Part 1: RESEARCH

PREVENTION RESEARCH AMONG AMERICAN INDIAN AND ALASKA NATIVE COMMUNITIES: CHARTING FUTURE COURSES FOR THEORY AND PRACTICE IN MENTAL HEALTH

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INTRODUCTION

Prevention concepts, especially those that involve mental health promotion and enhancement, have long held the interest of tribal planners and service providers, the Indian Health Service, local as well as national advisory boards, and American Indian and Alaska Native people in general.[1] This interest stems from a community-derived sense of self and of others that lends itself to the public health model which underpins the western health care system introduced into Indian communities through past treaty arrangements (Beiser & Attneave, 1979). Moreover, indigenous approaches to health and welfare—at the levels of the individual and of the tribe—provide fertile ground for the growth of such concepts. Traditional healers, their patients, significant others, social context, and common ethos are inextricably bound in an attempt to realize many of the same goals as those expressed in Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) prevention policy, namely:

> . . . family cohesion and positive family relationships; positive self-esteem; a basic belief in one's self-worth and relative value to the world, however personally defined; respect for others; interpersonal and social skills necessary for effective functioning in society; positive coping capacities and generalized stress resistance, and availability of networks and positive community support systems. (U.S. Department of Health and Human Services, 1981, p. 10)

However, despite this apparent receptivity, relatively little prevention research has been conducted in the area of American Indian mental health. Much of that which exists represents a very narrow focus. In the present paper we consider the various factors and conditions that have influenced the course of this research to-date and explore the avenues along which it might most productively proceed in the future, and thus capitalize on the American Indian and Alaska Native communities' continuing interest.

Our discussion opens in the form of a journey across the conceptual landscape of prevention research focusing on implications for those working in American Indian mental health. We then review the published literature on American Indian and Alaska Native prevention research, comparing the available studies by targeted phenomenon and prevention approach. Our discussion closes by suggesting that the competent individual, the competent community, and the competent culture are useful guideposts by which to plan and pursue future prevention research in Indian mental health. We argue that the ensuing focus more readily accommodates the discovery of strategies for achieving the goals outlined above.

PREVENTION RESEARCH: THE CONCEPTUAL LANDSCAPE

Several excellent reviews, notably Kessler and Albee (1975), Bloom (1979), and Levine and Perkins (1980), provide a valuable introduction to the vast array of concepts and definitions currently employed in prevention research and programming. One set of authors likened the field to the great Okefenokee Swamp: "attractive from a distance and especially from the air, it lures the unwary into quagmires, into uncharted and impenetrable byways" (Kessler & Albee, 1975, p. 558). Recent work has pointed to islands of solid ground and has constructed bridges linking one to another. We attempt to continue this effort, but in a slightly different fashion by identifying a number of conceptual domains, their respective meaning sets and contrasts, which affect and often dictate thinking with regard to prevention research: specifically, what to examine, whom to target, when, how, and for how long.[2] We illustrate that certain intellectual positions in some domains follow from or lead to given assumptions in others. By mapping the conceptual landscape in this manner, we believe that one can better understand the particular biases of the current literature on prevention research in American Indian mental health and can more fully appreciate alternative approaches.

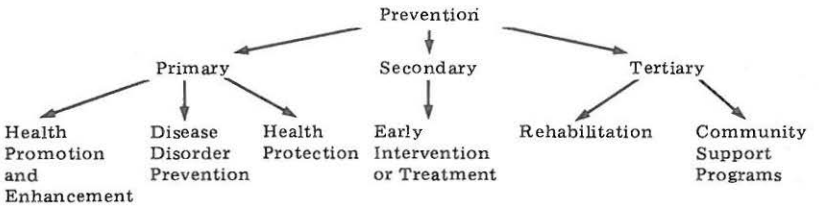
The Field: Prevention and Its Subtypes

Though debate continues about the most appropriate set of terms by which to distinguish the broad domain of prevention from other approaches to or activities in mental health (Kessler & Albee, 1975), the tripartite division of primary, secondary, and tertiary prevention, each with separate methodological emphases, enjoys the greatest currency (Caplan, 1964) (see Figure 1). As Bloom (1979) noted, the goal of primary and secondary prevention is to reduce the prevalence of disease or disorder in a given population; whereas the object of tertiary prevention is to ameliorate the discomfort or disability that attends an existing disease condition. Bloom (1979), Wagenfeld (1972), and others have argued that the latter actually falls outside of the realm of prevention since such efforts are not designed to de-

crease the occurrence of disease.

Figure 1

The Domain of Mental Illness Prevention



Primary prevention seeks to lower the prevalence of disease by reducing its incidence, which can be accomplished in three ways: health promotion and enhancement, disease/disorder prevention, and health protection. Health promotion and enhancement involve building or augmenting adaptive strengths, coping resources, survival skills, and general health. In addition to focusing upon the capacity to resist stress, health promotion and enhancement require an understanding of the conditions which generate stress and which may negatively affect psychosocial functioning. There is very little research of this nature in the American Indian mental health literature. Exceptions include work by Dinges, Yazzie, and Tollefson (1974) on developmental task accomplishment among Navajo parents and children, by Kleinfeld (1973b) in her study of the characteristics of successful boarding school parents for Alaska Native students, by Lefley (1974) in her research on the familial and social correlates of psychological health among Miccosukee children, by Oetting and Dinges (Note 3) and Goldstein (1974) in their evaluation of the Toyei model dormitory project, and by Manson (Note 4 & Note 5) on the various features of support networks which facilitate situational problem-solving among American Indian elderly.

Disease/disorder prevention encompasses a much narrower spectrum of concerns. It targets a specific disorder and, based on an analysis of risk factors, attempts to manipulate one or more conditions to forestall the occurrence of the disease in question. The vast bulk of primary prevention research in Indian mental health is of this type, but seldom moves beyond the identification of risk factors to study the differential success of interventions according to the conditions manipulated. Hence, the literature is replete with pro-

files of the "typical" Indian alcoholic, delinquent, addict, and suicide and lacks data on the effectiveness of potential responses.

Health protection techniques employ regulatory and legislative action to reduce the probability that the disease agent and host will come into contact. Bonnie (1978, pp. 210-213) discussed health protection in terms of four legal strategies: establishing the conditions of contact (availability), deterring undesired behavior through punishment, symbolizing an official posture toward the behavior, and influencing the content of messages in the mass media. With respect to American Indian communities, the classic "experiment" in health protection has been the federally imposed (and in many places now tribal) prohibition of liquor sales and liquor consumption on reservation lands. Levy and Kunitz (1974) clearly demonstrated that the prevalence of "problem drinking" and of associated phenomena (accident, arrest, and homicide rates) are not necessarily lower and may be even higher on "dry" reservations than on "wet" reservations.

Secondary prevention seeks to reduce the prevalence of disease or disorder through early case finding and treatment. A reduction in the duration of a case consequently decreases the total number of active cases at any given point in time. Research of this nature is extremely sparse in the American Indian and Alaska Native mental health literature. Manson and Shore (Note 6) have begun to identify the relationships among psychophysiological symptoms, indigenous categories of illness, and research diagnostic criteria for depression within a southwestern Indian tribe, permitting earlier intervention and more appropriate treatment. McShane and Plas' (Note 7) study of the psychoeducational impact of otitis media, specifically of parent reports of the number of a child's ear infections as a means of early detection of psychoeducational problems, is another example.

Tertiary prevention addresses the degree of disability that an individual suffers as the consequence of a disease/disorder. The most common approach is rehabilitation complemented by community support programs to reduce the need for institutionalization. Despite a number of tertiary prevention programs in the area of American Indian mental health, largely for chronic alcoholics and drug abusers, virtually no research has been conducted on the relative effectiveness of rehabilitation strategies, on the kind and nature of community support that best facilitate de-institutionalization, or on **how** to engender and to maintain such support.

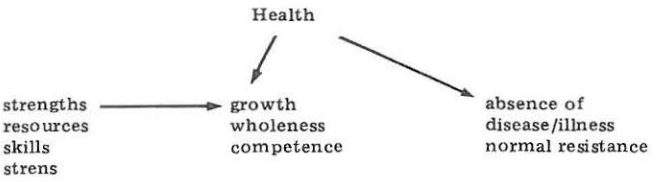
Conceptual Domains

There appear to be at least six conceptual domains that assume major importance in the thought which characterizes prevention research and programs. These domains concern assumptions about: 1) health; 2) disease; 3) the presumed locus of the phenomenon of

interest; 4) notions about time; 5) the nature of phenomena, and 6) change.

Figure 2

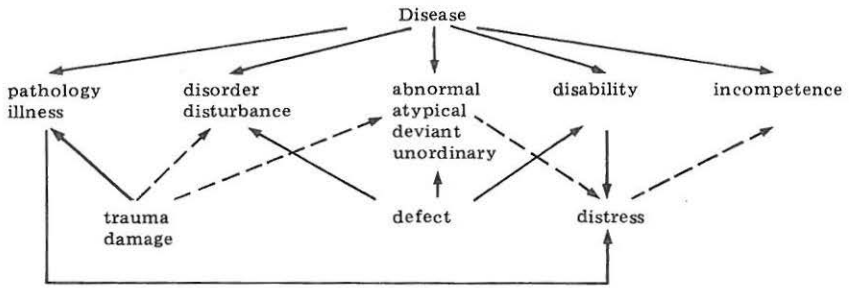
Assumptions Regarding Health



Health. The concept of health deserves special attention for several reasons, not the least of which is the field's overwhelming preoccupation with disease and disorder, as the above discussion indicates. Unfortunately, health is usually conceptualized as one endpoint on a continuum of disease presence or absence (Dubos, 1959; Williamson & Pearse, 1966; Bloom, 1979). Alternative perspectives attempt to circumvent this dichotomy by emphasizing the maximization of personal potential. Growth, wholeness, and competence are frequently used to describe the ensuing phenomenon of interest. The limited vocabulary which is available for discussing health in this latter sense stands in marked contrast to the richly varied vocabulary that characterizes the subject of disease. As we will attempt to demonstrate towards the end of this section, this imbalance can be attributed to particular biases with regard to the conceptualization of the nature of the phenomena.

Figure 3

Assumptions Regarding Disease



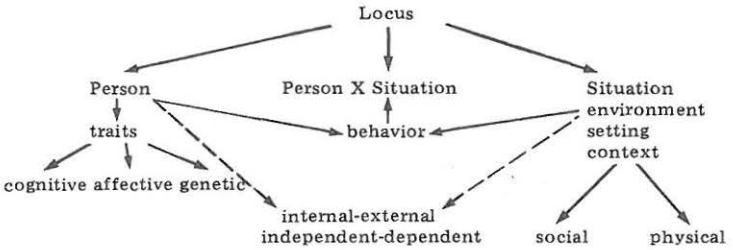
Disease. The concept of disease encompasses numerous, related terms as depicted in Figure 3. In this illustration, different emphases are represented from left to right. Pathology and illness imply the presence of a noxious element. Disorder and disturbance suggest a loss of equilibriuim. Abnormal, atypical, deviant, and unordinary reflect variation from a normative standard. Disability is the reduction of effectiveness; incompetence is the lack of necessary skills or inadequacy of those possessed. Related outcomes (or causes, depending upon point of view) also seem to vary with given meaning sets. Pathology and illness derive from trauma or damage, such as injury caused by an external agent. Disorder, abnormal, and their respective equivalents may be similarly related; however both clearly embody a notion of defect or flaw. Disability is frequently portrayed as the result of a defect and in turn contributing to distress. Incompetence, on the other hand, can follow from distress, but has no other points in common with the other meaning sets. Later in our discussion, we will consider relationships among certain disease concepts, presumed locus of the phenomenon of interest, and notions about time.

Presumed locus of the phenomenon of interest. Regardless of whether one's concern is with health or disease, the locus of the phenomenon of interest is often posited in one of two areas (see Figure 4).

Persons and situations are usually cited as separate foci of preventive or promotive interest. If one accepts the person as central, this decision then leads to the examination of cognitive, affective, and genetic traits. Conversely, an assumption that the situation is preeminent encourages one to consider demand characteristics, tasks, opportunities, and structure (Argyle, 1977). Broader and more general—but no less important— conceptual dichotomies seem to naturally align themselves with these emphases. A person-centered focus leads to the image of an autonomous individual existing independent of the world and within whom resides the essential elements that comprise the phenomenon of interest. A situation-centered focus offers the opposite view: people are depicted almost exclusively as context-dependent and subject to environmental contingencies. The phenomenon of interest is located outside of the individual and is believed to be embedded in the fabric of the situation. Indian mental health research is sharply divided along these lines. Leighton and Hughes' (1961) social disintegration hypothesis is an example par excellence of the situation-centered approach. The individual experience of a specific disorder, i.e., alcoholism or psychiatric disturbance, is seen as the consequence of weak, absent leadership, high crime and delinquency rates, widespread ill health, extensive poverty, and cultural confusion. In marked contrast, the person-centered approach accounts for the same experience in terms of genotype (Schaeffer, 1981) or cognitive deficit.

Figure 4

Locus of the Phenomenon of Interest



Once one begins to examine the behavior of individuals in context a third arena emerges: the person by situation approach. Here, the phenomenon of interest is conceptualized in terms of the process by which an individual's behavior conforms (or not) to the demands of the specific settings in which he or she participates. This perspective has been articulated at a more general level of concern by Magnussen and Endler (1977) and Endler and Magnussen (1976). With respect to prevention, it is implied by Iscoe (1974) and Bloom (1979) and explicitly stated as a future strategy for programming and research in Levine and Perkins' (1980) review of the Report of the Task Panel on Prevention to the President's Commission on Mental Health. The call for such an approach in American Indian mental health research has recently been made (Dinges, Trimble, Manson, & Pasquale, 1981), but, to the best of our knowledge, has guided only one study (Dinges et al., 1974).

Time. Notions about time have a profound influence upon thought in the area of prevention, yet achieve this effect in subtle ways. Temporality surfaces in three different forms, in chronological, developmental, and pathological senses that may be, but are not necessarily related (see Figure 5).

The most obvious sense of time is its chronological dimension, as an absolute measure of the duration of phenomena and of spans between occurrences. It is used to quantify and to compare, such as in calculating prevalence and incidence.

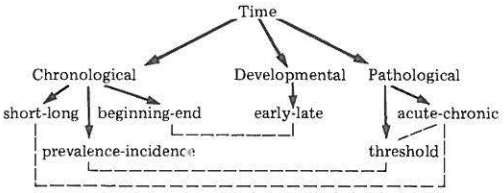
Time in a developmental frame is usually expressed as stages, the number and kind of which vary. However, a relative difference is always available, e.g., early versus late, with special implications for a number of assumptions. For example, we often believe that outcome is directly related to time of intervention: early introduction results in greater success. Then again, we presume that promotive efforts will endure, to provide the recipients at one point in their life's course with the means to effectively address exigencies that are

anticipated at a future stage.

Time can assume the mantle of pathology as well. Psychiatric diagnosis is in part contingent upon the duration of symptoms, the threshold being a point at which specified symptoms have existed sufficiently long to justify the attribution of disorder. It is interesting to note that threshold is a matter of considerable debate in psychiatry. At present, depending upon diagnostic systems, threshold varies from two weeks to a month or more. Consider the dramatic differences in estimates of prevalence and incidence that can arise within the same population as a function of varying (or ethnopsy-

Figure 5

Notions about Time



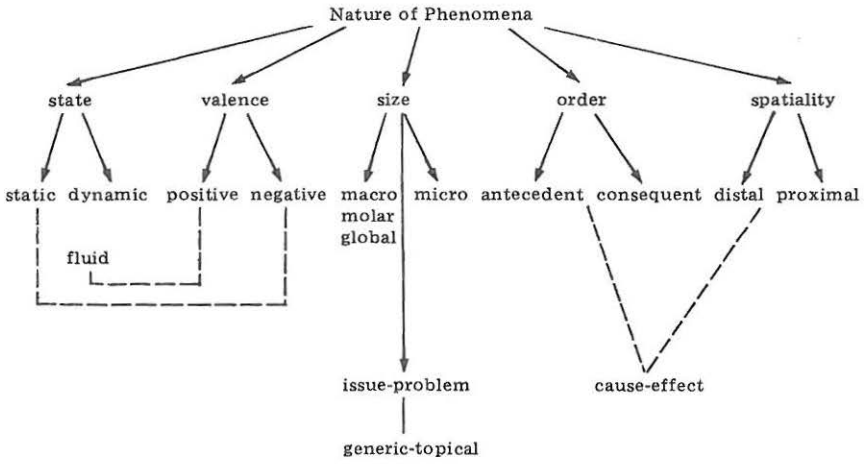
chologically inappropriate) applications of thresholds. Indeed, Manson and Shore (Note 6) suggest that the epidemiological data specific to American Indian communities is confounded by such inconsistency. Acute and chronic are another example of how time can play out in a pathological sense. Acute implies short duration of manifested disorder, of being temporary with expected resolution. Chronic is equated with forever, the infinite: one experiences better (remission) or worse periods in managing disease, but has passed a threshold from which there is no presumed return.

Nature of phenomena. The characteristics that one attributes to or assumes to be representative of a given phenomenon are often thought of in terms of its state, valence, size, order, and spatiality (see Figure 6). Assumptions about the state of a given phenomenon have been the subject of considerable discussion in the prevention literature, particularly with regard to attempts to redress the almost exclusive emphasis on disease at the cost of attention to health. Disease concepts are typically static in nature and are seldom cast as an entity which changes, but rather as something to be eliminated. Conversely, health, especially its promotive sense, is dynamic, fluid, and evolving. It grows and requires maintenance. Phenomena such as these also have a certain valence. That which is dynamic and fluid—again the concept of health, for example—evokes a sense of the positive. In contrast phenomena that are static, such as disease and its

various equivalents, are frequently imbued with a negative aura.

Figure 6

Nature of Phenomena



Size is yet another attribute which figures importantly in prevention thought. Though it can be distinguished on a continuous basis, we tend to view size in dichotomous fashion, as either micro or macro. This perspective complements and supports a conceptual bias which was discussed earlier, namely the location of the phenomenon of interest within the person or the situation. Other contrasts are also related to (follow from?) these kinds of distinctions. C. Wright Mills proposed a distinction between "troubles," when an individual's values are perceived as being threatened, and "issues," when a society's values are perceived as being threatened (c.f. Bloom, 1979, p. 179). The effort to examine or to enhance task-specific as opposed to generalized competencies reflects a similar gradation of size.

Order and spatiality are two additional aspects to be considered in conceptualizing the nature of phenomena in prevention. Phenomena are attributed order and position according to presumptions about cause and effect. Until recently, single cause/single effect models have dominated the thinking in prevention research and programs. There is an inherent linearity to such models which imparts clear order (e.g., antecedent and consequent) and position (distal and proximal) to phenomena. Disease lends itself quite naturally to this linearity. Well-defined and unchanging, it is easily conceptualized as present or absent within persons and situations along a space-time continuum. Moreover, disease can be either cause or effect. However,

health, because of its dynamic and fluid nature, requires a different approach to cause and effect. Growth, wholeness, and competence are multidimensional and evolve over both chronological and developmental time. In these senses, health is only adequately understood in terms of person-situation interaction; thus health is neither cause nor effect, but process (Dubos, 1959). Since the theoretical bases for this perspective are just being laid, it is much more appealing (simple) to concern ourselves with preventing disease—or promoting its absence.

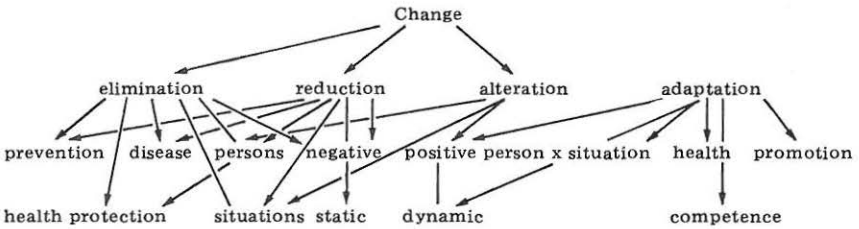
Beliefs about change. Beliefs about change weave in and out of these conceptual domains and can be characterized as assuming that change is a function of elimination, reduction, alteration, or adaptation (see Figure 7). Change may be brought about by elimination which implies that the targeted phenomenon is not intrinsic to the continuity of its host. Elimination also suggests a unilateral relationship rather than an interactive process: the agent affects, but is not affected by the host. Most disease concepts fit this particular view of change, as does preventive intervention in its narrowest senses. The belief that change can be achieved through elimination has dominated prevention research and programming among Indian communities, the most dramatic example is the health protectionist movement to prohibit the sale and consumption of alcohol on reservations. Other examples include efforts to eliminate poverty, illiteracy, delinquency, and so forth. Reduction follows the same line of thought and represents a fallback position with regard to elimination, accepting minimization of effects usually after having failed to eliminate presumed cause. In both cases presumed cause is posited in either persons or situations. If change does not result from attempts to eliminate or reduce, the subsequent response is to assume that the phenomenon of interest is subject to underlying factors which are immutable. Consider recent attempts to explain alcoholism among American Indians and Alaska Natives in terms of differential ethanol metabolism or higher rates of suicide in terms of inherent cultural flaws. The former represents a person-centered approach that explains lack of change as a function of genotype. The latter represents a situation-centered approach that explains lack of change as a function of social or cultural traits.

Viewing change as alteration begins to shift us away from a concern with disease proper and introduces the possibility of thinking in positive and dynamic terms. However, it still focuses on affecting change **within** persons or situations. Moreover, alteration continues the reliance upon external forces to wrought the desired change. The Toyei model dormitory project (Goldstein, 1974) is a good example. An educational living environment was modified structurally in an attempt to avoid stunting individual growth. But there was not equal emphasis on competency building to enable the students to adapt to

the different educational environments within which they would inevitably participate in such a way as to preserve their inherent sense of self. Nor did this modification provide them with the skills necessary to in turn bring about change on their own. These conditions are characteristic of change in its adaptive sense and of the interactional models that we explore in the conclusion to this paper.

Figure 7

Beliefs About Change



Before proceeding with further considerations of the theoretical courses that are available, a more detailed look at the actual practice of mental health prevention and promotion research among American Indian and Alaska Native people is in order.

OVERVIEW OF AMERICAN INDIAN/ALASKA NATIVE MENTAL ILLNESS PREVENTION AND MENTAL HEALTH PROMOTION

In the following section mental illness prevention and mental health promotion efforts among American Indians and Alaska Natives are reviewed. While this is not an exhaustive summary of prevention research and evaluation specific to this population, representative endeavors are presented in order to delineate areas which have received differential attention in the literature. It should be pointed out that the scarcity of publications addressing a particular problem or prevention domain does not necessarily mean that these areas are not problematic among this population or that programs addressing them do not exist. It does, however, indicate the problem areas which have received the most and the least attention in the reported literature. This discussion focuses on the problem areas of alcoholism, drug abuse, delinquency, child abuse and neglect, mental retardation, suicide, and major and minor psychiatric disorders. Within each of these problem areas, primary, secondary and tertiary prevention research is addressed for children and adolescents and adults (See Tables 1—3).

Alcoholism

A number of studies have explored the prevalence of alcohol use and abuse among American Indian and Alaska Native children and adolescents. Kleinfeld and Bloom conducted extensive research with Alaska Native adolescents in four representative boarding schools (Kleinfeld, 1973; Kleinfeld & Bloom, 1977). They found problem drinking to be most prevalent among adolescents from rural villages who were placed in boarding schools in larger towns, removed from their cultural heritage and confronted with a new set of values and standards. In one public boarding school with a small homogenous Eskimo student body, among the freshmen in 1971-72, 8% experienced problem drinking. The following year the school consolidated with a high school in a nearby town which enrolled more acculturated Eskimo students. With the stress of the changed school situation and more relaxed policies by the dormitory staff, drinking and violence became an established way to achieve status among the students. Problem drinking among the sophmore class in 1972-73 rose to 40%.

Another study of Alaska Native boarding school students found that the majority of "troublesome" students come from larger hetero-

Table 1

Prevention Focus

Primary

problem area	children/adolescents	adults
	Beiser & Attneave, 1982	Albaugh & Albaugh, 1979
	Cockerham, 1975, 1977	Bennion & Li, 1976
	Cockerham et al., 1976	Daily et al., Note 11
	Goldstein et al., 1979	Hoffman, Note 9
	Harvey et al., 1976	Hoffman & Jackson, 1973
	Heidenreich, 1976; Jones, 1969	Hoffman & Noem, 1975
Alcoholism	Kleinfeld, 1973a, b	Kline et al., 1973
	Kleinfeld & Bloom, 1977	Kunitz et al., 1971
	McBride & Page, 1980	Rhoades et al., 1980
	Oetting & Goldstein, Note 8	Schaefer, 1981
	Pinto, 1973; Porter et al., 1973	Sievers, 1968
	Streit & Nicolich, 1977	
	Swanson et al., 1971	
	Beiser & Attneave, 1982	
	Cockerham, 1975, 1977	
	Cockerham et al., 1976	
	Goldstein et al., 1979	
	Harvey et al., 1976	
	Kaufman, 1973; Kleinfeld, 1973a	
	Kleinfeld & Bloom, 1977	Callan & Patterson, 1973

Table 1 (continued)

Prevention Focus

Primary

problem area	children/adolescents	adults
Drug Abuse	McBride & Page, 1980 Mesteth, 1968 Oetting & Goldstein, Note 8 Pinto, 1973; Porter et al., 1973 Schottstaedt & Bjork, 1977	Rhoades et al., 1980
Delinquency	Beiser & Attneave, 1982 Delk et al., 1974 Harvey et al., 1976 Jensen et al., 1977 Kleinfeld, 1973a Kleinfeld & Bloom, 1977 Thornberg, 1974; Woodward, 1973	not applicable
Child Abuse and Neglect	Ishisaka, 1978 Jones, 1969 Oakland & Kane, 1973	Ishisaka, 1978 Jenkins, 1961; Jones, 1969 Oakland & Kane, 1973
Major and Minor Psychiatric Disorders	Beiser & Attneave, 1982 Harvey et al., 1976 Kleinfeld, 1973a Kleinfeld & Bloom, 1977 McShane & Plas, Note 7 Roy et al., 1970	Manson & Shore, Note 6 Roy et al., 1970 Sampath, 1974 Shore et al., 1973 Tyler & Dreyer, 1975
Mental Retardation	Bureau of Indian Affairs, 1965,1966 Fetal Alcohol Syndrome Project, 1981 Jones & Smith, 1975 Reschly & Jipson, 1976 Sontag, 1972	Jones & Smith, 1975 Reschley & Jipson, 1976
Suicide	Beiser & Attneave, 1982 Conrad & Kahn, 1974 Dizmang et al., 1974; Frederick, 1975; Harvey et al., 1976 Levy, 1965; Miller, 1979 Miller & Schoenfield, 1971 Mindell & Stuart, 1968 Pambrun, 1970 Resnick & Dizmang, 1971 Shore, 1972; Shore et al., 1972	Conrad & Kahn, 1974 Frederick, 1975; Levy, 1965 Miller, 1979 Miller & Schoenfield, 1971 Mindell & Stuart, 1968 Pambrun, 1970 Resnick & Dizmang, 1971 Shore, 1972 Shore et al., 1972
Generalized Competencies	Dinges et al., 1974 Forbes & Lonner, Note 13 Goldstein, 1974 Kleinfeld, 1973b Lefley, 1974, 1976 Oetting & Dinges, Note 3	Dinges et al., 1974 Manson et al., Note 4 Manson, Note 5

Table 2

Prevention Focus

Secondary

problem area	child/adolescent	adult
Alcoholism	Harvey et al., 1976	Haven & Imotichey, 1979 Stratton, 1973
Drug Abuse	Schottstaedt & Bjork, 1977	
Delinquency	Harvey et al., 1976	
Child Abuse and Neglect	Shore & Nicholls, 1975 State of Montana, 1979	Shore & Nicholls, 1975 State of Montana, 1979
Major and Minor Psychiatric Disorders	Harvey et al., 1976	Manson & Shore, 1981 Manson & Shore, Note 6 Shore & Manson, 1981
Mental Retardation	Bureau of Indian Affairs, 1965, 1966 Delk et al., 1974 Sontag, 1972	
Suicide	Harvey et al., 1976 Pambrun, 1970 Shore et al., 1972	Dizmang, 1967 Mindell & Stuart, 1968 Pambrun, 1970 Shore et al., 1972
Generalized Competencies	not applicable	not applicable

Table 3

Prevention Focus

Tertiary

problem area	children/adolescents	adults
Alcoholism		Albaugh & Anderson, 1974 Ferguson, 1970 Jilek-Aall, 1981 Kline & Roberts, 1973 Shore & Von Fumetti,1972 Walker, 1981 Westermeyer, Note 10 Wilson & Shore, 1975
Drug Abuse		
Delinquency	Mason, 1968, 1969	not applicable
Child Abuse and Neglect	Shore & Nicholls, 1975 State of Montana, 1979	Shore & Nicholls, 1975 State of Montana, 1979
Major and Minor Psychiatric Disorders		
Mental Retardation	Miller, 1978 Miller et al., 1978 Muller, 1977; Sontag, 1972	Miller, 1978 Norris & Overbeck, 1974 Sontag, 1972
Suicide		
Generalized Competencies	not applicable	not applicable

genous communities and tend to act out while drinking (Harvey, Gazay, & Samuels, 1976). This review of five years of psychiatric consultation and social work at a secondary boarding school near Sitka, Alaska revealed that students referred for disruptive behavior while intoxicated were the largest problem group (35% of referrals). Yet another study of Alaska adolescents in Anchorage high schools surveyed over 15,000 students in 1971. Among Alaska Native teenagers use of alcohol, tobacco, and other drugs was reported to be more prevalent than among Whites, Orientals, or Blacks (Porter, Vieira, Kaplan, Heesch, & Colyar, 1973).

Cockerham (1975) studied attitudes toward drinking and drinking patterns among seventh and eighth grade Arapahoe and Shoshone students in three junior high schools on the Wind River Reservation in Wyoming (N=144). Although alcohol use was the most frequently cited behavior which the students thought could get them into trouble (boys 56%, girls 74%), a majority (56%) approved of drinking for people in general and 80% considered themselves to be "drinkers." Using the definition of "getting drunk" as a state in which they were no longer in full control of their behavior, 76% of the respondents reported that they had gotten drunk at least once in the past year and 26% stated that they had gotten drunk at least 10 or more times during the past year. Although there were no significant differences in alcohol usage between boys and girls, boys appeared to begin drinking at earlier ages than girls. Regular drinking before age 12 was reported by 58% of the boys and 30% of the girls.

In an expanded report of this study of adolescent drinking patterns on and near the Wind River Reservation, Cockerham (1977) compared the responses of American Indian (N=280) and White (N=667) junior high and high school students. The results showed that a majority of both Indian and White respondents either approved of drinking or were undecided about whether or not it was alright for people to drink. Indian students, however, reported considerably higher frequencies of getting drunk.

Oetting and Goldstein (Note 8) surveyed alcohol and drug use in nearly 3,000 adolescent American Indians from 14 different tribes. They found that over three fourths of the American Indian respondents had tried alcohol, compared to 52% of other youth. Sixty-one percent of the American Indian adolescents reported recent use of alcohol compared to 22% reported by other teenagers. Among older American Indian students enrolled in an Arts and Technical school (N=276), 95% reported having tried alcohol, and 84% reported drinking during the previous two months period (Goldstein, Oetting, Edwards, & Mason, 1979).

Swanson, Bratude, and Brown (1971) studied the course of severe

alcohol abuse in a population of Indian children. Their findings indicated that the major reason given for drinking was boredom, although social acceptance of drinking by the families and peers was also a contributing factor. The parents of most of these children were heavy drinkers and in some of their families all family members drank excessively. They suggest that a major etiologic component of childhood abuse of alcohol is traditional Indian respect for autonomy which when combined with permissiveness for other reasons allows the child to determine how much alcohol he will drink.

The available data suggest a considerably higher prevalence of problem drinking among American Indian and Alaska Native children and youth compared to other ethnic groups. Beiser and Attneave (1982) have suggested that this is one of the contributing factors to the higher rate of utilization of mental health services in this population. Although alcohol abuse has been identified in numerous studies as a problem among American Indian and Alaska Native young people, few secondary or tertiary prevention efforts are reported in the literature. One secondary prevention effort reported by Harvey, Gazay, and Samuels (1976) postulated that rural village Alaska Native students entering boarding schools in larger heterogenous communities experience a diminished sense of identity in their new setting. The mental health program about which they report focused on strengthening the cultural identity of both students and staff, and included a student-run alcohol program. Six students, most of whom had drinking problems, were sent to an institute on student-run alcohol programs and formed the nucleus of the new program which involved peer-counseling as well as a detoxification center.

Due to the high visibility of alcoholism among American Indians, this problem area has been more widely studied than any other among the adult population. From a biological perspective, ethanol metabolism in American Indians as compared to other racial and ethnic groups has yielded little convincing evidence that the propensity for alcoholism among the Indian population is clearly genetic (Bennion & Li, 1976; Schaefer, 1981).

Among various tribal groups alcoholic cirrhosis mortality rates have been found to vary widely. Kunitz, Levy, Odoroff, and Bollinger (1971) found that for those 20 years and older age-adjusted death rates from cirrhosis of the liver among Hopi Indians is 104 per 100,000 population compared to 13.0-17.0 for Navajos (based on high and low population estimates) and 19.9 for the U.S. as a whole. Among the Hopi fewer of the cirrhotic cases came from traditional villages or from on-reservation wage-work communities than from off-reservation locations. Among the Navajo fewer of the cases came from isolated areas and the incidence increased in areas closer

to off-reservation communities. The authors suggested that contrasting drinking patterns between the two tribes may account partially for this dramatic variance in cirrhosis death rates. The Navajo are generally abstainers, heavy drinkers, or young male drinkers, many of whom stop before their health is affected. In Hopi culture there is a strong social approbation against drinking and the problem drinker is usually ostracised from the community, continues to drink and often develops cirrhosis.

Surveys of Indian Health Service (IHS) patient populations have also revealed differing rates of alcohol usage among various tribal groups. Sievers (1968) studied Indian patients served by the Phoenix Public Health Service Indian Hospital over a five year period. He found that larger percentages of tribal members from Colorado River, Havasupai-Hualapai, and Pima reported alcohol usage than Navajo or Hopi. Alcohol usage and heavy drinking were considerably higher for men than women in all tribal groups. However, there was no difference in reported usage of alcohol between southwestern Indians. In comparing his findings to similar studies of White populations, Sievers found that while approximately 60% of each population reported using alcohol, only 9% of the White population reported heavy usuage, compared to 37% of southwestern Indians and 36% of non-southwestern Indians.

In another survey of IHS patients, Albaugh and Albaugh (1979) explored predisposing factors to alcoholism. Their findings indicated that confusing family interpersonal relationships, alcoholism in the immediate family, and severe parent-child emotional deprivation are frequent developmental problems among alcoholics. Hoffman and Noem (1975) also found the incidence of alcoholism among relatives of alcoholic Indians to be significantly greater than among relatives of alcoholic non-Indians.

One of the few community-based surveys of problem drinking among American Indian populations was conducted by Daily, Burns, and Moskowitz (Note 11) in Los Angeles. Of the 552 urban Indians surveyed one-third were found to be heavy drinkers as measured by quantity, frequency, and variability; another 18% were found to be moderate drinkers.

A recent review of service utilization records reveals that alcoholism accounts for 31% of all outpatient visits to IHS facilities. Over half (55%) of these visits are young adults ages 20-39 (Rhoades, Marshall, Attneave, Echohawk, Bjorck, & Beiser, 1980). Among hospitalized alcoholic Indians, Hoffman (Note 9) found reported motivations for drinking to include escape from the depression of socioeconomic deprivation, coping with migratory (reservation to city) anxieties, compensation for low self-esteem based on lack of a positive group identity, and conformation to peer expectations.

Studies exploring personality characteristics of Indian alcoholics have found great diversity in profile patterns, reflective of the complex etiology of the problem (Kline, Rozynko, & Flint, 1973). Hoffman and Jackson (1973) found Indian alcoholic subjects to score significantly higher than non-Indians on scales reflecting cynicism, disorganized thinking, hypochondria, feelings of persecution, repression, self-depreciation, and somatic compliants.

While the incidence and prevalence of alcoholism among American Indians has received more attention in the research arena, the methodological problems of this extensive literature base are significant. The definition of alcoholism or problem drinking, much disputed in the dominant culture, is even more problematic among the Indian population. Drinking patterns and cultural and social acceptability of alcohol consumption differ considerably from that in the dominant culture and, moreover, vary tremendously among different tribal groups and in different social and geographic settings. Although alcoholism is clearly an identified problem among this minority population, secondary prevention efforts for adults, as for children and adolescents, seldom appear in the literature. This, of course, does not necessarily indicate a total absence of such programs, but may reflect the difficulty of evaluating the effectiveness of early intervention efforts in such a complex and multidimensional problem.

The United Southern and Eastern Tribes (USET) mental health services programs, reported by Haven and Imotichey (1979), are directed toward community prevention, with a major focus on alcoholism. Each of the 14 programs in USET are tribally operated and designed especially for their specific populations. Recognizing the complexity and overlapping nature of emotional and behavioral problems, mental health, alcoholism, and drug abuse are not programatically differentiated. Stratton (1973) also reported a secondary prevention effort in a small southwestern town, seeking to involve police officers to help American Indian alcoholics prevent getting caught in the "revolving door" pattern with law enforcement.

Another American Indian alcohol program involving intervention in the criminal justice system is reviewed by Ferguson (1970). This tertiary prevention program compared an experimental group of 155 and a control group of 60 Navajo volunteers who had been arrested and jailed for drunkenness at least 10 times, matched by age and time of arrest. The experimental group participated in a five day treatment program consisting of detoxification, disulfiram treatment, counseling and psychotherapy when indicated, 18 months probation, and employment and welfare aid. The average number of arrests for the treatment group dropped from 10.4 for the 18 month period prior to treatment to 2.2 for the same time period after the treatment began. In the control group the average number of arrests were 9.2 before the index arrest and 7.8 for the 18 months there-

after. Factors found to significantly correlate with treatment program success included less facility with English, taking disulfiram consistently for 12 months, being between 30 and 55 years of age, and having less than a 4th grade education. The opportunity to identify with a nonproblem-drinking peer group, in this case, the project interpreters, also appeared to be related to successful treatment outcome.

Another alcoholism rehabilitation program for American Indians at the Mendocino State Hospital reported limited success with inpatient treatment (Kline & Roberts, 1973). A major difficulty encountered by this program was involving the patients in treatment due to their impassiveness in new situations and hesitancy to discuss personal problems. Self-help groups were suggested as a possible alternative. Utilization of more Indian staff in halfway houses and other community support services for Indian alcoholics was proposed by Westermeyer (Note 10) based on a study of utilization of such a facility by urban Chippewa men. In another tertiary effort Albaugh and Anderson (1974) examined the use of peyote as an effective treatment medium in rehabilitation programs for American Indian alcoholics.

Drug Abuse

In the area of drug abuse among American Indian populations the bulk of prevention research has occurred during the past decade and focused on problem identification or prevalence of usage in high schools and boarding schools. Oetting and Goldstein (Note 8) surveyed 3,000 American Indian junior high and high school students throughout the United States, representing over 200 different tribal groups and tribal mixes. They also compared their findings to a similar survey of non-Indian youth. Marijuana was the most frequently cited drug of use other than alcohol for both groups, although significantly more American Indians reported having used this drug (46%) than did non-Indians (28%). The survey also revealed that considerably higher percentages of American Indians than non-Indians use inhalants, stimulants, hallucinogens, and sedatives.

Cockerham's (1975) study of 7th and 8th grade American Indian students on Wyoming's Wind River Reservation found that alcohol use, crimes against persons, and theft were perceived as actions more likely to lead to trouble than drug use. In a larger survey of area high school students (Cockerham, Forslund, and Raboin, 1976), a higher proportion of Indians (47%) than Whites (25%) felt that it was generally alright for people to use drugs. Significantly more American Indian students (53%) than White students (28%) reported having used marijuana. The proportion of Indians who had used some drug other than marijuana was more than double that for White students (29% and 12%, respectively), and 8% of the Indian students said they had used a drug other than marijuana at age 13

or younger compared to 14% of the non-Indian students. A later report by Cockerham (1977) also suggested that rural Indian youth are more prone than rural White youth to be involved with alcohol, marijuana, and hard drugs. A survey of high school students in Anchorage, Alaska also revealed that a higher percentage of Alaska Natives (44%) than Whites (36%), Blacks (32%), or Orientals (26%) have used at least one drug other than alcohol or tobacco (Porter et al., 1973).

Inhalant abuse has been identified as a problem in Indian communities and boarding schools, particularly among younger children to whom other substances are not readily available. Secondary prevention efforts geared to interrupt this pattern of dependence on external agents at an early age have been reported at an Indian boarding school in Oklahoma. This approach focused on lowering the adult-child ratio in the dormitories, improving staff morale and child management skills, and developing a volunteer program to improve the quality of the children's experience after school hours (Schottstaedt & Bjork, 1977).

Little research regarding drug use and abuse among American Indian adults is available. Rhoades et al. (1980) reported drug abuse and dependence to be the fourth most frequent reason for IHS outpatient visits for mental health problems. However, those under age 39 accounted for 72% of these visits. Other research among military inductees, also a younger age group, indicates a higher rate of use of drugs by American Indians compared to other racial and ethnic groups (Callan & Patterson, 1973).

Delinquency

Much of the research on American Indian delinquency has been conducted in boarding school settings. One of the most interesting studies was conducted by Jensen, Strauss, and Harris (1977) among students in three southwestern boarding schools. Examining rule violations among Navajo, Apache, and Hopi youth, tribal background was found to be more consistently related to this measure of delinquency than any other background variable included in the study. The majority (64%) of all violations involved the use of alcohol. Incidents involving alcohol and violence were highest among Navajo, followed by Apache, and were markedly lower among Hopi students, while incidents involving theft and drugs were considerably higher among Apache youth than those from the other two tribes. Family disorganization variables did not account for tribal differences. The authors suggested that these findings support a tribal cultural deviance interpretation of Indian crime and delinquency, rather than explanations which focus on family disorganization or failures of socialization. This study also cited an unpublished survey of self-reported acts of delinquency in an Arizona adolescent population

which revealed that American Indians reported considerably more incidents of fighting, vandalism, drinking, and drug usuage than did White or Chicano youth.

Other studies of boarding school populations have found delinquent behavior to be associated with increased exposure to cultural conflict. Kleinfeld and Bloom's research among Alaska Native boarding school students found that violent drinking and anti-White militancy became problematic among Native students whose school was consolidated with a town high school (Kleinfeld, 1973a,b; Kleinfeld & Bloom, 1977). Harvey et al. (1976) also found that more "troublesome" students come from larger, more heterogenous communities. Kleinfeld's (1973a) development of screening interviews for successful and non-successful boarding home parents points out a potential primary prevention approach for use with boarding school populations.

Utilization patterns for mental health services suggest that antisocial behavior among American Indian children and adolescents tends to increase with age (Beiser & Attneave, 1982). High school dropout rates, a variable which also increases with age in this population, have likewise been linked to delinquent behavior. A reduction in both delinquency and dropouts was reported among Papago students after initiation of a primary prevention program, which included special education and tutoring, parent counseling, and group psychotherapy for potential dropouts (Delk, Urbancik, Williams, Berg, & Kahn, 1974). Thornberg (1974) has reported success with a primary prevention program geared toward reducing dropout rates among minority youth in a rural Arizona high school. This program involved Black, Mexican-American, and Indian students who were identified as potential dropouts in a special academic program which focused on improving self-concept and attitudes toward school. Harvey et al. (1976) also reported success in reducing dropout and expulsion rates through the development and utilization of self-help programs for students with alcohol and severe behavioral problems. A dropout prevention program on the Pine Ridge Reservation which emphasized increased involvement of Indian parents and other adults in the school system, both on a volunteer and paid basis, was also successful in reducing truancy and dropout rates (Woodward, 1973).

Another successful dropout prevention program with a tertiary focus has been reported by Mason (1968, 1969). This demonstration program, entitled "Project Catch-Up," focused on intensive academic instructional programs and counseling for socially disadvantaged minority youth during the summer months. Although academic performance of participants showed no significant improvement, dropout rates were lower among participants than controls during the follow-up period.

Child Abuse and Neglect

Child abuse and neglect has received surprisingly little attention in the American Indian and Alaska Native mental illness prevention literature. One field investigation in a small Alaska Native village found that nearly all children in the community were neglected because traditional child-caring practices had disappeared and effective alternatives had not evolved. Poverty and demoralization among native families and the effects of years of post-contact cultural deterioration within the tribal group were cited as underlying factors. Among the total population of children in this remote village, one third were homeless, neglected or abused. Of these severe child welfare problems over two-thirds were subsequently removed from the community by the area child welfare agency (Jones, 1969). The author proposed strengthening the community's ability to handle its own child welfare problems as an alternative to removal of children from their natural families and native villages.

Conditions like those mentioned above combined with a child welfare system that has perhaps too quickly turned to foster care as a remedial alternative have resulted in the separation of many American Indian and Alaska Native children from their natural families. Studying the dimensions of the problem in British Columbia, Ishisaka (1978) found that 69% of referrals to an Indian child welfare program were due to norm violative reasons such as physical abuse, neglect, and abandonment, while the remainder were due to non-norm-violative reasons, such as escape from an abusive partner, or extreme youth or indigent status of the mother. Ishisaka reported the success of a secondary prevention program for alternatives to foster care which provides troubled families with apartment units in its residential facility and offers child care, child management counseling, dietary counseling, employment and social service advocacy, and other case management services.

A primary prevention study of families of neglected Navajo children found that, compared with a non-neglected control group, the former type of families had a significantly higher percentage of single, widowed, or divorced mothers. Family size among the neglected group was also significantly smaller. Neither mother's age, education, nor employment were found to discriminate between the two groups (Oakland & Kane, 1973).

An exemplary child abuse and neglect demonstration project has reported considerable success through the development of an array of primary, secondary, and tertiary services (Montana State Department of Social and Rehabilitation Services, 1979). This specialized child protective services unit for Northern Cheyenne provided community education, consultation to the legal and educational system, 24 hour emergency services, early intervention, in-home support services, and foster care placement when necessary.

The three year project demonstrated substantial increases in reporting and self-referrals, a reduction in foster home placements, improved interagency coordination and community support. Among the children who were placed in foster care (usually by choice) improvements were shown in school attendance, grades, and psychological testing.

Another model program with secondary and tertiary foci was described by Shore and Nichols (1975) and incorporated the indigenous concept of the Whipper Man as disciplinarian in the development of a tribally operated group home for children and adolescents. The group home, designed to provide short and long-term placement and counseling, was complemented by intensive outreach family counseling. Evidence of the program's success includes reduced adolescent lengths of stay in jail and a dramatic reduction in off-reservation referrals for foster care placements.

The recent passage of the Indian Child Welfare Act should prove to be an impetus to prevention efforts in the area of child abuse and neglect. There is promise for strategies which can offer viable alternatives to tribal groups seeking greater control over their childrens' destinies through more culturally appropriate solutions to this important problem.

Major and Minor Psychiatric Disorders

An extensive review of the literature reveals only three psychiatric epidemiological studies of American Indians and Alaska Natives which have been conducted on a community-wide basis. Shore, Kinzie, and Hampson (1973) interviewed one-half of the adult Indian population in a Pacific Northwest Coast village. Roy, Chaudhuri, and Ivine (1970) surveyed slightly more than one-quarter of the Indian population located on 10 reservations under the jurisdiction of a Canadian administrative agency. Sampath (1974) interviewed virtually the entire adult population of a southern Baffin Island Eskimo settlement. All three studies reported diagnostic distributions and prevalence rates and explored the relationship between psychiatric morbidity and contemporary social pressures. No other studies have adopted this approach to examine even a single disorder; thus each will be discussed at length.

In the study by Shore et al., two psychiatrists administered a 70-item questionnaire to 100 residents during a 6-month period. The sample was selected across family living units with respect to village geography, and controlled to yield a representative distribution of subject sex and decade of life. The questionnaire had nine parts, including the Health Opinion Survey, antisocial and drinking-pattern inventories, a psychotic scale, demographic data, and medical history. Interviewers gathered additional information through nondirective discussions. The local physician and an Indian collaborator were

questioned to corroborate the subjects' answers. Primary symptoms and behavioral patterns were then abstracted from these multiple sources. Based on such abstracts, two different psychiatrists independently rated each subject on whether, in their opinion, the subject was psychiatrically disturbed (4 point scale, ranging from definitely disturbed, with two doubtful categories), the severity of impairment (4 point scale, ranging from none to severe), and psychiatric diagnosis (employing American Psychiatric Association diagnostic standards). Interrater reliability was tested and found satisfactory in all three areas.

Of these 100 Pacific Northwest Indians, 54% were definitely psychiatrically disturbed, 15% were probably disturbed, 4% were doubtfully disturbed, and 27% were definitely not disturbed. Of the subjects deemed to be definitely disturbed, 17% were judged severely impaired, 15% moderately impaired, 15% mildly impaired, and 53% not impaired to minimally impaired. Presence of psychiatric disturbance and severity of impairment did not significantly differ with subject sex. A larger proportion of young subjects of both sexes were rated as psychiatrically disturbed than their older counterparts; the same was true for severity of impairment. For major diagnostic categories the following distribution among the total subject sample was reported: alcoholism 31 cases; psychoneurosis 18; psychophysiologic reaction 9; transient situational reaction 6; nonpsychotic organic brain syndrome 2; and personality disorder 5 (2 doubtfuls were not diagnosed; 2 were).

Shore et al. called particular attention to the extent to which the adult male population was severely impaired by alcoholism and adult females by neurotic and psychophysiologic illness. They noted a high prevalence of peptic ulcers (6%), twice the national rate and perhaps related to life stress. Indian women suffered peptic ulcers much more frequently than Indian men (3:1), exactly the reverse proportion observed among men and women generally. Other sex differences surfaced in symptom patterns and service utilization.

Roy et al. (1970) conducted a comprehensive case-finding survey among 10 Saskatchewan reservations (nine Cree and one Saulteaux) with a population of 4,723. Children under 14 years of age constituted approximately 50% of this total; a little more than 3% were over 65 years of age. A mental health team composed of a clinical psychiatrist, two community psychiatric nurses, a psychiatric social worker, and a public health nurse canvassed 210 households, interviewing 1,218 individuals over a six-month period. The local school was also visited to ensure adequate representation of children; however, no additional sampling nor rater reliability information is available for the school group. A list of suspected psychiatric cases was compiled, with cases defined using the World Health Organization criteria. The psychiatrist subsequently interviewed all 215 of the

suspected cases and concluded that 129 individuals manifested active psychiatric illness. Another psychiatrist independently reviewed descriptions of those thought to represent active cases and reached comparable diagnoses, especially with respect to major clinical group classification. For comparison, a similar case-finding survey was simultaneously conducted among the non-Indian population of 18 rural municipalities adjacent to this area.

Roy et al. reported the following case distribution in the Saskatchewan Indian communities: neuroses 30%, mental deficiency 24%, schizophrenia 21%, functional psychosis 12%, epilepsy 8%, and alcoholism 5%. As in Shore et al. (1973), younger subjects (15-29 years and 30-54 years) comprised many more of the confirmed cases than older subjects (55-64 years and older than 64 years). Sex differences were not examined. Nearly one-third of the active cases were children, 63% of whom were diagnosed as suffering from some form of neurosis. Based on this data, the overall prevalence rate for psychiatric disorders was calculated as 27.3 cases per 1,000 population.

Sampath (1974) interviewed 214 adults age 15 years and older living in a southern Baffin Island Eskimo settlement. This sample represented nearly half of the village residents and over 93% of the adult population. The interview in part consisted of the Health Opinion Survey and an independent mental status examination which led to a diagnosis according to American Psychiatric Association Diagnostic and Statistical Manual II classificatory standards. Sampath administered the survey as well as the status exam.

The results of the Health Opinion Survey indicated that 10% of the adults interviewed were severely sick, 27% were moderately sick, 58% were mildly sick, and 7.2% were minimally sick. Severity of sickness was slightly higher for females than males and was consistent with the findings of previous studies by Murphy (1969), Chance and Foster (1962), and Bloom (1972). The number with severe symptoms generally increased with age. However, an interesting reversal was noted across subject sex: whereas this was especially characteristic of the trend among older females, males exhibited a marked decrease in symptomatology.

Based upon the mental status examination, Sampath concluded that 37% of the village sample suffered some form of psychiatric disorder—all active cases except one. The diagnoses were distributed as follows: personality disorders 48%, neuroses 31%, affective psychoses 12%, schizophrenia 8%, and organic brain syndrome 1%. Extrapolating these findings, Sampath calculated a prevalence rate of 373 cases per 1,000 population. The investigator noted satisfactory correlation between Health Opinion Survey scores and clear sickness or wellness determined by a clinical assessment. However, "moderate" and "mild" degrees of sickness bore no relationship to

Health Opinion Survey scores and deserve careful attention since 85% of the sample were judged to be either moderately or mildly sick.

Shore et al. (1973) and Roy et al. (1970) were able to compare their findings to those in studies of other communities. Shore et al. contrasted presence and degree of psychiatric impairment in the Northwest Coast Indian village sample with similar ratings in samples from South Africa (Gillis, Lewis, & Slabbert, 1968), a Nigerian village and Nigerian town (Leighton, 1963), and Stirling County, Nova Scotia (Leighton, 1959). Presence and degree of impairment were lowest in South Africa, next lowest in Nigeria, higher still in Nova Scotia, and highest among the Pacific Northwest Indian sample. Shore et al. indicated that the marked presence of alcoholism among the Indians, potential sampling error, and relative differences in judgment ratings may have elevated the prevalence and impairment rates. Even if lowered in consideration of these limitations, the rates are high.

Roy et al. observed that the prevalence rate of psychiatric disturbance was considerably lower in the non-Indian population (15.2 cases per 1,000 population) than in the Indian population (27.3 cases per 1,000 population). Moreover, two diagnoses (schizophrenia and mental deficiency) were significantly more frequent among confirmed cases in the Indian sample.

Sampath compared the prevalence rate of psychiatric disorder in general among the southern Baffin Island Eskimos with that observed by Leon and Clement (1970) in a study of Colombian Indians. The latter found that 72% of the subject population suffered a diagnosable psychiatric disorder, almost twice the prevalence for the Eskimo respondents. Sampath cited several studies of other non-Western cultural groups such as the Ghana of the African Gold Coast (Field, 1960) and people indigenous to St. Thomas, Virgin Islands (Murphy & Sampath, Note 12) which reported significantly lower prevalence rates of schizophrenia and neurosis than those evidenced in his work.

These studies may be open to various methodological criticisms but they provide a broad and divergent picture of the nature and pattern of disorder in Indian and Native communities. These studies permit a more representative picture of psychiatric illness than can be obtained through service utilization records alone.

Mental Retardation

In the area of primary prevention of mental retardation one of the most promising developments is education and screening for fetal alcohol syndrome (FAS). A non-American Indian specific research study reported by Jones and Smith (1975) indicated that among chronic alcoholic women, 43% of pregnancies result in adverse outcomes, including mental retardation and developmental

delay. A recent issue of the IHS mental health program publication **Listening Post** provided information on a variety of both professional and community educational material regarding FAS. Three FAS prevention programs serving American Indian populations are also identified (Fetal Alcohol Syndrome Project, 1981).

Other primary and secondary research efforts related to mental retardation among American Indians have focused upon determining prevalence, screening, and early identification. Reschly and Jipson (1976) administered the Wechsler Intelligence Scale for Children-Revised (WISC-R) to a stratified random sample of children in Pima County, Arizona based on ethnic group, grade levels, urban-rural residence, and sex. The entire Indian sample was comprised of rural Papago. Their results showed that 14% of Papago students scored below 69 compared to 2% of White students, 6% of Mexican Americans, and 8% of Blacks. The Indian students' verbal scores were significantly lower than those of other ethnic groups. However, the extent to which this is, in fact, a valid indication of the prevalence of developmental disabilities among American Indian students is debatable. The caveat that must be considered with prevalence studies utilizing psychological tests developed among dominant culture groups is their appropriateness for minorities. Among the Papago mild mental retardation has also been found to be linked to school dropout rates (Delk et al., 1974). Based on these findings a program was developed to identify students with intellectual deficiencies for special education and tutoring.

Improved functioning and social skills following tertiary vocational and personal effectiveness training of a developmentally delayed 17 year old Navajo girl have been reported by Miller, Sandoval, and Musholl (1978). Although her intellectual functioning was that of a five year old, with specialized training she developed skills that enabled her to work in a community setting on the reservation. The authors presented a number of guidelines developed from their experience with this model program which are applicable to other rehabilitative efforts.

At the national level a collaborative effort by the Department of Health Education and Welfare and the Department of Interior initiated in 1972, was designed to improve primary, secondary, and tertiary services to American Indian developmentally disabled (Sontag, 1972). An earlier effort in this area was a pilot study conducted by the Bureau of Indian Affairs (1965, 1966) in two boarding schools on the Navajo Reservation which provided a full range of primary, secondary, and tertiary prevention services for the mentally retarded. The program included screening, preparation of individual behavior profiles, medical and clinical examinations, staffing, instructional classification, class organization, and implementation of a teacher training program.

Services for the developmentally disabled that have traditionally been available in most areas of the country have been underutilized by American Indians for a variety of reasons. A community initiated program for exceptional children on the Rosebud Reservation identified 20 developmentally disabled children receiving no services. Relatives frequently hid such children from view for fear that they would be removed or institutionalized. A successfully received reservation-based service system was developed utilizing special education classes, home visits, and local teacher trainees (Muller, 1977). In the Los Angeles area, mentally retarded American Indians were also found to underutilize services due to cultural and institutional barriers (Miller, 1978).

Suicide

The plethora of literature on suicide among American Indians and Alaska Natives attests to the magnitude of the problem in this population. A recent bibliographical review of suicidal behavior among American Indians by Peters (1981) included 65 citations. During the 1970's there was a dramatic rise in the number of published reports on the topic (Peters, 1981). Although much of the literature is epidemiological in nature, programmatic attempts to deal with the problem have been reported in recent years.

A number of studies have found adolescents to be disproportionately represented among American Indian suicide deaths (Dizmang, 1967; Dizmang, Watson, May, & Bopp, 1974; Frederick, 1975, Miller & Schoenfield, 1971; Mindell & Stuart, 1968). Various patterns seem to emerge in different tribal groups and settings. Younger females committing or attempting suicide by the ingestion of drugs or toxins, frequently following an argument with or rejection by a significant other, have been found to be at a high risk in some groups (Conrad & Kahn, 1974; Harvey et al., 1976; Miller & Schoenfield, 1971; Mindell & Stuart, 1968; Shore, 1972). Adolescent and young adult males also appear to be a high risk group in some areas (Conrad & Kahn, 1974; Levy, 1965; Miller, 1979; Shore, 1972). Studying adolescent suicides among the Shoshone, Dizmang et al. (1974) found familial disorganization to be problematic among many of the victims. Having more than one caretaker before age 15, multiple arrests of caretakers, losses by divorce or desertion, personal arrests of victims and attending boarding school at an early age were all factors significantly differentiating victims from controls. Frederick (1975) has offered a profile of an Indian suicide victim. He is a single male in late adolescence or early 20's frequently under the influence of alcohol, has suffered family disruption, has had caretakers who have come into conflict with the law, may have himself been in jail, or experienced past loss through the violence of someone to whom he was attached. In addition to describing characteristics of Indian

adolescents at high risk of suicide, Frederick outlined practical approaches for clinicians who may be faced with the problem.

A number of studies have reported programmatic attempts to deal with this problem area. Shore et al. (1972) presented the background and development of a suicide prevention center on a Northwest Indian reservation. They found involvement of local authorities, particularly law enforcement agencies, to be crucial to the program's success. Dizmang (1967) also pointed out the importance of involving community "gate keepers" in suicide prevention efforts. The utilization of a psychiatric-social work team and the development of a mental health and substance abuse program with an emphasis on student involvement in the program's planning and functioning, has been found to be successful in reducing suicide attempts in an Alaskan boarding school (Harvey et al., 1976). A crisis center for Blackfeet Indians in Montana, offering 24 hour drop-in, phone-in, and outreach services, has also been reported as a successful primary and secondary prevention program (Pambrun, 1970).

Epidemiological studies and psychological autopsies of American Indian suicide victims offer many clues for primary prevention efforts. Here again, however, considerable variation exists across tribal groups (Resnick & Dizmang, 1971; Shore, 1975). A major weakness in problem identification of suicidal behavior among American Indians is the absence of data on suicides among urban populations (Peters, 1981).

Generalized Competencies

The prevention literature thus far presented has dealt with specific problem areas. This section addresses generalized competency approaches to primary prevention strategies which focus on mental health promotion through strengthening coping, adaptation and interpersonal skills.

One primary prevention program with a family and developmental focus was initiated among the Navajo. Dinges and his colleagues (Dinges, Yazzie, & Tollefson, 1974) worked with Navajo families to design and implement an intervention focused on enhancing parent-child interaction through developmental task accomplishment (see Dinges in this volume). Objectives of the program included promoting cultural identification, strengthening family ties, and enhancing child and parent self-images.

Lefley's research on self-concept and self-esteem among the Miccosukee and Seminole focused on crucial identity issues developed in the family setting. Her research indicates that level of acculturation is inversely related to positive regard and that among children self-esteem is inversely related to age (Lefley, 1974). The initiation of a 10-week cultural studies program for Miccosukee children was found

to reduce distance between actual and ideal self, increase preference for Indian stimuli, and increase the correlation between personal and ethnic self-perception (see Lefley in this volume).

Forbes and Lonner (Note 13) have also studied the effect of acculturation on children in 10 rural Alaska villages. They conducted pre- and post-tests of attitudinal and cognitive measures of the influence of the introduction of satellite television broadcasts in five of the villages studied. Their findings indicate that television exposure is linked to increased cognitive measures, decreased feelings of a control over one's life, and improved attitudes toward Blacks with whom these isolated children have little if any previous contact. Stereotypes of White people were not influenced by television exposure, but were found to become increasingly negative with age.

Kleinfeld's research on screening for successful and unsuccessful boarding home parents in Alaska points to a potential primary prevention mechanism for improving interpersonal relationships involving Whites with Athabascans and Eskimos. Her investigation "suggests that the dimensions of communicated warmth and perceived demands might be fruitful in distinguishing the psychological characteristics of effective and ineffective whites in other types of cross-cultural relationships with Athabascan Indians and Eskimos" (Kleinfeld, 1973b, p. 191).

Another project that attempted to improve boarding school settings has been reported by Goldstein (1974) and Oetting and Dinges (Note 3). This model dormitory project was established on the Navajo Reservation, utilized Navajo, rather than White houseparents and significantly increased the number of houseparents available to the children. The houseparents were also provided with special training to overcome the traditionally custodial roles that they had performed in the dormitory and to reinforce their roles as surrogate parents to the children. Compared to students in a control boarding school, those from the model dormitory showed higher intellectual development and better emotional adjustment and physicial development.

Manson and his colleagues (Note 4; Note 5) have examined the process by which elderly American Indians cope with daily problematic life situations in terms of the nature and form of the social support available to them. Their work indicates that certain morphological features (reachability and density) and interactional characteristics (content, directedness, and durability) of these individuals' personal networks are closely associated with successful coping responses. Moreover, Manson's studies suggest that strategies for mobilizing such support—either directly or indirectly—vary regularly with specific kinds of problems, with one's sex as well as geographic locale (urban versus rural), and can serve as the basis for

preventive interventions with elderly American Indians.

The success of efforts geared toward improving general competencies among American Indian and Alaska Natives indicate that this area offers a fruitful approach to primary prevention with this special population. The complexities of problems that they face have been pointed out in the areas reviewed. Singular approaches to targeted areas, while sometimes appropriate, cannot encompass the entire range of the causative and developmental variables which contribute to psychosocial pathologies in this population.

TOWARDS PREVENTIVE MENTAL HEALTH: THE GOAL OF COMPETENCE

This section examines future prospects for preventive mental health among American Indians and Alaska Natives. The criterion issue of human competence and the role of cultural factors in promoting the competent person will be analyzed from a cross-cultural perspective. Conceptual contributions from interactional psychology also will be considered as they bear on the promotion of competence and preventive mental health goals among American Indians and Alaska Natives.

Human Competence in Cross-Cultural Perspective

The goal of preventive mental health among American Indians has been severely handicapped by the lack of systematic comparative research on human competence. Although there are excellent cross-cultural reviews of psychopathology (e.g., Draguns, 1980), precious little exists in the way of culturally relevant conceptual guidance for preventive mental health goals. Attempts to provide preventive mental health services have been directed at secondary and tertiary efforts with problems such as alcoholism and academic maladjustment. There have only been a handful of projects aimed at directly promoting psychological health and competence or at broader conceptualizations of preventive mental health issues that pertain to American Indians (Dinges & Yumori, Note 14).

As recent reviews indicate (e.g., Dinges, Trimble, & Hollenbeck, 1979), there is a serious imbalance to be redressed in the stereotype of American Indians as disintegrated, demoralized and deviant. The studies reviewed in the previous section indicate the extent to which psychopathology among American Indians has attracted attention and the invidious comparisons that have been made with data derived from inappropriate nosologies and inadequate measures of psychological functioning. Rare have been the investigators who were self-reflective enough to recognize the assumptions with which they approach the study of deviance among American Indians, and fewer still are those who have been able to acknowledge the limitations of their data and interpretations.

These limitations become all the more serious when the goals of preventive mental health are considered. Dinges and Duffy (1979) have reviewed the available psychological theories of human competence and found them to be largely deficient in their attention to ethnocultural aspects. Only a few theories (e.g., Brewster-Smith, 1968; Heath, 1977) pay much attention to the ethnocultural dimension, and only Heath has drawn out the implications for practice of theoretical and applied research in human competence. For Heath (1977):

> Maturity refers to universal genotypic developmental dimensions. . . and is inferred from the type and range of tasks, roles, and situations in which a person functions effectively. Competence refers to effectiveness in relating to some specific environmental expectation or task . . . to identify competence requires that we evaluate a person's level of skill in relation to what is required by the task. (p. 35)

Although Heath's model awaits full empirical testing, it is interesting to note that independent researchers have arrived at the conclusion of a need for inter- and intraculturally contexted developmental task accomplishment as crucial to defining competence among American Indian youth (Dinges, Trimble, & Hollenbeck, 1979). Others have posited interdependent, reciprocal, developmental task accomplishment among parents and children as defining mental health among American Indian families (Dinges, Tollefson, & Yazzie, 1974). Moreover, Dinges et al. (1981) have pointed to the need for the study of American Indian ethnopsychology and ethnobehavior as a basis for providing preventive mental health services and promoting competence.

To date Heath's model stands as the organizing framework for cross-cultural comparisons of competence from a psychological standpoint. Unfortunately, the model's empirical base rests on a small and relatively restricted culture sample (i.e., Mid-Atlantic United States, Sicily, Northern Italy, Eastern and Western Turkey). Dinges and Tokuno (Note 15) have added some empirical support for the model among Japanese-Americans, Chinese-Americans, Filipino-Americans, and Pacific Island Caucasians. Of potentially greater significance for human competence from a cross-cultural perspective is the linkage between culture level factors and individual competence. This leads directly to the consideration of the role of cultural variables in the development of competent individuals.

The Competent Culture in Cross-Cultural Perspective

Even cursory examination of the literature indicates that there has been little integration of psychological theory, anthropological theory and cross-cultural research on human competence. It is inter-

esting to speculate on the apparent reluctance to compare one culture with another in terms of relative effectiveness in producing competent persons. Perhaps this reluctance is based on the relativist and non-interventionist posture of much of anthropological theory which holds that cultures are doing their best at any given time to adapt to environmental demands. Berry (1975), for example, assumes this position in his ecological approach to cross-cultural psychology, having maintained that no general criteria of cultural or behavioral excellence are possible.

A more moderate position is taken by Goldschmidt (1974), who asserted that man is pre-programmed to be essentially concerned with the maintenance and furtherance of a positive self-image. In this view he reinforced Hallowell (1967), who had previously pointed out that it is the symbol of the self that lies at the very center of man's symbol system. Thus normal individuals in normal communities act in such ways as to enhance the quality of the symbolic self, even though the actions required for this purpose may vary from culture to culture. There is convergence from a number of sources on the role of the self-system as a key component of generic competencies (e.g., Bloom, 1979; Klemp, 1979; Herbert, 1980).

What is most pertinent about this theoretical position is that the social institutions of a given culture must cope with the self-symbols of individuals, as well as with the physical environment. Robbins (1973) made a similar point in asserting that the culture concept is inadequate for a satisfactory understanding of social processes and human behavior because it lacks a theory of motivation to account for cultural behavior. He suggested that the concept of self or identity introduces to cultural behavior just such a motivating concept, and allows culture to be viewed as a product of human behavior. It is the master motive of self-esteem maintenance and enhancement which has been found to have broad disciplinary acceptance as a unifying concept for understanding the bases of positive mental health (Becker, 1968, pp. 327-346).

Viewed from this perspective it becomes possible to compare human cultures on the basis of the institutionalized arrangements and means that they provide for preserving and enhancing at least a minimally satisfactory image of the self, and the building of satisfying cultural identities. Mechanic (1974) pointed to inherent human interdependence in suggesting that the fit between social structure and environmental demands is probably the major determinant of successful social adaptation. He assessed the literature on personal coping abilities as having aided the myth that adaptation is dependent on the ability of individuals to develop personal mastery over their environment, which he views as contradicted by the evidence for the interdependence of people in finding group solutions to environmental problems. This criticism is consistent with the pre-

ponderance of psychological models of the "competent person as autonomous actor" reviewed by Dinges and Duffy (1979).

More recent models have suggested the concept of the natural support system as fundamental to positive mental health (e.g., Caplan & Killiea, 1976; Gottlieb, 1981; Hirsch, 1980) and that the notion of collective competence (e.g., Coelho, Yueu, & Ahmed, 1980) appears useful for understanding the coping and adaptation processes of groups under prolonged stressful conditions. In addition, Iscoe (1974) has identified the characteristics of the competent community as persons or groups having a repetoire of possibilities and alternatives, knowing where and how to find resources, and self-esteem.

One of the few unabashed attempts at providing a comparative framework for assessing cultures for their adequacy in meeting human needs was made by Arsenian and Arsenian (1948). Positing goal-directed behavior of individuals to reduce tension produced by unmet needs, they described the properties of cultural paths to the goal regions that meet such needs, and hypothesized a continuum on which cultures may be compared with regard to the qualities of those paths. Their basic point is that cultures may be considered on a tough-to-easy continuum (and it might be suggested as competent or incompetent) according to the qualities of the paths to goals. Thus, the essential qualities of goals for the polar easy culture (Arsenian & Arsenian, 1948):

> . . . would seem to require a **number** of goals sufficient to reduce all culturally and physiologically induced tensions; a **distribution** of goals such that all or practically all persons find themselves in and/or consuming goals; additionally that goals be **clear**; that the hierarchy of goals be such that all persons be in possession of goals at gratifying levels of the status hierarchy; that all have some highly valued objects relations (**approval** and **substitutivity**) and that having one goal does not preclude or make impossible having other goals (**congruence**). (p. 379)

In rating cultures for easiness or toughness, Arsenian and Arsenian noted that information on goal objects is often more readily and accurately obtainable than information on path properties. They also suggested behavioral indices of easiness and toughness which appear to have anticipated the quality of life and social indicators research that became popular in the last decade. Although the economic conditions of American Indian communities have frequently been cited as the basis of social disintegration, it may clarify understanding and possibly reduce some stereotyping to analyze them in the terms described by Arsenian and Arsenian. The minimal effect may be to put economic factors in context so that the provision of money alone would not be seen as the sufficient condition for their cultural reintegration.

Perhaps the most influential theory of culture influence insofar as the American Indians are concerned is that of Leighton and Hughes (1961), who proposed a direct relationship between cultural disintegration and individual mental illness. This view has subsequently been postulated in accounting for a variety of mental illnesses among American Indian groups, achieving its most outstanding example in the etiology of drinking behavior (e.g., Levy & Kunitz, 1971). In its simplest form Leighton and Hughes' theory holds that there is a universal striving for an "essential psychical condition" (EPC), which may be inhibited or facilitated by the culture.

The choice of factors indicative of cultural disintegration, which include migration, poverty, and "broken homes," all predispose to a prediction of poor mental health among American Indians. By Leighton and Hughes' standards it would be difficult to find many well-integrated Indian cultures, yet large-scale and broad sampling studies have not reported epidemic proportions of mental illness. As a nation-wide study of Indian youth indicated (Fuchs and Havighurst, 1972):

> They are not depressed, anxious, paranoid, or alienated as a group. They can make use of educational and economic opportunities. However they do have the same problems other low-income groups have, and these problems are complicated to a degree by the fact that they are Indians. (p. 150)

The Competent Person In The Competent Culture

The limitations of culture and psychopathology research become obvious when the goals of promoting human competence among American Indians are considered. Draguns (1980) has identified the severe imbalance in studies which focus on serious psychopathological disorders to the neglect of milder, transient problems. Sanua (1980) has pointed to the need for the cross-cultural study of normal populations as a means of detecting the familial and sociocultural antecedents of psychopathology. The basic problem appears to arise from the cul-de-sac into which culture and psychopathology studies have gotten us, and from which there appears no clear exit. Perhaps one way out may be found in studies of ethnopsychology and ethnobehaviorism, regarding indigenous theories of behavior among American Indians.

Of great promise for the future of preventive mental health among American Indians are the developments in the area of interactional psychology, its derivatives, and progenitors. What is most appealing about these recently emerging trends is their interdisciplinary approach to the study of contexted behavior, from which it is possible to analyze situated competencies congruent with the cultural milieu. Pattison (1977) recognized this possibility in his examination of the

linkage between family therapy, community psychiatry, family sociology, and network analysis in social anthropology. The ethogenic approach of Harre (1977), which attempts to establish connections between microsociology and social psychology, highlights the as yet unsolved problem of how personhood is achieved against the ever present threat of being cast as a thing—a problem many American Indians would attest to as fundamental to their mental health and competence. More recently, DeWaele and Harre (1979) have related the ethogenic approach to the examination of action-sequences and accounts of these actions, which combine to allow attributions about cognitive structure, and the organization and content of individual competencies in local settings. Similarly, Snyder (1979) presented a conceptual analysis of self-monitoring processes within a person X situation framework which focuses on differences in the extent to which individuals effectively control and manage self-presentations. Lazarus and Launier (1977) have examined the positive function of cognitive appraisal processes in mediating stressful transactions between person and environment. Interactional models of the individual, environmental, and situational factors involved in intervening to enhance social competence have also been recently proposed (Rathjen, 1980).

It is from among these and other emerging conceptual frameworks that research applied to the goals of preventive mental health for American Indians and Alaska Natives must be mounted. In so doing, we will begin to emerge from an era in which attributions of (pan?) endemic psychopathology among American Indians and Alaska Natives will be replaced with the more positive view of the potential for psychological maturity and competence both individually and collectively if the minimal conditions for their emergence are provided.

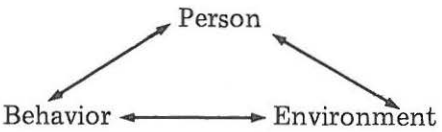
A COURSE FOR FUTURE INQUIRY

As the ways of thinking that have characterized past approaches to the mental health of American Indians and Alaska Natives, especially with regard to its promotion, yield to the promising alternatives described above, a number of critical questions are likely to arise which will, in turn, pose several immediate tasks for those engaged in prevention research among this special population. We believe that the maintenance and/or enhancement of self-esteem—as the master motive of social, psychological, and cultural behavior—will figure importantly in these questions, especially when recast in a proactive view of individual and collective action which assumes that people create, even recreate their own social systems.

Most explanations of human behavior have favored unidirectional causal models that emphasize either external (situation-oriented) or internal (person-oriented) determinants of behavior. Recently de-

veloped multidirectional models posit a much more complicated set of circumstances as noted in an earlier section of this paper. Bandura (1978), for example, described a three-way, reciprocal interaction between behavior, internal personal factors (i.e., the self-system), and environmental influences (see Figure 8).

Figure 8



People are not conceived of as simply responding to external stimulii or, conversely, as enacting certain dispositional forces. Rather, they are thought to plan an active role in the making of their social milieu, is realized in part through cognitive structures which include various appraisal processes that contribute to and regulate self-esteem.

Cultural revivalism can be seen as a behaviorally concrete, if symbolically dynamic, contemporary example of the master motive at work in this manner in American Indian communities. Medicine's (1981) discussion of present day confrontations and religious revitalization as expressions of individual as well as community resistance to integration is particularly relevant. Writing about the Sun Dance among the Lakota, she depicted it as (re-)building a belief system and symbolic structure upon underlying values that traditionally formed the basis for social relationships and self-actualization. One is required to examine his or her own lifestyle in terms of specific virtues, namely generosity, fortitude, bravery, and integrity. As such, the Sun Dance constitutes "an enactment of positive ethnic identity, it serves as an important cultural marker transmitting pride in native life" (Medicine, 1981, p. 284).

Social competence may be an important component in the construction of positive mental health, possibly achieved through such collective mechanisms of cultural revivalism as described by Medicine. Denied access—or given the inadequacy of available paths—to certain goals (Arsenian & Arsenian, 1948), cultural groups like American Indians and Alaska Natives seem to be able to enhance the self-esteem of their members by commitment to consensually validated symbols of social approval which reinforce individual identities. The latter in turn feed into the collective symbol and cement the interdependence of individual, group, and community.

This dynamic illustrates the reciprocal determinism which Bandura (1978) proposed as a basic analytic principal for understanding psychosocial phenomena in intrapersonal development, interpersonal transactions, and the interaction of organizational and social systems.

Jorgenson's study (1972) of the Sun Dance among Great Basin cultures adds further weight to this interpretation. Great Basin cultures, notably the Ute, perceive the Sun Dance as an instrument of power which enables a powerless people to deal with social inequities, and to cope with social and economic deprivation. This dynamic suggests, then, the emergence of a competent community which, according to Iscoe (1974) requires a repertoire of possibilities and alternatives for coping, the knowledge of where and how to acquire resources, clout, and, as a consequence, hope, self-esteem, and power. The last element, power, is construed as the right to self-determination and speaks to the very heart of the cultural revitalization movement as an attempt by American Indian communities to erect a meaningful framework for operating in the modern world (Medicine, 1981, p. 284).

We need to determine how competent self-systems and collective competence of this nature are organized, how each influences the other in the positive, reciprocal manner that Bandura's model proposes and that is documented by the examples cited. Another important question concerns the definition of psychological health, of maturity, and of competence in American Indian and Alaska Native communities. To what extent are the currently available models applicable across different tribes and different cultures? These questions suggest a major departure from past lines of inquiry in this area. Hence, future research on the promotion of mental health among American Indian and Alaska Native communities should aspire to the development of a taxonomy of strengths as the conceptual counterpart to the pathologically-based Diagnostic and Statistical Manual-III. The attempt, quite apart from whether or not it is successful, may lead to the discovery of causal linkages between various life events and maturity or competence which is contexted in a systematic theory of human adaptation. The consequences are enormous for alternative forms of preventive interventions and new mechanisms for promoting mental health.

NOTES

1. Pursuant to a 1978 resolution adopted by the National Tribal Chairmen's Association and National Congress of American Indians, the phrase American Indian and Alaska Native is used to refer to this special population. Tribal designations are employed as appropriate.

2. The notion of a "meaning set" is drawn from cultural anthropology, specifically a set of inquiry procedures known as ethnosemantics or ethnoscience. It refers to cognitive categories, their labels, and the relationships among them—much of which operates out of awareness as tacit knowledge shared by a particular group of individuals (see Frake, 1962).

3. Oetting, E.R., & Dinges, N.G. *Evaluation of the Toyei Model Dormitory Project.* Final report to the Office of Mental Health Programs, Indian Health Service, 1972.

4. Manson, S.M., Murray, C.M., & Cain, L.C. Ethnicity, aging, and support networks: An evolving methodological strategy. *Journal of Minority Aging*, in press.

5. Manson, S.M. *Problematic life situations: Cross-cultural variation in support mobilization among the elderly.* Final report to the Administration on Aging, Grant No. 90-AR-2064, July, 1982.

6. Manson, S.M., & Shore, J.H. Relationship between ethnopsychiatric data and research diagnostic criteria in the identification of depression within a Southwestern American Indian tribe. *Culture, Medicine and Psychiatry*, in press.

7. McShane, D.A., & Plas, J. Otitis media, psychoeducational difficulties, and Native Americans. Unpublished manuscript, 1978.

8. Oetting, E.R., & Goldstein, G.C. *Drug abuse among Indian adolescents.* Final Report to the National Institute on Drug Abuse, Grant No. 2 R01 DAO1054-02, June, 1978.

9. Hoffman, H. Hospitalized Minnesota Indians: Their social psychiatric history, psychopathology, and motivation. In *Proceedings of the 30th International Conference on Alcoholism and Drug Dependence*, 1972, *1*, 40.

10. Westermeyer, J.J. *Use of halfway houses by Indian alcoholics.* Final report to the National Institute of Alcohol Abuse and Alcoholism, Grant No. 1 R01 AA00394-01, 1974.

11. Daily, J.M., Burns, M., & Moskowitz, H. *Drinking practices and problems of urban American Indians in Los Angeles.* Santa Monica, CA.: Planning Analysis and Research Institute, 1974.

12. Murphy, J., & Sampath, H.M. *Mental health in a Caribbean community.* Department of Psychiatry, McGill University, 1967.

13. Forbes, N., & Lonner, W.J. *Sociocultural and cognitive effects of commercial television on previously television-naive rural Alaskan children.* Final report to the National Science Foundation, Grant No. BNS-78-25687, August, 1980.

14. Dinges, N., & Yumori, W. Cross-cultural perspectives on preventive mental health programs for the family. In S. Fine & P.

Kress (Eds.), *Cross-cultural intervention with families, parents, and children.* Nederlands: D. Reidel Publishing Co., in press.

15. Dinges, N., & Tokuno, K. *Person x situation research strategies for inter-ethnic empathy, inter-ethnic competence, and ethnic trait attributions in the job setting.* Technical report, Organizational Effectiveness Research Program, (ONR), 1980.

REFERENCES

Albaugh, B.J., & Albaugh, P. Alcoholism and substance sniffing among the Cheyenne and Arapaho Indians of Oklahoma. *International Journal of the Addictions*, 1979, *14* (7), 1001-1007.

Albaugh, B.J., & Anderson, P.O. Peyote in the treatment of alcoholism among American Indians. *American Journal of Psychiatry*, 1974, *131*(11), 1247-1250.

Anderson, F.N. A mental-hygiene survey of problem Indian children in Oklahoma. *Mental Hygiene*, 1936, *20*, 472-476.

Argyle, M. Predictive and generative rules models of PXS interaction. In D. Magnussen & N.S. Endler (Eds.), *Personality at the crossroads.* Hillsdale, N.J.: Lawrence Erlbaum Associates, 1977, pp. 353-370.

Arsenian, J., & Arsenian, J.M. Tough and easy cultures: A conceptual analysis. *Psychiatry*, 1948, *11*, 377-385.

Bandura, A. The self-system in reciprocal determinism. *American Psychologist*, 1978, *33*, 344-358.

Becker, E. *The structure of evil: An essay on the unification of the science of man.* N.Y.: George Brazilleri, 1968.

Beiser, M., & Attneave, C.L. Mental health services for American Indians, Neither feast nor famine. *White Cloud Journal*, 1978, *1*(2), 3-10;

Beiser, M., & Attneave, C.L. Mental disorders among Native American children: Rates and risk periods for entering treatment. *American Journal of Psychiatry*, 1982, *139* (2), 193-198.

Bennion, L., & Li, T.K. Alcohol metabolism in American Indians and Whites: Lack of racial differences in metabolic rate and liver alcohol dehydrogenase. *New England Journal of Medicine*, 1976, *294*(1), 9-13.

Berry, J. An ecological approach to cross-cultural psychology. *Nederlands Tijdschrift Voor De Psychologie*, 1975, 30, 51-84.

Bloom, B.L. The evaluation of primary prevention programs. In L.M. Roberts, N.S. Greenfield, & M.H. Miller (Eds.), *Comprehensive mental health.* Madison: University of Wisonsin Press, 1968.

Bloom, B.L. Strategies for the prevention of mental disorders. In G. Rosenblum (Ed.), *Issues in community psychology and preventive mental health.* N.Y.: Behavioral Publications, 1971.

Bloom, B.L. Prevention of mental disorders: Recent advances in theory and practice. *Community Mental Health Journal*, 1979, *15* (3), 179-191.

Bloom, J.D. Migration and psychopathology of Eskimo women. *American Journal of Psychiatry*, 1973, *130*(4), 446-449.

Bolmar, W.M. Preventive psychiatry for the family: Theory, approaches and programs. *American Journal of Psychiatry*, 1968, *125*, 458-72.

Bonnie, R.J. Discouraging unhealthy personal choices: Reflections on new directions in substance abuse policy. *Journal of Drug Issues*, 1978, *8*, 199-219.

Bower, E. Primary prevention of mental and emotional disorders: A frame of reference. In N. Lambert (Ed.), *The protection and promotion of mental health in schools.* Public Health Service Publication No. 1226, U.S. Department of Health, Education and Welfare, Bethesda, Md., 1965.

Brewster-Smith, W. Socialization for competence. In J. Clausen (Ed.), *Socialization and society.* Boston: Little, Brown, 1968.

Broskowski, A., & Baker, F. Professional, organizational, and social barriers to primary prevention. *American Journal of Orthopsychiatry*, 1974, *44*(5), 707-19.

Bureau of Indian Affairs. *An interdisciplinary approach in the identification of mentally retarded Indian children: Pilot study.* Washington, D.C.: Department of the Interior, Bureau of Indian Affairs, 1965.

Bureau of Indian Affairs. *An interdisciplinary approach in the identification of mentally retarded Indian children:* Addendum. Washington, D.C.: Department of the Interior, Bureau of Indian Affairs, 1966.

Callan, J.P., & Patterson, C.D. Patterns of drug abuse among military inductees. *American Journal of Psychiatry*, 1973, *130* (3), 260-264.

Caplan, G. *Principles of preventive psychiatry*, N.Y.: Basic Books, 1964.

Caplan, C., & Killilea, M. (Eds.) *Support systems and mutual help: Multi-disciplinary explorations.* N.Y.: Crane & Stratton, Inc., 1976.

Cardoza, V.G., Ackerly, W.C., & Leighton, A.H. Improving mental health through community action. *Community Mental Health*

Journal, 1975, *11*(2), 215-227.

Chance, N., & Foster, D.A. Symptom formation and patterns of psychopathology in a rapidly changing Eskimo society. *Anthropological Papers of the University of Alaska*, 1962, *11*(1), 32-42.

Cockerham, W.C. Drinking attitudes and practices among Wind River Reservation Indian youth. *Quarterly Journal of Studies on Alcohol*, 1975, *36*(3), 321-326.

Cockerham, W.C. Patterns of alcohol and multiple drug use among rural White and American Indian adolescents. *International Journal of the Addictions*, 1977, *12* (2-3), 271-285.

Cockerham, W.C., Forslund, M.A., & Raboin, R.M. Drug use among White and American Indian high school youth. *International Journal of the Addictions*, 1976, *11*(2), 209-220.

Coelho, G., Yuan, Y., & Ahmed, P. Contemporary uprooting and collaborative coping: Behavioral and societal responses. In G. Coelho & P. Ahmed (Eds.), *Uprooting and development: Dilemmas of coping with modernization*. N.Y.: Plenum Press, 1980.

Conrad, R.D., & Kahn, M. An epidemiological study of suicide among the Papago Indians. *American Journal of Psychiatry*, 1974, *131*(1), 69-72.

Cowen, E.L. Baby-steps toward primary prevention. *American Journal of Community Psychology*, 1977, *5*(1), 1-22.

Delk, J.L., Urbancik, G., Williams, C., Berg, G., & Kahn, M.W. Drop-outs from an American Indian reservation school: A possible prevention program. *Journal of Community Psychology*, 1974, *2*(1), 15-17.

De Waele, J., & Harre, R. Autobiography as a psychological method. In G.P. Ginsburg (Ed.), *Emerging strategies in social psychological research*. N.Y.: John Wiley & Sons, 1979, pp. 177-224.

Dinges, N., & Duffy, L. Culture and competence. In T. Marsella, R. Tharp & T. Ciborowski (Eds.), *Perspectives in cross-cultural psychology*. N.Y.: Academic Press, Inc., 1979, pp. 209-232.

Dinges, N., Trimble, J., Manson, S., & Pasquale, F. The social ecology of counseling and psychotherapy with American Indians and Alaskan Natives. In A. Marsella & P. Pederson (Eds.), *Cross-cultural counseling and psychotherapy: Foundations, evaluation and cultural considerations*. N.Y.: Pergamon Press, 1981, pp. 243-276.

Dinges, N., Trimble, J., & Hollenbeck, A. American Indian adolescent socialization: A review of the literature. *Journal of Adolescence*, 1979, *2*, 259-296.

Dinges, N., Yazzie, M., & Tollefson, G.D. Developmental interven-

tion for Navajo family mental health. *Personnel and Guidance Journal*, 1974, *52*(6), 390-395.

Dizmang, L.H. Suicide among the Cheyenne Indians. *Bulletin of Suicidology*, 1967, *1*, 8-11.

Dizmang, L.H., Watson, J., May, P.A., & Bopp, J. Adolescent suicide at an Indian reservation. *American Journal of Orthopsychiatry*, 1974, *44*(1), 43-49.

Dorken, H. A dimensional strategy for community focused mental health services. In G. Rosenblum (Ed.), *Issues in community psychology and preventive mental health.* N.Y.: Behavioral Publications, 1971.

Draguns, J. Psychological disorders of clinical severity. In H. Triandis & J. Draguns (Eds.), *Handbook of cross-cultural psychology: Psychopathology, Vol. 6*, 1980, pp-174.

Dubos, R. *Mirage of health.* N.Y.: Harper and Row, 1959.

Durlak, J.A. Comparative effectiveness of behavioral and relationship group treatment in the secondary prevention of school maladjustment. *American Journal of Community Psychology*, 1980, *8*(3), 327-339.

Edgerton, J. W. Evaluation in community mental health. In G. Rosenblum (Ed.), *Issues in community psychology and preventive mental health.* N.Y.: Behavioral Publications, 1971.

Eisenberg, L. A research framework for evaluating the promotion of mental health and prevention of mental illness. *Public Health Reports*, 1981, *96*(1), 3-19.

Endler, N.S., & Magnussen, D. *Interactional psychology and personality.* N.Y.: John Wiley and Sons, 1976.

Ferguson, F.N. A treatment program for Navajo alcoholics: Results after four years, *Quarterly Journal of Studies on Alcohol*, 1970, *31*(4), 898-919.

Frake, C.O. The ethnographic study of cognitive systems. In T. Gladwin & W.C. Sturtevant (Eds.), *Anthropology and human behavior.* Washington, D.C.: Anthropological Society of Washington, D.C.: Anthropological Society of Washington, 1962, pp. 72-85, 91-93.

Fetal Alcohol Syndrome Project. Fetal Alcohol syndrome resource guide, *Listening Post*, 1981, *4*(3), 23-29.

Field, M. *Search for security.* London: Faber and Faber, 1960.

Frederick C. *Suicide, homicide, and alcoholism among American Indians* (DHEW Pub. No. ADM 76-42). Washington D.C.: U.S. Government Printing Office, 1975.

Freeman, H.E. Evaluation research and the explanatory powers of

social factors. In L.M. Roberts, N.S. Greenfield, & M.H. Miller (Eds.), *Comprehensive mental health: The challenge of evaluation.* Madison: The University of Wisconsin Press, 1968.

Fritz, W.B. Psychiatric disorders among natives and non-natives of Saskatchewan. *Canadian Psychiatric Association Journal*, 1976, *21*(6), 393-400.

Fuchs, E., & Havighurst, R. *To live on this earth: American Indian education.* N.Y.: Doubleday and Company, 1972.

Gillis, L., Lewis, J., & Slabbert, M. Psychiatric disorder amongst the coloured people of the Cape Peninsula: An epidemiological study. *British Journal of Psychiatry*, 1968, *114*, 1575-1587.

Glidewell, J.C. Some methodological problems in the evaluation of school mental health programs. In L.M. Roberts, N.S. Greenfield, & M.H. Miller (Eds.), *Comprehensive mental health: The challenge of evaluation.* Madison: The University of Wisconsin Press, 1968.

Goldschmidt, W. Ethology, ecology, and ethnological realities. In G. Coelho, D. Hamburg, & J. Adams (Eds.), *Coping and adaptation.* N.Y.: Basic Books, Inc., 1974, pp. 13-31.

Goldstein, G. The model dormitory. *Psychiatric Annals*, 1974, *4*(9), 85-92.

Goldstein, G.S., Oetting, E.R., Edwards, R., & Garcia-Mason, V. Drug use among Native American young adults. *The International Journal of the Addictions*, 1979, *14*(6), 855-860.

Goldston, S.E. Primary prevention programming from the federal perspective: A progress report. *Journal of Clinical Child Psychology*, 1979, *8*(2), 80-83.

Gottleib, B.H. *Social networks and social support.* Beverly Hills, CA.: Sage Publications, 1981.

Hallowell, A.I. The self and its behavioral environment. In A.I. Hallowell (Ed.), *Culture and experience.* N.Y.: Schocken, 1967.

Haven, G.A., & Imotichey, P.J. Mental health services for American Indians: The USET Program. *White Cloud Journal*, 1979, *1*(3), 3-5.

Harre, R. The ethnogenic approach: Theory and practice. In L. Berkiwotz (Ed.), *Advances in experimental social psychology.* N.Y.: Academic Press, Inc., 1977, pp. 283-334.

Harvey, E.B., Gazay, L., & Samuels, B. Utilization of a psychiatric-social work team in an Alaskan Native secondary boarding school. *Journal of Child Psychiatry*, 1976, *15*(3), 558-574.

Heath, D. *Maturity and competence: A transcultural view.* N.Y.: Bardner, 1977.

Heidenrich, C.A. Alcohol and drug use and abuse among Indian-

Americans: A review of issues and services. *Journal of Drug Issues*, 1976, *6*(3), 256-272.

Herbert, M. Socialization for problem resistance. In P. Feldman & J. Orford (Eds.), *Psychological problems: The social context*, N.Y.: John Wiley & Sons, 1980, pp. 39-71.

Hirsch, B.J. Social networks and the coping process: Creating personal communities. In B.H. Gottleib (Ed.), *Social networks and social support*. Beverly Hills, Ga.: Sage Publication, 1981, pp. 149-170.

Hoffman, H., & Jackson, D.N. Comparison of measured psychopathology in Indian and non-Indian alcoholics. *Psychological Reports*, 1973, *33*(3), 793-794.

Hoffman, H., & Noem, A. Alcoholism and abstinence among relatives of American Indian alcoholics. *Journal of Studies on Alcohol*, 1975, *36*(1), 165.

Iscoe, I. Community psychology and the competent community. *American Psychologist*, 1974, *29*(8), 607-613.

Ishisaka, H. American Indians and foster care: Cultural factors and separation. *Child Welfare*, 1978, *57*(5) 299-308.

Jenkins, A. Some evaluative factors in the selection of adoptive homes for Indian children. *Child Welfare*, 1961, *40*, 16-20.

Jensen, G.F., Strauss, J.H., & Harris, V.W. Crime, delinquency and the American Indian. *Human Organization*, 1977, *36*(3), 252-257.

Jilek-Aall, L. Acculturation, alcoholism, and Indian-style alcoholics anonymous. *Journal of Studies on Alcohol*, 1981, suppl. no. 9, 143-158.

Jones, D. Child welfare problems in an Alaskan Native village. *Social Service Review*, 1969, *43*, 297-309.

Jorgenson, J.G. *The Sun Dance Religion*. Chicago, IL.: University of Chicago Press, 1972.

Jones, K.L., & Smith, D.W. The fetal alcohol syndrome. *Teratology*, 1975, *12*, 1-10;

Kagey, J.R., Vivace, J., & Lutz, W. Mental health primary prevention. The role of parent mutual support groups. *American Journal of Public Health*, 1981, *71*(2), 166-167.

Kaufman, A. Gasoline sniffing among children in a Pueblo Indian village. *Pediatrics*, 1973, *51*, 1060-1064.

Kelly, J.G. The quest for valid preventive interventions. In G. Rosenblum (Ed.), *Issues in community psychology and preventive mental health*. N.Y.: Behavioral Publications, 1971.

Kessler, M., & Albee, G.W. Primary prevention. *Annual Review of Psychology*, 1975, *26*, 557-591.

Klemp, C.O. Identifying, measuring and integrating competence. In P. Pottinger & J. Goldsmith (Eds.), *New directions in experiential learning: Defining and measuring competence.* San Francisco: Jossey-Bass, Inc., 1979.

Kline, J.A., & Roberts, A.C. A residential alcoholism treatment program for American Indians. *Quarterly Journal of Studies on Alcohol*, 1973, *34*(3), 860-868.

Kline, J.A., Rozynko, V.V., & Flint, G. Personality characteristics of male Native American alcoholic patients. *International Journal of the Addictions*, 1973, *8*(4), 729-732.

Kielholz, P. The foundation, objectives, and activities of the International Committee for Prevention and Treatment of Depression. *Comprehensive Psychiatry*, 1980, *21*(6), 469-474.

Kleinfeld, J. *A Long Way from Home.* Fairbanks, AL: Institute for Social, Economic and Government Research, 1973a.

Kleinfeld, J. Characteristics of successful boarding home parents of Eskimo and Athabascan Indian students. *Human Organization*, 1973b, *32*(2), 191-199.

Kleinfeld, J., & Bloom, J. Boarding schools: Effects on the mental health of Eskimo adolescents. *American Journal of Psychiatry*, 1977, *134*(4), 411-417.

Kunitz, S.J., Levy J.E., Ordoff, C.L., & Bollinger, J. The epidemiology of alcoholic cirrhosis in two southwestern Indian tribes. *Quarterly Journal of Studies of Alcohol*, 1971, *32*, 706-720.

Lamb, H.R., & Zusman, J. Primary prevention in perspective. *American Journal of Psychiatry*, 1979, *136*(1), 12-17.

Landsberg, G. The state of prevention in mental health. *Perspectives in Psychiatric Care*, 1977, *15*(1), 15-17.

Lazarus, R., & Launier, R. Stress-related transactions between person and environment. In L. Pervin & M. Lewis (Eds.), *Perspectives in interactional psychology.* N.Y.: Plenum Press, 1977, pp. 287-328.

Lefley, H.P. Effects of a cultural heritage program on the self-concept of Miccosukee Indian children. *The Journal of Educational Research*, 1974, *67*(10), 462-466.

Lefley, H.P. Acculturation, child-rearing and self-esteem in two North American Indian tribes. *Ethos*, 1976, *4*(3), 385-401.

Leighton, A. *My name is legion, Sterling County Study, Vol. 1.* N.Y.: Basic Books, 1959.

Leighton, A. *Psychiatric disorder among the Yoruba. Cornell, N.Y.:*

Cornell University Press, 1963.

Leighton, A., & Hughes, J.M. Cultures as causative of mental disorders. In A. Leighton & J.M. Hughes (Eds.), *Causes of mental disorders: A review of epidemiological knowledge.* N.Y.: Milbank Memorial Funds, 1961.

Leon, C.A. & Clement, C.E. Assessment of instruments for studying the prevalence of mental disorder. *Social Psychiatry*, 1970, *5*(4).

Levine, M., & Perkins, D.V. Social setting interventions and primary prevention: Comments on the report of the task panel on prevention to the President's Commission on Mental Health. *American Journal of Community Psychology*, 1980, *8*(2), 147-157.

Levy, J. Navajo suicide. *Human Organization*, 1965, *24*(4), 308-318.

Levy, J., & Kunitz, S. Indian reservations, anomie, and social pathologies. *Southwestern Journal of Anthropology*, 1971, *27*(2), 97-128.

Levy, J., & Kunitz, S. Economic and political factors inhibiting the use of basic research findings in Indian alcoholism programs. *Journal of Alcohol Studies*, 1981, suppl. No. 9, 60-72.

Magnussen, D., & Endler, N.S. *Personality at the cross-roads: Current issues in interactional psychology.* Hillsdale, N.J.: Lawrence Erlbaum Associates, 1977.

Mariner, A.S. Benevolent gambling: A critique of primary prevention programs in mental health. *Psychiatry*, 1980, *43*, 19-105.

Mason, E.P. Progress report. Project Catch-Up: An educational program for junior high students of American Indian, Mexican, and Caucasian ethnic backgrounds. *Psychology in the Schools*, 1968, *5*, 272-276.

Mason, E.P. Project Catch-Up: An educational program of socially disadvantaged thirteen and fourteen year olds. *Psychology in the Schools*, 1969, *6*, 253-257.

Matus, R., & Neuhring, E.M. Social workers in primary prevention: Action and ideology in mental health. *Community Mental Health Journal*, 1979, *15*(1), 33-40.

McBride, D.C., & Pate, J.B. Adolescent Indian substance abuse: Ecological and sociocultural factors. *Youth and Society*, 1980, *11*(4), 475-492.

Mechanic, D. Social structure and personal adaptation: Some neglected dimensions. In G. Coelho, D. Hamburg, & J. Adams (Eds.), *Coping and adaptation.* N.Y.: Basic Books, Inc., 1974, pp. 32-44.

Medicine, B. Native American resistance to integration: Contem-

porary confrontations and religious revitalization. *Plains Anthropologist*, 1981, *94*, 277-286.

Mesteth, L. Gas and glue sniffing among the school age population. *Pine Ridge Research Bulletin*, 1968, *4*, 36-40.

Miller, M. Suicides on a Southwestern American Indian reservation. *White Cloud Journal*, 1979, *1*(3), 14-18.

Miller, N.B. Utilization of services for the developmentally disabled by American Indian families in Los Angeles. *Dissertation Abstracts International*, 1978, *39*(1), 354-B.

Miller, S., & Schoenfield, L.S. Suicide attempt patterns among the Navajo Indians. *International Journal of Social Psychiatry*, 1971, *17*(3), 189-193.

Miller, W.H., Sandoval, N., & Musholt, E. Vocational and personal effectiveness training of a developmentally delayed Navajo girl. *White Cloud Journal*, 1978, *1*(1), 11-14.

Miller, W.T. A special problem in primary prevention: The family that cares about their children but is not able to rear them. *Journal of Clinical Child Psychology*, 1981, *10*(1), 38-41.

Mindell, C., & Stuart, P. Suicide and self-destructive behavior in the Oglala Sioux: Some clinical aspects and community approaches. *Pine Ridge Research Bulletin*, 1968, *1*, 14-23.

Mitchell, D.C., & Scherman, A. The other side of the mountain. *Journal of Clinical Child Psychology*, 1977, *6*(1), 30-31.

Muller, J.P. Meeting the needs of exceptional children on the Rosebud Reservation. *Education and Training of the Mentally Retarded*, 1977, *12*(3), 246-248.

Munger, R.L. Unthinking prevention. *Journal of Clinical Child Psychology*, 1979, *8*(2), 87-88.

Murphy, J. *An epidemiological study of psychopathology in an Eskimo village.* Ann Arbor, MI: University Microfilms, 1969.

Murphy, L.B., & Colin, F. Prevention: The clinical psychologist. *Annual Review of Psychology*, 1979, 173-207.

Norris, P., & Overbeck, D.B. The institutionalized mentally retarded Navajo: A service program. *Mental Retardation*, 1974, *12*, 18-20.

Oakland, L., & Knae, R.L. The working mother and child neglect on the Navajo Reservation. *Pediatrics*, 1973, *51*, 849-853.

Pambrun, A. Suicide among the Blackfeet Indians —a brief report. *Bulletin on Suicidology*, 1970, 7, 42-43.

Pattison, E.M. A theoretical-empirical base for social system therapy. In E. Foulks, R. Wintrob, J. Westermeyer, & A. Favazza (Eds.), *Current perspectives in cultural psychiatry*. N.Y.: Spectrum Publications, 1977, pp. 217-254.

Payton, C.R. Substance abuse and mental health: Special prevention strategies-needed for ethnics of color. *Public Health Reports*, 1981, *96*(1), 20-25.

Peters, R. Suicidal behavior among Native Americans: An annotated bibliography. *White Cloud Journal*, 1981, *2*(3), 9-20.

Pinto, L.J. Alcohol and drug abuse among Native American youth on reservations: A growing abuse. In *Drug use in America: Problem in perspective: Vol 1., Patterns and consequences of drug abuse.* Washington, D.C.: Government Printing Office, 1973, pp. 1157-1178.

Porter, M.R., Vieira, T.A., Kaplan, G.J., Heesch, J.R., & Colyan, A.B. Drug use in Anchorage Alaska. *Journal of the American Medical Association*, 1973, *223*(6), 657-664.

Rathjen, D.P. An overview of social competence. In D.P.Rathjen & J. Foreyt (Eds.), *Social competence: Intervening for children and adults.* N.Y.: Plenum Press, 1980, pp. 1-23.

Reschly, D.J., & Jipson, F.J. Ethnicity, geographic locale, age, sex, and urban-rural residence as variables in the prevalence of mild retardation. *American Journal of Mental Deficiency*, 1976, *81*(2), 154-161.

Resnick, H.L.P., & Dizmang, L.H. Observations on suicidal behavior among American Indians. *American Journal of Psychiatry*, 1971, *127*(7), 882-887.

Rhoades, E.R., Marshall, M., Attneave, C., Echohawk, M., Bjork, J., & Beiser, M. Mental health problems of American Indians seen in outpatient facilities of the Indian Health Service, 1975. *Public Health Reports*, 1980, *96*(4), 329-335.

Robbins, R. Identity, culture and behavior. In J. Honigmann (Ed.), *Handbook of social and cultural anthropology*, 1973, pp. 1199-1222.

Roy, C., Chaudhuri, A., & Ivine, D. The prevalence of mental disorders among Saskatchewan Indians. *Journal of Cross-Cultural Psychology*, 1970, *1*(4), 383-392.

Sampath, B.M. Prevalence of psychiatric disorders in a southern Baffin Island Eskimo settlement. *Canadian Psychiatric Association Journal*, 1974, *19*, 303-367.

Sanua, V. Familial and sociocultural antecedents of psychopathology. In H. Triandis & J. Draguns (Eds.), *Handbook of cross-cultural psychology: Psychopathology Vol 6*, 1980, pp. 175-236.

Schaefer, J.M. Firewater myths revisited. *Journal of Studies on Alcohol*, 1981, suppl No. 9., 99-117.

Schaps, E., Churgin, S., Palley, C.S., Takata, B., & Cohen, A.Y. Primary prevention research: A preliminary review of program out-

come studies. *The International Journal of the Addictions*, 1980, *15*(5), 657-676.

Schottstaedt, M.F., & Bjork, J.W. Inhalant abuse in an Indian boarding school. *American Journal of Psychiatry*, 1977, *134*(11), 1290-1293.

Shore, J.H. Suicide and suicide attempts among American Indians of the Pacific Northwest. *International Journal of Social Psychiatry*, 1972, *18*(2), 91-96.

Shore, J.H. American Indian suicide—Fact and fantasy. *Psychiatry*, 1975, *38*, 86-91.

Shore, J.H., Bopp, J.F., Waller, T.R., & Dawes, J.W. A suicide prevention center on an Indian reservation. *American Journal of Psychiatry*, 1972, *128*(9), 1086-1091.

Shore, J.H., Kinzie, J.D., & Hampson, J.L. Psychiatric epidemiology of an Indian village. *Psychiatry*, 1973, *36*, 70-81.

Shore, J.H., & Nicholls, W.M. Indian children and tribal group homes: New interpretation of the whipper man. *American Journal of Psychiatry*, 1975, *132*(4), 454-456.

Sievers, M.L. Cigarette and alcohol usage by Southwestern American Indians. *American Journal of Public Health*, 1968, *58*(1), 71-78.

Snyder, M. Self-monitoring processes. In L. Berkowitz (Ed.), *Advances in experimental social psychology*. N.Y.: Academic Press, Inc., 1979, pp. 85-128.

Sontag, E. Education and training of the mentally retarded. *Washington Report*, 1972, 7, 157-159.

Stratton, J. Cops and drunks: Police attitudes and actions in dealing with Indian drunks. *International Journal of Addictions*, 1973, *8*(4), 613-621.

Strauss, J.S. Chronicity: Causes, prevention, and treatment. *Psychiatric Annals*, 1980, *10*(9), 328-332.

Streit, F., & Nicholich, M.J. Myths vs. data on American Indian drug abuse. *Journal of Drug Education*, 1977, 7(2), 117-122.

Swanson, D.W., Bratude, A.P., & Brown, E.M. Alcoholism in a population of Indian children. *Diseases of the Nervous System*, 1971, *32*(12), 835-842.

Swiff, C. Task force report: National Council of Community Mental Health Centers Task Force on Environmental Assessment. *Community Mental Health Journal*, 1980, *16*(1), 7-13.

Tableman, B. Overview of programs to prevent mental health problems of children. *Public Health Reports*, 1981, *96*(1), 38-44.

Thornburg, H.D. An investigation of a dropout program among Arizona's minority youth. *Education*, 1974, *94*(3), 249-265.

Tyler, J.D., & Ureyer, S.F. Planning primary prevention strategy: A survey of the effects of business location on Indian reservation life. *American Journal of Community Psychology*, 1975, *3*(1), 69-76.

U.S. Department of Health and Human Services. *ADAMHA prevention policy and programs 1979-1982.* DHHS publication No. (ADM) 81-1038. Washington, D.C.: U.S. Government Printing Office, 1981.

Vaughn, W.T., Huntington, D.S., Samuels, T.E., Bilmes, M., & Shapiro, M.I. *Family mental health maintenance: A new approach to primary prevention*, 1975, *26*(8), 503-508.

Wagenfeld, M.D. The primary prevention of mental illness. *Journal of Health and Social Behavior*, 1972, *13*, 195-203.

Weinberger, A.S. Contours of primary prevention. *Canada's Mental Health*, 1980, *28*(4), 8-18.

Williamson, G.S., & Pearse, I.H. *Science, synthesis and sanity*. Chicago, IL.: Henry Regnery, 1966.

Wilson, L.G., & Shore, J.H. Evaluation of a regional Indian alcohol program. *American Journal of Psychiatry*, 1975, *132*(3), 255-258.

Woodward, R.G. Title VIII and the Oglala Sioux. *Phi Delta Kappan*, 1973, *55*, pp. 249-251.

DISCUSSION

Judith Kleinfeld: As I was sitting on the plane and reading over this paper, I began to re-analyze my own data, particularly at the community level. This paper has been able to get me out of a hole that I was in due to the old prevention disease concepts. For the last year I've been studying a community called Chevak in southwestern Alaska that has, among other things, started up a highly successful youth organization. The rationale within the community is that providing recreation for the kids will combat boredom, and therefore alcoholism and drug abuse. Part of the interest is that it was done without any outside seed money, or any outsiders actually involved in it at all.

We came to study it and to see what we could learn from the way the community had organized it. . . I had a research associate as a participant observer. He documented the organization that occurred, the way these activities were developed, the kinds of things the kids were learning as they did these activities. I was trying to write it up from the point of view, did it work, how to evaluate it. The hole I was stuck in was looking at our old indicators: suicide, alcohol rates, and so on. But these measures were not capturing what had happened. This is a competent community. It is competent and not only in the

direction of starting up a successful youth organization, but also in terms of being the only community in Alaska that contracted with the BIA to run it's own school and did so without any scandals, breakdown, or anything of the sort. The youth organization was just one aspect of a community that had gotten itself together on all sorts of levels. . . I think I will go back to the data and ask not what did it prevent, but what are the competencies that this community is demonstrating and teaching its young people. I can work from the descriptive data and sort out some of these competencies. Perhaps I can see the effects of the youth organization without employing community comparison groups that I know, from an evaluation standpoint, are illegitimate from the start.

Joe Trimble: Judy, what you hit on and what Spero, Ellie, and Norm are alluding to in this paper, is that not only do we have to change the mode of interpretation, but we have to change the strategies in research to get at the kinds of things you're talking about. . . The emphasis is on competencies, and looking at the things that work in the community which means that we need to shift our orientation from a reliance on quantitative methods and begin to take a very, very serious look at the use of qualitative methodology. . . This brings to mind the whole symbolic nature of what we're about as human beings and the need to anchor ourselves, as researchers, in the very simple way we act.

The behavioral act is my anchor point and this underlying symbolic system is what's causing some of the difficulties in terms of two parallel spheres. . . You have persons and you have situations which are conceptual: concepts of the person and situation and a process that's going on over time. . . I look at competencies as the congruence between the act and the underlying symbolic system. . . The real difficulty in understanding competencies is to understand the congruence between the underlying symbolic system and the behavioral act as they proceed.

Bea Medicine: I don't think that we should be seduced by competence because it depends upon from whose viewpoint: I really feel that when you talk about competencies you should think of cultural continuity. All of these things that we're seeing now people have done for generations and as a survival mechanism. So, I feel if we're going to talk about competence we have to put it in the modes of organizing as defined in the communities and how they allow them to persist.

Morton Beiser: We've created a paradox. This is a conference on prevention, but the key word seems to be competence. We're obviously not trying to prevent competencies. It's a philosophical stance whether competence can be viewed as a legitimate endpoint in itself, or whether competence in the sense of effective perfor-

mance has to be justified as a means toward the prevention of something bad from occurring, that something "bad" being our traditional kinds of measures of psychiatric disturbance or emotional disturbance.

I would guess from the discussion, and it seems to me that Spero, Ellie, and Norm's paper also highlights this more or less, that the decision would probably be that competence in itself can be viewed as a legitimate endpoint. . . A question which should be a topic for further research is whether competence can be linked to the prevention of psychopathology.

"Competence" also seems paradoxical in another way, too. In mental health, at least in psychiatry, we traditionally think of phenomena that we deal with primarily in terms of internal deficits or disturbances. When we talk about competence, the definition is a performance definition. That's unlike most of our traditional mental health measures. In fact, when we try to define disturbance in terms of deviations from normal functioning and social behavior and so forth, we always get into trouble. But it seems that now when we are talking about the more positive, what we want to promote, we're defining the phenomena in behavioral or performance terms, at least the term competence denotes that. It's very different. It's a qualitatively different approach to the phenomena that we're concerned about. I think it highlights the importance of a theme in their review that really we have to think in qualitatively different terms if we're going to accept the idea of competence as a legitimate end goal in itself.

SELF-PERCEPTION AND PRIMARY PREVENTION FOR AMERICAN INDIANS

Harriet P. Lefley

Conventional wisdom in the mental health field has long held that a positive self-concept is both essential for and indicative of healthy psychological functioning. Promotion of environmental and socialization practices that presumably produce a feeling of self-worth in children is thus a basic preventive strategy. The question of what constitutes positive self-concept in American Indian and Alaska Native children, however, and particularly, how one assesses it, remain problematic. As Trimble (1981a) has pointed out, some commentators have even argued that in cultures with a phenomenological world view, in which individuals see themselves as part of a cosmological and social whole, self-evaluation, self-reflection, and self-understanding may be either impossible to attain, or if attained, maladaptive. Trimble questions, however, the notion that American Indians are incapable of self-evaluation because they view themselves as part of a unified cosmos, or that self-reflection might endanger the sanctity of the group. Most cross-cultural researchers, moreover, even those comparing high-contrast traditional and modern groups (e.g., Carlson, 1970; Wober, 1971) have found that although *source* of self-evaluation might vary as a function of social organization (in terms of external-internal frames of reference), *level* of self-evaluation could still be studied as a discrete phenomenon regardless of world view or cosmological orientation.

The research on self-concept among American Indians, however, has yielded highly contradictory findings. Much of the earlier culture and personality research which focused on acculturation found highly negative self-concept and significant personality disruption. In more contemporary investigations, many cross-cultural studies continued to find lower self-concept in American Indians than in Caucasians or other comparison groups (Corrigan, 1970; Mason, 1969; Rosenthal, 1974; Thornburg, 1974; Zirkel, 1971). Withycombe (1973) found lower self-esteem in American Indian students as a function of segregated schooling, while Lammers (1969) found no differences in this regard. Martig and De Blassie (1973), found similar self-concept among Indian and Anglo students, with girls scoring higher than boys.

In contrast, American Indians demonstrated more *positive* self-concept than other cultural groups in studies by Benjamin (1973) and Dreyer (1970). Clifton (1975) and Robbins (1972) found no negative group or self-evaluation in Indian students. Fuchs & Havighurst (1970), in a large scale study of over 2000 American Indian students, found positive self-concept, competence, and optimism for the future. A massive study by Trimble and his associates (Trimble, 1981a, 1981b) of the self-perception of 791 American Indians from 114 different tribes on a six-scale self-perception measure showed a "moderately positive self-image" with considerable homogeneity of response patterns across five sample sites.

What is one to make of such findings? It is apparent that results on self-concept tests, as well as other personality measures, may be an artifact of a combination of variables relating to geography, age and sex of subjects, segregated versus desegregated schooling, and above all, instrumentation. Construct and criterion validities, particularly those exemplifying appropriate conceptual and behavioral correlates of positive self-concept in a given culture, have been rarely considered—with the notable exception of Trimble's emic scale which was developed from consensual agreement of 20 Indian informants on meanings and definitions of attitudes toward the self. Trimble's scale also included eleven topical categories, among them alienation and values as well as the more typical categories of self-esteem and control. In the present discussion, we will limit ourselves to global self-concept with the three common elements defined by Fitts (1971) and in different form, by Gergen (1971)—the identity, behavioral, and judging components (self-as object, doer, and observer, respectively)—and to the evaluative component alone, i.e., self-esteem. In combination, these percepts are presumed to imply a sense of identity, worthiness, and self-acceptance as a human being.

In assessing this briefly cited literature, we must again return to Carlson's (1970) distinction between source and level of self-regard. Typically, level of self-regard is what is measured, while source, hypothesized from anthropological or sociological theory, is the independent variable. Investigations which seek to determine cross-cultural differences in the former dimension tell us little about the dynamics underlying the hypotheses. Specifically, if American Indian subjects show lower self-concept than comparison groups, and this finding is attributed to acculturation, minority status, or tribal disintegration—singly or in combination—we still have insufficient knowledge of precisely how these global sociological phenomena mediate individual behavior. Conversely, if American Indian subjects from widely dispersed geographic regions show "moderately positive" self-concept—while at the same time undergoing acculturation, minority status, and tribal disintegration—what are the

dynamics underlying their good fortune? Which variables determine their apparently salutary coping mechanisms? It becomes inportant, then, to look at self-concept on a number of different levels: where it comes from, the matrix in which it develops, the way in which it may be affected by external environmental events, and how it can be changed. With respect to the mental health of American Indians, this many-layered approach would seem to be essential if we are to go beyond the descriptive level to the planning of appropriate interventions.

INDIAN SELF-PERCEPTION: THREE STUDIES IN TWO TRIBES

The research described here was initiated at the request of the Miccosukee Tribe of Florida, a small 300-member (now 500-member) group who had initiated a "Miccosukee Culture Program" in their ungraded reservation school (levels 1-6), which contained 35 children, ages 6-15. The program was expressly defined as an effort to combat cultural erosion and provide some structured continuity for the tribe's children. A major deficiency to be evaluated, as noted in their Title I application, was "low self-esteem." The author was asked, on a volunteer basis, to ascertain the success of the program in raising the children's self-esteem on a simple pretest-posttest basis. No provision had been made for a control group.

The Tribal Council's desire for uniform application of the independent variable, and the small N, precluded the selection of a control group from the Miccosukee Day School population. However, a matched comparison group, unexposed to the cultural intervention, was tested at the same time intervals, under carefully controlled conditions. This group consisted of all children attending the Ahfachkee Day School on the Big Cypress Seminole Reservation, approximately 100 miles from the Miccosukee reservation. The schools, populations, student-teacher and teachers' aides ratios were highly similar in all important respects, with the major difference being the lack of an Indian cultural program in the Ahfachkee school. The testing here was also approved by the Seminole Tribal Council and Parents' group, who were interested in the outcome of the Miccosukee program.

Although they belong to two different polities, the Miccosukees and Big Cypress Seminoles are members of the same ethnolinguistic population. All subjects in this study (but not all Seminoles) belong to the Indian group defined by anthropologists as Mikasuki Seminole,[1] and in most respects share a common descent and culture, including language.

In the course of studying the two tribal groups, it became apparent that social conditions on the two reservations were quite

disparate; the tribes seemed to differ observably in terms of modernization, erosion of tribal customs, and level of social disintegration. Although both groups definitely identified as Indians, one tribe seemed to promote Indian identity in a purposive manner, while the other did not. Conditions were favorable for expanding the research into a more comprehensive design in order to study social and familial correlates of self-esteem. With approval from the tribal councils of both polities, accordingly a multi-phase design was developed with the ultimate goal of generating useful feedback to the tribes and their school administrations.

Although the Seminole children comprised the only possible comparison group, it should be noted in advance that the two tribes, although ethnically homogeneous, do not have the same psychological ambience with respect to Indian traditions. The subjects in this study are all descendants of the Florida Seminole, a loose confederation of two ethnolinguistic groups (Mikasuki and Muskogee). When the Seminole Tribe of Florida was organized in 1957, the nativistic Mikasuki on the Tamiami Trail refused to join, viewing their kinsmen as "assimilationist." They organized as a separate polity in 1962, and in 1971 divorced themselves from BIA jurisdiction. While most Big Cypress members have converted to the Independent Baptist church, Miccosukees have resisted conversion, retaining their tribal religion centered around the annual Green Corn Dance. According to Garbarino (1972), this ceremony has not been performed at Big Cypress for more than a decade. Planning for the Green Corn Dance, with its network of clan roles, perpetuates a tribal cohesiveness unknown in the seldom-interacting camps on the Big Cypress reservation.

Today, despite their political differences, exogamous clan regulations have generated considerable intermarriage and cross-migration between the two small reservations. Linked by a common kinship network, the tribes also share a commonality of surnames that distinguishes them from other Indian groups.

Study I. Effects of the Miccosukee Culture Program

Despite the hopes of the Miccosukees that the efficacy of their cultural heritage program could be demonstrated in improved self-concept, a review of the literature indicated that most investigators had not found significant rises in global self-concept or self-esteem following exposure of minority Ss (primarily Blacks) to a cultural intervention in the schools (see Lefley, 1974). Yet, many of the studies reported posttest verbalizations by the Ss of renewed pride in self and ethnicity. The combined findings raised serious questions as to the equivalence, sensitivity, and cultural appropriateness of the instruments used. More importantly, given instrument validity,

the deeper questions were whether (a) the assumption is warranted that personal and ethnic self-concept covary in a lawful fashion, and (b) a didactic intervention can actually modify deeper levels of self-perception.

In an attempt to counteract some of these problems, the research design for the Miccosukee Culture Program was based on a battery of instruments that (a) were selected, modified, or designed in terms of cultural appropriateness; (b) were administered under conditions optimal for perception of Indian as well as Anglo (school) criteria; and (c) tapped discrete components of self-perception, notably global self-concept (SC), personal self-esteem (SE), and Indian self-esteem (ISE). In addition to investigating rises in each of these dimensions, the study also investigated pretest and posttest correlations between ethnic and personal self-perception, testing for the significance of the difference between the two *r*'s across time. Since self-concept changes alone may be subject to multiple rival interpretations, it was believed that a significant rise in the relationship between personal and ethnic identity would provide an even more sensitive measure of the efficacy of the cultural intervention as the major independent variable.

The Miccosukee Culture Program

The cultural intervention, which was almost exclusively under the control of tribal elders, involved two components: two-day overnight trips of small groups of children to an ancestral Miccosukee campsite deep in the Florida Everglades, and formalized instruction in the school setting. Campsite activities included building a canoe and chickee (the traditional palmetto-thatched open abode still used as housing today), and using materials of the natural environment in the manner of their ancestors (no modern hardware). Around the campfire at night the children were instructed in tribal legends, history, ceremonial ritual, astronomy, and songs. The elders stressed basic Miccosukee moral standards and customs, and how these parallel or differ from non-Indian mores. On their return, the children continued to discuss the weekend program with Indian teachers' aides for 1-2 hours per day. An additional hour was devoted to Miccosukee arts and crafts; beadwork, sewing, carving, basket-weaving, etc., with completed items displayed in the school corridor.

Testing

Subjects. The total populations of the Miccosukee Day School (N = 34) and the Seminole Day School (N = 38) were tested just prior to the initiation of the Miccosukee Culture Program, and retested approximately ten weeks after it had been in effect. Com-

pleted pre-post batteries were available for fifty-one subjects. These were age-graded for both sexes and assigned to a pool for matching with the other school. The final analyses of variance were based on two reservations groups of twenty Ss each, exactly matched for age and sex, randomly selected from the appropriate categories in each school. Age range was 7-14 years, with a mean of 10.47 years for the Miccosukees and 10.32 years for the Seminoles.

Materials and administration. The materials were selected by Indian informants from a large group of self-concept instruments on the basis of cultural appropriateness. Personal self-concept was tested by the Piers-Harris (P-H) Children's Self-Concept Scale (Piers, 1969) and a modified version of the Sarason & Ganzer (1971) Word-Rating Scales (W-R), a semantic differential consisting of 14 bipolar adjectives adapted by Indian teachers' aides to include the salient evaluative terms in the culture (sharing/selfish, honest/dishonest). The W-R contains four subscales tapping SC, ideal self, and perceived parental and peer evaluation. SE is derived from the discrepancy between actual and ideal self ("Me as I am now" subtracted from "Me as I wish I were.")

Ethnic self-concept was tapped by two measures, rationally developed and piloted with the aid of qualified Indian informants: an Indian Self-Esteem Scale (ISES), and an Indian Stimulus Scale (ISS). The ISES consisted of 12 statements relating to Indian identification and satisfaction with Indian lifestyle, personality, intelligence, and body image, matched to elicit positive and negative responses. Examples are as follows: "I am glad I am Mikasuki/I am sometimes ashamed to be an Indian; I sometimes think white children are smarter than we are/We know many things that white children don't know." The weighted mean r's for positively and negatively phrased items was .80 ($p < .01$). These items were randomly interspersed with the P-H items to mitigate their stimulus value.

The ISS, an assessment of preference for Indian stimuli, consisted of eight blocks of 6-item lists of persons. Format was loosely based on the Ziller, Hagey, Smith & Long (1969) social self-esteem symbols task, adapted as an ethnicity evaluation measure. Each block consisted of the self, negative stimulus, two neutral stimuli, a person evaluated highly in the Mikasuki Seminole culture, and a counterpart evaluated highly in the dominant Anglo culture. Examples include: "Someone who builds good chickees/someone who builds good houses in town; a famous medicine man/a famous doctor; a cowboy on TV/an Indian on TV." The Ss were asked to rank the six persons in each block in order of importance, with a plus score for each time the Indian stimulus was ranked higher than the Anglo stimulus, regardless of relative position.

Additionally, the Coopersmith (1967) Behavior Rating Form, consisting of 14 statements assumed to tap self-esteem indicators, was completed by the teachers and principal for each child, for correlation with the self-report measures. This was done as a substudy rather than to provide a criterion measure, since ethnographic accounts (e.g., Garbarino, 1972) had suggested that behavioral correlates of SE in Indian and Anglo cultures may be quite different. Teachers also gave their personal assessment by rating each child on a five-point scale for SE and ISE.

An additional substudy involved the variable of social desirability (SD). Crowne and Stephens' (1961) claim that most self-concept instruments measure social desirability, which implies that high scores may be more a function of defensiveness and self-protectiveness than of veridical self-perception. Historical and ethnographic data on the Mikasuki Seminole, however, suggest a history of strong cultural reinforcement of truth-telling (Blassingame, 1959; Peithman, 1957), and a deemphasis of the need to present oneself in a favorable light (Garbarino, 1972; Skafte, 1969).

The social desirability of the bipolar adjectives on the W-R was thus assessed by three Indian judges, two Seminoles and one Miccosukee, according to the Ford & Meisels (1965) SD rating scale. In this scheme, the two adjectives of each bipolar pair were rated as separate items on an "undesirable" to "desirable" continuum on a 7-point Likert scale, with the rating based on "how desirable or praiseworthy you think that characteristic would be from the point of view of Indian society." The mean inter-rater r was .98 ($Z = 2.64$); this provided an adequate basis for computing correlations between the SD values and the children's SC responses.

Translation. To insure optimal conceptual clarity, and to minimize perception of Anglo evaluative criteria implicit in the school setting, all instruments were administered orally in English and Mikasuki. All measures were translated, backtranslated, and decentered when required, with the final Mikasuki version standardized on tape.

Results

Reliability and validity. Test-retest r's, computed separately for each school, ranged from .65 to .79 for SC scales, and from .63 to .91 for ISE measures, all significant at the .01 level. Split-half r's ranged from .77 to .93 ($p < .01$) for SC, and from .55 ($p < .05$) to .91 ($p < .01$) for ISE. Intercorrelations of the SC scales showed good concurrent validity with r's ranging from .48 ($p < .05$) to .64 ($p < .01$) in the pretest; all posttest correlations (.61 to .75) were significant at the .01 level. The two Indian self-concept scales intercorrelated at the .05 level, with r's ranging from .43 to .58 across time.

Social desirability. As anticipated, the correlations between SD values and W-R responses were in the zero range for both tribes with respect to the positive scale values (.03 for the Miccosukees and -.06 for the Seminoles). However, when the mean value for the SD of the bipolar scale was given, taking into account both ends of the continuum, the correlations became .40 and .15 respectively. It was quite apparent that relative to reported Anglo *r*'s of .45 (Piers, 1969), the Indian children were not trying to portray themselves in a positive light. The converse question was also explored, with the data revealing that most responses were above the neutral point, i.e., were moderately positive, indicating that the children were not trying to "fake bad" or portray themselves in a negative light. (See Lefley, 1973 for further discussion.)

Self-concept and self-esteem. No significant change appeared in either tribe on global SC on the P-H, the "Me as I am now" subscale of the W-R, or the ISES. On two measures, however, the Miccosukees showed a highly significant increase: in SE (diminished ideal-actual self discrepancy) and in preference for Indian stimuli

Table 1

Self-Esteem and Indian Stimulus Preference Scores

	Pretest		Posttest		*F**	
	Mean	SD	Mean	SD	(tribe x trials)	*p*
Self-esteem					21.16	.001
Miccosukees	83.05	12.68	91.70	9.22		
Seminoles	84.80	10.72	77.65	12.12		
Indian Stimulus (ISS)					19.86	.001
Miccosukees	5.69	1.60	6.81	1.03		
Seminoles	4.81	1.09	4.62	1.33		

Note: Self-esteem = Ideal-Actual Self discrepances, subtracted from 100 to yield positive scores.

* There was a main effect for Tribe on the ISS, as suggested by the means: F (1.32) = 13.17, $p < .01$. The highly significant Tribe X Trials interaction, however, indicated that learning had occurred. There was no main effect for Tribe on the other measure on this subgroup of 40 Ss.

on the ISS. The highly significant ISS difference indicated in Table 1 was supported by the response tendencies on the ISES.

The Miccosukee increase in SE, and the observed Seminole decrease, were consistent across all age and sex groups.

It was apparent that the major change in the SE response occurred in ideal self. A separate analysis of the "Me as I wish I were" scale indicated a posttest decrease in ideal self score of 6.70 for the Miccosukees, with a corresponding increase of 4.87 points for the seminoles, with the difference significant at the .001 level.

Relationship between personal and ethnic self-concept. Correlations between the P-H and ISES responses were computed for both tribes. The Seminole r's remained almost exactly the same across time (.12 pretest; .11 posttest). The Miccosukee r rose from .05 in the pretest to .58 ($p < .05$) in the posttest. The difference between the pre-post r's was significant at the .05 level ($t = 1.79$, $df = 38$).

Age and sex differences. In this category of results, as well as the comparison with Anglo norms, data are given on all Ss tested (N = 72). Across tribes, females were significantly higher on the P-H than males, $F(1,32) = 6.85$, $p < .05$). Also, younger Ss (7-10 years) were significantly higher than older Ss (11-14), $F(1,32) = 10.98$, $p < .01$).

A definite sex difference emerged on the means and correlations for SC and perceived parental love. Across tribes and age groups, girls (n = 32) were significantly higher in perceived parental love than boys (n = 28), t (58) = 3.93, $p < .001$. However, there was a significant reversal in the *correlations*. Here, boys showed significant positive r's between self-concept and perceived parental love ($z = 2.29$, weighted mean $r = .98$, $p < .001$), while girls did not ($z = 0.388$, weighted mean $r = .37$). Again, this was consistent across tribes and age groups. This pattern is critically relevant to the subsequent mother-child relationships discussed in Study III.

Comparison with Anglo norms. In both tribes, in both pretest and posttest, the P-H means of the combined language administrations were significantly below Anglo norms for moderate to low SES children of the same age levels (Piers, 1969). When the combined Indian mean of 41.18 (N = 40) was compared with the normative mean of 51.57 (N = 540), the difference was significant at the .001 level ($t(578) = 7.13$). The Indian Ss were significantly less variable, with a mean SD of 8.40 versus a normative SD of 14.56 (F (539/39) = 3.00, $p < .001$). However, the Ss did not seem to be low in Indian SE, the Miccosukees scoring 8.53 and the Seminoles 8.29 in mean response to the ISES, which had an optimal positive score of 12.00.

Implications of the Cultural Intervention

These findings suggest that subtle and complex changes may take place in self-concept following a cultural intervention, but may not be readily apparent unless a variety of sensitive measuring instruments are used. They also indicate that changes may occur on some instruments and not on others, despite a high level of intercorrelation, and that the stimulus order and presentation of test materials may affect response tendencies.

The highly significant changes in ideal self, consistent for all age and sex groups in each tribe, followed three presentations of materials with stimulus content relating to Indian pride and identification. This sequence may well have evoked feelings of conflict and cognitive dissonance, since it appears from the P-H and ISES scores that the children were reporting themselves as "bad persons" but as "good Indians." Following this, it would seem that having been exposed to the Indian stimuli for which they had been differentially reinforced, the Miccosukees resolved dissonance by deciding that as persons, they were better than they thought they were and did not have to aspire higher. Thus, they may have been demonstrating greater satisfaction with self because of renewed satisfaction with Indian identity, the latter manifested in their subsequent higher valuation of Indian symbols in the final test. Conversely, the Seminoles appeared to resolve the dissonance between personal and ethnic identity by deciding "we're not as good as we should be" with a concomitant devaluation of Indian symbols.

It is believed that the three significant changes found in the Miccosukees—reduced distance between actual and ideal self, increased preference for Indian stimuli, and increased correlation between personal and ethnic self-perception—attest to the effectiveness of the culture program. But the psychodynamics involved in self-concept change in children undergoing cultural upheaval are obviously far more complex than those anticipated in a simple experimental paradigm.

As anticipated, correlations between Coopersmith's (1967) Behavior Rating Form and self-report scores were in the zero range (from -.08 to .10). Many of Coopersmith's behavioral indicators of low self-esteem are approved or normative behaviors in the Indian culture, e.g., shyness, subdued speaking manner, failure to be self-assertive and the like. However, the teachers' ratings yielded a weighted mean correlation of .43 ($p < .05$), indicating that the judgment of those who know the culture is apparently superior to an objective but culturally inappropriate measure. Grade point average was also not significantly related to self-esteem.

These data, together with the social desirability findings, suggest that the significant differences from Anglo norms may in part be an

artifact of the test items, and in part due to Indian non-defensiveness. Standard self-concept instruments are heavily weighted for behaviors that may be differentially valued in the dominant and Indian cultures, e.g., classroom proficiency, need for achievement, satisfaction of parental expectations, and the like. The findings of "moderately positive" self-concept on the W-R actual self scales are in accord with those of Trimble (1981 a,b). Nevertheless, they appear to be conceptually separate from that self-concept which is related to achievement in areas considered adaptive in the mainstream society.

Study II. Self-Concept in Indian and Anglo Contexts

A language manipulation was done on the Piers-Harris and ISES items to test the hypothesis, advanced by several investigators (e.g., Heiss & Owens, 1972) that children in ethnic co-cultures may have multiple self-evaluations, contingent on perceived role expectations and implicit comparison groups. Against the implicit criteria of the dominant culture, it is argued, children may view themselves as inadequate, with the group distribution more skewed toward devaluation than when testing conditions imply a within-culture frame of reference. The latter was attempted by testing in the native language with Indian examiners.

Method

A meticulous translation, back-translation, decentering, and piloting methodology was employed (see Lefley, 1975). The P-H was then given in four language-order conditions: English first, Mikasuki second (El, M2) and Mikasuki first, English second (M1, E2). The same groups were retested about two months later with order counterbalanced: the E1, M2 groups became M1, E2 and vice-versa. Thus, each subject was exposed to four conditions: E1, E2, M1, and M2.

Results

Test-retest correlations for both measures, computed for each language-order group within each reservation, ranged from .71 to .92 ($p < .01$). These were even higher than the temporal reliabilities (.65 to .79), tending to support the pilot test which had indicated conceptual equivalence in the two languages.

Results again were highly consistent for the entire Indian population. Regardless of age, sex, tribe, or order of presentation, personal self-concept was significantly higher in the native language, $F(3,96) = 2.93, p < .05$.

On the Indian self-concept measure, however, completely opposite results were obtained. Both reservation groups were significantly

higher in Indian self-concept in their second language, English, although the items were administered in the same instrument and were functionally part of the same test ($F(3,96) = 9.71$, $p < .01$). These results, too, were consistent for all subgroups.

Implications

These findings tend to highlight the previous discussion of intense role conflict among the Indian children. In the present study, language and examiner were treated as a unitary effect in order to create optimal conditions for perception of Indian or Anglo evaluative criteria, with no attempt to control the independent effects of linguistic stimuli or examiner ethnicity. However, the latter may have been a critical variable in the ISES response, since the children were likely to reject such items as "I am sometimes ashamed to be an Indian" when the words were spoken by Anglo teachers, and to acquiesce when they were spoken by Indians.

It is also possible that while the Ss may have felt inadequate personally under conditions implying Anglo evaluation, conditions implying Mikasuki evaluation may have generated guilt about their self-concept as Indians. Thus, within the Anglo context they were likely to be defensive about their Indianness and respond high, while within the Mikasuki context they may have felt they were "bad Indians" because of their failure to fulfill the Indian role expectations of their family and tribe. Trimble (1981b) has commented on the tendency of some Indians (in this case St. James Cree) to tend to act more "Indian" with Caucasians than with their own people, which seems to have a similar dynamic.

Undoubtedly consciousness-raising takes place in testing of this nature, and the children may also have felt like "bad Indians" because the Anglo context was able to generate feelings of devaluation. The Mikasuki mean, however, was also significantly below the P-H norms. Thus, it would seem that in Indian children defensiveness, when it appears, may be more related to guilt about Indian role-fulfillment than about personal inadequacies in other areas.

Study III. Social and Familial Correlates of Self-Concept

In this final study, 32 mothers of the school children were extensively interviewed, with a developmental and behavioral history obtained for each child. The group included 12 Miccosukee and 19 Seminole mothers, representing 81% and 95% respectively of the population of mothers with children in school. Five fathers were also interviewed, but with further cooperation lacking, these data were not included in the analysis. Since the findings have been reported elsewhere (Lefley, 1976), only a summary of the study is presented here.

Method

In home interviews, the mothers were administered a demographic data sheet, a modified version of the Parent Attitude Research Instrument (PARI) as administered by Coopersmith (1967), a modified version of Coopersmith's "Mother's Interview" with a detailed history for each child, and the W-R self-concept scales. Mothers were also peer-rated on the basis of behavioral indicators such as attendance at parent council meetings.

All interviews were administered in Mikasuki by Indian interpreters. Materials were based on careful translating procedures, including backtranslation on each reservation, with final formulations determined by consensual agreement of five bilingual judges. Mother-child correlations were based on 60 children's scores. The children were divided into four age-sex groups: girls 7-10 years (n = 16) and 11-14 years (n = 16); boys 7-10 years (n = 14) and 11-14 years (n = 14). A mother's score was correlated with the score of each of her children, according to age and sex, with the score of only one child used in each category.

Results

Level of acculturation and social integration. Seminole mothers differed significantly ($p < .05$ or less) from Miccosukee mothers in the following areas: they had more formal education, more English speakers, more house dwellers and fewer chickee dwellers, more converts to Christianity ($p < .001$), and, despite equivalent contact with non-Indians, reported greater experience of racial discrimination. They also had fewer intact families, less cash employment, and more families on welfare. Only 36% of the Seminole families had the father present, as opposed to 77% of the Miccosukee families.

Self-concept. The Miccosukees showed a significantly higher level of positive self-regard than the Seminoles; thus, the pattern held for both mothers and children. Miccosukee mothers were significantly higher in global SC ($p < .01$) and in self-esteem ($p < .001$).

As noted previously, boys' self-concept was significantly correlated with perceived parental love, while girls' self-concept was not. However, in the present analysis, only the self-concept of daughters was positively correlated with their mothers' self-concept ($p < .01$). In contrast to data on Anglo children (Coopersmith, 1967) boys' self-concept was not correlated with that of their mothers.

Child-rearing practices and attitudes. There was no significant correlation between a child's self-concept and items in the developmental and behavioral history, such as sickness, rules, punishment and reinforcement behavior, etc., nor did the tribes differ in this regard. On the PARI scales, however, clusters of maternal attitudes that were correlated with children's SC were highly disparate for

the two tribes. Among the Miccosukees, maternal correlates were similar to those found by Coopersmith (1967): encouraging verbalization, equalitarianism, comradeship and sharing, strictness, and approval of activity, with negative responses to breaking the will, avoiding communication, intrusiveness, fostering dependency, and undue acceleration of development. Maternal correlates were significant for boys only, but were consistent for both sexes. Among the Seminoles, fostering dependency was *positively* correlated with SC, and was reconceptualized in this group as "protectiveness." Inverse combinations of child-rearing attitudes were related to self-esteem in boys and girls. Positive self-regard in boys was associated with a nonpunitive and protective maternal attitude, with few demands for performance and little mother-child comradeship. Among girls, SE appeared to be negatively correlated with protectiveness, and positively correlated with communication, comradeship, equalitarianism, and expectations of performance. However, here, too, maternal correlates were significant for boys only.

Implications

Two major conclusions were drawn from this research. First, a group with a higher level of social integration is more likely to employ pan-human core values in child-rearing. It appears to be social disintegration, rather than acculturation per se, that generates idiosyncratic socialization practices. Second, correlates of self-esteem are found in the interrelationship of social structure and the parenting process — not in the latter alone.

DISCUSSION

Throughout this research, when low self-esteem is found in children it appears to be related to two major interdependent variables: the acculturation-tribal disintegration process, and the attendant role and identity conflict regarding Indianness. These inferences are scarcely new; the observations are consistent throughout the literature on American Indians and Alaska Natives. However, their confirmation on the basis of empirical data from two tribes at relatively low levels of acculturation tends to confirm their importance in developing models of primary prevention. A perusal of the literature and the many workshops held on Indian mental health seems to indicate that preventive efforts focus primarily on personal change in the individual Indian rather than social change in the forces that mold him. Some of these efforts are wonderfully creative, such as the sensitive and well-designed intervention model developed by Dinges, Yazzie, & Tollefson (1974), which merges good developmental technology with culture-enhancing strategies. However, while parent effectiveness training and stimulation techniques for Ameri-

can Indian children have a great deal of value, they do not deal with basic causes of Indian malaise. These are rooted in a socio-historical process in which too much of value has been lost, with too little in the way of compensatory replacement.

For example, in the data previously cited in Study III, it is apparent that regardless of the individual differences that may be correlated with maternal child-rearing practices, in both tribes negative self-evaluation is more pronounced among males and increases with age. The findings are contrary to normative data offered by Piers (1969) on non-Indian children and thus cannot be attributed to universal male-female differences or to the trials of puberty and adolescence. It is believed that these differences have roots in the social structure of many Indian cultures combined with ecological modifications of the life-sustaining environment that have changed the economic base and stripped adult males of their traditional functions and roles. Mikasuki Seminole kinship structure is matrilineal and uxorilocal; this has always afforded high status for women and respected role models for girls. Contemporary ethnographers (Garbarino, 1972; Skafte, 1969) have observed increasing family disorganization and eroded clan structure on the Mikasuki reservations, resulting in fewer or unhealthy role models for boys. The weakening of the avunculate (mother's brother as teacher-disciplinarian), combined with increasing powerlessness and absenteeism of fathers, has tended to lower the status of males in the formerly cohesive tribal society. For preventive interventions, it appears from the data that parenting practices have a more profound effect on Mikasuki boys than on girls, who are able to obtain rewards from role-modeling and gender-appropriate activities in the tribes.

With respect to the age difference, a primary factor in the lower esteem of older children may be their greater exposure, through formal education and television, to the status, economic, and experiential discrepancies existing between Indian and Anglo cultures, correlative with increasing psychological distance from the family. Ethnographic comments on the experiential gap between the Mikasuki generations have indicated parental failure to control or communicate with older children, particularly boys. While younger children are still family oriented, aimlessness, deviant behavior and verbal rejection of tribal tradition seem to be increasingly prevalent among the teenagers. Observation of the social and material benefits of the dominant culture, without compensatory familial supports, may well underlie the lower self-esteem of older children.

In all American Indian research, this age group is particularly vulnerable in terms of developing deviant behavior patterns. This is because Indian children are subject not only to the normal *sturm und drang* of adolescence, but to a value conflict that demands enormous

ego strength to sustain and overcome. Malbin, LaTurner and Spilka (1971), for example, in a longitudinal study of Oglala Sioux students, found that Indian adolescents were beginning to internalize the social values of white middle-class America in terms of school achievement and "a Calvinist work ethic," but were finding this new ideological framework inappropriate when applied to themselves and their lives. Observing poverty and dependence on the reservation, and negative stereotypes about Indians from media and educational sources, students reacted with pessimism to the prospect of work and achievement.

An additional important factor in youth malaise is lack of power and responsibility within their own tribal system. According to Liberman[2], for example, Miccosukee youth feel disenfranchised and impotent to change their own lives because only the elders are decision makers. He feels that much of the self-destructive behavior stems from this impotence, i.e., youth change their universe through drugs or alcohol because they cannot change it in reality.

For adult Indians, too, the economic, social and psychological ambiguity of their lives appears to affect coping capability. Again we turn to the Miccosukees, who have made a valiant effort to retain their traditions, and indeed have been successful to a great extent. Without actually becoming bicultural, the Miccosukees have also been successful in attracting grant writers to help increase tribal resources, developed financially successful tourist attractions including a very well-attended annual Indian arts and culture festival, expanded their educational and health systems, and won land rights and other legal concessions from the federal and state governments. Despite all this, a recent study by Liberman and Frank (1980), comparing Miccosukees with non-Indian samples from North Carolina and the Pacific Northwest, on the Social Readjustment Rating Scale, found that Miccosukees perceived that a greater amount of stress in their lives would be created by most of the situations listed than did the comparison groups. The rankings, of course, reflected cultural differences, particularly those relating to group or tribal orientation — e.g., rankings of death of a family member or of a close friend were much higher for the Miccosukees than the perceived stress of divorce and marital separation, whereas the reverse was true for non-Indians. Nevertheless, the perception of any of these events as stressors requiring a substantial degree of readjustment was higher among the Indians. This suggests a recognizable burden carried by many American Indians in terms of the drain on their coping resources. It may also explain the persistence of the ubiquitously cited "dependency patterns," including alcoholism. The disappearance of what Anthony Wallace terms "cathartic strategies" such as communal feasts and rituals, "status reversal rituals," and

other symbolic processes which Dubreuil and Wittkower (1976) claim are major preventive aspects of culture, also make it likely that periodic altered states may have an adaptive function in making life tolerable. While this type of psychodynamic explanation has lost currency (see Trimble and Medicine, 1976), there still must be some etiological and functional speculation about behaviors that commonly have been termed pathological in the dominant culture. It is, after all, in this locus that most of the training, defining, and intervention planning takes place.

In this connection, the caveat of Dinges et al (1981) should be noted on the dangers of imposing a mental health intervention model that may be culture-destructive. Such models may also be destructive sociologically, by masking the main picture with reductionist or simplistic solutions to complex phenomena. Ishisaka (1978) has suggested that in the long run, the focus on individual difficulties, such as alcohol, may be dysfunctional; it detracts from the interrelated but even more important issues of providing educational programs agreeable to Indians, job training and opportunities, and increased availability of adequate housing.

Prevention Target Groups

Ideally, in lieu of targeting the demonstrated or putative high-risk population, preventive strategies for American Indians and Alaska Natives should begin with the white superstructure which has been eroding their traditions, social structures, economies, and ecological balance. At this point in history, multi-level prevention efforts, external as well as internal, are indicated. Table 2 depicts a number of target groups and possible strategies. In addition to global political efforts to obtain equity and amelioration of environmental stressors, external interventions should include a wide range of educational activities directed at service providers, funding sources, and other agents of the dominant culture whose activities impact on this special population. The University of Miami's Cross-Cultural Training Institute for Mental Health Professionals, the DISC program at the University of Hawaii, and Brandeis University's Training Project in Ethnicity and Mental Health are three examples of curricula geared toward training mental health practitioners in culturally sensitive approaches to diverse ethnic populations; these could well be applied to interventions with American Indians.

Sometimes an intervention with far-reaching effects may be based on elementary input. A recent report by the Department of Psychiatry of the University of Toronto (1978), for example, described a case in which two psychiatrists were called in to evaluate "an epidemic of hysterical seizures" by young people in an isolated Cree village in Northwestern Ontario, and recommended, among other things, that more recreational facilities be provided for the youth.

Table 2

Target Groups for Prevention

Target Group	Examples of Suggested Preventive Strategies
INDIAN COMMUNITIES	
Parents/Parent Surrogates	Culturally appropriate parent effectiveness training and developmental interventions; self-help groups; discussion groups; didactic education
Children and Youth	Rap sessions, ethnotherapy[a], identity and values clarification; bi-cultural effectiveness training[b]; outlets for peer socialization; skillbuilding; job-training
	Directed projects: psychodrama, group theatre, collecting materials on legends, ceremonies, herbal medicine, etc. for books, curricula for younger children for use in own elementary school, and for sharing with other Indian tribes; development of music groups syncretizing tribal music, rock protest songs[c], etc.
	Directed role-modeling: development of "Big Brother/Sister" projects aimed at individual activities with younger children in dyadic or group relationships
Adults/Elders	Paid jobs as teachers and role models: developing and incorporating tribal culture programs as part of school curriculum, Head Start program, etc.
	Paid jobs as Medicine Counselors, clinical counselors, teachers' aides, and other service providers; trainers of non-Indian staff in culturally appropriate service provision
	Adult education and skill-building
Tribal Leadership	Training in lobbying, grantsmanship, community development and political action skills; attracting employment opportunities; contracting skills;
All Members	Values clarification, identity, and rebuilding communality and tribal responsibility; family education; bi-cultural effectiveness training

Table 2 (continued)

Target Group	Examples of Suggested Preventive Strategies
OUTSIDE TARGET GROUPS	
Educators, health and mental health practitioners, other service providers, job contractors	Cultural training by Indian informants, anthropologists and other cultural experts prior to and during employment; integration of cultural information with consultation and education activities; development of culturally sensitive didactic materials for other service providers
Local Funding sources, District Mental Health Boards, etc.	Orientation in Indian mental health issues, workshops on cultural history; needs assessment
National Institute of Mental Health	Promotion of research and R & D projects focusing on development of culturally appropriate needs assessment methodology, diagnostic instruments, screening procedures, preventive and treatment modalities, in addition to all other social and clinical research
	Promotion of cross-cultural training for non-Indian service providers
Private Industry	Programs aimed at attracting employment opportunities, job training, and tribally approved resource development
Federal Government	Lands, employment, continued pressure for requisite funding and desired legal accommodations
Other American Indian Groups	Sharing and coordination of cultural, social, and political activities
Media	Continuing pressure to produce and publicize films, TV programs, books, etc. on positive aspects of American Indian heritage, as well as realistic documentaries of current conditions; pressure for editorial endorsements of desired programs

a. See Cobbs, 1972
b. See Szapocznik, Kurtines, & Fernandez, 1980
c. "Tiger-Tiger," a Miccosukee rock group, is an example of this syncretic music.

"They had observed that seizures never occurred on the nights on which movies were being shown at the school or other activities were provided (p. 680)." In Florida, however, the Dade-Monroe Mental Health Board, which approves funding for the Miccosukee Tribe, decided that "recreation" was not a legitimate mental health function and disapproved such funding for the tribe's youth. The excessive weighting of verbal therapies and complex psychodynamic intervention models may reinforce those selfsame culture-destructive tendencies that have been previously discussed.

For the so-called population at risk, however, the theme of "helping Indians to help themselves" is probably the major recurrent theme in the literature. A primary preventive task is the development of modes of accommodation not only with the dominant culture, but within the group itself. As one reads the list of "pathologies" that seem to cut across geography, it becomes apparent that many of these represent an extension of cultural norms that served an adaptive function in the past. Communality thus becomes perverted into dependency, i.e., reliance on others for decision making; the need for consensus generates factionalism and in-fighting; promotion of children's autonomy erodes into social distance within families; and the hegemony of elders without commensurate developmental roles for youth generates acting-out and deviant behavior.

One of the most maladaptive patterns, though, seems to be the prevalence of group behaviors that impede rather than facilitate collective progress. Thus a major preventive thrust is to stop a pattern of obstructing "potentially useful programs with passive aggressive or self-destructive behavior" (Leon, 1968, p. 130). A description of an Indian-controlled mental health program which, although highly successful, was disbanded by an internally warring tribal council (Ostendorf & Hammerschlag, 1977), highlights a critical problem in American Indian life: the leadership/social responsibility dilemma. The cited authors state "when local residents seek leadership positions. . . they are invariably accused by others on the reservation of selling out, building empires, and becoming like white people" (p. 683). These authors and others also describe a pattern of apathy and acceptance of overnight collapse of tribally operated social projects, which are assumed to be based on political factors rather than on competency.

While some of these patterns may be endemic in isolated communities, they are vitally maladaptive when a combination of culture-loss, poverty, and minority status necessitates harmony with humans, as well as harmony with nature, for group survival. Thus, values clarification with respect to the assumption of leadership roles, and the adaptive value of **educated** leadership for collective progress, would seem to be a major preventive strategy.

Returning to the major theme of this paper, it would seem that primary prevention for the Indian population on the individual level would entail discovery of where one stands in the world and the contingent satisfactions or dissatisfactions of this position. Value orientations which demonstrably characterize the Indian ethos, e.g., being, harmony with nature, and the like (Kluckhohn & Strodtbeck, 1961) as well as humor (Medicine, 1981) can provide the basis for rap sessions and other youth activities which are aimed toward clarifying roles, prospects, and desirable life styles. Ethnotherapy (Cobbs, 1972) is another means of discovering the personal meaning and value of Indian identity, while bi-cultural effectiveness training (Szapocznik, Kurtines & Fernandez, 1980) aims toward enhancing communication and negotiation skills for living in two cultural worlds. Ultimately, it is both intracultural and transcultural communication skills, based on a secure identity, that will enable American Indians as well as other groups to maintain both characterological and cultural integrity.

NOTES

1. Although at least five spellings of the name appear in the literature, "Mikasuki" is the standard spelling used by anthropologists and linguists, according to Garbarino (1972). The Miccosukee Tribe has incorporated under another preferred spelling. In this research, the term "Miccosukee" distinguishes the tribe from the larger ethnic collectivity and their shared language, Mikasuki.
2. Liberman, D. Personal Communication, September, 1981.

REFERENCES

Benjamin, E.F. An investigation of the self concept of Alaskan Eskimo adolescents in four different secondary school environments. (Doctoral dissertation, Oregon State University, 1973). *Dissertation Abstracts International*, 1973, *34*, 2377.

Blassingame, W. *Seminoles of Florida.* Tallahassee: Florida Department of Agriculture, 1959.

Carlson, R. On the structure of self-esteem. *Journal of Consulting and Clinical Psychology*, 1970, *34*, 264—268.

Clifton, R.A. Self-concept and attitudes: a comparison of Canadian Indian and non-Indian students. *Canadian Review of Sociology and Anthropology*, 1975, *12*, 577—584.

Cobbs, P. Ethnotherapy. *Intellectual Digest*, 1972, *2*, 9, 26—28.

Coopersmith, S. *The antecedents of self-esteem.* San Francisco: Freeman, 1967.

Corrigan, F.V. *A comparison of self-concepts of American Indian students from public or federal school backgrounds.* (Doctoral

dissertation, George Washington University, 1970). Ann Arbor, Mich.: University Microfilms, 1970. No. 70-24,959.

Crown, D.P., & Stephens, M.W. Self-acceptance and self-evaluative behavior: A critique and methodology. *Psychological Bulletin*, 1961, *58*, 104—121.

Dinges, N.G., Yazzie, M.L., & Tollefson, G.D. Developmental interseling and psychotherapy with American Indians and Alaskan Natives. In A.J. Marsella and P.B. Pedersen (Eds.), *Cross-Cultural Counseling and Psychotherapy*. New York: Pergamon, 1981.

Dinges, N.G., Yazzie, M.L., & Tollefson, G.D. Developmental intervention for Navajo mental health. *Personnel and Guidance Journal*, 1974, *52*, 390—395.

Dreyer, P.H. The meaning and validity of the "phenomenal self" for American Indian students. *National Study of American Indian Education Research Reports*, 1970, *1*, 4, 1—27.

Dubreuil, G., & Wittkower, E.D. Primary prevention: A combined psychiatric-anthropological appraisal. In J. Westermeyer (Ed.), *Anthropology and Mental Health*. The Hague: Mouton, 1976.

Fitts, W.H. *The self-concept and self-actualization*. Nashville: Dede Wallace Center, 1971.

Fore, L.H., & Meisels, M. Social desirability and the semantic differential. *Educational & Psychological Measurement*, 1965, *25*, 465—475.

Fuchs, E., & Havighurst, R.J. *The self esteem of American Indian youth: The personal social adjustment of American Indian youth*. National Study of American Indian Series. Final Report. Chicao, Ill.: University of Chicago, 1970.

Garbarino, M.S. *Big Cypress, a changing Seminole community*. New York: Holt, Rinehart & Winston, 1972.

Gergen, K.J. *The concept of self*. Toronto: Holt, Rinehart & Winston, 1971.

Heiss, J., & Ownes, S. Self-evaluation of blacks and whites. *American Journal of Sociology*, 1972, *78*, 360—369.

Ishisaka, H. American Indians and foster care: Cultural factors and separation. *Child Welfare*, 1978, *57*, 299—308.

Kluckhohn, F., & Strodtbech, F. *Variations in value orientations*. Evanston, Ill.: Row Peterson, 1961.

Lammers, D.M. *Self-concepts of American Indian adolescents having segregated and desegregated elementary school backgrounds*. (Doctoral dissertation, Syracuse University, 1969). Ann Arbor, Michigan: University Microfilms, 1970, No. 70—14, 723.

Lefley, H.P. Effects of an Indian Culture Program and familial correlates of self concept among Miccosukee and Seminole children. (Ph.D. dissertation, University of Miami— 1973). *Dissertation Abstracts International*, 1973, *34*, (1). (University Microfilm No. 73-16,856).

Lefley, H.P. Effects of a cultural heritage program on the self-concept of Miccosukee Indian children. *Journal of Educational Research*, 1974, *67*, 462—466.

Lefley, H.P. Differential self-concept in American Indian children as a function of language and examiner. *Journal of Personality and Social Psychology*, 1975, *31*, 36—41.

Lefley, H.P. Acculturation, child-rearing, and self esteem in two North American Indian tribes. *Ethos*, 1976, *4*, 385—401.

Leon, R.L. Some implications for a preventive program for American Indians. *American Journal of Psychiatry*, 1968, *125*, 2, 128—132.

Liberman, D., & Frank, J. Individuals' perceptions of stressful life events: A comparison of Native American, rural, and urban samples using the Social Readjustment Rating Scale. *White Cloud Journal*, 1980, *1*, 4, 15—19.

Malbin, N., LaTurner, S., & Spilke, B.A. Longitudinal study of educational performance among Oglala Sioux students. Paper presented at the meeting of the Rocky Mountain Psychological Association, Denver, May, 1971.

Martig, R., & DeBlassie, R. Self concept comparisons of Anglo and Indian children. *Journal of American Indian Education*, 1973, *12*, 9—16.

Mason, E.P. Cross-validation study of personality characteristics of junior high school students from American Indian, Mexican, and Caucasian ethnic backgrounds *Journal of Social Psychology*, 1969, *77*, 15—24.

Medicine, B. "Speaking Indian": Parameters of language use among American Indians. *Focus*, National Clearinghouse for Bilingual Education, March, 1981, *6*, 1—7.

Ostendorf, D., & Hammerschlag, C.A. An Indian-controlled mental health program. *Hospital & Community Psychiatry*, 1977, *28*, 682—685.

Peithman, I.M. *The Unconquered Seminole Indians.* St. Petersburg, Florida: Great Outdoors Press, 1957.

Piers, E.V., & Harris, D.B. *Manual for the Piers-Harris Children's Self-Concept Scale*. Nashville: Counselor Recordings & Tests, 1969.

Robbins, R.H. Education and culture change: Naskapi schooling in Schefferville. Paper presented at the joint meeting of the Society for Applied Anthropology, the American Ethnological Society, and the Council on Anthropology and Education, Montreal, 1972.

Rosenthal, B.G. Development of self identification in relation to attitudes toward the self in Chippewa Indians. *Genetic Psychology Monographs*, 1974, *90*, 43—143.

Sarason, I.G., & Ganzer, V.J. *Modeling: An approach to the rehabilitation of juvenile offenders.* Washington: U.S. Department of Health, Education & Welfare, Social Rehabilitation Service, 1971.

Skafte, P. Conflict and tacit agreement: A study of Seminole social interaction. Unpublished master's thesis, University of Florida, 1969.

Szapocznik, J., Kurtines, W., & Fernandez, T. Bicultural involvement and adjustment in Hispanic-American youths. *International Journal of Intercultural Relations*, 1980, *4*, 353—365.

Thornburg, H.D. An investigation of a dropout program among Arizona's minority youth. *Education*, 1974, *94*, 249—265.

Trimble, J.E. Knowledge of self-understanding and perceived alienation among American Indians. Paper presented at the University of Hawaii's Current Issues in Psychology Symposium Series, Honolulu, February 12—14, 1981. (a).

Trimble, J.E. Value differentials in counseling American Indians. In P.B. Pedersen, J.G. Draguns, W.J. Lonner, & J.E. Trimble (Eds.), *Counseling Across Cultures*, (Rev. Ed.) Honolulu: University Press of Hawaii, 1981. (b).

Trimble, J.E., & Medicine, B. Development of theoretical models and levels of interpretation in mental health. In J. Westermeyer (Ed.), *Anthropology and Mental Health.* The Hague: Mouton, 1976.

University of Toronto, Department of Psychiatry. Providing psychiatric care and consultation in remote Indian villages. *Hospital & Community Psychiatry*, 1978, *29* (10), 678—680.

Withycombe, J.S. Relationship of self concept, social status, and self-perceived social status and racial differences of Paiute Indian and white elementary school children. *Journal of Social Psychology*, 1973, *91*, 337—388.

Wober, M. Explorations on the concept of self-esteem. *International Journal of Psychology*, 1971, *6*, 147—155.

Ziller, R.C., Hagey, J., Smith, M.D., & Long, B.H. Self-esteem: A self-social construct. *Journal of Consulting and Clinical Psychology*, 1969, *22*, 84—95.

Zirkel, P.A. Self-concept and the "disadvantage" of ethnic group membership, and the mixture. *Review of Educational Rsearch*, 1971, *41*, 211—222.

DISCUSSION

Jim Shore: One of the things that I thought was nice about this paper is that Harriet begins to develop for us a series of different kinds of prevention projects at different levels, which raise for us questions directly pertinent to this conference. One of my concerns is that these issues apply to the whole business, not just to the American Indian, in the treatment of mentally ill as seen, for instance, in camping therapy, the wilderness experience for chronic patients. The spiritual camp has been fairly extensive as I understand for the American Indian, yet has not been systematically evaluated in any of its applications. . .Groups of high-risk kids have been collected and sent to spiritual camps; yet there is no evidence that delinquency rates decreased, stayed the same or increased. . . There are not any previous studies or reports in this whole area, which is a major one.

Judith Kleinfeld: I thought the research was very impressive, especially considering the difficulty of instrumentation. . . I just want to raise a few questions about these kinds of programs as a whole. One thing, when you look at these programs, we very often focus on their effects on children and not on the socialization that occurs in the community from organizing these programs. I wish that your project had allowed you to look at that dimension, though you certainly alluded to it a number of times. The question I want to raise, based on this problem, is that of leverage. I don't think there is any conflict between the cultural heritage approach and the academic approach. There is no reason why these can't coexist. But in the practical case, time and energy are limited, even if money is not.

In Alaska we're suffering from a plethora of money right now. Despite that, there's only one teacher in a classroom and only one school board in a community. If they put their effort, time and thought into cultural heritage programs, then other parts of the programs get left out. That's one of the reasons why I think you have to look very carefully at the programs not only to ask are they good things, but are the schools the right institutions for these programs to occur. Or are they better situated in a community organization? More generally, with regard to the field of mental health prevention, I hope that this conference leads to some discussion about the leverage points. Where does it make sense to intervene, at what stage, through what dimensions?

Bernard Bloom: I wanted to comment on a different aspect of this paper. It has to do with the evaluation of some intervention programs. All three cases discussed in this session were not really very high in the dimension of persistence: programs were relatively short-lived. I have begun to realize that there are a number of programs that we envision, that we start, and that we implement which really turn out to be very good programs. The trouble is we don't keep them up long enough. . . Many of us have the naive belief that communities are standing around waiting to be changed. All one has to do is say, "I've got this great idea," and try for three months to transform the culture. Well, nothing could be further from the truth. We are all refractory to change. It's probably just as well, because if we really could be changed as easily as we speculate, our actions would suggest absolute chaos. There is something about stability that's very, very important. We discourage too easily. . . Instead of being done for six months, these programs ought to be done for six years. We need to create some setting where it's possible to have a program run long enough to be able to test its effectiveness.

Harriet Lefley: I had the same thought with regard to the emphasis on demonstration projects and so forth. Success kills us off. When we have a successful project our funds are terminated. One wonders how much effort goes into diffusion of the knowledge in an attempt to replicate what has been demonstrated to be successful.

I think it's very much related to many of the problems that I see with program evaluation. We decide when we are going to evaluate. We decide what the time frame is, six months, a year, two years or whatever, without really looking at the historical process in order to determine an appropriate target date for evaluating a given project. What can we legitimately expect to see? When do we expect to see it?

A related issue is the assumption of linear progress, whereas we know from psychotherapy outcome research and other types of evaluation that this is not always the case. For example, self-esteem may even plummet when one introduces an intervention, but may come up again strongly at a later date. For therapists who literally believe in regression in the service of the ego, it would be inappropriate and unfair to use a short-term target date for evaluating psychotherapy outcome. On another level, this is also true for preventive projects which may not bear fruit for many years.

PRIMARY PREVENTION AS IT RELATES TO TRADITIONALITY AND EMPIRICAL MEASURES OF SOCIAL DEVIANCE

Gerald Mohatt and Arthur W. Blue

Tiospaye is a Sioux word which describes a community way of life that is patterned by Lakota Sioux rules for social interaction, rituals for transition, identity acquisition, healing, and by a set of values. A project that bears this name arose out of long discussions held by an organization of Sioux medicine men, their helpers, and associates on a Northern Plains reservation. The leaders of the group who formulated this project were *wapiyawicasa* or healers, as the men used to joke, "fixer uppers." They were men who have been spoken to by spirits, men who received visions that guide their lives, men whose call is to doctor, to advise, to mediate between this world and another world. Common men in their everyday lives, they become new men in ritual. Their desire as a group was to build this *tiospaye* way of life in order to improve the quality of their people's lives and to reduce the sense of confusion and alienation that they knew existed, particularly in young people.

The *wapiyawicasa* generated propositions about the reservation, life there, and what needed to be done. First, they believed that a traditional Sioux *tiospaye* way of life exists today and is not an anachronism. Second, they considered this particular way of life to be healthy and wished to explore it as a method to prevent serious social and psychological pathology. They also recognized, however, great variation in individual and community styles of living across the reservation communities. Third, they believed that they possessed indigenous methods of intervention which can both prevent and treat the problems that they see within these communities. The *wapiyawicasa* admitted quite readily that present day life on the reservation is far from utopic. They felt intensely that their people face a critical period which may lead to an even more dramatic increase in problems of a social and psychological nature, i.e., suicide, violence, family disintegration, and a deep sense of hopelessness.

In searching for an appropriate, hopefully effective way to intervene, these traditional people ventured onto new ground. They departed from an individualistic orientation, even though they them-

selves were healers of individuals, and attributed the problem to the nature and form of the local communities, as presently constituted. The whole was not a whole. As Black Elk said, ". . . the sacred circle was broken: We were put in square houses, schools with square rooms, and square churches. Our environment is no longer congruent with our nature."

This discussion would have remained little more than tales from the oratorical genius of the Sioux if during these meetings the speakers had not turned to questions of action. The transition to action, especially to that which assumed the form of research, took place as a consequence of the long involvement of one of us (G.M.) and several colleagues with these men. Over the years, they had talked to our classes and had been consulted in various cases; we attended their ceremonies and worked (and continue to work) closely together. Logically, we became responsible for designing a project that could determine, through the application of western scientific methods, the effectiveness of traditional Sioux *tiospaye* concepts when applied to today's problems.

The result was a three year project funded by the Center for Minority Group Mental Health Programs in the National Institute of Mental Health to examine the propositions of the *wapiyawicasa* as outlined above. Specifically, this effort addressed three major tasks. The first task was to develop a way to measure the *tiospaye* community as a style of life. We assumed that it exists, that it can be measured, that communities on the reservation differ in this regard, and that the *tiospaye*, as an expression of traditionality, can and does change over time. The second task was to discover if social and psychological distress bears any relationship to the *tiospaye* way of life. We presumed that it does and that the relationship is an inverse one, e.g., to the extent that a community approximates this ideal, social and psychological pathology will be less evident. The third and last task was to implement a form of intervention that builds upon the *tiospaye* way of life and to reduce social, psychological distress or, minimally, forestall further increases in such phenomena. This paper discusses the extent to which we were able to accomplish these tasks and reports the data related to our efforts.

CONTRIBUTIONS FROM THE LITERATURE

We examined several different literatures in preparing for the challenge that faced us in our attempt to address the above tasks. These included certain portions of the work on culture change and mental health, that aspect of socioloinguistics which emphasizes the importance of indigenous constructs of reality, epidemiological studies which employ social indicators as measures of community distress, and, lastly, interventions predicated on native cultural forms.

The results of this review were mixed. Some clear directions were suggested; but, for our purposes, we found most of these literatures to be limited in scope and often equivocal.

Anthropological and psychological evidence indicates that the cultural intactness of the Lakota has deteriorated dramatically over the last century (Medicine, 1969; Nurge, 1970). A number of studies suggest that the incidence of mental health-related problems in Lakota communities has risen accordingly (Kuttner & Lorincz, 1967; Mindell, 1968). Indeed, marked psychological impairment among other Indian and Native groups has been observed in several epidemiological studies and frequently is reported in association with rapid culture change (Shore, Kinzie, & Hampson, 1973; Roy, Chaudhri, & Irvine, 1970; Sampath, 1974). It is not surprising, then, that acculturational stress has been posited as an important factor in the deterioration of mental health status across a wide variety of cultures (Bourguignon, 1978; DeVos, 1976). However, the findings specific to this particular relationship are mixed, for recent research points to both positive and negative correlations between cultural intactness and mental health functioning (Berry & Annis, 1974; Blue, Note 2, Note 3; Blue & Scott, Note 4; Kiev, 1974; Lebra, 1972; Sikand & Blue, 1980).

Much of the research in this area falls into the category of studies on acculturation or modernity, and is characterized by very narrow assumptions about culture and change. For example, Inkeles and Smith (1966) adopted a strictly unidimensional approach to exam modernization, and failed to distinguish intactness from this process. Berry and Annis (1974) represent an important departure from this line of thought, having depicted acculturation—the movement from traditionality to modernity—in terms of the acceptance or rejection of two cultures. This view implies that cultural intactness represents a different set of circumstances which may require independent consideration, as was suggested by our own impressions.

Sociolinguistic inquiry (Hymes, 1972) stresses the importance of discovering indigenously defined categories for ordering the world. Hence, we recognized the need to articulate such phenomena, especially with respect to Lakota notions of traditionality. The same literature provided the means by which to elicit these categories and offered useful guidelines for developing a measure of cultural intactness which was ultimately based upon elements of the *tiospaye*. These methods are anthropological in origin, drawn largely from Hall (1959, 1966, 1977).

The search for appropriate measures by which to assess mental health functioning led us next to the epidemiological literature. However, we soon concluded that the obtrusive nature of the methods for collecting data of this kind presented major problems.

Hence, social indicators such as arrests, socioeconomic status, and service utilization patterns were chosen as alternative measures of social and psychological distress at the community level. Several epidemiological studies provided a precedent for this approach (Westermeyer, Walker, & Benton, 1981), as did the more general social psychological literature.

We found descriptions of interventions based on traditional forms of organization scattered throughout a variety of literatures. Perhaps the most well-known, and certainly among the most intriguing related to the re-establishment of the *kibbutz* (Spiro, 1963), an agriculturally based, self-sufficient community. Other writings with respect to the development of "intentional" communities provided further insight into the important role that these entities can play in meeting human needs (Zablocki, 1978; Oliver, 1977). In regard to Indian and Native people, we discovered few attempts to design interventions that employ traditional cultural mechanisms. Most of them are reported in this volume.

This meager knowledge base, then, served as the point of departure for our effort. The study proceeded in stages that closely correspond to the tasks that faced us.

METHOD

Subjects

The subjects in this study were the 8,000 residents of a Northern Plains reservation. Spanning 5,200 square miles, roughly an area 180 miles by 60 miles, the reservation encompasses 1 million acres of Indian land and another 2 million acres deeded to non-Indians. Of the 8,000 residents, 65% are under 18 years of age. The economy is dominated by federal programs. Before recent cutbacks, unemployment within the communities ranged from a high of 70.1% to a low of 6.9%. The mean unemployment rate across all communities on the reservation was 20% and undoubtedly has increased in recent times. The Lakota Sioux live on this reservation, more than 50% of whom speak the Lakota dialect of the Sioux language. Approximately 40% of these people consider themselves *h'ca* or full-bloods; another 10% are considered acculturated full-bloods. The remainder are termed *eyeska*, or mixed bloods, slightly less than half of whom are non-acculturated (40%). Economically, the acculturated mixed bloods control the reservation. However, the majority of the land is owned by the full-bloods; politically, the full-bloods and non-acculturated mixed bloods control the tribal council.

There are 21 communities on the reservation, the largest of which has 1,522 residents and the smallest 58 residents (see Table 1). Roughly defined geographic areas, e.g., 25 square miles, constitute

Table 1

Demographic Data for 21 communities in the Rosebud Reservation

	Type	Location	Distance from Rosebud	Population
1.	Clustered	Contiguous	15	1,522
2.	Clustered	Contiguous	40	239
3.	Dispersed	Contiguous	60	272
4.	Dispersed	Isolated	48	164
5.	Dispersed	Isolated	12	246
6.	Dispersed	Isolated	16	64
7.	Dispersed	Isolated	28	58
8.	Clustered	Isolated	70	561
9.	Clustered	Contiguous	110	325
10.	Clustered	Isolated	41	385
11.	Clustered	Isolated	14	946
12.	Dispersed	Isolated	17	78
13.	Clustered	Isolated	0	1,142
14.	Clustered	Isolated	7	1,200
15.	Clustered	Isolated	12	291
16.	Clustered	Isolated	4	369
17.	Dispersed	Contiguous	16	164
18.	Dispersed	Isolated	35	231
19.	Clustered	Contiguous	58	572
20.	Clustered	Contiguous	30	100
21.	Clustered	Contiguous		123

various communities. Some communities have a town or village within their area, others do not. Each community has one tribal council representative for each 250 residents. The tribe has a quasi-sovereign relationship with the federal government that affords it, at least theoretically, the status equivalent to that of a state. Labeled a domestic sovereign nation in the colonial era, the tribe has many of the rights and responsibilities of a nation or state, but few of the resources. Of the 21 communities, some are characterized by scattered, rural housing and are thought of as dispersed communities, largely because no home is within one mile of any of the other homes. Other communities look like typical urban/suburban housing, clustered and arranged along contiguous 100 foot lots. Reservation wide, the average household is comprised of eight persons. Some communities are isolated from non-Indian settlements; others are contiguous to or situated within non-Indian settlements.

Historically, less than 100 years ago, the Sioux were a warrior people whose economy was based on hunting and gathering. Communities, or *tiospaye*, were originally formed around the most respected leaders. Today's communities still bear the names of many of these former leaders: Two Strike, He Dog, Milk, Medicine Bull, and Swift Bear.

As noted earlier, the study consisted of three major phases. In order to test the hypotheses of interest, it was necessary to first develop an empirical measure of the concept of *tiospaye* and its essential elements.

Preliminary Instrument Development

The development of an empirical measure of *tiospaye* involved four steps: interviews of community leaders, the selection of descriptive statements derived from these interviews, factor analytic studies, and the assessment of the reliability and validity characteristics of the resultant scale.

We interviewed local experts to obtain indigenous views of the *tiospaye*, the importance of which has been mentioned above. Our definition of a local expert was a *wichak'chala* or *winuk'chala*, a man or woman over 70 years of age. The project staff interviewed 20 such men and 24 such women.

The interviews were developed by the Lakota staff and involved an open-ended format of formal speechs given by experts in groups or individually, a dinner, and a less formal question and answer session afterwards. This process enabled us to collect empirically derived statements that describe various aspects of the *tiospaye*.

The interviews were translated by a local bilingual speaker into English and listened to repeatedly over a one-month period by the translator, project investigator, and research director, both of whom

are also bilingual. Nearly 150 statements were derived from these interviews, and were reviewed several times by numerous project staff. One hundred and four statements were eventually selected as relevant to the concept of *tiospaye*.

We then struggled with the question of how to scale these statements. Two approaches were considered: either a Q-sort procedure or a Likert-type scaling. Our overriding concern was that the resulting tool be simple, as interesting as possible, and not too time consuming. The persons who subsequently would employ the scale were unfamiliar with research tools; hence, it needed to be straightforward and relatively uncomplicated. Moreover, we hoped to construct a standardized measure to permit comparison across the communities. For these reasons, a five point Likert-type scale was adopted.

We next faced three distinct, but related questions: What aspects of traditionality do these scaled statements measure? Will these scaled statements differentiate between traditional and less traditional communities? Can these scaled statements be standardized to permit the level of *tiospaye* to be measured across all 21 communities?

We believed that the first and second questions could be answered at the same time by employing a convergent rating method. Eight traditional men, all project staff members, were asked to assign each of the 21 communities to one of three categories: those representing the most traditional form of the *tiospaye*, those representing a mix of traditional *tiospaye* and contemporary lifestyles, and those representing even more acculturated ways of life. They used such factors as the number of community participants in various ceremonies (i.e., healing rituals and purification rites), language intactness, and numbers of full-blood families in the community to make such decisions. Once these assignments were completed, the eight judges chose one community from each category as best depicting that particular level of acculturation.

Seventy-five Rosebud Sioux students who resided on the reservation and who attended the tribally-operated community college were then asked to rate each of these three communities in terms of the previously scaled statements. The students ranged from 18 to 68 years of age, with a mean age of 29.6 years. Approximately 35% of the students were male; 65% were female. Their age closely parallels the mean age of the adults on the reservation. However, females constituted a far greater percentage of the student sample than is the case for females in the general reservation population. The student sample was also considerably more educated than the general populace. Their responses were submitted to a factor analysis which utilized a principle components solution with varimax rotation. A four factor solution was adopted (see Table 2). For the sake of presentation, correlations below .30 are eliminated. The relevant items

Table 2

Varimax Rotated Factor Loadings on Traditionality Measure

Question	Factor 1	Factor 2	Factory 3	Factor 4
1	—	—	.70	—
2	(.31)	—	.72	—
3	(.36)	—	.71	—
4	(.36)	(.36)	.49	—
5	—	(.32)	.46	(.32)
6	—	—	.69	.43
7	—	—	.62	.56
8	—	—	.61	(37)
9	—	—	.59	.49
10	—	—	.53	.56
11	—	.44	—	—
12	—	—	—	.76
13	—	—	—	.63
14	.53	(.30)	(.33)	—
15	.46	(.33)	—	—
16	(.43)	.53	—	—
17	—	.66	—	—
18	—	.69	—	—
19	—	.67	—	—
20	—	.63	—	—
21	—	.53	—	—
22	.42	—	—	—
23	.52	—	—	—
24	—	—	—	.39
25	.54	—	—	—
26	.67	—	—	—
27	.61	(.38)	—	—
28	.50	—	—	—
29	.61	—	—	—
30	.65	—	—	—
31	.72	—	—	—
32	.65	—	—	—
33	.70	—	—	—
34	.45	—	—	—
35	.71	—	—	—
36	.74	—	—	—
37	.70	—	—	—
38	(.31)	—	—	—
39	.61	—	—	—
40	.63	(.31)	—	—

(i.e., those with factor loadings of .45 or greater) were recast as a series of subscales (see Tables 3 through 6). Subscale 1 was called *wakchamte* and relates to the activities of a balanced *tiospaye* (see Table 3). Subscale 2 was called *wakawiconi* and relates to an agricultural, rural subsistence economy (see Table 4). Subscale 3 was called *owanke* and relates to spiritual practices (see Table 5). Subscale 4 was called *yunekeyapi* and relates to the rules and practices of interpersonal life (see Table 6). Pertinent statistical characteristics are summarized in Table 7.

In order to standardize these measures, the means, variances, standard deviations, and standard errors of the students' responses on each of the four subscales were transformed to produce a mean of 100 and a standard deviation of 15 for the individual subscale scores as well as the total scale score. [1] T-tests were conducted on the means of the subscale and total scale scores between the three communities (see Table 8). The results indicate significant differences between the three communities in the anticipated directions. However, it is important to note that the differences between the mixed and more fully acculturated communities on Subscale 1 and on the total scale are not always significant. This suggests that the differences between less traditional communities are not as marked as between traditional communities and all others.

A panel of expert judges (6 in two communities and 8 in the third) were asked to use the *tiospaye* scale to rate independently the three communities in question. Their ratings compared favorably to those of the college students, yielding a .80 correlation. The same expert judges were asked twice to repeat their ratings within two week periods over several months to enable us to examine the test-retest reliability of the scale. The test-retest reliability proved to be quite high each time, with correlations of .98 and .99, respectively.

Phase 1: Assessment of *Tiospaye*

In order to assess traditionality within all of the communities, the revised scale was given to expert judges in each community. Each judge had lived in his or her community for at least 10 years, knew every member, was a leader, and had held a community office. Communities of less than 400 residents were rated by at least four experts (the number of judges ranged from four to six). Communities with more than 400 residents were rated by at least 8 experts (the number of judges ranged from eight to 10). The scale was administered twice during each of the three years of the study, once in the fall and again in the spring. The responses produced a range of scores that were interpreted as representing more to less traditional, with high scores reflecting greater traditionality. Table 9 reports the total *tiospaye* scale scores for each community in each of the three project years. We employed an analysis of variance strategy to examine the

Table 3

Items Comprising *Tiospaye* Subscale 1 (Balance)

1. If conflict occurs, the persons and families involved are brought together and advised by an elder — *Wowahokunkiya*

   majority many some very few none

2. Parents or grandparents tell old time stories and legends to the children.

   majority many some very few none

3. Very commonly, people share food with relatives and others in the community.

   majority many some very few none

4. Community leaders visit *Tiospaye* residents frequently.

   majority many some very few none

5. The community leader knows in the very early stages when conflict or trouble will occur.

   majority many some very few none

6. Elders and the leaders sit down with young people before their marriage to talk to them about life in the *Tiospaye.*

   majority many some very few none

7. Family and community follow the cycles of the moon to plan, harvest, and hunt.

   majority many some very few none

8. The moon's cycles determine when certain rituals take place (Sun Dance, etc.).

   majority many some very few none

9. Many community members make promises to dance in the Sun Dance or to perform a vision quest.

   majority many some very few none

10. Although the leader is the strongest and bravest, he is also *waonshila.* He never raises his voice.

    majority many some very few none

11. Young people seek out older persons for advice and counseling.

    majority many some very few none

12. People are busy all the time working or in community activities—little idleness.

    majority many some very few none

13. After a leader is chosen, the elders of the community sit down with him and tell him what the *Tiospaye* life means.

    majority many some very few none

Table 3 (continued)

14. Men and women both are in excellent physical conditions.

majority many some very few none

15. When a couple decides to get married, elders and the *Tiospaye* leaders sit down with them, explain the life and responsibilities of being in a *Tiospaye*.

majority many some very few none

16. The leader makes frequent visits to the members to remind them to prepare for the coming seasons and important events.

majority many some very few none

17. Support is given from the *Tiospaye* members when one of the members is trying to make good.

majority many some very few none

18. When one *Tiospaye* member is happy the other members feel good for him or her.

majority many some very few none

19. Mothers nurse their babies.

majority many some very few none

Table 4

Items Comprising *Tiospaye* Subscale 2 (Rural)

1. Most adults in this community address each other with relational names, e.g., cousin, older brother, etc.

majority many some very few none

2. Individual people and families grow gardens to provide a food base.

majority many some very few none

3. The community has its own garden.

majority many some very few none

4. The community has a joint or cooperative cattle operation (or some other livestock operation).

majority many some very few none

5. Members of the community live on their own allotted land.

majority many some very few none

6. Most residents have horses to ride.

majority many some very few none

7. Most residents have cattle or pigs or chickens to provide food for themselves.

majority many some very few none

Table 5

Items Comprising *Tiospaye* Subscale 3 (Spiritual)

1. The people speak Lakota.
   majority many some very few none
2. The children speak Lakota.
   majority many some very few none
3. To honor a person, people in this community give-away (*otuhan*).
   majority many some very few none
4. Most adults in this community address each other with relational names, e.g., cousin, older brother, etc.
   majority many some very few none
5. Men and women in-laws don't speak to each other directly.
   majority many some very few none
6. Brothers and sisters and male and female cousins also do not speak directly to each other.
   majority many some very few none
7. Young married people live near one of their parents.
   majority many some very few none
8. People attend powwows.
   majority many some very few none
9. To honor a person, people in this community give-away (*otuhan*).
   majority many some very few none
10. Most adults in this community address each other with relational names, e.g., cousin, older brother, etc.

Table 6

Items Comprising *Tiospaye* Subscale 4 (Interpersonal)

1. The *Tiospaye* is in a geographic area where in the old time members of a *Tiospaye* lived.
   majority many some very few none
2. In the *Tiospaye*, the people have chosen the leader.
   majority many some very few none
3. The leader represents the majority of people in the *Tiospaye*.
   majority many some very few none
4. People take part in Lakota religious rituals.
   majority many some very few none
5. People use the medicine man for healing purposes.
   majority many some very few none
6. The people speak Lakota.
   majority many some very few none
7. The children speak Lakota.
   majority many some very few none

Table 7

Means and Standard Deviations for Traditionality Measure

	Number of Items	Mean	Variance	Std. Dev.	Std. Err.
Subscale 1	19	47.129	161.702	12.716	0.848
Subscale 2	7	15.889	17.001	4.123	0.275
Subscale 3	10	32.502	58.804	7.668	0.511
Subscale 4	7	20.524	25.759	5.075	0.338
Total Scale	43	116.044	498.155	22.319	1.488

Table 8

T-tests Between Means of The Three Communities on Traditionality Measure

	Communities		
	1	2	3
Subscale 1 (Balance)			
Community 1	—	9.07*	7.83*
Community 2	—	—	1.23*
Subscale 2 (Rural)			
Community 1	—	4.95*	3.56*
Community 2		—	1.40
Subscale 3 (Spiritual)			
Community 1	—	13.22*	15.95*
Community 2	—	—	2.73*
Subscale 4 (Interpersonal)			
Community 1	—	13.90*	16.96*
Community 2	—	—	3.06*
Total Scale			
Community 1	—	13.78*	14.45*
Community 2	—	—	.67

* Significant at .01 level.

patterns of the scores between project years and among the communities, the results of which are summarized in Table 10.

These results led us to conclude that although a traditional *tiospaye* way of life presently exists, it is diminishing. The types of communities most affected are those which scored initially high on the *tiospaye* scale. Changes in these particular communities over the three years in which the data were collected account for the majority of the variance. These findings confirm the *wapiyawicasa's* first and second propositions.

Phase 2: Determinants of Pathology

The major thrust of Phase 2 of this study was to determine the relationship between levels of distress or pathology in the designated communities and various factors that could be expected to affect said phenomena. The major hypothesis was that traditionality is inversely related to levels of community pathology. We expected that a high degree of traditionality would be associated with low levels of community distress. In addition, we expected to observe a significant relationship between level of community pathology and: 1) time (i.e., across the three project years); 2) community type (i.e., clustered versus dispersed), and 3) certain individual demographic indicators characterizing the residents of the communities studied.

Pathology Indicators. The first step in this process involved operationalizing the concept of community pathology and selecting appropriate indices. Two broad aspects of community functioning were selected for further exploration: legal and medical. Indices comparing legal data included arrest records, probation records, tribal court restraining orders, and ambulance runs. Medical data were obtained from the Indian Health Service (IHS) Hospital in Rosebud. These medical data consisted of 1978—1980 diagnostic records for ambulatory patient cases, which included inpatient, outpatient, and satellite clinic visits. These records also indicated the patient's age, sex, and community residence.

After selecting the above indices, we attempted to render the numerous and varied sources of legal and medical data more manageable by grouping them into coherent categories. As the first step in this process, the legal data were factor analyzed, employing a principal components method which yielded a five factor solution consisting of: 1) traffic arrests; 2) crime (felonies); 3) family arrests (child neglect and abuse, domestic violence); 4) mischief (trespassing, vandalism, shoplifting, etc.), and 5) alcohol abuse.

From a theoretical perspective, the medical data seemed to fall into three categories: symptoms or diseases that are stress-induced, those that are partially induced or exacerbated by stress, and non-

Table 9

Expert Judges' Ratings of Community *Tiospaye* Scores Across the Three Project Years

		Year			Row $\bar{X}$
		1978	1979	1980	
Community	1	90	92	82	88.0
Community	2	103	114	98	105.0
Community	3	107	99	98	101.3
Community	4	106	94	91	99.3
Community	5	100	117	98	105.0
Community	6	96	100	100	98.7
Community	7	106	100	94	100.0
Community	8	86	97	82	88.3
Community	9	101	90	87	92.7
Community	10	96	98	90	94.7
Community	11	119	112	108	113.0
Community	12	112	100	100	104.0
Community	13	92	90	90	90.7
Community	14	102	—	96	99.0
Community	15	102	92	89	94.3
Community	16	92	105	109	102.0
Community	17	103	97	99	99.7
Community	18	85	108	96	96.3
Community	19	87	108	94	96.3
Community	20	88	89	90	89.0
Community	21	—	72	70	71.0
		$\bar{X}$ = 98.7	$\bar{X}$ = 98.8	$\bar{X}$ = 93.4	

Table 10

Analysis of Variance on *Tiospaye* Scores by Year and Community*

Source	SS	*df*	Mean Squared	*F*
Community	4847.9	20	242.4	5.25**
Year	589.9	2	295.0	6.39**
Error	1843.4	40	46.1	
Total	7281.3	62		

* Total *tiospaye* score refers to the mean of the score obtained in the fall and the spring for all of the judges in each community.

** $p < .01$, *df* 20, 62

stress related symptoms or diseases. The concept of stress served to integrate otherwise disparate data, suggesting a logical relationship between environmental change and varying levels of community pathology. Moreover, there was widespread local concern with stress-related disease, particularly hypertension, heart disease, and diabetes.

The 216 items included in the IHS patient report form were reviewed by four medical practitioners who were asked to independently assign them to one of the three categories described above. The four practitioners did so and agreed on 76% of their judgments. For those items on which there was disagreement, the judges were asked to reach a consensus with respect to the categories to which such items should be assigned. Examples of illnesses designated as stress-induced or related include migraine headaches, cardio-vascular disease, mental disorders, and certain skin diseases. Diseases judged to be partially induced by stress are tuberculosis, diabetes, and certain cancers. Examples of illnesses seen as unrelated to stress are broken bones and hereditary diseases such as Down's Syndrome.

Level of Pathology over Time. We first examined the legal and medical data for potential changes over the three years of the study. Table 11 summarizes our findings. Inspection of Table 11 reveals that there were no significant changes in medical utilization type or rates during the period in question. In contrast, the data indicate that anti-social problems on the reservation (as measured by the legal indicators) increased in number. We conducted a series of correlational analyses of the arrest information with project year, location, type, and various demographic variables. The correlations across the legal data and the three years of record is .424, $p < .05$. Alcohol arrests rose dramatically during the period in question. The arrest statistics for alcohol abuse include repeaters and overnight sleepers, but we believe that the increase remains significant. The data indicate a 100% increase in alcohol-related arrests between 1978 and 1979, a 50% increase between 1979 and 1980, and a 300% rise in alcohol-related arrests over the entire three years. Furthermore, a spatio-temporal mapping of the distribution of the data reveals a continued clustering of these problems in the south central part of the reservation, which is closest to the central agency headquarters. With the exception of traffic arrests, all other legal data evidence similar increases each year.

The trend becomes even more clear when one looks at certain communities. In 1980 the rate per 1000 of alcohol arrests reached over one for each resident in six of the 21 communities, the two highest rates being 2231 arrests/1000 population and 1515 arrests/1000 population, respectively. This increase assumes almost epidemic proportions when one considers that no community in 1978 even came near to exceeding 1000 arrests/1000 population.

Table 11

Analysis of Variance on Pathology+ Indicators Over Time

Legal Data: Arrest Type				
Traffic	65.0	85.8	50.5	1.85
Crime	23.3	57.8	68.4	3.84*
Mischief	22.2	90.9	40.4	17.41**
Family	5.4	11.1	18.2	5.87*
Alcohol	196.6	580.7	750.2	9.37**
Medical Data: Illness Type				
Stress	10.3	7.3	6.4	0.08
Partial	65.2	51.2	70.1	0.12
Non-stress	13.9	9.0	9.0	0.06

*$p < .05$
**$p < .01$
+Data presented as cases per thousand.

Table 12

Social Indicators

1. Churches
2. Banks
3. Grocery Stores
4. Liquor Stores
5. Elementary Schools
6. Gas Station
7. Ministers
8. Other Businesses
9. High Schools
10. Female Idle Unemployed
11. Active Elders
12. Female Active Elders
13. Whites
14. Distance from Rosebud
15. Male Active Elders
16. Telephones
17. Hospitals
18. Police
19. Post Office
20. Male Unemployed
21. Male Idle Unemployed
22. Idle Elderly
23. Male Idle Elders
24. Idle Unemployed
25. Female Idle Elder
26. Unemployment
27. Disabled
28. Male Disabled
29. Bootleggers
30. Male Elders
31. Medicine Men
32. Female Disabled
33. Male Employed
34. Female Unemployed
35. Employed
36. Elders
37. Rodeo Grounds
38. Active Unemployed
39. Male Active Unemployed
40. Female Active Unemployed
41. Community Health Resident
42. Gymnasiums
43. Dirt Roads.
44. Baseball Diamonds
45. Female Population of Labor Force
46. Female Elders

Table 12 (continued)

47. Government Buildings
48. Medical Clinics
49. Area of Community (Sq. Mi.)
50. Powwow Grounds
51. Female Employed
52. Sewage
53. Gravel Roads
54. Paved Roads
55. Running Water

Table 13

Regression Analysis of Pathology Measures with Traditionality Scores as Predictors in Clustered Communities

	F	*r*	Significant Subscales
Legal Data: Arrest Type			
Traffic	—	—	—
Crime	4.84**	-42.3	1,2
Family	2.74*	+29.3	3,4
Mischief	—	—	—
Alcohol	6.23**	+48.6	3,4
Medical Data: Illness Type			
Stress	—	—	—
Partial	—	—	—
Non-stress	2.73*	+29.3	1,2,4,5

$df = 5, 33$
— in table cell designates insignificant value
*$p < .05$
**$p < .01$
+,—r indicates direction of association
Subscale 1 = Balance
Subscale 2 = Rural
Subscale 3 = Interpersonal
Subscale 4 = Spiritual
Scale 5 = Total *Tiospaye* Score

Levels of Pathology and Traditionality. Having identified certain changes in community pathology over time, we next examined the relationship between the indicators of pathology and previously obtained measures of traditionality.

Three types of analysis were employed to determine whether traditionality was significantly associated with the levels of pathology observed in the communities. Traditionality was first analyzed within an ANOVA framework which examined the legal data (and then medical data) by project year and community with the four subscales and the total *tiospaye* scale cast as covariates. The second approach began by ranking total *tiospaye* scores as high, medium, or low and subsequently employed analysis of variance to look at the legal data (and medical data) by project year and level of total *tiospaye* score. The third type of analysis involved a step-wise regression analysis of the legal data (and medical data), location, project year, population size, distance from Rosebud, and the 55 social indicators discussed below and listed in Table 12.

In regard to the first type of analysis, no significant F's were discovered for any of the *tiospaye* subscales or the total scale. The second approach also revealed no significant patterns. High *tiospaye* ratings fell one-half standard deviation or higher above the mean; medium *tiospaye* ratings ranged between one-half standard deviation above and one-half standard deviation below the mean; low *tiospaye* ratings were one-half standard deviation or lower below the mean. The step-wise regression analysis indicated that no significant proportion of the variance is accounted for by the *tiospaye* subscale and/or total scale scores. Regression analysis revealed only one potentially significant relationship which involves alcohol-related arrests and Subscale 4 (Spiritual), $r = .23, p < .05$.

The same analytic strategy was used to examine the medical data. An analysis of variance indicated no significant patterns in the relationship of traditionality to the stress, partial stress, or non-stress related categories of symptoms and diseases. Illnesses which are partially stress-induced were negatively correlated with the scores on the *tiospaye* scale: the higher the *tiospaye* score, the lower the prevalence of partially stress-induced illnesses. It is also interesting to note that all correlations between the *tiospaye* scale and medical data are negative, but none reached statistical significance. We concluded that traditionality, as a global construct, does not relate necessarily to the reduction or prevention of serious community pathology as defined herein. Although some of the data suggests that support exists for such a trend with respect to the medical data, it does not adequately account for the observed variance. At this point in the study, we were inclined to believe that the *tiospaye* scale in fact measures a life style unrelated to high or low pathology.

Community Type and Levels of Pathology. As a next step in attempting to account for the variance in level of community pathology, we examined the two types of community (i.e., clustered versus dispersed) and the extent to which traditionality, as expressed by the *tiospaye* scores, differed between them.

We analyzed the data pertinent to the clustered and dispersed communities by submitting the three years of total *tiospaye* scale scores and each of the subscale scores to a regression analysis in order to determine which part of the variance in each of the unobtrusive measures of pathology were accounted for by traditionality scores. Tables 13 and 14 depict the results of these analyses.

Communities which scored high in certain traditionality measures and which were "clustered" have higher rates of family and alcohol arrests as well as higher rates of non-stress induced illness. In contrast, again in clustered communities, high *tiospaye* scores are associated with lower rates of felony arrests. These data suggest that *tiospaye* may function in a rather complicated interaction with community type and crime type.

Traditionality, though highest in the dispersed communities, is declining. We expected this decrease in traditionality to parallel the increasing levels of community pathology as reflected in the legal and medical data. However, none of the scores on the *tiospaye* subscales or on the total scale accounted for a significant portion of the variance. This finding lends further support to the possibility that such a lifestyle may exist quite independent of these other phenomena. However, our data also indicate that partially stress-induced illnesses are negatively associated with traditionality, which suggests that the underlying proposition deserves additional study.

Demographic Variables and Levels of Pathology. Given the existing literature which posits relationships between certain social indicators and individuals' functioning, we examined the community pathology measures in association with various demographic variables. Fifty-five demographic variables were examined and are listed in Table 12.

In order to determine which of these factors account for the variance, the 55 demographic variables were submitted to a multiple step-wise regression analysis over all three project years. A large portion of the variance in the medical data is accounted for by social situations which involve unemployed males and an inadequate economic infrastructure. Adult males (as well as the total adult population) account for a significant portion of the variance across the three years. This finding sharply contrasts with the fact that 60% of the local population is under 18 years of age: adult males clearly are over-represented in the medical data. The results also indicate that communities with high rates of adult male unemployment exhibit

Table 14

Regression Analysis of Pathology Measures with Traditionality Scores as Predictors in Dispersed Communities

	F	*r*	Significant Subscales
Legal Data: Arrest Type			
Traffic	—	—	—
Crime	—	—	—
Family	—	—	—
Mischief	—	—	—
Alcohol	—	—	—
Medical Data: Illness Type			
Stress	3.57	+49.8	2,4,5
Partial	9.51	-72.5	1,3
Non-stress	—	—	—

$df = 5, 18$
— in table cell designates insignificant value
$*p < .05$
$**p < .01$
+,-*r* indicates direction of association
Subscale 1 = Balance
Subscale 2 = Rural
Subscale 3 = Interpersonal
Subscale 4 = Spiritual
Scale 5 = Total *Tiospaye* Score

greater health problems and, given the absence of elders, are more disabled.

Regression analyses of the legal data on an annual basis as well as over the entire three year period suggest that high rates of crime arrests occur in association with : 1) high female employment, 2) active involvement of females in community affairs in conjunction with low involvement by males, especially older males, and 3) high male unemployment. This pattern is pronounced in rural, dispersed communities.

Phase 3: Community Intervention

In the final phase of the study, the project staff purposively intervened in one community, the selection of which required close evaluation of the more traditional communities on the reservation. The principal investigator and staff visited each of these communities, and talked to the leaders and other residents about the project and their interest in working to build a *tiospaye.* Most communities responded favorably. The one which was eventually chosen, Community 4, is dispersed, rural, and isolated. At the time, Community 4 had 164 residents and scored less than one standard deviation above the mean on the *tiospaye* scale (total score = 106).

During the Spring of 1979, the project staff visited the community on a weekly basis to discuss community needs. Choice was thought to be central to the *tiospaye*-based intervention. We felt that the major hope for success in this (or any) approach rested in the fact that it would be freely chosen by the residents and would originate with their effort.

The community residents were interested in three kinds of activities: economic projects, building a new community hall, and the promotion of health and entertainment. To meet these needs, project staff assisted the residents in building a log meeting hall from tribal timber reserves, taught the young people about electricity—both the practical as well as theoretical dimensions, started a quilting cooperative, organized community by-laws, developed a community television station that used low frequency microwaves, and began small subsistence projects such as poultry raising and gardening. The interventions were conducted either by community residents or by project staff, all of whom were local tribal members.

Impact of Intervention. This intervention appeared to have two outcomes. It did not significantly alter the *tiospaye* scores for the target community; in fact, the *tiospaye* scores of Community 4 decreased during the course of the intervention, but not at a statistically significant level. However, in sharp contrast, the *tiospaye* scores for the other communities decreased markedly ($F = 15.07$, $p < .01$)

over the same period of time. Turning to the legal and medical data, the intervention did not lower the occurrence of pathology in the target community in an absolute sense.

SUMMARY

Peter Kelley, Chief of the Sabaskong Reserve in northwestern Ontario, has concluded that everyone studies the Indian in order to find out what is wrong, but nobody does anything about it. The project reported herein was an attempt to do both. With regard to the latter, our work provides some insight into several important issues that concern the mental health of the Lakota people and its promotion.

First, a form of urban in-migration is occurring on the reservation. We believe, though do not discuss it in detail in this paper, that this trend is responsible for the decreasing traditionality of the rural areas and is closely associated with the increases in the legal and medical indices of community pathology. The data suggest that clustered communities are characterized by unemployment and unstable social institutions. Indeed, on Rosebud, unemployment is highly correlated with the clustering of communities ($r = .64$, $p < .01$).

This finding seems at great odds with the philosophy of planners who assume that full employment is best achieved through better access to roads, jobs in small factories, and manpower training programs: all thought to be more efficiently accomplished by clustering people's homes. The Rosebud case illustrates one of the unintended consequences, to use Sarason's term (1971), of such an assumption. Social problems appear to have increased as a result of concentrating larger numbers of people in smaller areas and, in turn, decreased the likelihood of employment.

Our ethnographic data indicate that physicial crowding often occurs in dispersed as well as clustered communities. The differences in the observed rates of pathology across these communities may be a function of several factors: specifically, differences between the communities in terms of the people with whom one lives, the nature of the living circumstances, and the rules followed for coping with said circumstances. When a person lives in a dispersed community, he or she usually resides among a circle of people who are related by blood or marriage. This is not true for those who live in the recently developed clustered communities and who often have no history of a relationship with their neighbors. Relationships take time; "time" in Lakota means place, *letu*, which is here and also now. The old ways of dealing with interpersonal conflict are not available in this setting. Nor does the language mean what it once

did. As Albert White Hat, a local leader, told us: "to say *'tahansni'* (cousin) in this new setting is more an invitation to drink than to say 'cousin' with its many responsiblities. To say *'blihichiyayo'* (take courage) can mean to 'handle a hangover'" instead of resonating with one's deeply held belief in the need to develop *wowacin tanka* or strength of mind.

On another note, we observed that traditional community structures are decreasing, perhaps disappearing. Some kind of transformation and survival as a new form is possible and bears further attention. Traditionality looks to be a discrete entity, distinct from many of the other phenomena with which it is often believed to be associated, e.g., mental health status, antisocial behavior, etc. One can be alcoholic or not, employed or unemployed, distressed or effectively coping, and still subscribe to a very traditional lifestyle or live in a very traditional community. It is clearly a very complex interaction that we have just begun to explore. At this point, one must concede that traditionality does not appear to be the panacea that many people hope.

We hasten to add that several potentially crucial elements of traditionality were not measured in this study and may be important to the propositions that initiated our effort. The warrior's way is one example. Songs testify to its continued presence in the daily life of the Lakota, though we are puzzled by the fact that this aspect of being was not mentioned by any of the 50 elders who were interviewed.

In trying to account for the extent and form of pathology which was observed in the communities, we discovered very complex interactions among the demographic variables of interest. For example, high levels of mischief are characteristic of communities in which the children are cared for by elderly, disabled female members of families with parents absent. Adding unemployment to this picture increases the frequency of violence. These and other interactions demand close scrutiny, because simple explanations, e.g., lack of employment per se, are inadequate.

That we were able to intervene in one of the communities without creating major problems is laudable in and of itself. If more time had been available, much more might have been accomplished. Similar approaches need to be developed and tested.

Lastly, much discussion has occurred in various literatures about the medicine men's role in mental illness prevention and mental health promotion. In this study, though present, they were very much in the background. A second community that later became a target for preventive intervention utilized the medicine men much more frequently than did the residents of Community 4. However, as noted earlier, medicine men are necessarily healers of individuals; the *tiospaye* approach works at the level of communities. But, the

same principle operated in both cases: people took responsibility for their choices. Perhaps vague from a western perspective, in the Lakota view the freedom to choose is at the heart of the whole person and of a whole community. The *tiospaye* emerges when people chose to work together to build a style of life based on common desires. Its balance, interpersonal dynamics, and spirituality are the elements of congruence of which Black Elk spoke.

NOTES

1. The normalized scores for each of the subscale items and other results from various multivariate statistical analyses mentioned, but not formally reported in this paper can be obtained by writing to the senior author, Dr. Gerald Mohatt, Sinte Gleska College, Rosebud, South Dakota, 57570.
2. Blue, A.W. Native students in the university: A Senate report. London, Ontario: University of Western Ontario, 1978.
3. Blue, A.W. Development and stress in a Native community. A paper presented at the annual meeting of the American Psychological Association, Toronto, Ontario, 1978.
4. Blue, A.W., & Scott, W. Involvement of Native American parents in knowledge of traditional education. Unpublished report to Treaty Council Nine, Canada, 1971.

REFERENCES

Berry, J., & Annis, P. Acculturation stress: The role of ecology, culture and differentiation. *Journal of Cross-Cultural Psychology*, 1974, *5*, 382-406.

Bourguignon, E. *Psychological anthropology: An introduction to human nature.* N.Y.: Holt, Rhinehart and Winston, 1979.

DeVos, G. *Responses to change: Society, cultures and personalities.* N.Y.: Rheinholdt, 1976.

Hall, E.T. *The silent language.* Garden City, N.Y.: Anchor Press, 1959.

Hall, E.T. *The hidden dimension.* Garden City, N.Y.: Anchor Press, 1966.

Hall, E.T. *Beyond culture.* Garden City. N.Y.: Anchor Press, 1977.

Hymes, D. Models of the interaction of language and social life. In J.J. Gumperz & D. Hymes (Eds.), *Directions in sociolinguistics.* N.Y.: Holt, Rinehart, and Winston, 1972.

Kiev, A. *Transcultural psychiatry.* N.Y.: Free Press, 1974.

Kuttner, R., & Lorincz, A. Alcoholism and addiction in urbanized

Sioux Indians. *Mental Hygiene*, 1967, October, 530-542.

Lebra, W. *Transcultural research in mental health.* Honolulu, HI.: University of Hawaii Press, 1972.

Medicine, B. The changing Dakota family and the stresses therein. *Pine Ridge Research Bulletin* (Indian Health Service), 1969, *3*,(2), 18-31.

Nurge, E. *The modern Sioux: Social systems and reservation culture.* Lincoln, NB: University of Nebraska Press, 1970.

Oliver, D. *Education and community: A radical critique of innovative schooling.* Berkeley, CA: McCutchan, 1977.

Roy, C., Chaudhuri, A., & Irvine, D. The prevalence of mental disorders among Saskatchewan Indians. *Journal of Cross-Cultural Psychology*, 1970, *1*(4), 383-392.

Sampath, B.M. Prevalence of psychiatric disorders in a southern Baffin Island Eskimo settlement. *Canadian Psychiatric Association Journal*, 1974, *9*, 363-367.

Sarason, S.B. *The culture of the school and the problem of change.* Boston, MA: Allyn and Bacon, 1971.

Shore, J.H., Kinzie, J.D., & Hampson, J.L. Psychiatric epidemiology of an Indian village. *Psychiatry*, 1973, 36, 70-81.

Sikand, J., & Blue, A.W. *Cross-cultural psychology.* Regina: University of Regina Press, 1980.

Spiro, M. *Kibbutz: Venture in utopia.* N.Y.: Schocken, 1963.

Westermeyer, J., Walker, D., & Benton, E. A review of some methods for investigating substance abuse epidemiology among American Indians and Alaska Natives. *White Cloud Journal*, 1981, *2*(2), 13-21.

Zablocki, B. *Joyful community.* Santa Fe, NM: Gaunon, 1968.

DISCUSSION

Jim Shore: I have three specific comments on this paper. One, there's the issue of the correlation between traditional measures which are global judgments of communities and the legal and health measures that are really group data about individual behavior, and what positive or negative findings in that correlation mean? Is it a fair test of the hypotheses? If one measures apples and oranges and comes up with a positive correlation then we rest assured that the hypothesis is correct. If one doesn't actually test the hypothesis, then it gives us a good reason to challenge negative findings. However, we seldom challenge positive findings, which deserve similar scrutiny. Nevertheless, I think you started where one should have

started. This was a step that had to be taken. . . a very essential pilot project. I hope to see review and debate. . .

Can you take the general information about group behavior and apply it to individual behavior under suppositions that you would like to see the individual behavior get better, improve, show more positive or less pathological function?

The last comment is with regard to the theoretical context of prevention, its theme or focus. Where do you go based on your experience? It's quite obvious if you have an index of community health, or illness in part defined by traditionality which has some definite relationship to social pathologies like arrest records, health records, and so on. Especially if one is able to show positive correlations. Indeed we're going to make a major effort or Indian communities might choose to make a major effort to strengthen and expand traditionality as a primary prevention effort in mental health. . . But the search has really just begun. . . It's a very challenging and difficult task, but tremendously exciting.

Judith Kleinfeld: Jerry pointed out the economic leverage, employment as being the "solution". I used to believe that until I looked at some of the results of some recent research in Alaska. In one village, oil revenues gave a local Inupiat government the financial capability to create large numbers of local jobs. The government created full employment, setting up an employment structure that was compatible with the skills and the lifestyle of the local population. The government matched pipeline wages; unskilled construction jobs paid about $800 a week. They permitted subsistence leave so that people could carry out their traditional activities and still maintain employment. We looked at the traditional indicators, alcoholism, suicide attempts, and so forth; the best that you can say is it didn't make things worse. There was no discernably positive effect.

Jerry Mohatt: I think one of the issues is how does one measure community, and what is community? We have a measure of community being the behaviors, the accumulated behaviors of individuals, but this doesn't really take into consideration what community is. So how does one then adequately measure community? When we began the project, we thought of measuring the sense of community, but put that aside once we got into defining community or in the terms of Lakota people, **tiospaye** by assuming that that meant community. When we interviewed these 50 elders, they came up with the presence of certain events which meant community to them. That's what was scaled. But I feel that still leaves us with a gap: how does one adequately measure competence? To the native community and in our sense it's an absence of these social indicators which doesn't say then what it is.

John Red Horse: I tend not to employ arrest-drunk records to measure community because I think many times that this type of data ignores representative proportions of what really is happening. Let me give you a couple examples from when I was a guidance counselor in Minnesota working with Indians. In the community the arrests and delinquents were very numerous. About 300 of my days each year, eight hours a day were spent at juvenile court. I know that I didn't work with more than 100 kids; and we had 3,000 kids in our school system. To evaluate the youth, should I look at the 100, or should I look at the other 2,900? Another community on a small reservation in northwestern Wisconsin had 175 residents. Fifteen of them were heavy alcoholics. These 15 residents were arrested an average of 35 times each. So you have a community of 160 people that had 525 arrests for alcoholism but which actually involved only 15 members. This is a more representative picture of the community.

MENTAL HEALTH PROMOTION WITH NAVAJO FAMILIES[1]

Norman Dinges[2]

This paper reports on a program of mental health promotion for Navajo families. The essential goal of the program was to provide strength-building experiences (strens) and to improve stress-resistance as defined in the schema provided by Hollister (1977). The participants in this program were contemporary Navajo families faced with the task of social survival and the preparation of their children to cope with a rapidly changing intercultural world.

The plan of the paper is to first provide general background on the project for the unfamiliar reader. Pre-intervention activities and the guiding concepts of the project will be described briefly. Reports concerning various aspects of program delivery have appeared previously (Dinges, 1976; Dinges, Trimble, Manson, & Pasquale, 1981). The bulk of attention in this report will be on process and outcome evaluation results.

PROJECT BACKGROUND

A number of conceptual frameworks have been proposed as a means of developing knowledge about indigenous belief systems for the purpose of mental health interventions (e.g., Higginbotham, 1976). These frameworks are typically oriented to the discovery of indigenous disease categories, their etiology, and the acceptable forms of treatment. They are not intended to explain cultural aspects of human development or to suggest interventions for its enhancement, even though the data obtained on the various means of influencing psychopathologies may be relevant to preventive intervention strategies. Their major inadequacy is that they deal in more or less static disease entities and not with the evolving process of individual and collective responses to stressors produced by intercultural adjustment dynamics. The need to understand this process for the purposes of promoting mental health confronted the project throughout its implementation.

A basic operating assumption of the project was that intervention was not either neutral or positive in effect, but rather that one could do unintentional harm and possibly significant damage by dis-

rupting the natural support systems that Navajo families had evolved to cope with their environment. The recognition that one can do harm with the intention to help is more broadly accepted by experienced mental health practitioners today, although at the time there were many well-intentioned advisers who saw the project as possessing only potential for positive effects. Dinges et al. (1981) have discussed in more detail the paradoxical outcomes of attempts to provide mental health programs for American Indians when those who intervene act in ignorance of important intercultural accommodation processes.

Several safeguards were used to ensure that the project was not disruptive, even if nothing positive was accomplished. These safeguards included: (a) the use of ethnography about Navajo beliefs of psychosocial development, (b) a survey of current child-rearing beliefs and practices which also created active involvement of Navajo mothers in the design and delivery of the project, and (c) a guiding conceptual model that respected both individual and cultural variations in the families who were to participate in the project.

The results from the survey of child-rearing beliefs and practices are too extensive to be reported here. They will be available in a future report (Dinges, Manson, & Trimble, forthcoming). For the purposes of the present report, it is more important to understand the way Navajo principles of life and behavior were integrated with Western views of individual and family development to produce a workable accommodation of belief systems.

NAVAJO PRINCIPLES OF LIFE AND BEHAVIOR

Intervening to promote the mental health of children and parents required understanding of Navajo beliefs about the principles of life and behavior. Until quite recently, these principles had to be gleaned from historical writings dealing with Navajo "soul concepts" (Haile, 1943), or highly condensed reports which presented deterministic views of behavior among the Navajo (Kluckhohn, 1949). These viewpoints would actually have precluded any but divine intervention in the lives of the Navajo. The more current view is that Navajos conceive of thought and behavior as being influenced by a variety of internal and external forces (McNeley, 1981; Witherspoon, 1974, 1977).

As conceived by the Navajo, the concept of *nilch'i* is thought to be a Holy Wind which pervades nature giving life, thought, speech, and power of motion to living things. It also serves as the means of communication between all elements of the living world. Previous accounts of the Wind concept were contained in writings on Navajo cosmology, theology, and mythology (e.g., Haile, 1943; Reichard, 1943; Wyman, 1962). The psychological understanding

of Holy Wind and its role in the Navajo relationship to the world has been made more explicit by McNeley (1981). According to earlier accounts, every person has a Wind Soul within him that is autonomous, entering at birth, completely controlling thought and behavior throughout life and departing at death (Haile, 1943). This conception left little room for individual volition, morality, accountability, or rewards and punishment. Other ethnographers reported that the Navajo Wind Deity furnished the "breath of life" but allowed that "breath power" could be ritually inhaled throughout life by helpful supernaturals (Reichard, 1943). Witherspoon (1977) agrees with Haile in that the Wind Soul is given to the Navajo at birth and contains the sources of the person's life, breath, thought, and action but believes with Reichard that it is the person who thinks and controls these functions. McNeley's most recent formulation presents a revised model of the Wind concept that is less egocentered than other views. He argues that recent ethnographic data supports the view that the Navajo conceive of thought and behavior as being strongly influenced by external forces rather than originating primarily within the person.

Since one of the goals of mental health promotion is to optimize culturally accepted forms of interpersonal behavior, it is important to understand Navajo concepts of approved social behavior. According to McNeley (1981), the Wind within and about the developing individual consists in part of Messenger Winds sent by the Holy Ones to provide the means of good Navajo thought and behavior by suggesting appropriate courses of action. The essential concept is that Wind is sent to be the power at birth to provide the means of guidance through the person's life. Youthful mistakes will be made as the person grows, but the Wind within shows one when they have not behaved properly and teaches the right way to live. This function is contingent at least in part upon the person's having received proper instruction from his parents or socializing agents, who are also influenced by the Wind on their instructions. What is characteristic of a person whose life is governed by these influences is that he is responsive to good instructions and observes and follows the good ways of others. This person is said to "lack faults" in all facets of behavior including thought, speech, and actions.

Conversely, harmful or evil Winds may have an adverse effect on the person. The strength and the nature of the evil Wind, the stage of development at which evil Winds exert their influence, and their influence on other persons in the individual's environment all may influence the course of behavior. Moreover, the adequacy of home conditions and the quality of parental guidance may have little to do with these differences among children. When harmful Winds engage a person, they cause a change in balance from good to bad, which is thought to be conditioned by the lack of strength of one's

Wind. In addition, another person's thoughts can negatively influence previously good thinking. The person then "has faults" which are also pervasive throughout their inner and outer behaviors.

The Navajo theory of behavior can thus be seen to attribute one class of personal characteristics to the effects of one class of Winds and another class of effects to a second class of Winds. In its most succinct form, positive and negative behaviors can be described as follows (McNeley, 1981, p. 45):

> . . . one who is under the protection and influence of the Messenger Winds sent by the Holy Ones lacks faults, benfits from instructions, has a thoughtful approach towards life, is well-disposed and helpful toward others, and is even-tempered and difficult to anger; one who is under the influence of harmful Winds has faults, is contrary and argumentative, and is quick-tempered to the point of being mean and intemperate in his actions.

Stated in more discursive form through one of McNeley's major informants (1981, p. 41):

> This person who lacks faults thinks in a good way, he thinks well of one, one thinks well of him. He usually smiles, comes up to one slowly, and, showing his relationship, shakes one's hand (HB).
>
> "One lacks faults" means. . . he does not argue with a person. He does not steal. He is not mean . . . Nothing bad is said about him. He is obliging towards everything (CM).

The similarity between various aspects of the Navajo person who "lacks faults" and the components of maturity and competence as described from Western viewpoints is striking (e.g., Heath, 1977; Klemp, 1979). This suggests that there may be less conflict between different belief systems with regard to those inner and outer behaviors that reflect positive mental health than there is in cultural variations in the expression of psychopathology.

What is probably of greatest importance for the purposes of intervening to promote mental health is to understand indigenous belief systems insofar as they may contraindicate, reduce effectiveness, or create destructive influences despite the best intentions of those who choose to intervene. To further "controlled collaboration," as described more fully in Dinges et al. (1981), one must create an alliance of goals acceptable to the various participants and their views of the behavioral influences that fall within and outside of their control. Radical self-responsibility as espoused by various contemporary systems of mental health promotion would find few, if any, takers among the Navajo, and a program of mental health promotion premised on that concept and its methods would very likely be an additional stressor.

GUIDING CONCEPTUAL MODEL

The project was guided by a conceptual model derived from existing theories of intercultural stress and adaptation combined with the goals of mental health promotion. This model has been described more fully in other sources (Dinges, 1976) and will be presented here in summary form.

The theoretical inadequacies of traditional acculturation models necessitated that an alternative model be developed within which mental health promotion under culture contact conditions could be conducted. A transcultural approach was adopted which was based on the assumption that it is possible for persons from a minority culture to acquire the skills, knowledge, and material lifestyle of a majority culture without sacrificing the identity-supporting elements of the minority culture. The transcultural model is a challenge to the view that acquiring functional behaviors in another culture will automatically result in the loss of effective behavior in the tribal culture. It views culture contact as an opportunity for enhancing personal growth rather than as the occasion for competition between cultures in which one lifestyle must replace the other, and it predicts that effective functioning in two or more cultures leads to greater individual and family mental health.

Within the transcultural model, a developmental view of the family was adopted which combined a social systems approach with the socio-psychological recognition that one was dealing simultaneously with persons who are both family members and individuals. A cornerstone concept of this approach—the developmental task—was especially useful in facilitating the design and delivery of a preventive intervention strategy. There are several theoretical and practical advantages of the developmental task concept.

First, the developmental task concept allowed us to specify with much greater concreteness the objectives of the promotive mental health interventions. By adopting a conceptual framework that allowed operational explicitness, it was possible to relate interventions to developmental task objectives, look at outcomes, and modify the strategy based on how successful we had been in accomplishing intended objectives.

Second, the developmental task concept provided a foundation for classifying interaction activities that simultaneously supported, enhanced, and reinforced developmental task mastery for both Navajo parents and children. The developmental task concept helped in providing a classification system that made it possible to look at parent and child interactions simultaneously and also to increase understanding of the effects of reciprocal developmental task mastery on family mental health.

Third, the developmental task concept allowed for individualizing family level interventions based on a perception of the family as a unique small group with its own norms, values, and role definitions. This became especially critical because of the differences in Navajo family structures and functions that were encountered.

Finally, and perhaps most importantly, the developmental task concept provided a definition of family mental health with sufficient cross-cultural generality to be applied to Navajo families:

> Family mental health is the ability of all family members to make successful use of developmental tasks both for their own and other family members' personal growth and the growth of the family unit.

The major advantage of this definition was that it was relatively value neutral and left the content of developmental tasks to be determined by Navajo cultural requirements. It was a developmental, health-oriented definition that focused on identifying those experiences that build intellectually, emotionally, and socially actualized Navajo families. It was also a preventive definition in that common cross-cultural developmental tasks and developmental tasks unique for the Navajo culture could be incorporated in one mental health promotion strategy.

The transcultural orientation combined with the developmental task concept provided a model with which mental health promotion strategies could be developed and implemented in a variety of culture contact situations. The specificity and classification of reciprocal developmental tasks, the individualization of the family unit, and the cross-cultural generality of the definition of family mental health are all useful conceptual tools. Thus it becomes possible to design a mental health promotion program that is sensitive to culturally unique developmental tasks and which provides the optimal intervention with minimum disruption of functional family interactions. Interaction activities were the primary means of facilitating these goals.

Interaction activities focused on the relationship between young children (infants to four-year olds) and their parents. All interaction activities were designed to increase the amount and enhance the quality of Navajo parent-child interactions, focusing specifically on promoting cultural identification, strengthening family ties, and enhancing child and parent self-images. Each interaction activity was also designed to help both parents and children in successfully accomplishing their developmental tasks in mutual interaction with one another. Figure 1 provides a sample of an interaction activity designed for parents and a young child.

Figure 1

Parents and Young Child

NAME OF ACTIVITY: *T'oo ahayoi t'adoo le'e ash'iigo bineesh'a "I Can Do" Book*

DEVELOPMENTAL TASK OBJECTIVES:

Child: Growing in awareness of his abilities and special talents. Recognizing his ability to elicit responses from those around him. Seeing his own behavior as significant to others.

Parent: Recognizing the relationship between parental responses to a child's behavior and his feelings about himself. Establishing patterns of interaction which communicate to the child that he is a unique, capable and valued individual.

MATERIALS: "I Can Do" Book, 2 packs of film, Loaner camera.

METHOD:

1. Go through book with parent and child, reading page and discussing with them. "What things do you do to help in the hogan?" "What tricks can you do?" "Tell me about how you help take care of baby," etc.
2. Explain that there is a space on each page for a picture of the child and that it should be his own version of "riding," "helping," etc. It doesn't have to be exactly the same as photograph or any of the illustrations.
3. Show parent how to use camera and explain that you will loan camera to them so they can complete the book during the week.
4. Encourage them to read the book **with** their child each day until your next visit, adding a few photographs each day.

FOLLOW-UP: On your next visit, see if the book has been completed and discuss the family's response to this book. If completed, return camera to office.

It was difficult to separate or accurately identify the complex interplay of developmental tasks in the parent-child interactions stimulated by the activities. Although there were specific developmental task objectives for each activity, families invented their own versions and created richly stimulating interactions which often involved a shift in the pattern of activity use. Since the aim of the interaction activities was to promote close family relationships with all family members actively engaged in personal growth, the broadly innovative responses of the families indicate that this goal was accomplished. Examples of interaction activities, the various cultural factors involved in developing them, and variations in their use are described in previous reports (Dinges, Yazzie, & Tollefson, 1974).

PROCESS EVALUATION

Process evaluation consisted of home intervention reports, summary reports of parent-child interactions, and regular observations by the professional staff of actual interventions with parents and children. The primary purpose of this level of evaluation was to assess the initial developmental level of each family and the general progress being made in facilitating strength building relationships between parents and children as they used the interaction activities.

At about mid-point in the project, a composite rating was obtained of family responses to home visits. These ratings were based on intervention reports which included content about the emotional atmosphere of the home and parent and child reactions to interaction activities. Global ratings indicated that approximately 90% of the families were responding adequately with some 15% "excellent," 25% "very good," 35% "good," and 15% "fair" ratings. About 10% were judged to be responding "poorly." The general conclusion from these sources of evaluation was that the bulk of families used the interaction activities as designed and that they found them both appealing and rewarding.

There was, however, considerable individual variation in the speed and proficiency with which the families responded to home interventions. Such factors as the family composition, mother's sensitivity and creativity, family stresses, and level of total family involvement all entered into the family response. The following case examples provide some indications of the range of family responses.

Case No. 1: W.M. (47 visits)

During the introductory visits W. seemed unsure of her involvement in the project and was reluctant to interact actively with her children during the visits. She was, however, always pleasant and cooperative and made the family intervention counselor feel welcome and appreciated. After about the tenth visit, she warmed up and started working on the activities in earnest. By the end of the first year, she would volunteer the purpose (developmental task objective) of new activities before these were discussed by the counselor. She also thought up many new activities and was using the material on her own. She became very skilled in working with her children and repeatedly expressed the importance of doing things together with them.

When one of her children was about three years old, he suffered a head injury that caused him to lose some of his language and coordination skills. On her own initiative, W. went back to the activities that her toddler was using and started to retrain basic skills for her injured child. Near the end of the project, W. had another baby but encouraged the Family Intervention Counselor to add another family to her visit schedule instead of adding her newborn. She indicated that she could reuse all the materials she had saved from past visits with her own newborn and understood enough about infant and child development to work with her baby by herself.

Case No. 2: O.M. (33 visits)

Although this was a highly mobile family that often left their children in the care of relatives, the mother and father both changed their child-rearing behavior as the visits progressed and would make arrangements for either the mother or father to be home at the time of the scheduled visit. Many activities previously considered a waste of time were now done eagerly and with understanding of the significance for children's development. For example, the mother created a miniature weaving loom for her daughter. Prior to the visits, such activities had been considered a waste of time.

Both the mother and the father appeared to grow significantly in their understanding of the importance of their behavior for their children's emotional welfare. The mother often asked for additional explanation of an activity so that she could tell her husband how it was to be used. He always asked about the weekly activity and was very active in working with the children. The mother offered many

observations on her children's growth and what they had accomplished. She was also creative about finding other uses for project materials and was eager to design project activities for the older siblings to get involved with when they were out of school.

Case No. 3: Y.S.M. (40 visits)

This mother was shy and quiet during the initial visits and required considerable patience by the Family Intervention Counselor to get her involved in the activities. At first the mother expressed the attitude, not uncommon among more traditional Navajo families, that interacting with younger children in a playful way was a waste of time. Her motto seemed to be that, "Playing is playing around" and had little personal value for the individuals involved. After several relatively unresponsive interactions, the counselor made continued visits contingent on the mother's showing that she had worked with her child. Only then did she show any real involvement.

As the visits progressed, Y. warmed up considerably and became quite talkative, often inquiring about the counselor's weekly activities and other events in her life. She changed from being relatively taciturn and uninvolved in the visits to being quite animated. She would praise and encourage her son continually during the activities and the whole family began to share and play together. The mother acknowledged changes in the family as a result of the visits and expressed the view that playing together could be an important family activity.

Case No. 4: W.R. (23 visits)

This mother had become the sole caretaker in a family and had recently experienced the death of a brother, marital difficulties with her husband, and her father's deep grief over the brother's death. Because of the brother's death, the family was required to relocate and, since she had the only immediately available transportation, she was often called upon to help out the other family members. Despite these stresses, the mother was cooperative and completed activities with her daughter even though she appeared only minimally aware of the significance of the activities. The older siblings in the family also worked on the interaction activities with their little sister.

After about two months of visits, the mother was expressing pride in what her daughter was able to do and made extra efforts to maintain the visits despite the turmoil in the family. Several times she took the initiative to come to the office when family events prevented a home visit. She also encouraged the older siblings' involvement in the activities and they in turn responded with considerable support of their little sister and pride in their ability to help in the activities. Even though the stresses continued for the family, the mother expressed an understanding of the importance of making time for playing and talking with her children and made extra efforts to set aside time for these activities.

Case No. 5: T.I. (21 visits)

There had been a recent divorce in the family and T.I., the grandmother, was currently taking care of the project child. Because of custody problems, the child was passed from one set of grandparents to another and both seemed ambivalent about his care. This made it difficult to keep a regular schedule of visits and to follow-up on activities. Because the child had responded so positively to the initial visits and was obviously getting a great deal out of the activities, it was decided to continue the interaction despite problems in maintaining continuity of contact.

The child was always eager and cooperative and tried very hard to please the counselor and other members of the family when they attended to him. He clearly anticipated the visits and would get out past activities whenever he saw the counselor coming for a visit. Unfortunately, the grandmother, with whom he spent most of his time, was generally reserved or indifferent to the visits and was very negative in her comments about his abilities. When the visits finally ended, the grandmother still didn't see her role with the child's development as very significant nor did she indicate that he was showing any developmental growth. In other respects, however, it appeared that the child had received considerable support from the Family Intervention Counselor and that his ability to show developmental progress was recognized and responded to with obvious appreciation by other family members, such as uncles and older siblings, and that he derived considerable self-esteem from their responses to him.

Case No. 6: T.L. (52 visits)

This family was beset by many stresses that made the visits hectic and irregular even though the mother expressed a general interest in continuing them. The baby in the family had chronic ear infections and the older pre-school child had many skin rashes. During the project period, the mother's stepfather froze to death after he had lost consciousness from drinking, the grandmother died, and a sister and her husband were killed in an automobile accident. Both parents worked and they had great difficulty in getting a steady babysitter. This often resulted in only slightly older siblings being left to care for the children.

The mother had great difficulty in controlling the children who seemed hyperactive and unable to concentrate long enough to take part in the activities. The children often ignored the mother or were verbally abusive toward her. She spent a lot of her time angry at the children or complaining about them. She had little energy to follow-up on the activities during the week and sometimes would try to avoid working with the children during the visits. Most of the materials were destroyed by an older sibling when he came home from school each day. This family was at the extreme negative end of the continuum of responses to the project. Visits were continued in order to provide at least minimal support during this stressful period.

In addition to depicting the variations in stressors and the responses of some of the project families, these vignettes illustrate a potentially important point about promotive and preventive mental health interventions. Although one may intervene to prevent for certain specified stressors that are known in advance, mental health promotion in the sense of strength-building experiences may or may not occur. However, intervening to promote mental health may also prevent because of the availability of a program capable of detecting and responding to families in crises. Targeted prevention must identify the stressor in advance in order to be effective, but promotion may very well prevent without prior knowledge of future stressors. If the families in this program had to rely on the existing mental health system on the reservation, most of them would have never been seen at the time of crisis. It was by "being there," as it were, in the sense of intimate familiarity with family stressors and the varying resources available to them at the time of crisis that it was possible to collaborate to provide a meaningful mental health intervention.

OUTCOME EVALUATION

This section presents outcome evaluation results. Various problems of design, measurement, and data collection will be discussed

before presenting data-based outcomes.

Design Problems

Participation in the project was decided through a process of self-selection after availability of the program was announced in the local community. The primary selection criteria were that the mother have children who were between infancy and four years of age and that the family be willing to commit to a regular schedule of visits. Understanding of the project activities, the requirements of participation, and the benefits to be derived from participation was provided through interviews with the mothers after they indicated interest in the project. Participation was limited to an initial group of 60 mothers who were phased into participation as arrangements could be made by the Family Intervention Counselor to set up a home visit schedule.

Attrition in the project mother's group was approximately 10% over the course of the project and was due primarily to scheduling conflicts. The point at which the mother joined the project limited the number of visits for that family and the phased participation process resulted in a grouping of the mothers by different levels of project participation described more fully below. Approximately 30 additional mothers wanted to join the project but could not be accommodated because of limited staff resources. These mothers were included in the comparison group which was formed to conduct an outcome evaluation.

The basic design difficulty involved maintaining an uncontaminated comparison group for the duration of the project. Even though families from a separate geographical area had originally been selected to serve as a comparison group, the separation of 50—100 miles did not prevent indirect participation in the project. The most prevalent form of indirect participation involved using the target mother as an informal trainer or in sharing interaction activities on a borrowed basis. For example, it was not uncommon that non-project mothers, accompanied by their young children, would participate indirectly in the project by visiting the project mother on the day and at the time of her weekly visit or shortly after. Although the purity of the intervention may not meet the rigorous standards of controlled research, the apparent contamination of the comparison group may actually be viewed as a significant positive outcome in that the desired horizontal diffusion of the project clearly occurred. In order to conduct a more objective outcome study of project impact, a comparison group was selected by eliminating known cases of significant vicarious project participation and by obtaining families from more distant areas.

Project impact was assessed by a post only outcome study that

compared the parents and children in the project with a matched comparison group. Comparison parents and children were matched with program families on the basis of the age and education of the mother, the total number of children in the family, and the age and sex of the children. Matching criteria results were as follows:

	Program Families (N = 57)	Comparison Families (N = 54)
Mothers $\bar{X}$ Age	29.45	29.04
Mothers $\bar{X}$ Education	7.72	8.14
$\bar{X}$ Number of Children in Family	4.86	4.51
Children $\bar{X}$ Age (Months)	41.44	41.15
Children's Sex (Male-Female)	32/30	32/30

Additional comparisons were made between program families who were divided into four roughly equivalent groups based on different levels of participation as follows:

Group 1	n = 12	$\bar{X}$ visits = 16.4
Group 2	n = 15	$\bar{X}$ visits = 26.8
Group 3	n = 15	$\bar{X}$ visits = 35.4
Group 4	n = 15	$\bar{X}$ visits = 45.1

Measurement Problems

A major difficulty was the lack of culturally appropriate mental health measures for Navajo parents and children. This was partly a function of the scarcity of measures of personal adjustment for younger children in general and Indian children in particular, and partly a function of the unavailability of positive family mental health measures.

Instruments had to be selected or modified to meet the psychometric concerns of reliability and validity, and also had to be balanced against considerations of cultural appropriateness and the field conditions on the reservation. Past experience had shown the questionable validity of many of the available instruments. Thus measures were selected for both parents and children which had minimal problems of translation, interpretation, and field use.

A basic assumption which proved misleading was that instruments that were relatively useful for assessing the psychological

adjustment of older Navajo children, or had been used with Anglo children at younger ages, could be successfully adapted for use with the project children. This problem was largely overcome by using observational methods which involved videotaped parent-child interactions that could also be evaluated for the individual child. Although observational data had more ecological validity for evaluating project outcomes, it also increased costs for data analysis.

Data Collection Problems

The basic difficulty was that field conditions were not conducive to cost-effective data collection for either program or comparison families. Although there was a cooperative relationship established with program families, it required considerable perseverance to get survey and interview data from the comparison families who had little to gain from the time required for their participation.

This obstacle was overcome by conducting preliminary visits with comparison families to establish rapport with them before the interviewing began. Because the program had enjoyed widespread acceptance in the local community, there also seemed to be a greater willingness among comparison families to participate in the evaluation phase. Their contribution of time and energy was partially offset by providing them with a mini-project experience after all data were collected. This took the form of kits of materials similar to those that had been used by program families and 1—2 visits from Family Intervention Counselors to train them in the use of the activity. This investment paid off in significantly greater cooperation than we had anticpated or than was predicted by others who were skeptical about comparison family cooperation based on past research efforts.

Outcome Results

Outcome evaluation is based on an extensive body of data and only the major positive or negative results will be presented for each measure. Since patterns of results and trends in quantitative differences help to understand overall project impact, significance levels that do not meet the usual reporting conventions have been used in certain instances.

Project participation survey. Direct assessment of program impact included a survey of views of the benefits of participation for the family as a whole and for individual participants. Other survey items, which were also asked of comparison families, concerned behavioral expectations for children of differing ages, and the role that parents play in influencing children's development. In terms of the effect of participation on the family as a whole, the preponderance of responses were positive and focused on the increased level of family involvement, the sharing of experiences, and the personal satisfaction stimulated by mutual participation in the interaction activities. En-

hanced family communication and increased cooperation were also frequently described. In the few instances in which the project's impact appears to have been negligible, the families reported that while they saw some benefits for their children, they were themselves too preoccupied by the demand of making a living to share the activities with their children. Positive response indicated that the interaction activities were a welcome addition to normal family patterns (e.g., We had more fun things to do together than just hard work; we all had our days and chores set for us) while negative responses used the interaction activities as a diversion for the children and lacked parental participation (e.g., I was a working mother and it was mainly good to keep them occupied because I couldn't get a reliable babysitter).

Although the mother and her children were typically the focus of the interaction, it appears that the desired diffusion of interaction among other families' members occurred. Approximately 70% of the families reported that other family members became involved in the interaction activities. Grandparents, older siblings, and the father were most commonly mentioned in this regard. Individual parents appear to have profited most from their increased understanding of developmental changes in their children and their own ability to influence positively the course of their children's development. This was most noticeable in their general perceptions of developmental growth among their children. For example, there was a trend for program families to see learning as starting considerably earlier than comparison families ($X^2 = 9.43$, $df = 5$, $p < .10$). Some 53% of program families and 30% of comparison families indicated that learning started in the first 12 months of life, whereas 19% of program families and 43% of comparison families viewed learning as having its start at beyond the age of three, and 20% of comparison families and 5% of program families viewed learning as starting after the age of five.

Survey questions regarding the influence of parental behavior on the child's health and development produced mixed results. Both program and comparison families placed roughly equal emphasis on providing for the proper physical nourishment and hygiene of children but program families placed considerably more emphasis than comparison families on proper preventive medical care (e.g., 39% vs. 20%) and on maintaining a safe and clean home environment (e.g., 21% vs. 5%). Stimulating academic learning was not viewed by either group as a significant function for parents of younger children; however, some 35% of program families versus 18% of comparison families saw the parents as having a significant role in the social-emotional development of their children. Moreover, program families stressed the parents' role in providing and managing pleasant

interactions between themselves and their children as part of the parents' function.

A similar pattern was found for responses about the parents' role in preparing their children for school experiences. Although the total number of elicited responses was approximately equal for both program and comparison groups, there were trends in the emphasis placed on different categories of parental influence ($X^2 = 19.83$, $df = 13$, $p < .10$). The most important difference was in the greater emphasis on encouragement and interest in the child's education and in the playful and pleasant aspects of learning indicated by program parents. Comparison families placed more stress on teaching proper manners and the academic content of learning.

There were also differences between comparison and program families with regard to the behavioral expectations for children at different ages. While the overall number of expectations for six-month olds was roughly the same, program families showed a more balanced pattern of awareness of the amount of cognitive, social-emotional and physical development occurring and reasonably expectable of six-month olds, while comparison families showed more emphasis on physical development and less on cognitive and social-emotional development. The behavioral expectations for children at two years of age were essentially the same for both comparison and program families, except that program families placed more emphasis on the child's cognitive performance. There were also differences for children at four years of age in that expectancies for self-care skills, and cognitive abilities were noticeably greater among the program families. However, there was little difference in the emphasis placed on social-emotional activities at this age by either program or comparison families. The patterns of responses suggests that the program families had a more balanced view of the simultaneous development of physical, cognitive, and social-emotional behaviors among young children. This conclusion is further supported by the qualitative superiority of elaborations of developmental descriptions that occurred almost exclusively among the program families.

One marked difference in outcomes was the emphasis program parents placed on the varieties of guidance that should be provided children, and the parents' role as a model from which their children could learn various behaviors. The total number of guidance responses for program and comparison families was significantly different ($z = 4.69$, $p < .001$) with the project families volunteering more examples of the parents' role in guiding their children. Program parents exceeded comparison parents in each identifiable category of guidance (e.g., cultural, educational, moral, social, behavioral) but were particularly more responsive regarding guidance in the educational

and moral categories (e.g., gives advice and guides children in ways of life so they can lead good lives). Similarly, program mothers gave far more responses with regard to their roles as examples for their children (e.g., a good mother should talk "real good" to her children and encourage them to do a good job and show them how to do it). In fact, only one comparison group mother gave a response suggesting that the mother's example was an influential force in her children's personal growth, while approximately 25% of program mothers viewed child-rearing in this light.

Attitudes scale. A 20-item attitude scale, adapted from another Indian evaluation project (Lefley, 1974), was also used as an outcome measure. This scale was designed to measure attitudes toward child-rearing, internal-external locus of control, Indian self-esteem, education, and Indian identity. There were trends in differences between program and comparison families on the internal-external locus of control subscale ($F = 3.74$, $df = 1,108$, $p < .07$) and the child-rearing subscale ($F = 3.06$, $df = 1,108$, $p < .08$). No significant differences occurred on the education, Indian self-esteem, or Indian identity subscales. The major difference on the child-rearing subscale was the greater endorsement among program parents of item alternatives which emphasized children's accepting responsibility and helping with household duties, and the parent's ability to understand their children's problems if they were willing to expend the effort to do so. On the internal-external locus of control subscale, the major difference was that comparison families emphasized item alternatives which stressed the impossibility of winning personal respect despite personal efforts and the nature of life as hard and full of trouble.

The only significant subscale difference, based on number of visits, occurred on the Indian self-esteem subscale ($F = 3.17$, $df = 3,54$, $p < .03$). Although those families with the greatest number of visits showed the most endorsement of such alternatives, the pattern of subscale means indicated that there was a curvilinear trend for those families with the most number of visits and the least number of visits to endorse item alternatives which emphasized the equality of Indians with Whites and a preference for the Indian way of life.

Although not of immediate significance for evaluating program impacts, it is interesting to note the pattern of endorsement of individual items by both groups of families. For example, 100% of both groups viewed higher education for their children as a means of helping Indian people, 96% and 98% of program and comparison families respectively indicated that they are glad to be Indians, and 78% of program and 69% of comparison families

indicated that Indian children know many things that White children do not know. It may be of some relevance for both policy and the public image of Indians to note that only 7% of program families and 8% of comparison families attribute the "Indian's problems" to the way they have been treated by the White man while 87% of program and 92% of comparison families indicated that, regardless of the past, the Indian could do something about his problem if he tried. Comparative data based on similar items by region and tribe could be of considerable importance for better understanding of current Indian-White relationships.

Navajo family projective measure. A specially designed projective measure was used to assess the more subtle effects of project participation. This measure deviated from traditional projective methodologies in that the emphasis was on tapping positive aspects of family functioning that might plausibly relate to project participation. The projective stimuli were designed to elicit indicators of family well-being with differences in outcome based primarily on comparisons of different degrees of positively oriented responses. Stimuli were included that would presumably elicit responses about relations between the different generations and the extended family and families' links with the physical and animal environment. Various aspects of current and future family well-being were also intended to be elicited by the stimuli.

Major thematic differences between program and comparison families were difficult to discern. The overall thematic content was quite positive for both groups and the negative themes that did occur were not highly salient in terms of mental health factors. It was of some significance that relationships between the different generations and the family and the physical and animal environment were viewed in a generally positive light, yet there was also a trend for ambivalence to intrude with regard to the prospects for these arrangements to continue into the future. A clear three-way thematic relationship was present between the material and animal resources (e.g., sheep) available to the families, views of the current emotional status of the family, and its potential for an improved future. Although program families saw potential for continued prosperity in a moderately greater number of instances than the comparison families, the overall differences were small. Similarly, there was little difference between program and comparison families in expectations for a negative future, which was indicated by less than 10% of the families in both groups.

The major significant difference for purposes of outcome impact occurred in the frequency with which families were currently en-

gaged in mutually pleasant activities. Program families indicated a greater number of pleasant family activities and also showed a different pattern in terms of the type of activities ($z = 1.63, p < .05$). The most obvious difference in the pattern of activities was the frequency with which program families indicated that they visited relatives and friends and engaged in conversations including story telling and jokes. Moreover, thematic content for program families was characterized by emotional responsiveness and indications of increased cohesiveness in whole family activities.

Psychiatric symptom checklist. A 22-item psychiatric symptom checklist adapted from Langner (1962) was also used in evaluating project impact. Results indicated that program families reported significantly fewer depressive symptoms ($t = 3.10, df = 108, p < .002$), and there was a general trend for less pathognomic indicators and less overall symptoms among the program families as a whole. Both appetite and sleep patterns, highly valued indicators of health and well-being among the Navajo, were better among program families. For example, comparison families reported appetite disturbances in slightly over 50% of the cases while slightly less than 25% of program families indicated this type of difficulty. Similarly, slightly under 30% of program families reported sleep disturbances while slightly over 50% of comparison families indicated sleep difficulties. Program families also reported fewer individual psychosomatic symptoms and generally expressed less feeling of isolation and loneliness. The general pattern of results on this measure indicated better overall mental health among program families; however, no significant differences were found based on different levels of participation in the project.

Parent-child behavioral interaction measures. Potentially, the most appropriate and sensitive measures of program outcomes were behavioral measures obtained on parents' children and parent-child interactions. A total of 133 parent-child dyads, including 79 project family dyads and 54 comparison family dyads, were videotaped interacting in three different situations of differing interaction structure (e.g., free play, construct a puzzle, etch-a-sketch design reproduction). These interactions were observed by judges and rated on the level of status, amoung of affect, and amount of involvement of both the parent and the child. In addition, semantic differential scales from the evaluation, potency, and activity dimensions were used to assess the child's behavior, parent's behavior, and the overall parent-child interaction. Due to limitations of evaluation resources only the the free-play situation was judges and analyzed quantitatively.

Unfortunately, interjudge reliability coefficients for the three judges were low, ranging from $r = .40$ to $r = .70$ for most of the

scales. Interjudge reliability for global ratings of status, affect, and involvement was at the low end of this range and the semantic differential ratings were in a moderate range of interjudge reliability. With recognition of the limitations of interjudge reliability and the spurious effects that might occur, preliminary analyses did show some trends for higher ratings for project children and project parents, and parent-child interactions on the semantic differential scales. No differences on these measures were found among project families with different levels of participation.

Despite its appeal from a quantitative standpoint, observational data presents many theoretical and methodological problems for use as outcome measures for a mental health promotion program. A number of more sophisticated and flexible observational scoring systems have been developed recently that would have been very useful had they been available at the end of the program. Without the ready availability of methods to analyze behaviorally anchored outcome measures, there will continue to be difficulties in demonstrating the effects of mental health promotion efforts in terms of those generic interactional competencies presumed to reflect positive mental health.

CONCLUSIONS

The overall impact of this mental health promotion program must be evaluated on several levels. From a process evaluation standpoint, it would appear to have been a success. The desired horizontal and vertical diffusion of interventions occurred as intended and the natural support systems were not disrupted and were probably enhanced. Although the pattern of outcome indicators is generally positive, quantitative results were somewhat mixed in their reflection of program impacts. A major problem was that static methods and measures were used at one point in time to assess interventions designed to improve the process of acquiring stress-resistance and enhanced coping capacities. This did not permit an adequate test of how the parents and children actually coped with the stressors in their lives.

A more appropriate test of the program is probably to be found in the subsequent life experiences of the family members. The most important effects of the strength-building interventions may be seen when the parents and children encounter as yet unknown stressors (e.g., the parents in the rearing of subsequent offspring; the children in coping with increasing academic demands and social adjustment tasks). Follow-up evaluation to assess the effects of the program at later stages of development is clearly indicated.

In light of the increasing intercultural interaction among traditional and modern cultures, it seems critical to know much more

about how American Indian families go about their survival and growth. The manifold and varied developmental task accomplishments required for this to occur still remain largely unknown. Perhaps existing models of preventive mental health have failed to appreciate the cultural dimension in the various categories and levels of interventions that have been proposed. By the usual standards, most of the Navajo families in this program would probably have been categorized as at least marginally dysfunctional. However, prolonged and intimate familiarity with them through periods of intense stress and the recovery from it leaves one with a profound respect for the resilience of the natural support systems, which often include beliefs that add supernatural assistance to the usual coping strategies. It is these cultural aspects which we seem to know little about and may inadvertently exclude by the way in which culturally different systems of intervention fail to accommodate one another.

NOTES

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REFERENCES

Dinges, N. *Preventive intervention: Isolated Navajo families.* Final report to the Juvenile Problems Division, National Institute of Mental Health, 1976.

Dinges, N., Manson, S., & Trimble, J. (Eds.). *The handbook of psychosocial research with American Indian youth.* Department of Psychiatry, The Oregon Health Sciences University, in preparation.

Dinges, N., Trimble, J., Manson, S., & Pasquale, F. The social ecology of counseling and psychotherapy with American Indians and Alaskan Natives. In A. Marsella & P. Pedersen (Eds.), *Cross-cultural counseling and psychotherapy: Foundations, evaluation, cultural considerations.* New York: Pergamon Press, 1981.

Dinges, N., Yazzie, M., & Tollefson, G. Developmental intervention for Navajo family mental health. *Journal of Personnel and Guidance Psychology: Special Issue*, 1974, *52* (6), 390—395.

Haile, G. Soul concepts of the Navajo.*Annali Lateranensi*,1943, vol. VII. Citta del Vaticano.

Heath, D. *Maturity and competence: A transcultural view.* New York: Gardner, 1977.

Higginbotham, H.N. A conceptual model for the delivery of psychological services. In R. Brislin (Ed.), *Topics in culture learning* (Vol. 3). Honolulu: East-West Center, 1976, 44—51.

Hollister, W. G. Basic strategies in designing primary prevention programs. In D. Klein & S. Goldston (Eds.), *Primary prevention: An idea whose time has come.* Rockville: National Institute of Mental Health, 1977.

Klemp, C.O. Identifying, measuring, and integrating competence. In P. Pottinger & J. Goldsmith (Eds.), *New directions in experiential learning: Defining and measuring competence.* San Francisco: Jossey-Bass, Inc., 1979.

Kluckhohn, C. The philosophy of the Navaho Indians. In F. S. C. Northup (Ed.), *Ideological differences and world order.* New Haven: Yale University Press, 1979.

Langner, T.S. A twenty-two item screening scale of psychiatric symptoms indicating impairment. *Journal of Health and Social Behavior,* 1962, *3*, 269—276.

Lefley, H. P. Effects of a cultural heritage program on the self-concept of Miccosukee Indian children. *The Journal of Educational Research,* 1974, *67* (10), 462—466.

McNeley, J. K. *Holy wind in Navajo philosophy.* Tuscon: University of Arizona Press, 1981.

Reichard, G. A. Human nature as conceived by the Navajo Indians. *Review of Religion,* 1943, *7*, 353—360.

Witherspoon, G. The central concepts of Navajo world view (Part I). *Linguistics,* 1974, *119*, 41—59.

Witherspoon, G. *Language and art in the Navajo universe.* Ann Arbor: University of Michigan Press, 1977.

Wyman, L. C. *The windways of the Navaho.* Colorado Springs: The Taylor Museum of the Colorado Fine Arts Center, 1962.

DISCUSSION

Morton Beiser: I think the three studies that we've just been talking about deal either explicitly or implicitly with a very important theme for prevention, particularly with respect to American Indian communities. This theme has to do with cultural stress. Jerry reviews something about the history of the concept and rightly points out that the focus of our thinking about cultural stress has moved from the notion that culture contact inevitiably creates a condition of risk. Culture contact may present a condition of risk or it may

present a condition of opportunity. It's important at this point to start to look at the difference, look at the factors that account for a condition of opportunities as opposed to a condition of risks. We're just beginning to understand this process, though it might not seem that way from the mental health literature accumulated to date.

Other works suggest at least two dimensions may make a difference. One of these has to do with the preservation or the reinforcement of traditional or indigenous forms which are emotionally supportive for people; the other one has to do with whether or not people acquire the tools that they need in order to participate in a different culture. I think that all three papers, the three studies that we've talked about in this session, address the first issue. . . how to think about prevention in terms of indigenous supportive forms either to reinforce them or to adapt them in some way so that they maintain their force.

It seems to me that Norm's study deals with the second theme—a way to introduce tools which are useful for getting along in a culture, to people who are not members of that culture. His work represents a programmatic attempt to introduce some concepts, some tools derived from the behavioral sciences that can be useful for Indian families. Norm said that the decision to work with families was a tactical one; he felt that that was the best leverage. I'm sure that part of this decision had to do with his recognition that the family is the traditional form of support among the Navajo and that the program would best succeed by reinforcing it. Norm's paper is an exemplary report of a project and an exemplary model for describing results.

We should talk about evaluation of programs from multiple levels. At one level you have to talk about theoretical justification of doing a project in the first place. This study is emminently sound and well presented. It operates within a framework of converting a condition which is potentially stressful into one of opportunity. The description of process evaluation is particularly good. Norm describes what happened over the course of the program. The summative evaluation, which is a description of how well the goals were obtained, offers some impressive information. Certainly intermediate goals were obtained and, as Norm points out, there's a need to look at the impact of this program with regard to more long-term goals.

There is one other point that I want to raise about the paper. It's almost a throw away line in the paper itself that intrigues me. You talk about measures of positive mental health or measures of competence and state that there's probably more concurrence across cultures or more agreement across culture. I'd like to hear you comment more about this.

Norm Dinges: It seems to me that there is a convergence with regard to the core components of human competence. The generic competencies which underlie these processes are not observabale and are not the kind of things that people usually think of when talking about competencies. The convergence is well illustrated by the overlap between the descriptions by McNeley's informants. McNeley's analysis of what's generic about the "person without faults," who most would call a socially competent person. One finds similar descriptions in the Middle East and in Asia, one component of which is the integrity of the self system. . . Heath describes five components which seem to converge at maturity, psychological health, competence, or positive mental health, whatever constructs you wish to use. But there is convergence.