 2001; Evans, Connell, Barkham, Marshall, & Mellor-Clark, 2003; Mellor-Clark, Barkham, Connell, & Evans, 1999).

PBE and traditional healing.

The case for developing the PBE knowledge base is especially critical for culturally diverse populations and is supported by critiques of mainstream mental health care and research on traditional healing practices (Lee & Armstrong, 1995). For example, misdiagnosis of culturally diverse patients, racial bias in treatment, and disregard of folk healing systems are serious concerns (Lewis-Fernandez & Kleinman, 1995).

Figure (R-6.2) Relational Worldview Model Applied to an Individual

Cultural beliefs and practices have been found to affect patients' experiences of pain and healing, and therefore should be included in studies of effective treatments (Lasch, 2000). For example, cultural values of stoicism, fatalism, family, spirituality, and folk healing affected Latino patients' experiences of pain (Duggleby, 2003). Trust of the healer, whether traditional or modern, is a key element of healing (Lepowsky, 1990). Cultural wholeness is believed to serve a preventive and even curative purpose for indigenous people affected by drug and alcohol abuse (Brady, 1995). Often conventional health services



and traditional healing practices are used simultaneously. Zapata and Shippee-Rice (1999) found that this practice was related to perceptions of the lack of holistic care and the use of non-natural medicines.

For Native Americans, cultural strengths such as the family and community, spirituality, traditional healing practices, and group identity are key moderators of physical and mental health outcomes and substance abuse (Walters, Simoni, & Evans-Campbell, 2002). It is vital that these cultural factors be addressed in intervention research.

Relational Worldview Model.

This conceptual framework is derived from the teachings of American Indian tribes, and provides a way of understanding individual well being as the maintenance of equilibrium, harmony, and balance (Cross, 1995). The model is illustrated by four quadrants that represent sets of factors that must be in balance for an individual or an organization to thrive (See Figure R-6.2). The four interrelated parts of individual are the mental, physical, spiritual, and contextual aspects of life. This framework can also be applied to other systems; families, organizations, and communities.

Tribal communities have taken beginning steps to examine culturally based traditional assessment, treatment, and healing methods through the national evaluation of systems of care funded by the Comprehensive Community Mental Health Services for Children and Their Families Program (Running Wolf et al., 2002). This evaluation effort has also contributed to building tribal capacities for research and evaluation. A study of the Starting Early Starting Smart (SESS) initiative by Becker-Green, Cross, & Jones (2003) illustrates a strategy for using the relational world view (Cross, 1995) as a framework for studying the success and sustainability of the project in tribal communities. In research, the model can be used to guide the development of questions to “tell the story of what is working in an organization,” thereby providing “a powerful tool for understanding success and sustainability” (Becker-Green, et al., p. 36). The Relational Worldview Model will guide our exploration of the interrelationships among life domains, the concepts of harmony and balance, and outcomes for Native American youth and their families.

Community-based participatory research methods.

A practice-based evidence approach involves the use of participatory methodologies to identify goals, describe the experience of giving and receiving services, and identify desired outcomes for the system being addressed (i.e., individuals, families, groups, organizations) (Meyer, Park, Grenot-Scheyer, Schwartz, & Harry, 1998). Participatory research is well-suited to this task because the researcher builds relationships with families, youth, service providers, and community members to discover the relevant questions, to gain rich and detailed data, and to analyze, interpret, and report findings to maximize knowledge development (Osher & Telesford, 1996). Families in the children’s mental health field often prefer participatory research approaches because they are more likely to answer questions of interest to them. Additional benefits of family participation in research may include: more relevant questions addressing a wider range of outcome variables and more complex processes, increased cultural competence, better participant retention, increased quality of data, improved interpretation of findings, and wider dissemination and increased utilization of findings to guide program improvements. (Koroloff & Friesen, 1997; Osher & Telesford, 1996; Santelli, Singer, DiVenere, Ginsberg, & Powers, 1998; Turnbull, Friesen, & Ramirez, 1998; Vander Stoep, Williams, Jones, Green, & Trupin, 1999).

Research with American Indian communities.

The history of exploitation by non-Native researchers in Indian communities has resulted in understandable suspicion of outside researchers and concerns about their motives (Beauvais, 1999; Running Wolf et al., 2002; Sobeck, Chapleski, & Fisher, 2003). Yet there is a need to enhance the capacity of Native American communities to collect and use data and to improve the quality, accuracy, and reliability of data collected by non-Indian jurisdictions (Cross, et al., 2004). Taking steps to involve family members and community leaders in research decreases the risk of repeating colonizing research processes (Walters, Simon, & Evans-Campbell, 2002).

Waller and Patterson (2002) recommend establishing collaborative relationships between researchers and Native American community members, becoming knowledgeable about shared meaning systems, and ensuring that research instruments are culturally grounded. Community involvement requires sensitivity to cultural and linguistic differences, as well as to culturally shaped differences in world view, values, child-rearing practices, and beliefs about health and illness. Care is needed to develop trusting relationships with the communities being studied (Sobeck, Chapleski, & Fisher, 2003). Other recommendations are: (1) Include diverse community representatives in the research team; (2) view all team members as experts; (3) determine research priorities in the local community; (4) collaborate with local families to develop questions suited to the community context; (5) seek review of questions for sensitivity; (6) train community members to participate as data collectors; and (7) provide frequent reports of findings to participants and show them how the findings were used (Sobeck, et al., 2003).

Guidance to researchers seeking to collaborate with culturally diverse communities is also provided by the Workgroup on American Indian Research and Program Evaluation Methodology (Running Wolf, et al., 2002), the Council of National Psychological Associations for the Advancement of Ethnic Minority Interests (American Psychological Association, 2000), and by individual Native American researchers (e.g., Beauvais, 1999; Crazy Bull, 1997; Norton & Manson, 1996; Red Horse, 1993; Weaver, 1996). In addition, research codes have been developed by organizations such as the American Indian Law Center (1999) and by individual tribes (e.g., The Tohono O'odham Nation Department of Human Services, 1996).

Outcomes, issues and approaches.

Because different constituencies value different mental health outcomes, the selection of outcomes for program focus, financial support, and study is a political, as well as a scientific process (Friesen & Winters, 2003). For example, children, youth, families, and clinicians are likely to be concerned about clinical symptoms and the subjective aspects of mental disorders. Funders and policy-makers may be concerned about clinical symptoms only if they translate into annoying, embarrassing, or threatening behaviors. Conversely, funders and policy makers are concerned about cost and efficiency at the program or system level, which may be of little concern to individual children and families. The selection of outcomes for study is also often driven by the availability of psychometrically sound measures, which are valued by researchers and peer review committees alike. In this participatory research project, goals and outcomes will be determined jointly by members of the system in question (i.e., organization, family, youth) and members of the core research team, in consultation with the advisory committee.

Within an individualized planning approach, the selection of outcomes is tailored to the needs and preferences of children and their families, and this phenomenon has created a dilemma for evaluation. When the goals for each child appear to be idiosyncratic and do not necessarily reflect outcomes contained in standardized instruments, it is difficult to document evidence of effectiveness for either the process or for the entire cluster of interventions (Burns & Goldman, 1999). Addressing this issue is critical to establishing evidence of program effectiveness that will have legitimacy within the wider research community.

The conceptual context for this project is also rooted in the work that has been done to identify strengths-based indicators of child and family well-being by evaluators at the National Indian Child

Welfare Association (NICWA), the resilience literature (Masten, 2001; Masten & Coatsworth, 1998; Rutter, 1987; 2001), and related work on assets and asset-building in youth development by the Search Institute (Lerner & Benson, 2003). In addition, research findings from the positive psychology literature about the health-related benefits of emotions such as hope and optimism (Frederickson, 2001; 2003) are conceptually linked to a strengths-based approach to practice and to the concept of resilience (Miller, 2002). From preliminary meetings with NICWA and NAYA representatives during the preparation of this proposal, it is clear that indicators related to these concepts (strengths, resilience, asset-building) will be central to the assessment of goal setting and attainment with individual youth, as well as to evaluation at the program level. These strengths-based, positive concepts are particularly important for Native American youth because of the racism and discrimination they often experience, coupled with the stigma of emotional and behavioral disorders.

Hypotheses/ Research Questions

The overall project involves two complementary and related activities: (a) a case study of the Native American Youth Association (NAYA), and (b) the overall practice-based evidence project, which will conduct a literature synthesis, conduct qualitative and quantitative data analysis for the NAYA case study, and work through the research team and advisory committee to extract principles, lessons, and methods from the NAYA experience to identify a framework and a set of research methods for the study of effectiveness in culturally specific and/or community embedded programs.

Usual research tradition would describe the practice-based evidence project as the research endeavor, with NAYA as the “research site,” but this description would diminish the partnership role of NAYA, and the intended benefit that NAYA will receive as a result of participation in this endeavor. Therefore, we have chosen to conceptualize the two activities as parallel and interrelated, rather than as one nested within the other. The overall research questions are:

1. What are promising and feasible ways that this organization (NAYA) can build on its current capacity of descriptive (process) evaluation to add the ability to conduct outcome (effectiveness) evaluation?
2. What are feasible, culturally appropriate, and rigorous research and evaluation strategies to describe, document, evaluate, and disseminate methods to study the effectiveness of culturally-specific and/or community-embedded programs and practices?

Guiding principles for research methods to be affirmed, adapted, or developed.

The research framework, process, and methods developed by this project are focused on approaches to studying and evaluating the effectiveness of program activities or interventions delivered by culturally specific or community-embedded programs. To be useful both to programs that choose to use them and to the larger research community, these methods must:

- Be culturally appropriate;
- Clearly acknowledge the values context in which they are developed;
- Address the complexity of youth and families’ lives;
- Be possible to implement without large infusions of federal funds, or other external funding;
- Result in designs and procedures that are replicable or capable of adaptation
 - With clearly described interventions, principles, and/or processes
 - Including identification of critical elements to

- Produce the intended effect
- Be acceptable to users
- Include ways to check fidelity, i.e., to assure that the intervention or processes are implemented as intended;
- Be accepted as legitimate within the cultural community in question;
- Be accepted as legitimate within the scientific community
 - Use the most rigorous designs possible to:
 - Tie program or intervention activities to outcomes
 - Identify areas where confounds exist, including those that are unavoidable.

This participatory project will be guided by the input of all members of the core research team and the advisory committee to identify specific research questions and hypotheses for each phase of the research activity. Hypotheses will also be identified through the analysis of program and individual data and through data about the research process itself. It is possible, however, to suggest some general research questions for the overall study and some sample hypotheses for each level of the project: Overall project research questions are:

1. *What are feasible, culturally appropriate, and rigorous methods for formulating research questions, including desired outcome?* (Who needs to be involved, how to find and implement the most effective process(es) for involvement and decision-making).
2. *What are feasible, culturally appropriate, and rigorous methods for deciding on a research design?* (Identifying alternatives, assessing feasibility, making decisions, addressing validity issues).
3. *What are feasible, culturally appropriate, and rigorous methods for identifying an appropriate sample of sufficient size?*
4. *What are feasible, culturally appropriate, and rigorous methods for data collection?* (At various levels--organization, program, individual--with adults and youth).
5. *What are feasible, culturally appropriate, and rigorous methods for the analysis and interpretation of data?* (Qualitative and quantitative approaches, involving participants, addressing custom and power dynamics);
6. *What are feasible, culturally appropriate, and rigorous methods for preparing and producing research and evaluation reports?* (Who is involved in writing, who reviews, who is the final arbiter of tone, form, and content?).
7. *What are feasible, culturally appropriate and rigorous methods for assuring adequate dissemination and promoting use of results?*

Sample Hypotheses include:

1. **Project level:** The participatory research process will result in increasing understanding by the core research team of the requirements for conducting research in cross-cultural contexts and skills for such work over the course of the project.
2. **Organizational level:** The participatory research process will support and result in increasing ownership of NAYA representatives of the research process and increased evaluation capacity over the course of the project.
3. **Program level:** Increased program specificity (NAYA), achieved through the process of reviewing and clarifying organizational and program goals using the Relational Worldview Model, will lay a useful foundation for engaging in outcomes evaluation.

4. **Individual level:** The Relational Worldview Model will be perceived by Native American youth and families as a culturally congruent tool that is useful in setting and evaluating goals and outcomes.

Methods

Design

This project will employ several design strategies. First, a participatory research process calls for involving members of the research team, along with advisors, in each phase of the research process. Meyer, Park, Grenot-Scheyer, Schwartz, and Harry (1998) present a series of crucial issues and questions for each phase.

A case study method using a participant-as-observer method (Rubin & Babbie, 2005; Yin, 1984) is proposed to document the process and outcomes related to NAYA's evaluation activities. Members of the research team will work with NAYA staff to increase the organization's evaluation capacity through (a) providing direct technical support and assistance for evaluation activities; (b) supporting data collection activities by hiring the youth and family data collectors, as needed; and (c) providing assistance to the NAYA director in locating resources to enhance NAYA's evaluation capacity. While engaging in this process, the research team and advisory committee will also work to extract principles and useful methods in relation to the overall research questions.

A useful framework for supporting NAYA's goal of enhancing the evaluation capacity of the organization, and especially, to engage in outcome evaluation, may be the Five-Tiered Approach (FTA) to evaluation described by Jacobs (2003; see Table R-6.1). The framework is suggested because it can be used to assess the readiness and level of development of the organization in relation to evaluation. It also provides fairly detailed guidance about the goals, purposes, and activities within each tier.

The first tier of the FTA, needs assessment, is an ongoing activity at NAYA, and the agency has actively worked to get more accurate census and other U.S. government data for the purposes of needs assessment and program planning. Jacobs' Tier 2 evaluation involves activities related to monitoring and accountability. NAYA has multiple funding sources, all of which require reporting of similar, but not identical, information in a variety of formats. The program is able to meet the requirements for program process information (e.g., number of youth and families served, number of discrete events held), and appears to be entering Tier 3, which involves quality program review and program clarification. Agency staff and board members are working to define organization-wide goals that can then become a basis for evaluation. In this phase, also, there is a need to collect specific satisfaction data, and to employ a variety of approaches to uncovering what program participants perceive as the effects of the program. This endeavor will involve data collection through means such as interviews and focus groups, and project plans include hiring and training youth and family members who are part of NAYA's community as data collectors and members of the research team. Roles may include interviewer, questionnaire administrator, and focus group leader. This activity will contribute to identifying implicit assumptions about "what helps," to articulate program theory(ies).

These Tier 3 activities will lay a foundation for addressing NAYA's aspiration to conduct high quality outcome studies. To accomplish this goal, the agency needs to enter and establish competence in relation to Tier 4, achieving outcomes. This involves being able to measure change, to attribute it to program activities, and to develop program theory that links goals, activities, and outcomes. This

information can also be used for program improvement as well as to establish credibility with policy makers and funders. Jacobs includes quasi-experimental designs involving comparison groups in Tier 4 activities. These designs may not be the most appropriate for NAYA, and project staff with work with the agency director to establish feasible, yet rigorous, measurement and data collection approaches for Tier 4 activities. Jacobs' Tier 5 involves conducting controlled studies of interventions developed and refined through the first four tiers. Engagement in such activities would involve considerable evaluation resources, and it is possible that additional funds could be sought by NAYA to engage in Tier 5 activities, or that some aspects of the intervention research related to Tier 3 and 4 evaluation activities could spur further research development by the RTC/NICWA/NAYA partnership. Jacobs' framework can be used along with the Relational Worldview Model to do organizational assessment and evaluation planning in relation to the two overall research questions. This process and these relationships are illustrated in Figure R-6.3.

**Figure (R-6.3) Relationship of FTA, Relational
Worldview Model & Research Questions**

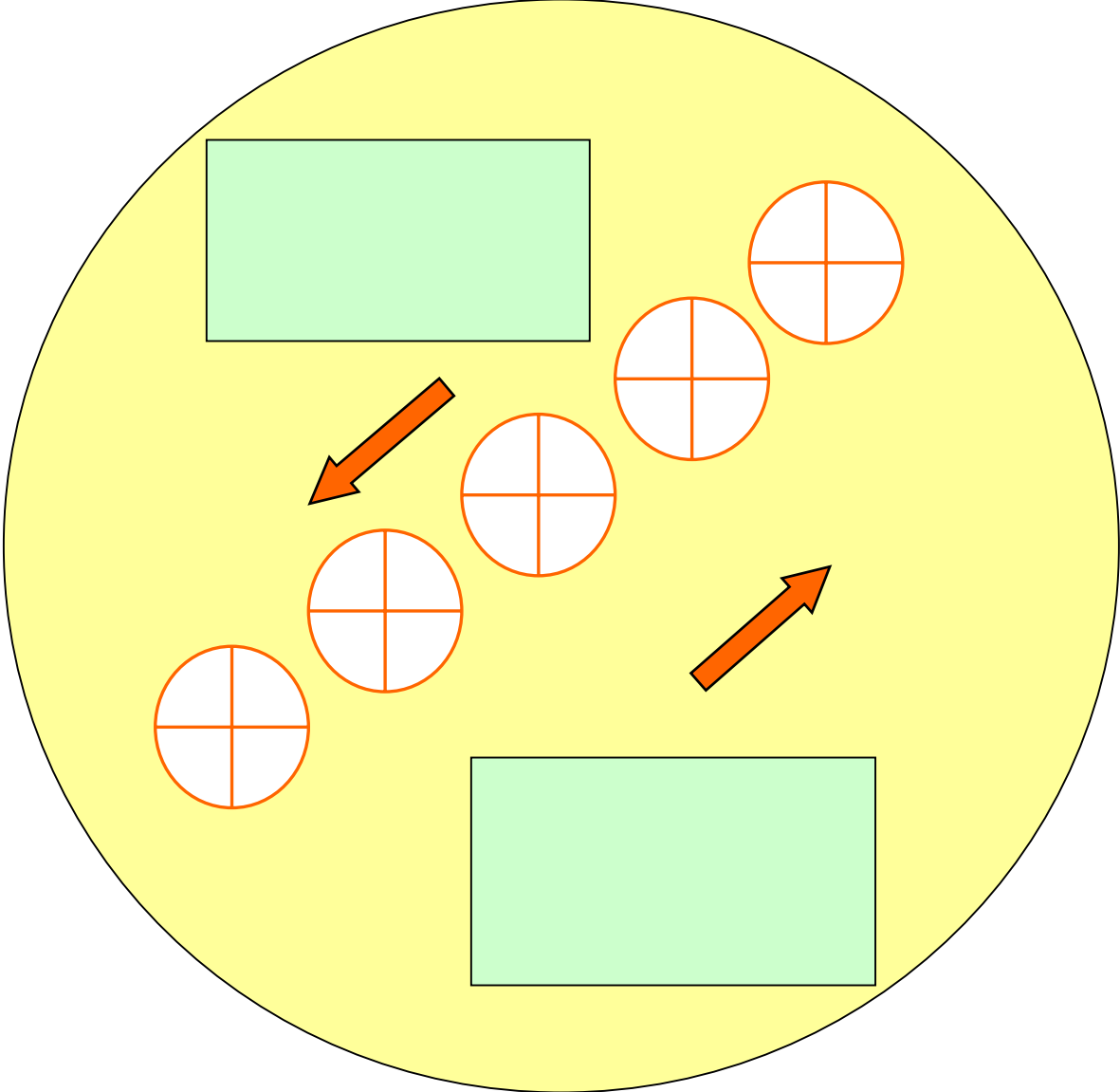


Table (R-6.1) Summary of the Five-Tiered Approach to Evaluation

	Purposes of Evaluation	Tasks	Types of Data to collect/analyze
<i>Tier 1: Needs Assessment</i>	Document problems Determine unmet need Propose program options Set data baseline	Review existing data, get additional data Identify resource gaps, unmet need Set goals & objectives Recommend program model	Extant data on target population, services; Interviews/survey data from community leaders, prospective participants Information about similar programs
<i>Tier 2: Monitoring & Accountability</i>	Monitor program performance; Meet demands for accountability Build constituency; Aid planning & decision-making Lay foundation for later evaluation activities	Determine needs & capacities for data collection, management; Develop consistent data collection procedures; Gather & analyze data re: clients, services, staff, & costs.	MIS data Case material from record reviews, program contact forms, etc.
<i>Tier 3: Quality Review & Program Clarification</i>	Develop detail re: implementation Assess quality & consistency of intervention Articulate theory(ies) of change Provide information to staff for program improvement	Review monitoring data Expand program description Compare program with standards; Examine participants' perceptions about effects of program; Clarify program goals & design	MIS monitoring data Case material, other qualitative & quantitative data on program operations, satisfaction & perceived effects; Questionnaires, interviews, observations, focus groups.
<i>Tier 4: Achieving Outcomes</i>	Determine what changes have occurred among program participants Attribute changes to the program; Provide information to staff for program improvement.	Choose short-term objectives Select appropriate research design Determine measurable indicators of success for outcomes Collect and analyze information about effects on beneficiaries	Client-specific data (questionnaires, interviews, goal attainment scaling, observations, functional indicators) Client & community social indicators MIS data Comparable data for comparison group(s).
<i>Tier 5: Establishing Impact</i>	To contribute to knowledge development in the field; Product evidence of differential effectiveness of treatment Identify models worthy of replication	Pick impact objectives re: Tier 4 results; Choose rigorous research designs & control groups; Identify techniques & tools to measure effects in treatment & control groups; Collect & analyze information	Client-specific data (questionnaires, interviews, goal attainment scaling, observations, functional indicators); Client and community social indicators; MIS data; Comparable data for control group(s).

** Adapted from Jacobs, F.H. (2003). Child and family program evaluation: Learning to enjoy complexity. *Applied Developmental Science*, 7(2), 62-75

Sample

NAYA serves approximately 500 youth each year, so although the sampling frame is bounded by participation in the program, adequate samples for group designs, when they are appropriate, should be available. Depending on the research questions being addressed, we will work to assure that the sample is of adequate size, and is appropriate to address the questions asked. For example, one part of the research process related to Jacobs' Tier 3 activities is to learn from program participants what their ideas and beliefs are about "what helps," and specifically, aspects of the program that they believe contribute to their health and wellness. The appropriate sample for this type of qualitative investigation depends on whether we are trying to answer the question for all youth in the program (across ages, needs, family circumstances, etc.), or whether we want to focus the question on a particular sub-sample (e.g., girls in middle school).

Measurement

Once the core research team and advisory committee members have identified the first set of research questions, care will be taken to insure the rigor, cultural appropriateness, and relevance of all measures. The approach to measuring outcomes will depend on the goals and outcomes identified. For example, an existing goal for NAYA is to create a sense of community and continuity, which includes providing services that are high in cultural appropriateness and acceptability. The research team could work to identify indicators of "cultural appropriateness" and "acceptability," which might be accessed through direct measures of satisfaction, through qualitative interviews, and/or through examination of return and retention rates. There are also available measures of "cultural competence" at the organizational level (e.g., Mason, 1989; Switzer, Scholle, Johnson, & Kelleher, 1998) that may be appropriate, either entirely, or in part. Data triangulation through use of multiple sources of information will be especially important where no appropriate measures exist.

The approach to outcomes that we will pursue at the individual youth level will involve a variety of measurement approaches developed to deal with person-centered planning (Gardner & Nudler, 1999), or client-developed goals such as Goal Attainment Scaling (Donnelly & Carswell, 2002; Schlosser, 2004) and single case design (Rubin & Babbie, 2005), as well as the identification of some outcomes that can be agreed upon as legitimate to apply across Native American youth. There may be existing measures, or measures that can be adapted, for use with Native American youth. In addition, we have made a beginning attempt to "crosswalk" indicators of positive outcomes within the relational world view model across a set of strengths-based wellness indicators developed by NICWA (Cross, 1995), findings from the resilience literature (Masten & Coatsworth, 1998), lists of assets from the Search Institute (Lerner & Benson, 2003), and findings from the positive psychology literature (Frederickson, 2001). We have identified concepts in each quadrant that were present in three or more of the sources (see Table R-6.2). For each of these concepts, measures may be developed and/or existing measures may be used to assess baseline state and change over time.

Data Collection

Research team members involved in the case study will keep careful research notes, especially focused on aspects of approaches that worked well, as well as areas of misunderstanding, or modifications that were necessary. For example, focus group approaches may need to be modified to take into account culturally-related communication styles (e.g., deference to the opinions of elders). LaFrance (2004) describes her use of a facilitated workshop to help stakeholders on Indian reservations to articulate a theory of change. She states that the conceptual model for the program may or may not look like a traditional logic model, and notes that she never uses the term *logic model* since it connotes

an intellectualism that can come across as elitist, mysterious, and Western. A framework for recording the case notes will be developed based on NICWA’s extensive experience in conducting research and evaluation with Native American organizations.

Table (R-6.2) PBE Crosswalk of Strengths-Based Attributes Across Sources

Quadrant	Attribute	Good luck ¹	Resilience ²	Positive Psychology ³	NCCAN NICWA ⁴	Search Institute ⁵
Context	Extended family support	x	x	x	x	x
Context	Community Support	x		x	x	x
Context	Elder access & support	x	x		x	
Mind	Positive self-esteem	x	x		x	x
Mind	Clear Values				x	x
Mind	Positive motivation	x			x	x
Mind	Problem solving/decision making skills		x	x	x	x
Spirit	Spiritual Practices	x	x		x	
Spirit	Creative Activities	x		x		x
Body	Good Health Practices	x			x	X

1. Goodluck, C.T. & Willetto, A.A.A. (2001). Native American kids 2001: Indian children’s well-being indicators data book. Seattle, WA: Casey Family Programs and Flagstaff, AZ: Northern Arizona University.
2. Masten, A.S., & Coatsworth, J.D. (1998) The development of competence in favorable and unfavorable environments. American Psychologist, 53(2), 205-220.
3. Frederickson, B.L. (2003). The value of positive emotions. American Scientist, 91, 330-335.
4. Cross, T., Becker-Green, J. (2004) Strengths-based indicators. Unpublished paper.
5. Search Institute. (2004). Building assets is elementary: Group activities for helping kids 8-12 succeed.

For the purposes of illustration, assume that Mary, a 15-year old young woman, has identified goals that include strengthening relationships with extended family (*Context*; an aunt who already serves as a natural mentor) and participating in the cultural arts program at NAYA (*Spirit and Mind*; increasing her skills and competence, which are thought to contribute to self-esteem and positive motivations). Mary, whose family has a history of diabetes, has also chosen the goals of eating healthy food and exercising (*Body*). Mary will work with her aunt on this goal, as well. Baseline indicators would be identified in each of the areas, along with a measurement and data collection plan. Data collection strategies could include asking Mary directly about certain aspects of her plan, such as contact with her aunt, keeping attendance records at cultural arts activities, and perhaps, direct measurement of weight, depending on Mary’s preferences.

Analysis

Issues having to do with analysis within the NAYA case study include methods for the analysis of qualitative data and quantitative data. For qualitative data collected through interviews, in focus groups, a challenge is to maximize the probability that the results of the analysis of written or recorded narrative involving the identification of themes, selection of quotations, and other analysis activities accurately reflects the meaning intended by the speaker. Quantitative analysis involves many of the same questions, although the onus of meaning-making also occurs much earlier in the research process

than in qualitative research, in the process of defining constructs, developing questions, refining measurement tools, etc.

Parallel questions exist in relation to the analysis of information recorded in the field notes. The diverse perspectives represented on the research team will help to assure that a variety of interpretations of the data are considered. This process will not eliminate bias and blind spots, but should enhance our ability to make them explicit and address them.

Results

This project will have sets of parallel results: (a) those associated with the work that NAYA does to further develop its evaluation capacity, and (b) those related to the objectives of the overall project. Results related to NAYA efforts include the development (or clarification) of program activities and the outcomes associated with them. For example, NAYA is interested in using the Relational Worldview Model for individual assessment, planning, and evaluation of change. This process can be undertaken in relation to Jacobs' Tiers 3 and 4, resulting in a clearly described and carefully implemented process that is tied to outcomes. At this point, the process could be described and disseminated, and other organizations could be invited to test its appropriateness in their own contexts. The specific procedures of some interventions or practices described and developed in this way will most likely not be fixed, but rather will share the challenges of wraparound and other individualized planning processes.

The methods and procedures extracted through the case study process will reflect answers to the research questions. In the example of using the Relational Worldview Model for Mary, results will be available for each youth, and could be graphed or displayed for each quadrant and for the concept of balance overall. Using an approach such as Goal Attainment Scaling, the results across a group of children can also be aggregated. The research team could then consider and assemble the evidence regarding this approach to the assessment and the evaluation of individual change.

The results of our experience with the NAYA case study may also be used to produce some immediately practical products at each step. For example, with regard to identifying feasible, culturally appropriate, and rigorous data collection procedures, we will learn about issues specific to youth who participate in NAYA programs, such as the desirability and feasibility of paper and pencil vs. face-to-face methods, structured vs. unstructured questions, direct vs. unobtrusive approaches to gathering data, and a host of other new knowledge. We can then assemble this information for further adaptation, application, and testing in other sites. Clearly, we cannot invest in the level and intensity of support for other programs that NAYA will receive, but feedback from programs that undertake to build on what we have learned will also help to refine and clarify our results and associated products.

Training, Technical Assistance, and Dissemination Activities

Our overall training and technical assistance philosophy is that these activities should be closely linked to the outcomes and products of our research projects.

Training

Project activities with NAYA will involve a considerable amount of training and technical assistance activities to support the organization in its work toward building the capacity to conduct outcome evaluation. For example, training involving the Relational Worldview Model both as an overall training tool, and as a way of conducting assessment and planning activities with individual

youth, will be necessary. In addition, considerable technical assistance about a range of research and evaluation activities will be provided to NAYA by members of the core research team.

Training for local organizations that are interested in examining the PBE approach to evaluation and building evidence will also be provided. We anticipate that we will provide two overall orientation sessions for three to five organizations that provide culturally-based services, with more intense training for administrative, evaluation, and program staff in those organizations that elect to apply some or part of the process in their organizations. There is likely to be high demand for such training and technical assistance because of a newly implemented state law in Oregon that requires progressive amounts of public funds (over a 5-year period) spent on social and health services to be reserved for “evidence-based practice.” There is, predictably, a considerable gap between this requirement and the capacity of most community mental health and social service agencies.

A similar sequence will be followed in 3-5 national conferences in year 3, including our State-of-the-Science conference. Overall 90 minute to 2 hour sessions will provide an overview and serve as a recruiting mechanism for organizations that want to implement and test the PBE approaches to conducting outcome evaluation. A select group of organizations will then be provided with both on-site training and telephone and e-mail technical assistance.

Technical Assistance

Technical assistance provision will include specific, target TA developed for organizations implementing and testing PBE approaches, and also more ad hoc assistance to organizations around the country. Our plan is to produce workbooks containing detailed information about the necessary steps to move a practice or program component from “usual practice” toward “evidence-based practice,” using a PBE approach. Although we will endeavor to have these materials be “stand alone” to the extent possible, we anticipate that many organizations will need some TA and support.

Dissemination

In the first year of the project, information about the project’s goals, purposes, and activities will be disseminated through conference plenary sessions, workshops, and poster sessions. Likely venues include NICWA’s annual conference, Grantee Meetings of the Comprehensive Child and Family Community Mental Health Program funded by the Center for Mental Health Services (2 meetings per year), and the annual research conference of the Research and Training Center for Children’s Mental Health in Tampa, Florida. Information about the project and our progress will be posted on the RTC website. As products are completed, they will be uploaded to the RTC and NICWA web pages in pdf format so that they can be downloaded without cost. We will also approach culturally specific organizations to assist in our dissemination efforts with specific products.

In addition to monographs and workbooks produced as training and technical assistance materials, we will also prepare articles for scholarly journals describing both the process and outcomes of the project. In Year 1 we plan to prepare an article describing the project design, purposes and activities and submit it to a journal such as the *Journal of Community Practice*. The purposes of seeking early publication of this type are both to inform the field and to elicit responses from researchers who may be doing similar work. Later articles will be prepared describing the process and findings of our work and will be submitted both to journals that specifically address cultural issues, and to journals such as the *Journal of Child and Families Studies*, the *Journal of Emotional and Behavioral Disorders*, and the *Journal of the American Orthopsychiatric Association*, that are dedicated to topics related to children’s mental health.

Table (R-6.3) Practice-Based Evidence Timeline

	RTC Year 1				RTC Year 2				RTC Year 3				RTC Year 4				RTC Year 5			
	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sept
	04	05	05	05	05	06	06	06	06	07	07	07	07	08	08	08	08	09	09	09
Finalize advisory membership; establish comm. plan	█																			
Establish decision-making/data-gathering process for NAYA study	█	█																		
Lit review/synthesis; prepare EBP/PBE review article	█	█	█	█	█															
Conduct assessment of NAYA capacity and needs			█	█																
Establish first NAYA evaluation objective			█																	
Develop research/evaluation plan			█	█																
Determine research questions, design, sources			█																	
Identify variables and measurement tools, develop analysis plan			█	█																
Obtain human subjects approval				█																
Hire and train data collectors, pilot data collection				█	█															
Collect data					█	█	█													
Conduct analysis, examine and interpret findings							█	█												
Review, adjust project plan/assumptions/timeline							█	█												
Prepare research/evaluation reports, presentations								█	█	█										
Prepare reports relating NAYA process/findings to broader questions, themes								█	█	█										
Establish second NAYA evaluation objective									█	█										
Repeat steps as for first evaluation objective									█	█	█	█	█							
Prepare workbooks: using PBE to develop EBP									█	█	█	█	█							
Prepare further reports, presentations, incl. State-of-Science									█	█	█	█	█							
Work w/local partners to implement PBE approach for building evidence											█	█	█	█	█					
Identify third NAYA evaluation goal												█								
Repeat steps as for first evaluation objective												█	█	█	█					
Work w/ national partner orgs to implement PBE approach														█	█	█	█			
Summative reports: findings/ theory of PBE in light of work with other orgs																█	█	█	█	