Part 3: SERVICES

AMERICAN INDIAN COMMUNITY MENTAL HEALTH: A PRIMARY PREVENTION STRATEGY

John Red Horse

This paper examines a conceptual framework for primary prevention and draws particular attention to its implications for mental health. Its objective is to translate strategies derived from the underlying assumptions of primary prevention into a data-based cultural network review model which serves to profile a community and to guide the assessment of mental health service needs.

The paper is organized into three sections. Section one examines selected conceptual themes that guide perceptions of community mental health and primary prevention. This includes an appraisal of challenges which confront the profession as attempts are made to translate public health concepts designed for biological pathologies into mental health frameworks designed for the socio-cultural contexts of American Indians. Section two introduces a network review model which serves to organize life space information for community assessment. This model explicates vital systems which the profession must address in order to develop a comprehensive data base for primary prevention in community mental health. Section three provides a case study of network review which represents an application of the model as it was used to guide preventive services in an urban Indian family mental health program.

COMMUNITY MENTAL HEALTH AND PRIMARY PREVENTION

Several aspects of mental health need to be rethought in a way that is applicable to Indian communities. Some theorists have pointed out features which are particularly helpful in understanding mental health across a wide variety of Indian cultures. Caplan and Caplan (1967) captured a vital element, the heritage unique to tribal peoples. They defined mental health as "the potential of a person to solve his problems in a reality based way within the framework of his traditions and cultures" (p. 253).

It is extremely important for the mental health professions, which have generally operated in terms of universal American Indian traits, to begin to take into account the cultural heterogeneity that char-

acterizes this special population. Driver (1962, c.f. Manson, in press), for example, identified approximately 250 tribal groups with 149 distinct languages that have been organized into distinct cultural areas, ranging from 9 to 17 in number, depending upon various lifestyle factors. Red Horse (1981) further suggested that, since tradition is often linked to tribe and language, there is a need to pursue a theory of community sovereignty as a **sine qua non** for the identification of attributes of mental health among American Indians.

Another dimension of mental health that requires attention is the transaction between individuals and communities. Knee and Lampson (1974) captured this feature by acknowledging that the individual skills which foster creative human potential derive from a synergistic interaction between individuals and communities, one which, therefore, contributes both to the well-being of others as well as to an individual's fulfillment.

The interaction between the individual and community is vital to an understanding of American Indian mental heath. Extended kin systems, clan memberships, tribe, and land base represent cornerstones to an Indian sense of self. In contrast to an atomistic philosophy of man pursuing individual liberty and autonomy as a central theme in life, American Indians possess extremely strong community aspirations. Ego integrity, thus, is not arrived at solely through individual competence in problem solving or work, but through mutual interdependence as a function of community membership.

Community aspiration is reinforced by the patterned maintenance of tribal heritage and value orientations that differ dramatically from the general population. The underlying bonds vary among Indian communities. Traditional villages, for example, are integrated by the conscious enactment of traditional social roles and expectations. Non-traditional communities, in contrast, appear to attain similar cohesion through symbolic attachment to common historical experiences (Spicer, 1980). Regardless of how community aspiration is brought about, this feature challenges the professions to arrive at views of mental health that can employ social groups as a viable mechanism for promoting human development (Moroney and Dokeckin, 1979).

The distinct experience of American Indians in social institutions that are different than their own, for the most part created by and for the general population, further mandates that a social systems perspective be included in these views of mental health. Havighurst (Note 1) drew attention to institutions that affect individuals throughout their lives. He focused upon early childhood and adolescence, identifying two different social institutions that establish norms, roles, and expectations critical to mental health. In early

childhood, the institution of the family prevails; in middle childhood and adolescence, the institution of education prevails, together with other youth-serving organizations.

Capturing this transition of normative influence is vital to the assessment of the awesome role that institutional forms external to the framework of Indian traditions and cultures assume in shaping life situations. The literature with respect to the school performance of American Indian students, for example, points to a cross-over phenomena in their tested psychoeducational abilities at a time when Indian youth respond to value conflicts by disengaging from school (see Beiser in this volume for a detailed discussion). From a mental health perspective this institutional experience adversely affects individual fulfillment. It is mirrored in adulthood and reflected through unemployment in economic institutions as well as powerlessness in the general political system.

So the variety of cultures, the synergistic relationship between the individual and society, community aspirations which are based on historical experiences and the power of normative institutions must all be considered in arriving at a view of community mental health that can serve as an appropriate reference point for designing primary prevention services to Indian communities. To unite these themes, one might say that community mental health means fostering self-reliance within a context of transactions which are mutually beneficial to both the individual and the community, enhancing the potential for self-fulfillment and ensuring quality of life by organizing a supportive and responsive set of institutional arrangements that reaffirm the integrity of traditions and cultures.

Value conflicts across different normative structures suggest that we need to begin to account for micro- as well as macro-level dynamics in mental health. Norton (1978) offered a dual perspective to examine the different influences which social systems may have in mental health. One perspective is concerned with the nurturing system: family and immediate community. This system meets the expressive needs of individuals though a supportive group climate. It is the system from which an individual derives a basic sense of identity, a sense of selfhood, and a sense of unique relational bonding patterns. The other perspective is concerned with the sustaining system: institutions from the larger society, such as educational systems, economic sectors, and political arenas. This system meets the instrumental needs of individuals through task-oriented environments from which goods and services are secured. It is the system within which basic needs are satisfied and through which resources contributing to the quality of life are generated.

Primary Prevention

Primary prevention, in turn, as a conceptual tool facilitates the rethinking of mental health in terms of community context. Its strategy includes "eliminating agents, strengthening the host, and improving the environment" (Kahn, 1973, p. 139). Primary prevention departs from traditional models of secondary and tertiary prevention which single out clients from the population, i.e., individuals in psychiatric crisis, by anticipating the institutional arrangements that are required to avert crisis at the community level.

The information base for primary prevention, therefore, must be designed to construct a community "diagnosis." The traditional form of mental health research and planning, which draws upon biogenetic and psychogenetic factors, is severely limited in this endeavor. The public health model of epidemiology, however, offers a potential for understanding socio-cultural ecology; epidemiology attempts to study patterns of disturbances and their distribution within a given population (Gruenberg, 1959).

Epidemiology has obvious limits in its application to mental health. It is generally guided by medical assumptions. It is a science that has proven to be basically successful with concerns of pathological contagion, i.e., isolating patterns in the occurrence of disease. Primary prevention in community mental health, however, is not limited to examining the pathology within communities but must also address the basic needs of social institutions, since they are vital to individual mental health. Epidemiology must therefore be modified to address a critical question in community mental health: What is the minimum level of institutional resources below which no community may be expected to survive?

The question of institutional resources represents a serious challenge to a profession concerned with human development. It requires a shift in focus from a political and economic ethos in which the dysfunctional states of selected populations are simply assumed to be a normal part of society, e.g., poverty, relative deprivation, and "modest" levels of unemployment (Kahn, 1973). This shift mandates that "communities have to learn what they produce in the way of mental health problems and waste of human opportunities, and with such knowledge they will rise from mere charity and mere mending, or hasty propaganda, to well balanced early care, prevention, and general gain of health" (Bloom, 1971, p. 1).

Stating the limits of epidemiology is not to imply that it is not useful, but rather to point out the challenge that primary prevention still poses for epidemiology. The community architect will depend upon the expanded data base that epidemiology offers for interpretations of human behavior in the social environment. With regard to American Indians, this requires recognition and support of

cultural differences. This involves not simply a clinical strategy to enhance social competencies, but also a political strategy to influence social policy surrounding institutional resources basic to the quality of life.

A MODEL FOR REVIEWING CULTURAL NETWORKS

A cultural network review is a systematic way of organizing information which yields a comprehensive framework from which to develop an index of quality of life. The model consists of seven components: life situations, family lifestyle, cultural cohesion, geographic and population characteristics, mediating structures, institutional arrangements, and coping outcomes. With the exception of life situations and coping outcomes, these components are closely related to specific goals of primary prevention.

Figure 1 represents a schema for network review. Following the dual perspective proposed by Norton (1978), the components of family lifestyle, cultural cohesion, and geographic and population characteristics constitute the nuturing system. Mediating structures and institutional arrangements constitute the sustaining system.

The term "life situation" avoids clinical terms, and draws attention to the importance of social factors in diagnosis and prevention. With regard to this component, the reviewer must be guided by an impartial, non-judgmental process of observing a group's lifespace.

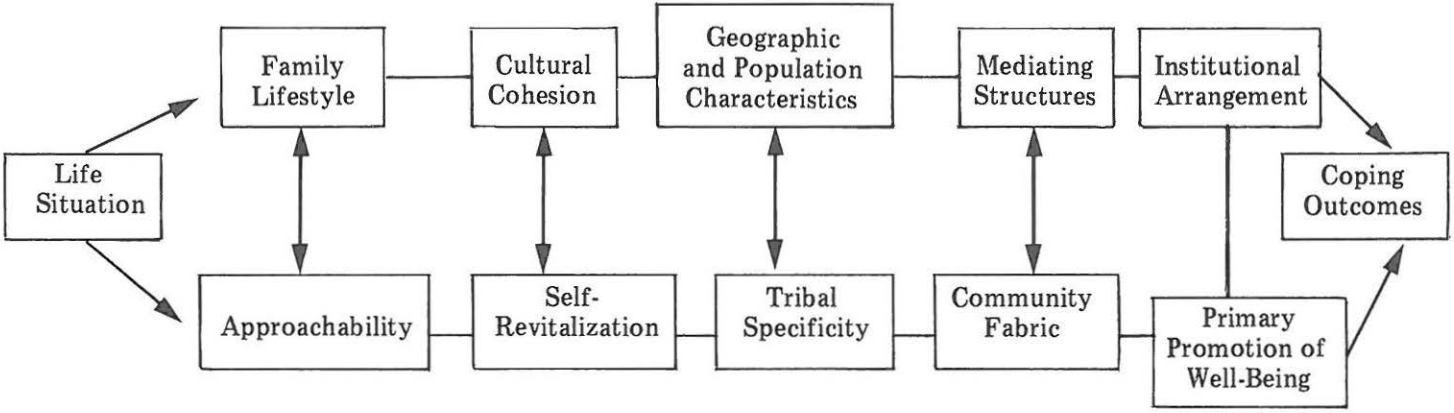
The "family lifestyle" component provides information about family structure, family behavior, and role models. Following recent passage of the Indian Child Welfare Act, many tribes have defined family structure as including an extended kin system organized around blood and spiritual relationships, e.g., family households, family extended through second cousins, and clan membership. This structure has also been articulated at numerous colloquia on Indian affairs (American Academy of Child Psychiatry, 1979; National Indian Council on Aging, 1981a).

The structure of the Indian family is often difficult to characterize since significant change has occurred in recent years. It can be readily observed, however, in small villages, camps, and selected rural areas (Red Horse et al., 1981a). Family structure has an impact upon parenting behavior (Miller, 1975), life script roles (Red Horse, 1980), and relational behavior (National Indian Council on Aging, 1981b). In health behavior, it influences the "level of perceived need, awareness of available service, and actual use of services" (Manson, in press).

The role of primary prevention should be to enhance family strengths by identifying extended kin support systems, natural leadership, and traditional helpers. The objective is to reaffirm linkages among family members by encouraging approachability.

Figure 1

Major Components and Principles of Network Review



Cultural cohesion provides information about maintenance of norms and value orientations. Several indicators may be identified: social behavior, personality patterns, language, religion, and traditional customs. Social behavior is prompted by a sense of belonging, of being Indian. Indians consciously identify with kin, reservation, and tribe. Primary social contact in daily activities, moreover, is generally with other Indians.

The study of pattern maintenance has suggested that core personality among Indians remains similar irrespective of transitions from traditional communities to city life (Hallowell, 1967) and that value orientations remain significantly different from white middle-class populations (Krush, Bjork, Sidell, & Nelle, 1969). Moreover, religious values have been found to be a significant factor in seeking and receiving help (Kniep-Hardy & Burkhardt, 1977).

The significance of language is quite complex to appraise. As noted earlier, at least 149 distinct languages exist and are generally spoken on a daily basis, especially among elders. Among elders, approximately 36% are proficient in their native tongues (American Indian Nurses Association, 1978). Language is an important vehicle for cultural cohesion, especially in regard to spiritual unity, ritual ceremonies, and traditional healing practices.

The role of primary prevention regarding cultural cohesion should be to acknowledge, sanction, and reaffirm important cultural factors in a manner that respects one's right to his or her heritage. A fundamental aspect of cultural cohesion, therefore, is self-revitalization.

Geographic and population characteristics provide information with regard to environmental and tribal circumstances. Geographic circumstance includes tribal mix and proximity. Three major trends can be identified: (1) diverse environments which include several different tribal groups in close proximity; (2) homogenous environments which include similar tribal groups in close proximity, and (3) isolated environments which include tribal groups in remote areas (Native American Consultant, Inc., 1978). This typology appears adaptable to any residential pattern, i.e., urban, rural non-reservation, and reservation. These are important factors in primary prevention because they draw attention to capacities and opportunities open to different tribes based upon population size, political influence, economic resources and potential for coalition building. The fundamental concern in examining geographic and population characteristics is to determine specificity of tribal custom.

Mediating structures provide information regarding supportive services available to tribal communities. While serving as part of a sustaining system, they are often Indian-controlled programs that impact quality of life, e.g., tribal court systems, residential services, day-care or Headstart programs, health and social services, educational programs, and recreational services. Mediating structures represent buffer zones between institutional arrangements and populations at risk which may be alienated from mainstream services.

They stand uniquely in two worlds, receiving funds and guidelines for compliance from American political institutions while at the same time serving as advocates for tribal groups. Mediating structures are concerned fundamentally with community fabric, especially the strengths derived from a network of support agencies.

The examination of institutional arrangements provides information concerning the responsiveness of mainstream political and economic institutions to tribal groups. The former are macro-systems that may be influenced by tribes, but are not controlled by tribes, e.g., Congress, the Department of Interior, the Department of Health and Human Services, the Department of Education, and the private sector. Functionally, institutional arrangements are integral to the promotion of quality of life because they allocate resources, the fundamental objective of which is to promote well-being.

Coping outcomes provide information about change or improvement in life situations. They may reflect, but are not limited to individual responses. With respect to primary prevention, the study of coping outcomes represents an appraisal of the range of effective service alternatives available through allocation and planning by the human services. Continuity and coordination appear critical in this effort. Coping outcomes are the products of comprehensive resources tempered by cultural and environmental awareness.

The foregoing discussion of the cultural network review model introduces a structured means by which to appraise life circumstances among American Indian populations. It treats family kin systems, cultural cohesion, and tribal circumstance as critical factors in the delivery of primary prevention, and seeks to integrate them within preventive thought as well as action. It considers the responses by institutional arrangements to the needs of Indian communities. Finally, this cultural network review model provides for an orderly tracking of events so that preventive interventions may be properly targeted.

A FAMILY MENTAL HEALTH PROGRAM: AN APPLICATION OF THE NETWORK REVIEW MODEL

This case study looks at a family mental health program that included community planning and coordination, counseling, and cultural advocacy. The program emerged as a response to a disproportionate number of American Indian families being fractured through child protective services, e.g., termination of parental rights, adoption, foster placement, and group home placement.

Program strategies were adopted and validated through community input and participation. Indian community representatives, both lay and professional, essentially drew a picture of the com-

munity fabric, describing strengths and constraints. The extended kin system was identified as a natural and extensive resource for child placement. Community opinion held that the use of kin systems offered several positive features with regard to mental health. It would reaffirm the structural integrity of families; it would reduce the psychological trauma of placement; it would provide cultural continuity for children in placement.

The community did not ignore families at risk, i.e., dysfunctional families in need of supportive intervention through community services. A child placement strategy was developed and organized around a network of Indian foster homes and Indian group homes. This strategy mirrored community aspirations that stressed community self-help models as a primary emphasis in mental health.

The program was located in a densely populated urban housing project. Program operations were guided by community needs. A pre-school service was launched during mornings. Services to teenagers were offered in the afternoons and evenings. Routine counseling and emergency care were provided at all hours. Services and administration were intermittently evaluated to ensure an appropriate fit between the program and the community. Cultural network review proceded along the lines previously discussed.

Family Lifestyles

Family lifestyles lent credibility to the strategies derived from community review. The community included many families that had retained an extended family. Family social activities and emotional bonding between family members, moreover, were not limited to the urban area; those living in the city were in frequent contact with extended kin on the reservation. The extended family was beneficial in several cases in which children were to be placed for long-term care since the children already were close to an extensive network of aunts, uncles, and cousins.

Indian family types could be broadly classified as traditional and bi-cultural. This distinction in traditionality did not appear to influence different styles of mental health behavior. We found that both types preferred that Indians care for Indian children, confirming the findings of a survey of health behavior conducted within the Minneapolis Indian community (De Geyndt, 1973). Both types also relied upon family as a problem-solving network, even in cases in which the family system appeared fractured and dysfunctional.

The presence of traditional, bi-cultural, and fractured families influenced the clinical methods used in the mental health program. Bi-cultural families were generally amenable to insight therapy and were verbal with professional counselors. Traditional families, however, preferred to be served by a medicine man. The program adapted

to this preference by hiring three traditional elders to provide early assessment of family stress and to make referrals to medicine people in the northern part of the state.

Fractured family systems often appeared devoid of natural leadership. This proved deceptive, however, because the potential for leadership was always present. Since such families could not be employed as a support network, the therapists sought to encourage its natural leadership by, for example, introducing rituals as a means of bringing the family together, strengthening the family's emotional ties, and identifying the roles and obligations characteristic of strong families.

Strong family systems were never tampered with by the mental health program, but served as examples of successful coping and stress management through self-initiated family network reliance.

Cultural Cohesion

Culture was a strong organizing force in the community. The traditional families and especially elders in the community were proficient in the native language and active in traditional rituals, ceremonies, and healing practices. The mental health program hired three traditional elders to serve this constituency. Diagnostic instruments and evaluation procedures were also revised to coincide with traditional health belief systems. Religion and clan membership, therefore, were blended with the clinical aspects of the program.

Pow-wows, i.e., inter-tribal dances, were popular among both traditional and bi-cultural families. This activity served an important function in community communication since pow-wows represented a time and an event at which to share information. The mental health program used pow-wows for the additional purpose of community organization critical to primary prevention, i.e., fund raising and lobbying efforts concerning health legislation.

Pow-wows also reinforced family structure and the normal roles that age cohorts assume during celebration events. The pow-wow is not a dance exclusively for youth or adults, but for family systems. In this environment, children are able to observe elders being honored, to watch expert fancy dancing, and to hear venerated singers. The role modeling that took place, therefore, revitalized the community and lent respect to cultural behavior.

The mental health program staff used the pow-wow as a means to immerse themselves into the community fabric. They became visible and were trusted by families. More importantly, they became nonthreatening professional resources and were thereby able to gain early access in times of family crisis. The pow-wow essentially served as an early warning system with respect to community mental health.

Geographic and Population Characteristics

The Indian community included about 15,000 residents with approximately 3,000 children enrolled in public schools. The majority of these people lived within a 3 mile radius of the housing projects in which the mental health program was located.

The housing project changed dramatically shortly after the mental health program was launched. The vacancy factor initially exceeded 50%; the residents included approximately 50 children. A change in management gave control to Indians, however, and within a 3-month period the vacancy rate was reduced to zero with the population numbering over 350 youths. This rapid growth introduced dramatic shifts regarding the basic support needs of families and forced the program to secure larger quarters. It also introduced overwhelming counseling caseloads. Thus, while the broader Indian community was never denied service, the housing projects clearly served as a focal point for counseling, cultural, and community activities.

The program's staffing pattern mirrored the characteristics of the community residents. Each major tribe was represented, with three tribal groups dominant: Chippewa, Sioux, and Winnebago. While relationships among these tribal groups were generally good, each responded better to intervention and planning efforts when such activities were conducted by tribal members. This matching obviously reduced language and communication problems. In many instances staff members were related to the families with whom they were working. This proved to be an asset, replicating the natural problem-solving network by having a family member take the lead. In this sense, the network became institutionalized as a normative structure in mental health care.

Each tribal group was within reasonable driving distance of their respective home reservations. Migration patterns were consequently pronounced. Many Chippewas routinely left the community during the harvest of wild rice. Other significant family events influenced community behavior and, hence, the organization of services provided by the mental health program, i.e., important feast days, naming ceremonies, and deaths. This behavior also introduced a political role for staff who were required to inform formal institutions that migration patterns were not necessarily impediments to building strong and responsible families, but were indeed a significant feature of strength by retaining the bonds of extended kin systems.

Mediating Structures

Mediating structures were represented by several specialized Indian-controlled programs and evolved as a comprehensive parallel service system exclusively for Indian clients. These structures in-

cluded alternative schools, recreation programs, health and social services, psychological evaluation clinics, legal services, alcohol programs, group homes, halfway houses, and an all-purpose regional Indian center. These programs had not been systematically organized or coordinated since each had distinctive historical roots and political alliances. The mental health program, therefore, was required to gain credibility as a disinterested coordinator of community services. Coordination was crucial because though the mediating structures were broad in scope, they were not uniform in capacity.

These mediating structures fit neatly with the cultural fabric of the community and were well received. They were designed to serve a limited number of clients irrespective of fiscal resources. This undoubtedly may have appeared as a confusing maze to professionals from outside of the community; however, the community preferred it this way. Many programs were organized as fictive family units. Size was an important variable because positive and negative sanction was employed as a clinical procedure. Since external validation of appropriate behavior was consonant with the cultural fabric, these sanction techniques were generally effective.

Services in most mediating structures were also age-integrated. This had a profound impact on the community. In alcohol services, for example, treatment became a family and kin system matter, not solely an individual-oriented service. Thus family and community became a support network for alcoholic patients and in most phases were involved in treatment and social activities.

The mental health program did not invade the boundaries of these mediating structures. It served as a consultation resource by conducting several training sessions and technical assistance. Staff were generally members of other boards and served as community coordinators. Coordination focused on two aspects: to identify gaps and reduce overlap in services, and to coordinate cultural events. The approach defused a great deal of political animosity among the various service groups. A major dance represented the culmination of three years of work. It was a Mother's Day pow-wow in honor of the grandmothers of the community. Every Indian-controlled services program (mediating structure) in the community participated as a co-sponsor, and over 1600 Indians attended this event. It was a rewarding example of solidarity through cultural renewal in mental health.

Institutional Arrangement

The response of professionals in mainstream institutions was mixed. Some felt threatened by the political nature of this effort and feared loss of their authority in mental health matters. Others were quite cooperative. Major successes occurred at the legislative level and in the schools. For example, the legislature responded to

the migration patterns of the community by passing a migrant health care bill for Indians. The schools also responded to migration by adapting to Indian schedules in regard to the rice harvest and attendant rituals.

Employment and income levels did not increase. However, the community survived admirably. It consolidated awareness of mental health issues and organized child care and concern.

SUMMARY

This chapter has discussed primary prevention in community mental health among American Indians. Three topics were addressed. Community mental health and primary prevention were explored in terms of the appropriateness of definitions and strategies with particular reference to American Indians. A network review model was introduced as a guide for appraising community and cultural data in primary prevention. Finally, a case study was presented to illustrate the distinctive features of network review and to demonstrate the value of its application in the provision of preventive services.

NOTES

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DISCUSSION

Jerry Mohatt: John's paper is a good point of departure for our discussion, because it provides a continuity between what we were talking about yesterday and logically leads into the area of service. His paper introduces fairly clearly several different aspects of intervention or service in terms of "positive goal." We have been talking about it as human competence. John introduces the often used term of "mental health," speaking alternatively about "quality of life," "community," and "maximizing human potential." It's critical when we discuss either services, research, or training to be able to clarify what constitutes this positive goal. Too often we assume that we all speak the same language when we use these terms. These kinds of words or concepts guide our interventions; we have to be very clear about the positive goal towards which we're moving. . .

In assessing or evaluating individual change we need to look at the social ramifications of such change. John specifically notes that anytime we consider an individual, we have to examine what he or she changes, how the social network in which they are embedded may be affected.

I think that it is important to address not only how to define the goal of intervention, but to also give more thought to the point at which to intervene. Where is it? Where do we begin? John talks about it necessarily needing to be preventive in nature, yet specific. That's a dilemma.

He stresses something that Bernard talked about earlier: the need for information. Information itself is an important vehicle, enabling people to acquire power and to affect change.

The last point of importance is that his model provides a rather neat way to assess culture-specific forms of a community and the context within which it resides. One can then assess where to intervene.

Norm Dinges: Environmental issues are greatly underestimated in prevention. Many Indian children go to boarding schools. It's frequently their first contact with various bathroom appliances, toilets in particular. Toilets are one of the most fearsome things to a Navajo child. He's never seen one before. It's seen as something that sucks you down and that can kill you. It opens opportunities for stress inoculation by explaining what the toilet is, by using miniature models to demonstrate its functions and how it's to be used. Sort of detoxify it in terms of it's violent perception.

There's another example I'd like to offer. We often talk about economic impacts and their relationship to mental health in Indian communities. In the Northwest there was an attempt to systematically introduce activities to cultural centers. One of the goals was to bring craftsmen together to serve as role models, and to also create something in the way of an economic return for their work. It was discovered in the process that not only were there not as many craftsmen as everybody had thought, but the ways in which craftsmen operated were not that well understood by any of us. The plan was to bring them together in a central facility where they would work together, be seen, and share their crafts. It turns out that the nature of the craftsmen is that of isolated performers. They don't like to work around other craftsmen necessarily. They may display their goods cooperatively, but to bring them together does not work. You can bring one craftsman in at a time and have him or her work, but when you bring 3 or 4 at a time it doesn't work. It seems to me these two examples represent the importance of examining the contexts in which activities occur—one of this paper's major points.

PROJECT NAK-NU-WE-SHA: A PREVENTIVE INTERVENTION IN CHILD ABUSE AND NEGLECT AMONG A PACIFIC NORTHWEST INDIAN COMMUNITY

This report describes the design and implemention of an innovative child abuse/neglect demonstration project on an Indian Reservation. The project was funded in July of 1975 under a three year grant from the National Center on Child Abuse and Neglect. The grant award was for $175,000 for each of the three years.

The Yakima Indian Reservation is an area of approximately 1.5 million acres, with a native population of 8,000 to 10,000 persons. The reservation is located in the south central part of the State of Washington.

The special problems associated with child abuse/neglect on the reservation, stemming from jurisdictional-related issues, derived primarily from Yakima Indian Nation sovereignty established by treaty in 1855. This sovereign status was fragmented by Washington State assumption of jurisdiction over the Yakimas under authority of P.L. 83-280 and the Washington State jurisdictional statute (RCS 37.12). The Yakima Nation, having brought suit to declare both authorities ineffective on the reservation was, in 1975, arguing in a law suit whether partial jurisdiction authorized under RCS 37.12 is provided for in P.L. 83-280. Partial jurisdiction included eight categories. With respect to child welfare issues this included matters related to juvenile delinquencies, adoption proceedings, Child Protective Services, and dependent children. Thus the extent to which child welfare authorities at the county/state level had jurisdiction over Indian children was at that time highly contested.

With these legal issues as a backdrop, Project Nak-nu-we-sha worked through diverse jurisdictional-related problems with a variety of mandated authorities to develop a culturally relevant and service-effective model for the provision of child abuse/neglect related activities. An abridged version of an evaluation written at the close of the three year project follows.

AN OVERVIEW OF THE PROBLEM

As documented below, prior to the existence of Project Nak-nu-we-sha, a large number of Indian children were removed from Indian

families and placed in adoption or long term foster care.[1]. In addition, the Indian families coming to the attention of child protective services had multiple problems requiring intense work to reverse. Staff found that existing child welfare related programs on the reservation had neither the expertise nor the manpower to handle the Indian child abuse/neglect problem sufficiently.

The environment in which the project initiated services was marked by the following:

1. Indian families (with 2-3 children) had heavy needs for social and mental health services to assist them in dealing with multiple problems.
2. A drastic gap existed between the needs of these families and available services from non-Indian agencies as well as Indian programs.
3. There were frequent periods when Indian families were unable to maintain consistent and nurturing care of their children due to some form of environmental stress.
4. A core group of Indian families consistently existed at or below the poverty level with severe needs for social and mental health service and child welfare assistance.
5. There was an extreme need for development of placement opportunities for children of families in crisis.
6. There was a moderately strong prejudice against Indian families in the social service, educational, law-enforcement and legal systems in the area.
7. There was an over-emphasis on the assurance of an Indian child's welfare by removal of the child from a home environment without sufficient family work to determine if this action was warranted.
8. There was a lack of understanding by Child Protective Service workers in the community with respect to the 'how' of helping Indian families deal with their child welfare related problems.
9. There was a lack of manpower of CPS to adequately meet the area's demands.
10. There was great mistrust by the Indian population of service workers entering into a family situation requiring child protective care due to past experience with the non-Indian Child Protective Service agency.

THE EMERGING SERVICE DELIVERY SYSTEM

Principles of Operation

The design of the program was founded on several basic princi-

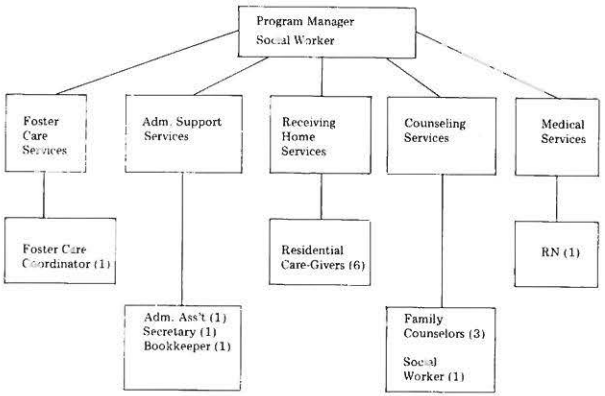
ples which were maintained throughout the life of the project. They were the following:

1. Child abuse and neglect services could best be provided using Indian workers knowledgeable of the people, cultural beliefs and customs, and capable of reaching out regularly to families in trouble.
2. The greater the capacity to recruit and control placement resources of Indian children in an Indian-run program, the greater the trust of the Indian family in developing productive working relationships with agency staff.
3. In the majority of instances, Indian families could care for their children with basic support at critical periods during the life cycle of the family unit from outside resources or extended family.
4. In a large majority of child abuse/neglect problems, the significant dynamic leading to the abuse/neglect condition could be traced back to some external event, often chronic, inhibiting the family capacity to provide and care for the child rather than an internal dynamic based upon previous parental experience.
5. Indian families responded to consistent and helpful assistance marked by strong outreach efforts, a capacity of the program to meet crisis needs immediately, culturally relevant counseling, and the authority to assume responsibility for children for varying periods of time as necessary.

Project Design

Figure 1 outlines the service components of Project Nak-nu-we-sha which was found to be a successful model in working with child abuse/neglect situations with Indian clients. Each of the program components provided a critical element toward the successful capacity of the project to assist Indian families with child abuse/neglect problems.

Figure 1
Administrative Organization of Project Staff



Project Objectives

The following discussion lists project objectives and the extent to which these objectives were achieved during the three year project period. They remained unchanged throughout the project and served the staff well as guiding principles which assisted in the development of project services.

Objective No. 1: To end the removal of children from the nurturing milieu of their kinship system when they become victims of abuse or neglect. This objective was achieved to a remarkable degree. Prior to the project's existence the removal of Indian children from Indian homes was extensive. Reports show that before the project's existence in 1974, 81 Indian children were in foster care in Yakima County. Of these 81 children, 26 were recommended by service plan for adoption and 30 were recommended for long-term foster care. From 1970-1972, local Washington State Social & Health Services staff placed 34 Indian children in non-Indian adoptive homes off of the Yakima Reservation.[2] Project Nak-nu-we-sha had assumed 45% of all Indian child welfare related cases on the Reservation by February, 1978 which totaled services to 59 Indian children. No adoptions were made by the project during the entire project period and the number of long term foster care cases on the Yakima Reservation was decreased 62%, from 81 children in foster care to 50 by February, 1978. Through careful case monitoring of all area wide Indian child welfare cases at the state level at weekly local staffings, project staff, with community support, were able to completely halt adoption proceedings of any Indian children from the Reservation. To achieve this, staff utilized specialized legal and expert witnesses in legal proceedings advocating for the Indian parent in conjunction with intensive casework and advocacy services for Indian families with respect to social systems providing for basic life needs.

All but four of the project's 23 foster homes were Indian and based within the local community. Foster placements with extended family or close family friends were arranged in as many cases as was possible.

Achievement of this first objective was the key to assuring that Indian children were not removed from their culture and their natural heritage. In the process of ensuring that this objective was maintained, a great many problems surrounding how legal and social systems impacted on Indian families were revealed, indicating in the opinion of staff, a consistently high level of bias and prejudice toward Indian families and their life styles.

Objective No. 2: To focus on the family unit when intervention is necessary to enhance their ability to function more effectively and thereby prevent child abuse and neglect from occurring. This second

objective was an operating policy of the project in terms of how it could best deal with a child abuse and neglect problem.

The family unit was the principal unit of concentration for delivery of services when child abuse or neglect became a problem or when the Indian child was 'at risk'. There was a heavy emphasis on the use of extended family, both in terms of assisting troubled parents with alternative child care resources as well as emotional, financial, and other related supportive resources surrounding basic life needs. In some instances, conferences with extended family were used as a means of assisting troubled Indian parents to find productive solutions to their problems.

The project focus on the family unit ensured that solutions to a family problem did not overly emphasize the Indian child in ensuring his/her welfare and/or safety to the detriment of the remaining family system. Previous work in the community by State mandated child abuse and neglect resources often found individual solutions for Indian children, frequently leading to adoptions or long-term foster care to ensure the Indian child's welfare.

The effects of deprivation on an Indian child, its natural parents, the nuclear family, and the extended family network have been noted by staff to be catastrophic in many instances. Such deprivations have often precipitated severe episodic drinking on the part of the natural parents. Also, mental health related problems such as severe depression, suicidal ideation and behavior, lowered self esteem, and an individual and family sense of failure with consequent disorganization and fragmentation have been observed by staff in families where deprivations have occurred.

Even temporary removal of an Indian child to assure his/her safety often has not been understood by Indian families who lack the cultural precedent or mechanisms for dealing with such proceedings.

Staff have observed that even preliminary proceedings surrounding fact-finding to determine the existence of a possible child abuse/neglect situation have had major effects on individual and families involved in the evaluation process. Such proceedings often have been misinterpreted by Indian parents and extended family as being legal actions taken by the court to remove the child forever from his/her home.

State mandated services, in the past, have not been effective in explaining such proceedings to Indian families in a way that can place the child welfare actions in proper perspective. Historical experience with the State system has convinced the Indian community that families with problems leading to the removal of a child will be a permanent arrangement once State action has been initiated.

The Indian family unit has been found by staff in all but the most severe and rare cases to be a resilient unit with a strong capability to rebound and assume responsibility for their children once a crisis has passed. "Crisis" has in a majority of cases often been manifested in four major problem areas:

1. Domestic/family quarrels resulting in temporary fragmentation of the family unit;
2. Lack of sufficient resources to meet basic life needs precipitating dysfunctional behavior in part or all of the family;
3. Excessive alcohol consumption, often episodic, leading to temporary fragmentation of the family unit;
4. Inappropriate or prejudicial actions on the part of legal, educational, or social systems with respect to one or more family members leading to dysfunctional behavior patterns.

Staff has found that by using available resources within the community, combined with intense outreach and counseling work and a sufficient control of first line treatment resources utilized when a child is removed from a family temporarily, many families have been able to function more effectively and maintain their children in an environment conducive to the child's health and welfare.

Statistics on the capacity of the family to assume responsibility for their children after initial referral, as assessed by staff, are the following:

Table 1

Percentage of Families Assuming Responsibility for Indian Children on the Yakima Reservation During Project Period, 1975 — 1978.

Family unit assumed child care responsibility/no additional assistance from project staff	131	37%
Family unit assumed child care responsibility/continuous assistance from project staff	173	48%
Family unit unable to assume responsibility temporarily, child placed outside family network	34	10%
Family unit unable to assume responsibility, child placed outside family network permanently	16	5%

N = 354

Objective No. 3: To provide temporary shelter and protective care to children when separation from parents is necessary. This objective was achieved to a large extent through the use of a receiving home program for Indian children for whom it was necessary to provide protective care due to a crisis situation in the family or due to legally mandated action in which child/abuse child/neglect was a potential or actual problem.

The necessity for controlling resources related to placement of Indian children when separation from the family network was necessary was found to be a critical factor in maintaining an ongoing and productive counseling relationship with the family system. Not only did the receiving home resource increase the level of Indian trust with respect to separations from their children, it further served as a legal means allowing courts and other child protective service resources to make placements when necessary. Staff found that the Indian-run receiving home acted as a buffer zone between the Indian world and family fears with respect to the legal system, and the legal requirements of the mainstream child protective services system.

In this sense, the receiving home served as an interpreter to both the Indian and non-Indian worlds, satisfying the needs of both realities in a way that optimally preserved the Indian family unit. Because the program was a legally based program, licensed as a child placing agency with authority to recruit and license foster homes, the legal system was able to make referrals to the program satisfying court requirements for placement and all interim placement actions mandated by the court during the legal process surrounding a child abuse/neglect complaint. With increased trust that an Indian-run child welfare system would provide services conducive to family functioning and that the welfare of their children would be assisted within an appropriate cultural context, there was an increase in the number of cases voluntarily referred by the family, friends, and neighbors who recognized help was required.

The following table shows a breakdown of voluntary referrals for services from family, friends, neighbors versus referrals which were legally mandated through the court or state child protective services. We interpret the large number of referrals from the private sector to mean that the project staff were able to instill confidence within the Indian community that allowed friends, extended family, and neighbors to make referrals with assurances that any child abuse/neglect related problems would be handled in a way that was productive to child and family alike. This greater sense of trust allowed Indian families having problems to turn for help without the fear of losing their child through the court system.

Table 2

Year	Legally mandated referrals	Voluntary referrals
September 1975- December 1975	11	17
January 1976- December 1976	28	42
January 1977- December 1977	69	103
January 1978- June 1978	33	50
Total	141	212

The receiving home was the primary shelter utilized by project staff to provide protective services and care for Indian children when necessary. The following figures indicate the extent to which the receiving home was utilized by the community in providing shelter care.

Table 3

Year	Number of children/ duplicated count
September 1975 - December 1975	22
January 1976 - December 1976	75
January 1977 - December 1977	81
January 1978 - June 1978	30
Total	208

As can be seen by the above figures, the receiving home averaged approximately five (5) child care days for each day the project remained open from September, 1975 to June, 1978. Total days the shelter care program was available for service amounted to approximately 1030 days.

A secondary resource that was utilized as a temporary shelter for Indian children when intermediate child protective care was required was the Indian foster home. These foster homes, licensed by project staff under authority granted by the state child welfare system, were used most often when family networks required more intense and longer term care in order to ensure that treatment efforts provided by staff were provided to the extent necessary to ensure the family capacity to again care for their children. Such efforts involved parental use of alcohol programs on occasion to reverse chronic patterns of alcohol abuse leading to a marginal capacity on

the part of parents to provide for the child. With assurances that their children were being cared for by Indian people within their community, and additionally monitored by an Indian worker to ensure that the legal process would not allow deprivation proceedings to occur during the treatment process, many Indian parents with severe alcohol-related problems were able to accept a program benefiting them. The Indian foster homes functioned in much the same way as the receiving home with the exception that the foster homes were not as neutral a site for placement as the home owing to the foster parents' association within the community. In many instances, foster homes of extended family to the child were developed when allowed under state licensing requirements in Washington. Such foster homes proved invaluable to situations in which the family required greater time periods before a long term placement was indicated.

Tables 4 and 5 reflect the profile of the number of children moving through the foster care program developed by project staff.

Table 4

Number of Foster Care Days and Number of Children

Year	Total days of care by year	Total number of children in foster care
September 1975 - December 1975	180	2
January 1976 - December 1976	4,320	12
January 1977 - December 1977	7,560	21
January 1978 - June 1978	3,780	21
	Total	56

Table 5

Foster Care Dispositions

1. Number of children returned to families as of June 1978 when a family member/extended family was available = 39
2. Number of children not returned to family when a family member/extended family was available = 8
3. Number of children remaining in foster homes/no family available due to illness, death or institutionalization = 9

The foster care program was integral to the success of productive work with parents and children. The focus of the program, however, was treatment-oriented and utilized to benefit the entire family system.

Objective No. 4: To provide a co-ordinating service to families in need of multiple service from community resources. The needs of Indian families referred to the agency were in many instances extensive, requiring multiple services from community resources. Nak-nu-we-sha, of course, provided the key Indian child welfare resource in the community and staff, in addition to providing this service, were able to concentrate on assisting families to obtain resources which often were basic to their life needs including: health services, welfare services, emergency food, counseling services, legal services, housing, alcohol related services, adolescent social services, educational placements, and employment programs.

These services were often found to be available to Indian clients only after extensive advocacy efforts were made jointly by clients and worker to act on the behalf of the Indian client. Staff found it necessary to co-ordinate such services due to the lack of responsiveness on the part of social service programs to Indian client needs, as well as due to the reluctance of Indians to be assertive in obtaining crucial services.

Special relationships between some community resources and the agency developed as staff became successful in advocacy work at the worker level. In instances where major obstacles were experienced, supervisory level meetings were held between respective agencies in order to facilitate the process and to discuss operating procedures acting as obstacles to Indian clients receiving services.

Objective No. 5: To increase community awareness of child abuse and neglect; to facilitate a willingness to report the occurrence. Because of the sensitivity of child abuse and neglect as an issue in the Indian community, staff made few efforts to promote an awareness of the problem outside those key professionals who had some direct contact with Indian children 'at risk'. A substantial amount of energy was put into educating the professional community on proper lines of action to be taken with respect to referral procedures when child abuse or neglect was a problem.

Often, the work to increase community awareness of child abuse and neglect involved educating community agencies on the dynamics leading to a family situation which placed a child at risk. With increased community understanding of the problem from a perspective emphasizing environmental/social factors that precipitate child abuse/neglect problems, many community agencies were able to respond with greater empathy and understanding than when such awareness was not present.

Greater understanding often took the form of an appropriate referral to Nak-nu-we-sha rather than to the state mandated child abuse/neglect agency. The following table indicates approximate percentages of referrals from several community agencies to Nak-nu-we-sha for services:

Table 6

Approximate Percentage of Referrals to Nak-nu-we-sha by Community Agencies 1975—1978

Agency	% Referral
Indian Health Service	12%
Bureau of Indian Affairs	7%
Public School System	6%
Tribal Police/Juvenile Justice Programs	20%
County Juvenile Justice Systems (all counties)	15%
Department Social & Health Service	15%
Tribal Alcoholism Program	8%
Tribal Educational Programs	5%
Self-referrals	20%
N = 354	

We interpret the wide range of referrals to mean that Nak-nu-we-sha was successful in assisting agencies develop an increased understanding of child abuse/neglect problems to the extent that community agency staff knew when to refer and where to refer when they encountered a neglect problem with an Indian child.

Objective No. 6: To promote educational services to the community in an effort to develop positive alternatives to neglectful and assaultive behavior toward children. Because of heavy service demands, it was difficult for staff to develop educational services in the community on any planned and ongoing basis. A small brochure outlining services, a workshop display case, and a slide presentation on project services were prepared for use at various child abuse/neglect workshops statewide. However, much of the educational services provided in the community were limited to one-to-one staff contact with community agency staff and significant community members.

This educational process was not formalized and reflected an ongoing project commitment to working with those behavior patterns of agencies in the community which facilitated the occurrence of child abuse or neglect of an Indian child through delays and inaction thus increasing environmental stress on the family unit. The 'low

profile' approach proved an effective tool in successfully identifying the problem families as well as eventually developing working relationships with those agencies having major contact with these families.

SERVICE DELIVERY TO INDIAN CLIENTS

With the maturing of project services, staff found that the service delivery system was flexible and adaptive in meeting the needs of Indian clients with child abuse/neglect problems. It should be noted, however, that the project found that a substantial percentage of Indian clients served were not abusive of their children. Additionally, the number of children served that staff assessed as being treated in a neglectful way due to extraordinary inattentiveness or due to deliberate neglectful actions on the part of Indian parents was not high. A large majority of the cases that staff worked with were parents who, by virtue of environmental stress, were unable to care for their child due to lack of resources or due to life circumstances which impeded their capacity to care for the child such as illness or temporary institutionalization. Staff also saw parents who, because of heavy environmental stress, acted in a dysfunctional way, primarily through excessive alcohol consumption, thereby creating a neglectful home situation for the child. The need for a service delivery system which could provide for these case situations led to the development of the capacity of the program to provide both generalist as well as specialist skills in work with Indian clients.

Primary areas of specialization included Indian adolescent work surrounding child abuse/neglect situations, alcohol and drug counseling for adolescents and adults, and the use of Indian language and belief systems to assist in the identification and assessment of the child abuse/neglect potential through Indian paraprofessionals.

Referrals were reviewed by staff at joint meetings to determine as much useful information about the family situation and problems as possible based on worker knowledge of the community and its members. Often workers having had a past relationship with the family were assigned to a case situation. This procedure worked well due to the high degree of trust generated by workers who knew clients in other community roles. Extended family were used as extensively as possible as placements for Indian children requiring short term, intermediate, or long term placements. Such arrangements often minimized the trauma of an out-of-home placement to the child. The treatment process was often long-term, as noninterfering as possible, and marked by frequent outreach by Indian paraprofessionals who worked with clients in a counseling style consistent with Indian beliefs and cultural practices. This counseling

style often was intuitively practiced by Indian workers and refined by contemporary standards of social work practice through daily supervision and a small-scale training project which attempted to meet individual worker interests and needs with respect to their work efforts. During each stage of the treatment process, every attempt was made to maintain the possibility of returning the child to the home environment through continued, long-term work with families and periodic evaluations of the possibility of returning the child to its natural family. The utilization of authority through the legal system to take protective action in a child abuse/neglect situation was minimized in all instances where it was possible. The use of voluntary consents, minimal legal action in juvenile court, and the avoidance of adoption proceedings are examples of this stance. Cases were not terminated but merely inactivated. This was done to increase the trust of Indian families to use the resource of Nak-nu-we-sha as they found necessary. Referral procedures, once a case was initially accepted for service, remained highly flexible to ensure maximum opportunites for use.

Even when child abuse/neglect did not exist, services were made available to families to correct problem areas. Such services were seen by staff as preventive in nature to ensure that potential child abuse/neglect situations did not develop in the family. The receiving home and staff were often identified by the Indian community as an extended family system. The immediate availability of services and flexible standards for acceptance into the program aided in the community perception of the project as extended family.

KEY ISSUES

Program Co-ordination

To achieve the high degree of program success experienced by staff at Nak-nu-we-sha, widespread co-ordinating efforts were made with the legally mandated CPS at the local level. The legal basis for the project's acceptance by the CPS and court systems stemmed from the successful licensure of the project as a child placing agency under the laws of Washington State. This key element allowed for the court system to make referrals to the project when legal assumption of custody of the child was necessary. Because the project was viewed as a placement resource, probation officers in the courts utilized it and this assisted in the development of productive working relationships with project staff.

Second, the development of special working agreements between Nak-nu-we-sha and State CPS aided in the assurance that Indian resources would be utilized as the primary caregivers surrounding an Indian child welfare or child abuse/neglect situation. This increased

the working relationships between the systems and insured the involvement of Indian direction surrounding any placement requirements for an Indian child.

Third, the development of state regulations governing the requirements for CPS with respect to Indian children as well as foster care planning for Indian children provided staff with a quasi-legal status for pressing local CPS and social and health services offices to cooperate with the project.

Finally, the continued close ties with the Indian Health Service and the local tribal police department insured that the project would receive a large majority of possible Indian child abuse/neglect referrals before any other system involvement. With initial assessment, project staff often found themselves in control of the problem situation, thus circumventing any additional involvement by systems seeking to manage the case without Indian influence at the time of initial development.

JURISDICTIONAL PROBLEMS RELATED TO SERVICE DELIVERY SYSTEM

There were differing definitions of what constituted child abuse/neglect between staff at Nak-nu-we-sha and mandated authorities. Within the parameters of the law, mandated authorities tended to interpret the incidence of child abuse/neglect conservatively, without regard to Indian child-rearing patterns or family circumstances; Staff viewed the situation more liberally, had greater tolerance for marginal situations in which child abuse/neglect potential existed, and were able to interpret specific child-rearing patterns as unrelated to child abuse/neglect conditions.

Conflict over authority to make decisions in child abuse/neglect cases stemmed from the staff's increasing role in all Indian child welfare cases and the lead taken by the Indian community in finding acceptable dispositions for *out of home* Indian children. This conflict was primarily a bureaucratic conflict, but had legal overtones due to pending court action which provided for the possiblity of returning jurisdiction in all child welfare related matters to the Yakima Tribe.

Conflict surrounded the development and provision of key resources utilized in child abuse/neglect cases with state mandated authorities. Project staff had difficult times finding appropriate placements for Indian children in some instances due to a lack of resources in the community. This was especially true for Indian adolescents when minimal Indian and non-Indian resources were available.

Conflict resulted from a general lack of knowledge of cultural life styles and child-rearing patterns of Indians on the Yakima Reserva-

tion. This resulted in mandated agency actions which often were destructive to Indian family integrity due to misinterpretation of the meaning of a family action and its impact on the Indian child.

Finally, conflict arose over the length of time required to deliver services to Indian families when they were requested either by the families themselves or staff of the project. This led to a heavy advocacy effort on the part of project staff to ensure services were delivered.

Strategies for Conflict Resolution

The strategies for resolving these conflicts were many and generally divided into two categories. The first category encompassed the co-operative mode in which staff worked closely with appropriate agencies to resolve conflicts. The second category included strategies which circumvented existing systems to accomplish service goals.

Co-operative strategies. Co-operative strategies included:

1. Formal and informal contracts and agreements with target agencies;
2. Clarification of inter-agency roles surrounding areas of responsibility;
3. Cross-cultural training efforts for purposes of educating mandated child abuse/neglect authority and training staff in the helping process;
4. Development of an ally in mandated child abuse/neglect agency to assist with conflict areas;
5. Development of key resources which are utilized in child abuse/neglect service delivery systems;
6. Bringing agency peer pressure to bear on agencies or individuals in agencies to set clear expectations in the management of Indian child abuse/neglect cases;
7. Utilization of subtle political pressure on key persons within targeted agencies through Indian political influence;
8. Maintenance of a high degree of project autonomy and independence;
9. Education of Indian clients in their rights with respect to child welfare related issues;
10. Modeling of services to Indian clients for those agencies which the project hoped to change;
11. Finally, the provision of voluntary assistance in cases of mutual interest to project staff and mandated child abuse/neglect sources.

Such co-operative strategies were not always successful in resolving problems and conflicts with targeted agencies.

Strategies for circumvention. In instances when co-operative

strategies failed or were not productive, project staff adopted the following actions:

1. Development of alliances with Indian and non-Indian agencies in the community to encourage referrals to the project, thus eliminating involvement of mandated agencies in all but the most serious abuse cases.
2. Development of agency capacity to provide key emergency and intermediate care placement opportunities for Indian children, thus making it unreasonable for a mandated authority to avoid use of project services;
3. Working against mandated agency child welfare action by going to court on behalf of the Indian family and working as an advocate for the family in court. Such court action may include the use of legal counsel and expert witnesses on behalf of Indian clients;
4. Provision of feedback to juvenile court judges on the consequences to Indian families and children of court actions resulting from mandated authority recommendations in case management of Indian child abuse/neglect cases;
5. Assertive casework co-ordination in staffing of child abuse/neglect cases with mandated authority;
6. Initiation of political action to terminate key persons impeding services to Indian families, and
7. Minimizing the necessity of making a report to the mandated authority. This was done in various ways including:
   a) the involvement of many professionals in the reporting process to ensure that reports are considered by several professionals before going to the mandated authority;
   b) a strict and conservative interpretation of child abuse/neglect laws by project staff;
   c) the establishment of informal ways of handling formal reporting requirements whenever possible.

These strategies for conflict resolution worked effectively in helping project staff to develop effective working relationships with mandated child abuse/neglect agencies and courts to ensure the optimal delivery of services to Indian families.

SUMMARY

Many of the tasks and accomplishments of the project have been outlined in various sections of this report. For purposes of review and clarification, however, the staff believe the following to be the most significant accomplishments:

1. The centralization of an Indian-developed and Indian-staffed child abuse/neglect project under the auspices of the Yakima Nation

with continuing sources of revenues and trained Indian staff to carry out the difficult work of the project.
2. The development of productive working relationships with mandated CPS and legal systems having impact on the welfare of an Indian child on the Yakima Reservation.
3. The development of a service delivery system in the area of child abuse/neglect which was appropriate to Indian cultural beliefs and practices.
4. The development of formal and informal channels of communications between the key agencies involved in child abuse/neglect situations to ensure that Indian children were not removed from Indian homes and adopted out under inappropriate circumstances.
5. The successful acceptance by the Indian community of Nak-nu-we-sha as a program which could be utilized as a resource during crisis.
6. The development of a capacity to expand services into the more general social and mental health fields in order to meet Indian needs as extensively as possible within a single program.

NOTES

This article is based upon an abridged version of a final report to the National Center for Child Abuse and Neglect, entitled "Project Nak-nu-we-sha," Maxine Robbins, M.S.W., Principal Investigator, and John G. (Michael) Kelch, Deputy Director. Project Nak-nu-we-sha is no longer operating, having been terminated for lack of funds in 1981.

1. In the Yakima language, Nak-nu-we-sha means "we care."
2. The results of personal research conducted by Maxine Robbins in 1974.

DISCUSSION

Spero Manson: I have known about Project Nak-Nu-We-Sha for some time. I couldn't be more pleased to see it described in this fashion, which I think is desperately needed. It's an excellent example of impacting multiple levels, individuals, families, as well as community. The project also serves as an excellent example of primary, secondary and tertiary preventive services. Let me elaborate.

We see individuals, children, impacted in both secondary and tertiary fashions. Secondary in the sense of early identification of children at high risk of abuse or neglect and subsequent intervention. Tertiary in terms of rehabilitation and other forms of treatment specifically targeted for them in the shelter and in foster homes.

We also see a preventive effort being accomplished with the

families. There is primary prevention by educating the family as to the implications of their particular responses to a child, which, I'm sure, must have some spin-off effects with regard to other children in the family. It would be very interesting and important to determine if, over time, there were reoccurrences of child abuse or neglect within the families with which you worked. There could have been secondary and tertiary preventive effects as well. You discuss early identification of emotional and other kinds of problems that otherwise might not have been identified earlier, e.g., alcoholism, marital disruption, and so forth.

At the community level, you worked with the state system, supplementing, indeed, replacing it in this particular arena. You identified some of the problems that the system created and, in an anticipatory fashion, sought to prevent the removal of the children from the community and consequently the psychosocial problems that may follow, which are well documented in the literature.

Let me briefly review several points with respect to the paper. I'm not clear about the criteria that people used in coming to the conclusion that certain family units were able to assume child care responsibility without additional support from project staff and, on the other hand, that certain family units were unable to assume responsibility. It would be very instructive to know the criteria by which you and the staff arrived at these conclusions.

Another question is about the children. Did these services indeed promote the mental health of the children? What were the outcomes a year later for these kids? That's not clear, and comes to mind in terms of the effectiveness of the program. I realize that this speaks in part to the nature of demonstration projects, being short-lived and unable to document impact beyond the project period.

I'm extremely impressed with the diffusion of this preventive effort into the community, the impact that it had, which is reflected in the number of both legal and voluntary referrals. Diffusion of this nature is extremely important for a program such as yours, particularly in regard to a problem like child abuse. It's no secret that the occurrence of child abuse and neglect is denied and is a very, very difficult problem for any community to deal with.

Another important aspect of evaluating programs such as yours, and which you address, is the multiple agencies and the linkages that you were able to achieve, again reflected in the referral rates that you discuss. This is a very important consideration when one thinks about prevention, a level that we frequently do not talk about, but which I've heard as a consistent theme throughout our discussions.

One last point. You mentioned that in the large majority of cases

in which families were unable to care for their child, they lacked resources due to a variety of life circumstances which impeded their capacity to provide care: illness, institutionalization, etc. What kind of criteria did the staff use to anticipate families in need or children at risk within families? Did you simply see these families out in the community? Did you use other information networks available to you as a member of the community and seek to educate them about the shelter and the program?

CHILD PSYCHIATRIC CONSULTATION TO AN INDIAN TRIBAL COURT

Ben Ezra Green

In this paper I present and discuss several years' experience as a child psychiatric consultant to an Indian tribal court. With the recent passage of the Indian Child Welfare Act, my experience may have special relevance for others who will soon be in similar positions. I first discuss the Act itself, and the challenges it presents to the court and the clinician. Next I describe the setting where I consulted. Finally, I present and discuss a representative series of court-referred cases.

Every solution creates new problems. Since the first involuntary "round-ups" for boarding school a hundred years ago, off-reservation adoptions and placements of Indian children have far exceeded out-of-home placements for Whites (Byler, 1977; Beiser, 1974; Dlugokinski & Kramer, 1974). More and more Indian children grew up without knowing what it is to be Indian, and their tribes had little way to control this. Public Law 83-280, a legacy of the assimilationist 1950s, had placed many reservations under state jurisdiction for most purposes, further undermining each tribe's ability to exercise control over its members in culturally appropriate ways. The Indian Child Welfare Act (P.L. 95-608) of 1978 meant to solve these problems by placing issues of Indian children's custody under the jurisdiction of the appropriate tribal court.

The problem created is how best to do this. If state courts and social service agencies have at times ill-served the Indian child, how can the tribes make sure they do better? What equivalent but culturally appropriate institutions need to be strengthened or created to keep these children Indian while keeping them healthy? What does it mean to be Indian today? Of course it means something different for each of the many tribes whose cultures and languages may be as dissimilar as Turkish from Dutch. Even within one tribe there may be a wide range of Indianness between the most traditional and the most assimilated; each is an evolving culture.

Child psychiatric consultants who become involved in this process will be able to feel the tension between two cultures, to see the un-

mistakable importance of cultural factors in their work, and to re-examine the issues implicit in any sort of court consultation. All these observations may in turn illuminate their work with other groups. Those who feel that strong cultural roots make for healthy growth will have the pleasure of helping plant these roots for some children, and will share the pain of being helpless to do so for others.

THE CULTURAL SETTING

For the past four years I have provided general and child psychiatric consultation to a reservation which is further along in this process than many.[1] Not being subject to P.L.-280, the reservation has for many years had a functioning tribal court with jurisdiction over all civil matters and over all but the most serious crimes.[2] It has a strong economic base, providing jobs for many tribal members, and distributing annual revenues to all. Health and social services have lagged behind economic development, but are progressing rapidly. Some years ago, for instance, the reservation established its own group home to prevent the tribe's losing teenagers in need of placement (Shore & Nicholls, 1975; see also Shore & Keepers in this volume).

With a population of 2500, the reservation is inhabited by what were historically several competing tribes, although much intermarriage has occurred. The predominant culture is Northwest Plateau, and was traditionally a nomadic, hunting-and-gathering economy. People moved over the seasons from the river where the salmon ran, to foothills and mountains where roots were dug, berries picked, and game taken, and then back again to the salmon. This way of life was drastically altered when the tribes were confined (with some residual fishing rights) to a relatively arid corner of what had been their orbit, and when much of their ancestral fishing grounds were eventually destroyed. When an economic renaissance later came, it involved fixed, non-family-oriented industries. As the people grew wealthier, the conditions for traditional extended family living grew weaker.

Traditionally the extended family lived and traveled together, with the parents doing the heaviest work and the grandparents and great-aunts and great-uncles doing much of the child care. Now the nuclear family is more likely to live on its own, and the grandparental generation is likely to be employed outside the home.

Traditional child-rearing included the cradleboard, an indulged infancy and toddlerhood, and the early assumption of responsibility on the part of the 7 or 8 year old. Surrounded by the benign atmosphere of his extended family and in a safe setting, he was left early on to his own "supervision," although everyone likely knew who and roughly where he was. He grew into a non-competitive, group-

oriented adult who valued sharing rather than acquisition. Control and discipline usually occurred through shaming and an appeal to group values, quite effective in a coherent group. Government was (and still is) democratic and relatively informal.

CHILD PSYCHIATRIC CONSULTATION: CASE EXAMPLES

For the first two years of my work in this setting, I was a contract consultant to the local Indian Health Service Clinic. For the last two, I consulted weekly for the Tribal Health and Social Services Branch, under which fall most of the reservation's caregiving agencies except the clinic. These include group homes for children and adolescents, a foster home program, an outpatient program, several alcohol and drug programs, a traditional resources program, and others. Much of my consultation involved these programs and their clients. A number of cases were referred by the courts for psychiatric assessment through the tribal programs, which retained direct responsibility for the case after assessment. I have selected for presentation a typical range of court-referred cases involving children. After describing and discussing them individually, I draw together in a more general way what I have learned.

Case 1

A. was 2 years 8 months old when I first saw him along with his maternal great-aunt, who had been caring for him since his alcoholic mother left him in her care at three days of age, saying she was going to play a game of pool. The mother hadn't visited or shown any further interest until just before I saw him, when she decided she wanted him back. The great-aunt, whose own children were all teenaged or grown, was strongly attached to him and he to her and her family, in my observation. He also was plainly developing well. I recommended that the mother's rights be terminated and the great-aunt be given permanent custody.

I next saw A. at 5 years 1 month of age, when he was just beginning to recover from a brief period of severe depression (crying, weight loss, withdrawal) occasioned several weeks before by his biological mother's sudden appearance and announcement that she was going to take him from the great-aunt. After my first evaluation, he had stayed with the woman who had raised him, but the court had put off adoption, partly because the great-aunt and her husband had meanwhile separated.

When I saw him this time, I remarked upon the five-year-old's basically sound development, and his attachment to the woman who had taken care of him since birth. He was frightened, tense and sad, and refused to discuss the situation or his biological mother with me. In his well-organized play and his drawings, he showed a boy

who was all alone but who had a giant axe to defend himself and a ladder to escape with. Later, he crowded a family of farm animals together and firmly fenced out intruders.

In the fence he made, A. was trying, as I had tried, to reinforce the boundary around him and his great-aunt's family. But several difficulties arose. First the sort of permanent planning for which Goldstein, Freud and Solnit (1973) argue runs into some cultural barriers on the reservation. It has been quite traditional for the great-aunt's generation to take over childrearing, and superfluous to enforce the arrangement with an adoption decree. Everyone traditionally looked after the children, who might move with security from one hearth to another within the family. Although the family is no longer the same, the mores persist.

Another difficulty that arises here is less specific to the Indian situation. Presumably the great-aunt was to some extent being "punished" for dissolving her marriage by having the adoption held up, as if termination of the biological mother's parental rights were punishment for her drinking and neglect. The child thus became a pawn in adult dramas rather than a central character whose own interests were considered.

Case 2

I first saw B., along with her unrelated foster mother, when she was just 8. She had been in foster care (much of it with this foster mother) off and on since birth, and had spent a total of more than four years away from her biological mother. She was a clinging, almost indiscriminately affectionate child who was out to please, and who concealed her pain under a rosy rainbow. Basically well-organized, she successfully appealed to adults around her, and had made a firm bond with the foster mother. I judged that the stress of constantly undecided custody was enormous for this girl, and recommended a full evaluation, to include the biological mother, as soon as possible and before any further changes were made.

Seven months later, I was asked to see her and the biological mother by the court. Now nearly nine, she had been with this woman for the previous five months under the loose surveillance of the tribal children's placement agency. Although there were some problems at school, no gross difficulties had come to light.

The mother had grown up alone in a TB hospital from ages 2 through 12, far from any relatives. Her own mother had been alcoholic. When she returned to the reservation, she quickly exhausted several relatives' homes and was then again placed off-reservation in a state home for girls. She began using alcohol and drugs, and had in the next years a series of chaotic relationships, one of which produced B. She had most recently been in the state penitentiary for an alcohol-related offense. At 29, she was actually now functioning

better than ever before in her life, living with a man whom she had known for some years.

She was an angry, impulsive woman whose thinking was dominated by her feelings and whose capacity to empathize with her daughter was limited although not absent. She was fiercely fond of the girl and felt she needed no help from anyone with her. B. returned her affection and wanted to stay with her, although musing wistfully about the foster mother. B. again tended to minimize difficulties and exaggerate her contentment.

I recommended that a permanent plan be made for this child within the year. For the sake of continuity, I said the placement with the mother should be supported but intensively monitored. If (as I suspected would happen) this broke down soon, it should not be tried again but an alternate permanent placement made.

No very good solution leapt to the eye here. Besides the obstacles to permanent planning remarked on in Case 1, this case presented the complication of the mother who was "doing better," and who herself had clearly been victimized herself as a child. Had she not been so isolated from her own family, first for medical and later for social reasons, her capacity to parent B. might not have been so impaired. At the time she grew up, no facilities existed anywhere near the reservation that could have prevented this. For her daughter the situation was different: an adoptive or permanent foster home on the reservation would be possible. But could the court support this, and in what form?

Case 3

C. had managed to intimidate many of those around him. A husky 11-year-old, he read at a second-grade level, and daunted his teachers' efforts to teach or control him. His clothes and personal hygiene were neglected; he missed school frequently. The school had had the greatest difficulty communicating with his mother, who seemed to them uninvolved and neglectful.

At the time I was consulted, the reservation had recently been stunned by a brutal murder committed by an adolescent. C. came from a well-known multi-problem family, none of whose members were available to care for him. Many fears had crystallized around him, although in fact he had never harmed anyone.

When I was able to see his mother I learned that she was a chronically depressed woman who questioned whether she could care for C. and his two younger brothers, and who left them on their own much of the time. C.'s father had died some years previously, and his (at times abusive) stepfather had left her within the past year. She was planning a move to the city, and thought she might leave the boy behind.

C. was an attractive, athletic, intelligent 11-year-old who was quite willing to talk about what made him angry and about how sad he was. He presented himself as needy and able to appeal. I saw him as basically neurotic, and his mother's depression as a severe current stress. Besides recommendations to the school regarding their management, I also attempted to set in motion permanent planning for C.; it seemed unlikely to me that the mother would be able to make a home for him.

A year later I saw the boy again. His mother had taken him to the city but had then sent him back to the reservation when he had proved too much trouble. Now twelve, he was living in the adolescent group home, where his aggressiveness was again a problem, and I was asked how to control him. His mother wavered between wanting him back and getting rid of him. Once more I was impressed both by his depression and by his treatability. I recommended treatment for him but stressed the need for permanent planning.

Two years later he is now doing fairly well in another of the tribal programs for adolescents, where his angry outbursts have been much less prominent, and where he is no longer seen as so threatening. No long-range plans have been made for him.

The traditional extended family had failed this boy. His anger about this and the way he expressed it touched off his community's worries about control, especially given the reservation's recent experiences. What was wanted of me was advice on how to control him, rather than pious words about his needs. Traditional methods of control, based on pressure exerted by a coherent, integrated community had broken down. If I had been able to cast my recommendations about C.'s need for permanent planning more clearly and authoritatively in the language of control, they might have been better heard.

Luckily, C., with his basically good capacities, has been able to grow in the alternate settings available to him, despite the uncertainty in which he has had to live; these alternative settings have at least been culturally appropriate. In an earlier era, he would quite likely have been placed off the reservation at any of several points in his course.

Case 4

D. was first referred to me by the tribal mental health worker who was having difficulty enlisting his family's cooperation. Several months shy of his thirteenth birthday, he was a markedly depressed boy who had been physically and sexually abused by a stepfather on another reservation, and was now living with his mother and his mother's current husband. His depression seemed to stem not only from the past, but from what sounded like a currently abusive situation. I recommended strong and rapid action to investigate this further.

Nine months later, the court asked me to see him again. He had been in the tribal group home for some months after it had become plain that he was being abused in his mother's home. The mother and stepfather were alleging that he was severely mentally ill, and I was asked to comment on this. I was once again able to point out that he was indeed a very depressed youth, but understandably so and without severe underlying illness. I urged rapid resolution of custody and a permanent and safe environment for this boy, as well as treatment once his environment was secure.

Goldstein, Freud and Solnit (1979) urge that, once abused in a home, a child should never be returned to it. Would this culture and this tribal court support such a dictum? Accustomed to the transfer of primary responsibility for the child from one family member to another, the traditional culture was equally unaccustomed to the complete termination of the relationship between the child and any family member. Shore (1978) has criticized some of Goldstein, Freud and Solnit's earlier (1973) formulations as being of doubtful cultural appropriateness to the Indian situation. Their more recent formulations may also need some alteration to be expanded to this setting, as I will discuss later.

Another issue raised by this case is child abuse among Indians. This has been thought to be much rarer than child neglect because of traditional reliance on shaming rather than physical punishment. Green et al. (1981) have reviewed the scantiness of the evidence on this issue, as has Fischler (1980). In my experience, child abuse is not nearly so rare among Indians as one might believe. We may wonder if this is because traditional controls are breaking down, or because these controls never really had an "immunizing" effect.

Case 5

E. had grown up for twelve of his fourteen years off the reservation with his alcoholic, marginally employed mother and his younger brother. His parents had divorced when he was three. He had grown up in ever-increasing trouble until his defiance, stealing, school failure, running away and paint-sniffing led to state court referral. The mother then decided, with the state court's consent, to move with the children back to the reservation where she had grown up.

Here E.'s problems worsened for the following two years. He had abortive placements with a maternal aunt and a foster home on the reservation. Neither traditional healing nor casework led to any improvements, partly because of the mother's intransigent objections to both. Placement in the tribal group home broke down when E. ran away repeatedly, stole and continued to sniff paint. The court then asked my help to arrange off-reservation evaluation and treatment for this aggressive, disorganized youth.

A lengthy hospitalization in the city produced an excellent neuropsychiatric appraisal, but shed little additional light on practical issues of placement. It was nearly impossible to involve significant figures from the reservation in the hospital's work-up. E. returned to the tribal group home after hospitalization, and was then in desperation enrolled in an Indian boarding school in another state, where all his problems reappeared in several months. He is currently back in the group home awaiting an adequate placement from the state children's service agency. This is likely to take months. His disruptiveness continues.

In this case the psychiatrist was being asked for assistance with placement more than for an appraisal of what could be done on the reservation. This, like the next case, is representative of a group of teenagers whose problems are troublesome enough that the tribe has little capacity to treat them on the reservation. The tribal adolescent group home was an open-door, low surveilance setting incapable of dealing with E.'s problems. Where was he to be put?

Case 6

A somewhat retarded, promiscuous 15-year-old girl was left to her own devices by her alcoholic mother and her neglectful father. F.'s grandparents were inconsistent in their abilities to manage her, and she would end up periodically being prostituted by her "boyfriend" in a local motel.

Over the course of a year she was placed in a number of hospitals in the region in an attempt to control her and evaluate her thoroughly. Placement was finally recommended at a distant residential treatment center for retarded teenagers, but it is currently being held up in a dispute over responsibility for payment among the Bureau of Indian Affairs, the Indian Health Service, the tribe, and the local school district.

Again my function here was to consult about placement more than anything else. In dealing with this case and others like it, I have shared the frustration of tribal mental health workers in looking for adequate resources for these children.

Case 7

I was asked to evaluate 17-year-old G. shortly after he was transferred to the tribal group home from the state boys' home. Although under the jurisdiction of the tribal court all his life, he had not actually been on the reservation since he was 4. At that time, after a series of chaotic and abusive placements with relatives of the parents who abandoned him, he was placed off-reservation in the first of a series of foster homes. He finally came to reside with a White family who cared for him from ages 6 through 16. All went well until his adolescence and his foster parents' divorce. He was finally fearfully ejected from the family when he was discovered

masturbating while dressed in women's undergarments. There followed a brief odyssey of increasingly punitive placements as his anger over being pushed out made him mildly aggressive. He had eventually been given a "second chance" in being brought onto the reservation. I was asked, however, whether he would likely be dangerous, especially sexually.

I reassured those who dealt with him on this score, encouraged the offer of treatment, and joined with them in seeing the biggest issue as one of reintegration into a culture from which G. had been isolated. He strongly wanted to learn what it was to be Indian, and to reacquaint himself with his family. Thanks to his strengths and a sympathetic counselor, this process has gone well over the months, and he appears nearly ready for independent living as a young adult on the reservation.

Westermeyer (1979) and Berlin (1978) have both remarked on the plight of the red Indian brought up with a White core identity (the so-called "apple"). Such an identity is said to be especially likely to break down in adolescence. This case and others like it, both in my experience and in the literature, support this presumption.

G. has had the strength and determination to reintegrate his Indian identity. Paradoxically, at least some of this strength must have come from the White family that deprived him of his Indianness but gave him continuous and loving care up until the crisis which led to his ejection.

Tribal courts will increasingly deal with adolescents who are returning from the extended off-reservation placements of the past, adolescents who in the past would have been lost to the tribe. The Indian Child Welfare Act, by giving the courts control over these youth, also makes the courts responsible for reintegrating the youngsters within their culture.

DISCUSSION

From these and other such cases, I have learned a number of lessons. Several simply underline the common issues of consultation with any court: the necessity to clarify the psychiatrist's role, to define the questions being asked, to do as complete an evaluation as possible, to communicate one's recommendations understandably. These take on new dimensions in this setting, however.

For instance, I had a surprisingly hard time getting some of my points across to the court. This occurred when the issue of permanent planning came up. Here I think was a special case of the need to communicate understandably. The court and I have to struggle towards a common yet culturally appropriate understanding of children's need for stability and permanence.

This leads to my need for sufficient understanding of another culture before consulting with its adherents. Such an understanding may cast new light on ideas which have otherwise come to seem like truisms. The psychological parent, for instance, may have little meaning in this culture when applied to one person. It may only be meaningful when denoting a whole subgroup of an extended family, or perhaps even the whole tribe in some circumstances. Likewise, the notions of continuity and stability may need to be given a different meaning in this culture in which fluid movement from one household to another has been a norm (see also Blanchard and Barsh, 1980).

Being forced to attend to these matters is enriching, because it makes me more alert to cultural factors in the other work I do. The psychological parent, stability, the extended family, and other aspects of child rearing may have particular meanings to particular families within what we lump together as Anglo culture.

With the passage of the Indian Child Welfare Act, child psychiatrists will increasingly be called on to consult with tribal courts on matters such as these. If my experience is representative, common clinical issues will include permanent planning on the reservation (especially for younger children); issues of control; the reintegration of the adolescent returning to reservation life after long placement away, and the continued need for outside resources for a certain number of difficult adolescents. Some cases will prove refractory and frustrating. But in many others, psychiatrists will be able to help break the cycle of destructive off-reservation placement.

NOTES

In September of 1981 Ben Ezra Green, M.D., died following a courageous fight with terminal cancer. But, for his untimely death, he certainly would have attended the Prevention Research Planning Workshop at Timberline one month later. I had been his faculty supervisor when he first began this Indian tribal court consultation before he became a child psychiatrist. Therefore, shortly before his death he asked me to guide his paper through publication.

Consultation to a tribal court is not a unique psychiatric experience. But Ben Ezra Green was a unique individual and child psychiatrist. The clarity with which he describes this consultation experience and its implication for prevention with Indian youth serves as a guide for all. The Indian people, faculty and colleagues among whom he worked will miss his assistance as they continue this work to which he contributed — James H. Shore, M.D., Professor and Chairman, Department of Psychiatry, The Oregon Health Sciences University.

1. To assure the anonymity of the individuals discussed in the cases presented, the specific name of this reservation is withheld.

2. The reservation was established in the mid-1800's under the auspices of a treaty with the federal government and, unlike reservations which are subject to P.L. 83-280 (it was specifically exempted from state jurisdiction), retains control over most internal civil and criminal matters.

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DISCUSSION

Jim Shore: The underlying assumption in Ben Green's paper "Child Psychiatric Consultation to an Indian Tribal Court" is a belief that mental health principles are applied best by recommending placement within the Indian community and, if possible, within the child's extended family. There are strong philosophical, political, and clinical issues that support this belief. Dr. Green summarizes this approach in his opening section, "Those who feel that strong cultural roots make for healthy growth will have the pleasure of helping plant these roots for some children, and will share the pain of being helpless to do so for others." The prevention of emotional problems for Indian children is determined by the strength of these roots of Indian identity.

In this paper the author demonstrates the cultural sensitivity that is necessary for a child psychiatrist to consult effectively with a tribal court. The seven case examples which are presented here emphasize the complexity of the problems as well as the many opportunities for preventive intervention. The opportunity to intervene and to place a young child in a permanent, stable home environment with extended family is an applied example for primary prevention. It can prevent the repercussions in adolescence which Berlin (1978) described as one consequence of Anglo adoptions of American Indians. Successful intervention with adolescents can prevent development of more severe behavioral problems and in some cases can shorten the duration of a disabling psychiatric illness. In his comments on each case Dr. Green addresses various legal and/or clinical interventions, the usefulness of psychiatric consultation to tribal courts, and the potential outcomes. For some cases he reports a follow-up which demonstrates that the court intervention and his consultation prevented a more serious psychiatric morbidity.

In one case he recommended definitive placement within the extended family to resolve ambiguity; in another the traditional extended family had failed and alternative settings were preferred. At times a child's strength to reintegrate both emotionally and culturally confirmed the wisdom of the attempt to emphasize Indian placement for Indian children. He openly faced his failures when his recommendations and the court's efforts were not successful.

His orientation to the tribal court consultation was repeated throughout. . . How can my recommendations be most helpful in context of this American Indian culture? How can we (tribal courts and psychiatric consultant) prevent emotional scars for Indian children?

OTITIS MEDIA AND AMERICAN INDIANS: PREVALENCE, ETIOLOGY, PSYCHOEDUCATIONAL CONSEQUENCES, PREVENTION AND INTERVENTION

Damian McShane

Although otitis media is a relatively common ear disease of childhood, most medical professionals not specializing in the care of children, as well as such non-medical professionals as teachers and psychologists, are unaware of the condition's incidence, symptomatology, and developmental consequences. Even less awareness exists concerning the fact that otitis media constitutes one of the most serious health problems and disabling conditions in the American Indian and Alaska Native population (hereafter referred to as Indian). Untreated in children, this health problem has been related to negative impact upon the normal development of language and successful educational progress (*Newsweek*, June 14, 1978, p. 47; *New York Times*, December 26, 1978, p. C2). Since Indian groups experience both otitis media conditions and academic difficulties in proportions which greatly exceed those found within the larger, non-Indian population, it seems that a comprehensive understanding of these relationships within Indian groups is critically important.

For approximately 20 years studies have documented the extremely high incidence of otitis media among Indians (Dolowitz, 1963; Gregg, Steele, & Clifford, 1970; McShane & Mitchell, 1979; Stewart, 1979).[1] In response to such research and documentation, Congress appropriated funds in July of 1970 for the establishment of the Otitis Media Program within the Indian Health Service, and three years later the program became fully operational. For a variety of reasons, however, the incidence of otitis media (with concommittant psycholinguistic and psychoeducational difficulties) has steadily increased in recent times. Programmatic efforts to ameliorate the problem have encountered significant difficulties (Schaefer, 1971; Stewart, 1975). The following discussion, then, attempts to comprehensively examine the incidence, etiology and developmental consequences of otitis media, as well as to explore the nature of prevention and intervention efforts specifically targeting Indian populations.[2,3,4]

ETIOLOGY AND PREVALENCE — GENERAL POPULATION

Poor middle ear ventilation and infection are indicative of the disease called otitis media and are related to accumulation of secretions and/or negative pressure within the middle ear. Acute or chronic hearing loss is a common complication of otitis media (Fry, Dillane, & Jones, 1969; Neil, Harrison, Morbey, Robinson, Tate, & Tate, 1966); hearing loss has been found to be persistent after otitis media episodes (Olmstead, Alvarez, Moroney, & Eversden, 1963). While Olmstead and his colleagues found that 61% of those who had experienced an acute attack maintained a 15db loss after one month, other studies have found significant hearing loss one to several years after otitis episodes in as many as 30% of affected children (Lowe, Bamforth, & Pracy, 1963; Neil et al., 1966). Sensorineural hearing loss has been considered a natural sequela of otitis media (English, Norther, & Fria, 1973; Paperella & Brady, 1970) and conductive losses as lasting effects of the disease have been documented (Katz & Epstein, 1962; Katz, 1968). A Rand corporation report (Avery, Lelak, & Solomon, 1976) estimated that hearing loss of some type occurs in as many as 75% of the children affected by otitis media.

The etiology of otitis media remains undetermined, although some theories have implicated eustachian tube dysfunction (Bluestone & Shurin, 1974), immune-mediated disease processes (Veltri & Sprinkle, 1976), increased drainage resulting from the feeding of infants in a supine position (Beauregard, 1971), and other contributing factors such as socioeconomic conditions (Paradise, 1979).

Disease prevalence within the general population has not been identified reliably for several reasons. While the literature contains extensive discussions of techniques used for the detection of middle ear pathology, significant increases in diagnostic capability have occurred only very recently with the development of impedance tympanometry and improved methods of audiometry and pneumatic otoscopy (Bluestone, Beery, & Paradise, 1973; Harford, Bess, Bluestone, & Klein, 1978; Roberts, 1976). Until recent diagnostic advances, routine hearing screening prior to the school age years was not frequent, which limited information concerning the prevalence of middle ear diseases for pre-school children. Unfortunately, younger children seem to evidence otitis media at higher levels than older children.

Howie, Ploussard, and Sloyer (1975) found in a longitudinal study of 488 children that 49% of the sample experienced an initial episode of middle ear disease prior to the first birthday and an additional 12% experienced the first attack prior to age 2. McEldow and Kessner (1972) concluded in a review of the epidemiological literature that children experiencing all forms of otitis media are most

likely to be less than three years of age. Prevalence rates tend to decline after six years of age (Brownlee, Dehoache, Cowan, & Jackson, 1969; British Medical Research Council Report, 1957). For those who sustain the first episode at an early age, otitis media tends to be recurrent (Shurin, Pelton, & Donner, 1979). Howie et al. (1975) found that 90% of those who experienced the initial episode during the first year of life subsequently developed a chronic otitis condition; they were, in fact, "otitis prone."

Estimates pertaining to acute and chronic conditions range from .5% to 15% for the total childhood population (Eagles, Wishik, & Doerflen, 1967; Cambon & Murray, 1967). However, certain populations such as the economically disadvantaged child and the American Indian child have been found to be at special risk. Approximately 15% to 25% of all British children have been reported to experience at least one episode of otitis media (British Medical Research Council Report, 1957; *Lancet*, 1970). Significant correlations have been demonstrated between low socioeconomic level and incidence of middle ear disease (Hinchliffe, 1972; Paradise, 1980). For instance, Fay and his colleagues (1970) found evidence of middle ear disease through audiology screening (20db) and otoscopy of between 23% to 29% in a sample of 461 economically disadvantaged children, from four to eight years of age in New York City. Clearly certain groups exhibit an unusually high risk for middle ear disease.

PREVALENCE OF OTITIS MEDIA IN AMERICAN INDIANS

Since 1961, otitis media has been the most prevalent disease affecting American Indians (Wallace, 1973). Between 1968 and 1975, first visits for otitis media to Indian Health Services facilities increased from a rate of 5,688/100,000 population to 12,290/100,000 population (Stewart, 1975). The prevalence of otitis conditions in Indian groups seems to be more than that which might be associated with relatively low socioeconomic status. Clifford, Hull, and Greg (Note 5) found an audiometry failure of 27.2% among South Dakota Indian children as compared to a 19.2% rate among socioeconomically matched White children. McShane and Nordin (Note 3), using impedance audiometry screening conducted by a certified audiologist and otoscopy by a pediatrician, found that 20% of the non-Indian children as compared to nearly 50% of the Indian (primarily Ojibwa) children selected randomly from grades K-3 at an inner-city public school complex in Minneapolis presented primary and/or secondary symptoms of middle ear disease. Other selected studies further illustrate a very serious picture of excessive vulnerability for Indian children with respect to otitis media.

Of special note is a series of studies which followed a birth cohort

of Alaskan Native children from 1960 through 1972. The Arctic Health Research Center collected data on the birth, development, morbidity, and death of Eskimo infants. Information regarding otitis media episodes was gathered during quarterly visits to Eskimo villages within the first two years of the study and at least bi-yearly visits during the next two years (Reed, Strume, & Maynard, 1967). Of the 378 children on whom audiometric testing was obtained, Reed and his colleagues identified 235 (65%) who had experienced a total of 666 episodes of otorrhea (discharge from the ear characteristic of otitis). Sixty-five percent experienced the first episode prior to the second birthday. Thirty-one percent had a hearing loss of 26db or greater. A significant relationship was observed between hearing impairment and the number of episodes during the first two years of life.

Kaplan, Fleshman, Bender, Bawn, and Clark (1973) provided long range follow-up of this same cohort of children when they were about 10 years of age. Seventy-six percent had experienced over 1,500 episodes of otitis media. Those who had had the first attack before age one averaged more total episodes than those who experienced the initial episode between 2 and 10 years of age. Of the over 400 children tested, 41% presented perforated or scarred tympanic membranes, while 16% had hearing loss of 26db or greater, and an additional 25% had measurable air-bone gap. Hearing impairment was associated with early onset but correlated even more significantly to total number of episodes.

Jaffe (1969) otologically screened 2,000 Navajo children between the ages of 5 and 17 years of age. He compared his obtained prevalence of otitis media of 4.8% to a rate of only .5% for chronic conditions among Pittsburgh school children (Eagles et al., 1967). Johnson (1967), studying Navajo school-age children, reported a 6.4% prevalence of chronic conditions and Wood (1975) reported rates as high as 15% in some isolated Navajo communities. In all these studies of southwestern U.S. Indians, perforation of the tympanic membrane was considered primary evidence of chronicity. Also among southwestern Indian tribes, Zonis (1968) noted that Apache and Navajo seemed to be particularly susceptible to chronic otitis media among the various tribal groups, regardless of location on warm or cold climate reservations. In fact, as a result of a 9 year multi-otologic screening program, Bedwell and Blomstrom (1975) were able to identify 2,000 Navajo children in need of middle ear surgery and a "vast number" in need of hearing aids. Johnson and Watrous (1978), testing pre-school (N=376) and school age (N=3,576) Navajo, Apache, and Ute children, found screening failure rates to be 11.2% for the older children and 59.6% for the pre-school group. However, such excessive prevalence as that found in these samples is not restricted to southwestern Indian communities.

Roberts (1976) compared pure-tone, impedance and otoscopic hearing screening methods and found 5% of 684 Canadian Indians of British Columbia to have perforation of the tympanic membrane, while 62% exhibited abnormal results on one or more elements of the total test battery. Thirty-seven percent of those with middle ear pathology were four years old or younger. Nimmo (1980), also studying screening methods, found the prevalence of serous otitis media to be 13.37% within a group of over 1,200 Montana Plains Indians and 6.05% within a sample of just under 4,000 non-Indians. A 30% prevalence rate has been reported for South Dakota Sioux children of school-age (Grey, Steele, & Clifford, 1970).

Other studies focusing on such geographically distant groups as Baffin Island Eskimo children (Ling, McCoy, & Levenson, 1969) and Hopi Indians (DiMaria & Baggish, 1972) provide firm support for the conclusion that American Indians and Alaskan Natives are at extreme risk with respect to middle ear disease. In spite of variation in sample size, method of screening and reported prevalence, it is clear that native groups are more susceptible to otitis media conditions and their consequences than are the majority non-native U.S. or Canadian populations.[6] How these conditions come about is not clear.

ETIOLOGY OF OTITIS MEDIA WITHIN AMERICAN INDIAN GROUPS

Definitive information on the causes of middle ear disease remains unavailable. Research reports and speculative comment regarding the etiology of otitis media within Indian and Native groups are unclear and sometimes contradictory.

Since the relationship is a strong one, most writers have felt compelled to implicate economic disadvantages in the etiology of otitis media (Paradise, 1979; Cambon, Galbraith, & Kong, 1965). Socioeconomic factors most often cited in relation to the development of the disease include poor nutrition, lack of adequate and preventive medical care, crowded living conditions, and poor sanitation (Ling et al., 1969; Northern & Downs, 1974; Wallace, 1972). However, at least two studies involving Indian children failed to demonstrate a relationship between the disease and economic disadvantage (Reed & Dunn, 1970; Spivey & Hirschhorn, 1977). Other authors have cited the low prevalence of otitis media in some African peoples who are severely undernourished and subject to other diseases in epidemic proportions to suggest that socioeconomic conditions are an insufficient causal explanation. Several careful studies (Beal, 1972; U.S. Department of Health and Welfare, 1962), however, have shown a significant relationship between otitis media and poor

socioeconomic conditions. Wiet et al. (1979), citing Kessner and his colleagues (1974), suggested that acute purulent otitis media and secretory otitis have **not** shown a consistent relationship between disease prevalence and social class, while measures of severity such as otorrhea (chronic otitis) with residual hearing impairment **have** shown such association.

While still recognizing the influences of economic factors, several researchers have turned to genetic explanations. Wiet (1979) discussed this possibility among the Navajo and Apache, who display relatively higher prevalence rates and share common heritage (Athapaskan). Eskimo are also thought to be of Athapaskan descent and do exhibit greater otitis susceptibility. Wiet and others (Jaffe, 1967) have noted the prevalence of cleft palate disorders in American Indians and posited a relationship of this disorder to otitis media. However, the importance of genetic factors is most directly indicated by various anomalies of the eustachian tube which may be use associated (Douglas, 1977; Doyle, 1976). Paradise (1979) concluded that the role of genetic factors has not yet been demonstrated convincingly.

The high prevalence of respiratory infections among Indian populations is another frequently cited pre-disposing factor (Kaplan et al., 1973; Reed & Brady, 1966). However, the evidence is largely associative and the causes of increased rates of respiratory disease within these groups have not been determined, although the prevalence of chronic mucopurulent rhinitis—one of the predisposing factors for respiratory disease—is estimated to be in the range of 40% for certain Indian tribes (Wiet et al., 1979). Other researchers (Goodwin et al., 1980; Klein, 1978; Paradise, 1979; Schaefer, 1971) have noted an otitis media "season" spanning mid-winter through early spring for all susceptible groups. Though cold climate has been suggested as a contributory factor, Zonis (1968) reported equal presence of the disease in both desert and mountainous Apache reservations.

Finding socioeconomic, racial, infection exposure and climate factors to be insufficient to fully explain its etiology, Schaefer (1971) explored the observation that there is a greater prevalence of otitis media among Eskimos living in more acculturated and better socioeconomic situations than among more traditional Eskimos living in poorer economic settings. The generation born before World War I did not seem to display any evidence of significant middle ear problems. He demonstrated a significantly higher prevalence of otitis media among the more acculturated group and discovered that younger, not older persons presented more evidence of a history of middle ear disease. Since the socioeconomic and genetic hypotheses would have predicted higher prevalence in the poorer, more full-blooded traditional older persons, Schaefer reasoned that a third factor might make a more salient contribution to the otitis media condition. He found that the trend toward bottle feeding and

shorter lactation periods in the Anglo-acculturated groups increased risks of otitis media. Otoscopy revealed that disease prevalence was five times greater at all levels of otitis involvement and ten times greater in regard to severe degrees of pathology. Schaefer suggested that there may be protective features in human milk as opposed to provocative factors in cows' milk for this group of Canadian Arctic Eskimos. He also linked history of recurrent respiratory infections and antibodies to cow milk proteins in the serum of children with chronic respiratory disease and described a positive association of respiratory illness morbidity and otitis media in Canadian children. Other researchers have supported these observations and results (Manning, Avery, & Ross, 1974; Baxter & Ling, 1972).

More recently, Timmermans and Gerson (1980) studied the prevalence of middle ear disease as it relates to bottle versus breast feeding in 238 Inuit and 47 Caucasian children in a small community in Labrador. They found no cases of otitis media in the Caucasian children, while over 30% of the Eskimo children experienced the disease. The prevalence of otitis media was found to be inversely related to the age at which bottle-feeding started; no Eskimo child who was bottle fed for the first time after the age of 6 months acquired the disease. The presence or absence of added sugar in the formula was not related to disease prevalence. Noting that Inuit children have significantly shorter, straighter, and wider eustachian tubes than do Caucasian children (Ratnesar, 1976) and observing that bottle-feeding requires the infant to generate high negative intraoral pressure (particularly when the traditional rigid bottle is used), the authors suggested that this combination of factors results in persistent reflux of milk into the middle ears. Timmermans and Gerson concluded that, in Inuit children, otitis media is a part of a process leading to chronic foreign body granuloma of the middle ear, and noted that chronic granulomatous otitis media is not an infectious disease (which would change treatment strategies significantly). In a separate study, which compliments and supports Timmermans and Gerson's findings, Beery and his colleagues (1979) analyzed eustachian tube (ET) function in 25 White Mountain Apache. They found that the ET of these individuals is functionally different from that of Caucasians previously studied, in that it is characterized by comparatively abnormal, low passive tubal resistance which can be considered to facilitate ventilory function and to impair protective function. Beery et al. suggested that the middle ear of the Apache is very easily ventilated (fluids pass in and out with relative ease) and consequently is not protected from unwanted secretions, which corraborated Timmermans and Gerson's (1980) clinical opinions.

Focusing on the timing of the onset of otitis media, Goodwin, Shaw, and Feldman (1980) studied four populations of Arizona

Indians and found that 60% of the children observed during the first year of life had one or more attacks of acute suppurative otitis media (ASOM), 34% had two or more attacks, and 75% of the attacks occurred between 3 and 9 months of age. Approximately 75% of the second attacks occurred within 4 months of the first attack. The authors discussed several preventive interventions based upon these critical periods of development of the disease.

In summary, the etiology of otitis media within American Indian and Alaska Native populations is complex and yet unclear. Therefore, most attempts at prevention have been limited to parent education and vigorous medical management (e.g., Bedwell & Blomstrum, 1975; Towen, 1979). Due to remarkable rates of middle ear self-healing among Indians and the relative absence of some severe complications of the disease such as meningitis and brain abscess within these groups (Jaffe, 1967; Wiet, 1979; Zonis, 1968), hearing loss was long considered to be the most significant (if not only) consequence of otitis media. However, recent evidence has begun to link middle ear disease with language delay and educational disability.

PSYCHOEDUCATIONAL CONSEQUENCES OF OTITIS MEDIA

Prior to 1970 a few reports in the audiological literature began to suggest a relationship between childhood otitis media conditions and language delay and educational problems. In 1935, Bond observed that the frequency of hearing problems was 15 times greater for children with reading disabilities than for those who had no reading difficulties (N=128). Burt (1950) reported that 4% of his school-aged samples possessed mild hearing loss but adequate educational achievement, while 12% to 18% of the children who were failing academically evidenced hearing loss. Regarding language development, McConnell (1951) found that mild to moderate hearing loss in the upper voice ranges resulted in difficulty in forming consonants and difficulties in speech comprehension. Demonstrating one to three year speech delay in children with a moderate hearing loss, Young and McConnell (1957) found no differences in tested IQ between the impaired group and another with normal hearing acuity. Elsewhere, Kodman (1963) reported a two to three year educational delay in diagnosed hard-of-hearing children. He also noted that a total of 57 grades had been repeated by these same 100 children.

In 1969, Holm and Kunze published the first systematic investigation of possible relationships between language and speech development and recurrent otitis media conditions. Children 5 1/2 to 9 years of age with chronic otitis media were matched with children with no history of the disease. The otitis group scored significantly lower on the Templin-Darley Articulation Screening Test, the Peabody Picture Vocabularly Test, the Mecham Verbal Language De-

velopment Scale, and the total score on the Illinois Test of Psycholinguistic Abilities (ITPA). In addition, the otitis-prone children obtained significantly lower scores on ITPA subtests involving auditory rather than visual or motor skills. Controlling for effects of socioeconomic background, age, and sex, the authors concluded that recurrent otitis media may have a direct effect upon language and speech development. This investigation led to research in the 1970's which began to accumulate more evidence regarding otitis-language-achievement connections (Freeman & Parkins, 1979; Katz, 1978; Needleman, 1977; Quigley & Thomas, 1970).

Roach and Rosecrans (1972) administered intelligence and audiometric tests to children referred from a public school learning conservation program, and found that hearing loss in the upper range of voice frequencies correlated with poorer Wechsler Intelligence Scale for Children (WISC) verbal scale scores, but not with performance scale scores. Since a consistent relationship was found between increasing losses at higher frequencies and increasing verbal deficits, and given that most information in speech is conveyed by consonants carried within this higher range (Duffy, 1966; Strang, 1953), such findings strongly implicate chronic otitis conditions in the development of language deficiencies.

In a major review article, Katz (1978) discussed the effects of conductive hearing loss on auditory function and also cited tone decay in the speech frequencies as a disturbing effect. In addition, he noted that background noise is carried in the lower range and is still accessible. Katz also considered brain dysfunction as a possible consequence of conductive hearing loss.

Finally, Bennett, Ruuska, and Sherman (1980) investigated the possible association of chronic otitis media and school learning problems by comparing the past and current ear status in 53 learning-disabled (LD) children to that of 56 control children without learning problems. A history of recurrent otitis media was discovered in 23% of the LD children and in 9% of the control children. Thirty-eight percent of LD children and 16% of control children had hearing abnormalities on pure tone audiometry; 49% of LD children and 21% of control children had abnormal tympanometry. Zinkus and and Gottlieb (1980) examined the effects of chronic otitis media during the first three years of life on developing auditory processing skills. Two groups of children with auditory processing deficits were compared in areas of language development, intellectual factors, auditory processing skills, and academic capabilities. One group of children with auditory processing deficits had a history of severe chronic otitis media during the first three years of life, while a second group had auditory processing deficits but no history of early middle ear infections. The results indicated that subjects who had a history of chronic otitis media were slower in developing word

combinations, had depressed verbal intelligence scores, manifested pervasive auditory processing deficits, and were significantly poorer in reading.

Although these studies must be criticized on the basis of being primarily retrospective, dependent on matching procedures, somewhat ambiguous as to method of clinical diagnosis of otitis media, and involving small sample sizes, an empirical link between otitis media and language and educational deficits is becoming evident. Unfortunately, even though alarming proportions of both educational delay and middle ear disease exist in Indian groups, similar research with this population has been minimal.

DEVELOPMENTAL SEQUELAE OF OTITIS MEDIA IN AMERICAN INDIANS

A longitudinal study by Kaplan and his colleagues (1975) reporting the pathogenesis of otitis media within a birth cohort of Alaskan Eskimos gave significant attention to academic correlates of middle ear disease. The mean WISC verbal score reported for the 380 children who were the subject of this study was 77, while the mean WISC performance score was 98 (the latter score being well within the normal range). Children who had experienced four or more episodes of otitis media during the first two years of life scored significantly lower on the verbal scale than those who had experienced one to three episodes. Over a third of the children were behind their expected grade placement, with 63% of them having experienced an initial otitis episode before age 2 as compared to 20% who had no history of the disease and 17% who had experienced only one episode before the second birthday. Children with otitis-related hearing loss were further behind in reading, math, and language achievement than were their peers who had no history of an ear disease. The achievement gap between children affected by otitis media and peers with no known history tended to widen with age.

Achievement levels were also linked with otitis involvement in the Ling et al. (1969) study. Just under 200 Eskimo children were ranked according to age and grade placement and screened for otologic abnormality. Children having academic difficulty experienced more chronic ear disease than children who were successful academically.

Other than the two studies mentioned above, there is little published empirical work that addresses the relationship of otitis media to the psychoeducational profiles of Indian groups. However, related observations in other literatures and unpublished research are beginning to add to this meager knowledge.

In a review of studies concerned with Wechsler Scale intelligence scores of American Indian children, the author (McShane, 1980) found that the majority of empirical reports show that these children consistently achieve lower verbal scores and/or significantly elevated performance scores. The high prevalence of hearing disorders associated with otitis media in Indian groups was discussed as contributing to this well-documented Wechsler verbal-performance discrepancy. Furthermore, McShane and Plas (in press) reported an Indian pattern of recategorized Wechsler subtest performance different from that found in LD samples, and also speculated that otitis media related problems may have important bearing on the auditory deficits reflected by the Wechsler scales. Two recently completed research studies by the same authors shed further light on this area and are briefly presented below.

The interaction of otitis media and psychoeducational disability was investigated within a group of Ojibwa (Chippewa) Indian children by examining the relationship between number of otitis media episodes and the performance on the Wechsler Intelligence Scales and the Illinois Test of Psycholinguistic Abilities (ITPA). Children with a history of more than 4 otitis media episodes performed more poorly on certain auditory/verbal factors associated with the instruments than did the children who had experienced 1 to 4 episodes. The group of children with a greater history of otitis produced greater discrepancies between Wechsler verbal and performance scale scores and tended to exhibit higher spatial factor abilities as compared to sequential, conceptual or acquired knowledge factor skills. On the ITPA, Ojibwa children with a history of more middle ear involvement scored lower on the auditory/verbal subtests than on the visual subtests, while such differential performance was not present in those children with fewer episodes. In addition, Ojibwa children who experienced more otitis episodes scored significantly lower in auditory association and higher in manual expression than the other group. Interestingly enough the only significant differences found between subtests within the group experiencing fewer otitis episodes was that verbal expression scores were **higher** than manual expression scores. The results suggested that, for the otitis children, expression through a visual-motoric channel may become developmentally important as a way of augmenting more depressed abilities in verbal expression.

In a related but separate study, McShane and Plas (Note 7) examined the relationship of intellectual and psycholinguistic abilities to achievement gains of Ojibwa children. Using Wechsler and ITPA subtests within a multiple regression analysis to obtain the best set of predictors for achievement gain, a small number of subtests were able to account for 30% to 50% of the variance in reading and language gain and over 65% of the variance in mathematics gain. One

subtest used in both language and mathematic best predictor sets was negatively correlated: as the score on manual-expression increased, achievement decreased, and vice-versa. Relating these results back to the previous study, the authors again discussed the possibility that those children who experience mild hearing loss as a result of otitis media episodes compensate for depressed auditory-verbal abilities through increased skill at visual-motor expression.

Needless to say, the possible relationships between recurrent otitis media and language and educational deficits—as well as possible negative consequences for the adequate development of central processes or social and motivational difficulties often associated with poor learning in the classroom—have been virtually ignored in regard to Indian children. This lack of information must be considered a key aspect of difficulties experienced in the attempt to create effective prevention and intervention programs.

PREVENTION AND INTERVENTION: SERVICE DELIVERY BARRIERS

Given the piecemeal and developmental nature of the literature concerning the prevalence, etiology and sequelae of otitis media in American Indian populations, it is not surprising that there is virtually no research regarding the effectiveness of preventative and treatment efforts. Program evaluation or the study of treatment compliance, for instance, is unavailable except in anecdotal form. In examining disparate comments in the literature by professionals involved in otitis media service delivery to American Indian populations, four major areas of difficulty seem to emerge: specifically, lack of knowledge, resource unavailability, underutilization, and poor resource coordination (especially with respect to sequelae).

Lack of Knowledge

Indian parents are not aware of the signs and symptoms of otitis related illness (Wood, 1975) which is in part due to the lack of perceived need to seek medical care. Moreover, Indian parents who are aware of otitis media often lack an understanding of the seriousness of the disease (Bedwell & Blomstrom, 1975). As important, but mentioned less frequently, is the lack of knowledge on the part of the medical professionals about the uniquely high prevalence of otitis media in Indian populations and the need for special attention to this fact in terms of screening and treatment. Like Indian parents, medical professionals may not realize the seriousness of this problem (even given some minimal knowledge of its prevalence) or may lack interest and/or motivation to do anything about it. Lack of knowledge with respect to basic anatomy, basic physiology, symptoms and treatment of ear disease clearly impedes effective prevention by

Indian parents. Lack of knowledge about medical facilities available to potential Indian patients contributes to lack of exposure to medical information, creating a circular effect which leads to continued recurrence of symptoms which should lead one to seek medical care. Little familiarity with the significant hearing status, language skill, cognitive ability, and achievement consequences of otitis media by medical and allied health professionals (i.e. school staff) also contributes to the lack of concerted prevention and treatment efforts.

Lack of Available Resources

Wood (1975), in his discussion of the Navajo, clearly illustrated the acute lack of available resources to adequately impact the prevalence of otitis media in the Indian population:

> . . . between 100,000 and 150,000 Navajos living on 25,000 square miles of barren, arid reservation. . . about the size of West Virginia. . ., there is one otolaryongologist for the entire Navajo area of over 100,000 people. The suggested ratio of otolaryngologists per population is one for every 25,000 persons. He is located at. . . a vastly overcrowded hospital located at the southeast edge of the Reservation. Therefore, patients from the western portion of the Reservation must come several hundred miles to receive certain specialty care (p. 16).

A related problem, again mentioned by Wood, is the difficulty that the Indian Health Service has had in maintaining long-term staff physicians in the clinics and hospitals on the reservation.

Lewis (1975, p. 46) described an associated difficulty as perceived by Indians in Montana: ". . . Indian people did not want to be practiced upon. They desired to receive the same quality of treatment that other persons in the same geographic areas received." Difficulty in obtaining the equipment and accoutrements of treatment further compounds the problem:

> An Eskimo hearing aid user in Alaska may be literally thousands of miles away from his nearest battery supplier: Indians throughout the United States living in remote areas are rarely near a facility equipped to maintain or repair a defective instrument. In addition, Indians appear to have been particularly susceptible to fraudulent practices of unscrupulous hearing aid salesmen or persons representing themselves as hearing aid dealers (Stewart, 1975, p. 48).

Hence, inadequate service delivery is related to resource unavailability: specifically in the Indian case, relatively few ear specialists providing services, access difficulties related to distance and transportation problems, and problems associated with obtaining and maintaining treatment-related equipment.

Underutilization

The underutilization of medical facilities in general by the Indian population is well-documented and related to a variety of factors. Differences in **culture** result in a lack of cultural understanding by non-Indian providers, lack of trust and rapport between Indians and non-Indians, lack of contact and relationship with the Indian community by professionals, difficulties because of changes in Indian leadership, and other problems. Differences in **socio-economic status** result in the inability of Indian consumers to cover the cost of services, insufficient funds for adequate programs, insufficient finances to deal with problems like child care, and, in general, reduce the accessibility of services for Indian persons. Differences in **geography** (residence, location) result in problems of transportation and distance, lessened familiarity with available resources (less felt input and ownership) by Indian people, fewer and less available trained staff on the reservation, scheduling difficulties, child care difficulties, and other problems which again tend to decrease accessibility and effectiveness. Differences in **language** impede communication, as does the lack of understanding of health terminology, jargon, and the language of therapy. This may be perceived at times by providers as a lack of client openness (reticence, shyness). Differences in **educational level** result in a lack of knowledge about western concepts of health by Indian consumers, lack of information (awareness) about specific functions of existing resources and processes, lack of trained Indian personnel, and a distancing effect derived from the educational levels of providers.

Besides culture, economics, geography, language, and education, there are two other sets of factors that contribute to underutilization of services. Historical relationships are one and the state of technical resources is another. Because of the **history** of past relationships with non-Indian services and systems, potential Indian consumers may be justifiably afraid of losing rights as free individuals and as guardians of their children. With regard to the state-of-the-art in health care, the following are characteristic of the available **technical resources:** there is a lack of adequate understanding of the development and prevalence (etiology, epidemiology) of Indian health problems; there is a lack of trained Indian health care personnel; role responsibilities are rigidly fixed among existing providers, flowing partially from limited resources, and there are few preventative efforts.

Specific to otitis media service delivery on Indian reservations, Wood (1975, p. 15) stated:

> Patients' inability to speak English, and the lack of personnel who are able to communicate with them, discourage many patients. Superstitions surrounding the hospitals as a "place where you go to die" and the powers which may be

> exerted over patients by medical personnel are also involved in patients feelings about these institutions. . ., the relative lack of physicians of the same race as the patients has been seen as a barrier.

Lewis (1975) observed "that the Indian people were leary of having their problems explained, identified and enumerated without solutions or treatment being available" (p. 20).

The lack of acceptance of medical care by traditional Indians may further undermine utilization. Many believe in treatment by a medicine man who may employ a sing or healing rite; whereas most are skeptical about the results of modern medical treatment. It is not surprising, then, to see a patient visit a hospital in order to have his disorder diagnosed by modern medical tests and to then attend a traditional ceremony to resolve the identified problem.

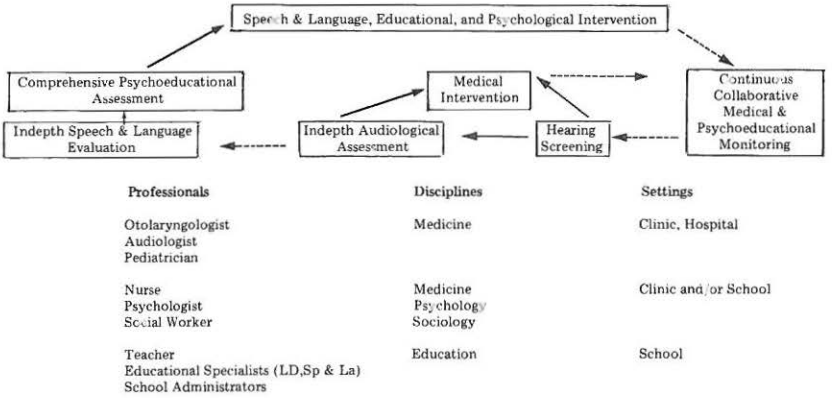
Poor Resource Coordination

Another major area of difficulty in relation to impacting otitis media in Indian populations is the general lack of interfacing, coordination and collaboration among various professions (medicine, psychology, speech and language, education), local resources (which are extensions of federal, state and county levels of government), and a variety of agencies and organizations, both private and public. Typically, screening information does not get from the clinic to the school; learning problems that result from hearing difficulty may not be communicated to hearing specialists. The need for resources to purchase hearing aids may not be fully coordinated among physician, social service agency and school, and so on. Concentrated, comprehensive and continuing multidisciplinary, multi-agency efforts seldom characterize past attempts to reduce the prevalence and consequences of otitis media in the Indian populations.

The service delivery ecology for otitis media seems to be fractionated along professional lines, as well as in terms of setting differences (see Figure 1). Medical professionals who deal with otitis media such as the otolaryngologist, audiologist and pediatrician frequently interact with one another but much less so with school personnel. The clinic or hospital is distinct from the school setting, distance between the two usually inhibits communication and collaboration. On the other hand, some professionals such as nurses, psychologists and social workers may work in either or both settings, and may serve to bridge these interactive gaps.

Figure 1

Service Delivery Ecology for Otitis Media: Frequent and Infrequent Transactions



ELEMENTS OF EFFECTIVE SERVICE DELIVERY

What factors and elements are necessary, then, for effective delivery of services to Indian populations in the attempt to reduce the prevalence of otitis media? Two efforts by the author to initiate an otitis media program, one within an urban Indian health care center and one within a reservation tribal school system, illustrate some of the important points to consider.

Program Examples

An urban Indian program. Administrators at the Indian Health Board (IHB) Clinic of Minneapolis (10,000 active clients) supported the development of a comprehensive otitis media screening program. The program was tied to a special psychoeducational diagnostic team and involved the participation of the medical, community health and mental health units of the overall clinic operation (as well as the records department).

The program was gradually implemented over a two year period. IHB staff (primarily Indian) were provided in-service education regarding otitis media and related issues. Literature specific to otitis media and Indian populations was shared with the part-time pediatrician; relevant cases were discussed. After acquiring an impedance tympanometer, many of the adult Indian staff's ears were tested and some problems were referred for treatment. Several staff brought in their children for hearing assessment. Eventually a comprehensive screening battery, protocols and procedure were developed within the medical unit involving otoscopic, pure-tone and impedance

audiometry. The health department became involved as all infants between certain ages in for check-up were referred to the medical unit for hearing screening. The mental health unit secretary (Indian) was trained in the use of the impedance tympanometer and was available in the waiting room on WIC days (when mothers and infant came into the clinic) to screen interested parties. Posters on the walls were pointed out and pamphlets were distributed. The participation of the records department became critical as children who failed established criteria for hearing screening thresholds were immediately referred to the special otitis media psychoeducational assessment component of the mental health unit. The records department, together with the community health outreach workers, were also involved in monitoring treatment and rescheduling appointments for follow-up and rechecks.

A school psychologist, speech clinician, clinical psychologist and Indian women's counselor constituted the psychoeducational assessment team. A battery of questions sensitive to otitis media-related symptoms evolved as the staff gained experience with clients.

Important factors relating to program effectiveness included the commitment and coordinated effort of IHB staff from all departments (probably helped by the personal involvement of many of the staff and their children as clients), close positive community relationships (the clinic sits in the middle of an Indian housing project where many staff also live), and extensive and consistent follow-up of treatment and referrals. Standard and consistent data collection and storage allowed important program evaluation and research application.

A reservation program. As director of special educational services in an on-reservation tribal school system, the author was involved in initiating a similar otitis program, although with slightly different system components. A major screening effort using multiple hearing assessment techniques and multi-disciplinary professionals and para-professionals was established for day care, Headstart, elementary and secondary Indian students (just under 300 in number). Two Indian Health Service audiologists drove from their office about 100 miles away. Several county public health nurses traveled 25 miles from the nearest town. Tribal health clinic medical staff, special education personnel and other school staff (e.g., secretaries and teachers) participated in the screening effort at school. Adult Indian and non-Indian staff were also assessed. An adult education class observed, even participated in follow-up testing.

Records of screening results were jointly held by the tribal health clinic and the school's special education department, as well as by the Headstart and day care programs. Psychoeducational assessment and special educational programming in the schools, with strong teacher and parental involvement, were implemented as appropriate.

Clinic days in the school (during which tribal clinic medical staff saw students) were used to follow-up and monitor treatment. Since the tribal clinic and Headstart programs were located in the same building, continued hearing re-checks, medical follow-up, and strong parental involvement were greatly enhanced. An on-going speech and psychoeducational consultation with the Headstart program enabled the pre-school children who failed the initial screening (50%) and the much smaller number needing related support services to obtain comprehensive help. Monthly visits to the tribal clinic by an IHS audiologist were scheduled well in advance as a result of this active program. Hearing education, screening, treatment and follow-up were especially effective with the preschoolers and their families, largely because of the nature of the Headstart teaching staff (Indian) and their frequent home-visits.

Other examples from the literature. Bedwell and Blomstrom (1975) discussed their Otitis Media Program on the Navajo Reservation and attributed its success in large part to the training of bilingual Navajos who served as audiology assistants (supervised by high school advisers) and who willingly established rapport with patients in the provision of consultant audiological services. Service coordination was also emphasized:

> At the completion of testing in each school, lists of every child and their hearing problems were submitted to the school principal, school nurse, the public health nurse and the otolaryngologic clinic at the Gallup Indian Medicine Center to insure proper follow-up, treatment, surgery and additional evaluation (p. 17).

McCandless (1975, p. 19), in his discussion of why the incidence of otitis media in the Wind River area seemed to be slightly lower than in some other reservations of similar size and climate, emphasized the following factors.

> . . . the proximity and interest of the medical personnel on the Reservation; most importantly, it is felt the key to the most successful otitis media program lies in the school or other nurses who are very much aware of the presence of ear problems and upper respiratory infections, who promptly culture suspected problem cases and refer suspected ear problems immediately. In the areas where these prevention and follow-up programs were seen, the incidence of chronic otitis media was about half that of other schools.

Lewis (1975) observed similar results in Montana:

> When public health nurses were assigned on a full time basis to the reservations, home visitations were conducted on a regular basis and any child found to have an acute or chronic ear infection was personally conducted to the medical facilities. The public health nurses felt this resulted in an abrupt change in the frequency and severity of ear infections. The figures previously presented would sub-

stantiate their impressions. . . A survey has been conducted among the Indian population of central British Columbia. A high prevalence of middle ear disease was found in all age groups and in all sites surveyed, with the exception of the two types of locations where general living conditions were more favorable, i.e., the residential schools, and where medical supervision was present and constant in the person of a health nurse (p. 40).

Illig (1980) reported that a massive screening and surgical intervention program in the Alaska interior with native schools showed significant impact upon follow-up. There was 77% anatomic success and 60% audiological improvement of operated ears. In 28 patients with 37 surgical procedures, an average of 16.3db improvement was found. Most importantly, in individuals under 18 the prevalence of chronic ear disease was found to be quite low, less than 2%.

Stewart's (1975) observations about the importance of community involvement apply across all programs:

> . . . local involvement at every level is necessary. In terms of manpower alone, the scarcity of otolaryngologists and audiologists not only encourages but requires the training of paraprofessional personnel to deliver services at the local level. Being locally recruited and locally based, these persons have been found to have more credibility in the local Indian community, which in turn, leads to more community acceptance of and participation in the program. Parents of young children are more likely to seek out the local paraprofessional for assistance and service than to take the child suspected of having a hearing problem directly to the hospital. . . community involvement in the development of health education materials aimed at the prevention of chronic otitis, meeting with parent and other interested groups, in-service training sessions with PHS medical personnel and liaison activities with school administrators are some of the activities currently undertaken by these persons. Similarly the technicians' work in parental education is currently centered around local beliefs and ancestors and is better accepted in the community (p. 48).

Guideposts to Developing Effective Services

Many elements are necessary for the long-term reduction of the incidence of otitis media and its sequelae in American Indian populations. To deal with inadequate knowledge entails **informed commitment** by individual Indians and medical professionals. Resolving the difficulties that arise from limited availability requires **in-depth involvement** by Indian community members and medical staff. Coordination problems can be alleviated by obtaining **tribal and organizational sanction,** that is, administrative commitment and informed involvement. Underutilization can be reversed by strong and continuous **administrative-provider-client-community linkages.**

The processes involved tend to overlap, but past experience sug-

gests that movement from a base of community and professional informed commitment to formal organization and governmental sanction allows effective coordination of resources and effort. The most effective line of action progresses from the Indian community to and through Indian leadership to non-Indian medical and allied professionals, back to individual community members, usually with the help of trained indigenous paraprofessionals. A typical development of activities might be as follows:

1. Locate or acquire key interested medical staff, Indian leadership and community members (especially those central to naturally organized social networks);
2. Inform and obtain sanctions from tribal leaders and/or organization directors;
3. Educate, screen, assess and treat Indian adults of key organizations serving community;
4. Screen, assess, treat children of interested organizational staff;
5. Meet with and facilitate coordination of all relevant resources for identification (and then treatment) efforts;
6. Establish standard diagnostic and treatment protocols, resolve data sharing linkage difficulties and secure close interdepartmental, cross-agency, provider-consumer communication;
7. Train Indian paraprofessionals (prevention, assessment, treatment follow-up);
8. Link prevention, screening, treatment, rehabilitation efforts across disciplines (i.e., medical, education) and agencies or departments;
9. Upgrade training of indigenous paraprofessionals;
10. Decentralize efforts into homes and diverse community locations;
11. Feed-back program evaluation and other systematic data into adjustments of operations.

Towards Primary, Secondary, Tertiary Prevention

While the lessons to be learned from practical attempts to ameliorate this problem are invaluable, a more systematic strategy of program implementation, evaluation, feed-back and adjustment is desirable in order to make efforts maximally effective and minimally costly. Prevention concepts are especially applicable to otitis media and its sequelae, and facilitate such systematic attack upon the problem. Table 1 briefly indicates some of the possible strategies at the primary, secondary, and tertiary levels.

Although a comprehensive otitis media **primary prevention** program has not been developed, implemented and evaluated for impact, this kind of approach undoubtedly has the greatest promise for reducing otitis media within Indian populations. Parent education with respect to breast feeding, bottle propping, ear care, avoidance of upper respiratory infection, and so on can reduce the frequency

of otitis in children from birth to one year of age. With additional research concerning the etiology of the disease as a solid foundation, primary prevention through parent education can become a major weapon.

The wider use of impedance tympanometry, which allows the assessment of middle ear status in very young pre-school children and infants, leads to earlier identification of otitis media and will enable **secondary prevention** efforts to become much more effective. Although one to three year old Indian children have not been systematically targeted and assessed, they are at great risk for middle ear

Table 1

Some Relevant Prevention Activities in Relation to Otitis Media

Prevention Subtype	Primary Prevention	Secondary Prevention	Tertiary Prevention
Critical Age	Birth to 1 year	1 to 3 years	3 to 5 (5-12) years
Relevant Activity	• breast versus bottle feeding • avoidance of bottle propping • avoidance of upper respiratory infection through adequate nutrition, health maintenance, and environmental manipulation (i.e., maintaining adequate humidity, proper nasal hygiene such as blowing nose, stretching eustachian tube by chewing gum, proper ear hygiene such as keeping outer ear free of wax buildup) • education of parents and children as to appropriate health promotion and prevention activities • well baby checks	• early identification by parent through observation of relevant symtomatology (i.e, scratching or pulling at ear, ear pain, fever, fluid draining from ear, keeps T.V. or radio loud or sits too close, untypically "ignores" parental requests, cries when burps) • early identification by screening (otoscopy—looking in the ears, impedance audiometry—measuring mobility of ear drum and air volume and acoustic reflex) • treatment such as using antihistamines and other decongestants, applying local heat, pain relief (aspirin, nose drops, warm olive oil on ear drum), use of antibiotics such as ampicillin or penicillin and a sulfenamide, valsalva maneuver, ear drops, ear plugs for swimming • identification of sequelae such as language delay and learning difficulties or emotional problems	• diagnosis (i.e., puretone audiometry) • treatment with antibiotics • hospitalization • surgery such as myringotomy (P.E. tubes) or removal of adenoids • speech and language remediation • special education services (rehabilitation of educational disabilities)

problems. Again, education of parents, especially in terms of signs, symptoms and the disease process can be critical to early identification, early treatment and effective follow-up.

Finally, diagnosis and treatment of the full-blown disease, chronic otitis media, has been the main focus of **tertiary prevention.** However, as mentioned earlier, the lack of comprehensive coordination of resources to affect all sequelae has greatly reduced the efficacy of these attempts.

Clearly, a major attempt to incorporate all three prevention levels in a single program of service delivery and research is necessary for

successful reduction of this problem, the leading disease within Indian populations, and its staggering psychoeducational consequences.

CONCLUSIONS

The prevalence of otitis media in American Indian children is extremely high. Indian children under the age of two are especially vulnerable. Definitive information concerning the etiology of middle ear disease remains unavailable, although socioeconomic, infection exposure, genetic, climatic and other factors have been studied as contributing causes. Promising research in the early 1970's with regard to bottle versus breast feeding, which pointed to immunological processes relating to possible protective features of human milk and provocative features in cows' milk, is being followed up, especially in relation to eustachian tube function. Connections between early otitis media conditions and subsequent language and educational deficit have implicated otitis media in delayed auditory processing, central processing disturbances and specific psycholinguistic and cognitive disabilities.

Major efforts to intervene to reduce the prevalence and incidence of otitis media within the Indian population have had isolated success; unevaluated, the impact of these interventions remains questionable. Prevention efforts have been negligible. Given the possibly staggering negative effects upon the potential capabilities of Indian children, this state of affairs is deplorable.

In order to begin to effectively address the situation, major biomedical and psychoeducational research efforts of a prospective, longitudinal and multidisciplinary nature will need to be undertaken. These empirical efforts will benefit not only Indian and Native groups, but will advance our knowledge concerning the etiology and pathogenesis of the disease among all children. Since Indian children experience otitis media and psychoeducational delay in far greater than average proportions, relationships can be studied most effectively within this substantially at risk population.

Prevention and intervention efforts can only be effective if a substantial increase of basic knowledge is obtained. Effective prevention and treatment of the disease depends upon understanding etiology; successful remediation of sequelae rests upon detailed knowledge of the relationships between otitis media and the affected developing skills and abilities. However, such knowledge must be used within broad multicultural and multidiscipline perspectives. Narrow concern over the nutritional status of Indian infants, which led to a concerted government effort to foster the use of formulas with bottle feeding, may have had devastatingly negative effects upon Indian children.

Specific needs for basic information are: a) to assess the threshold of awareness among professionals and in Indian communities with regard to otitis media; b) to obtain a clearer understanding of the etiology and pathogenesis of the disease (related questions include: what was its prevalence pre-contact? Are there indigenous forms of treatment?); c) to clarify further the nature of otitis media connections to language and psychoeducational disabilities; d) to identify potential conflicts and barriers affecting service delivery that may be attributable to cultural differences (i.e., concepts of wellness and illness); e) to clarify cultural aspects of incentives and motives affecting service utilization; f) to pinpoint and describe the characteristics of cooperation and collaboration across professions and settings necessary for an effective effort, and g) to determine the efficacy of various programmatic and strategic approaches to the problem in quantititative as well as qualitative terms and in relation to transfer to the general population. Newly acquired information in the areas noted above will need to be re-assessed for relevance to future research, teaching and provider efforts.

In the final analysis, with the possibility that the middle ear status of Indian people may be worse today than in 1900, I can only believe we have yet to take major steps that will adequately deal with the full complexity presented by the number one health problem of Indian people. Has anyone heard. . .?

NOTES

1. The interested reader may also wish to review Brody (1964), Brody, Overfield, & McAlister (1965), Cambon, Galbraith, & Kong (1965), Johnson (1967), Reed, Struve, & Maynard (1967), Deuschle (1969), Reed & Dunn (1970), Zonis (1968), Schaefer (1971), Baxter & Ling (1972), Weymuller & Red (1972), Kaplan, Fleshman, Bender, Baum, & Clark (1973), Manning, Avery, & Ross (1974), Bedwell & Blomstrom (1975), DeBlanc (1975), Graham (1975), Wiet (1978), Wiet, DeBlanc, Stewart, & Wieder (1979), and Shaw, Todd, Goodwin, & King (1979).

2. Portions of the first half of this article are adapted from two unpublished manuscripts by McShane and Nordin (1977) and McShane and Plas (1980).

3. McShane, D., & Nordin J. Middle ear disease in Ojibway and non-Indian children in the Minneapolis public schools. Unpublished manuscript, 1977.

4. McShane, D., and Plas, J. Otitis media, psychoeducational difficulties, and Native Americans. Unpublished manuscript, 1980.

5. Clifford, S., Hull, R.H., & Gregg, J.D. Survey of disorders of speech and hearing and ear, nose, and throat pathology among children of the South Dakota Indian population. Paper presented

at the annual meeting of the American Speech and Hearing Association, Washington, D.C., 1966.

6. Wiet, DeBlanc, Stewart, and Weider (1979) properly note that "despite countless numbers of studies being done regarding incidence of otitis media in American natives, all are flawed by a number of factors: 1) variation in completeness of record audits; 2) variation in definitions of ear disease; 3) lack of differentiation between chronic or recurrent disease from persistent middle ear effusions; 4) lack of bacteriology data on acute, recurrent, and chronic disease, and 5) the overwhelming lack of manpower (otolaryngologists) in the Public Health Service" (p. 15).

7. McShane, D., and Plas, J. The relationship of intellectual and psycholinguistic abilities to the achievement gains of American Indian children. Unpublished manuscript, 1981.

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DISCUSSION

Norm Dinges: I have generally three categories of comments in regard to the paper. The first is that, at least for me, a non-specialist, the paper provides an excellent review of the literature, in particular the literature on otitis media in Indian groups. There are many uses for this review which includes in-depth discussion of the etiology, prevalence, and the genesis of developmental consequences. It provides a point of departure for the researcher interested in developing research programs. This paper is also excellent for para-professionals, even for the professional provider who's unfamiliar with Indian communities. It also offers an excellent background for the provider in terms of the descriptions of actual attempts to prevent.

I have some questions that are related to etiology, the discussion of etiology. One is about pre- and post-contact, if there's any data on pre-contact prevalence of the disease and forms of treatment. Secondly, though admittedly stretching the case, this may be an example of the positive aspects of cultural contact, even though bottle feeding could have exacerbated the problem, of an instance in which a different culture provided the technology to respond to this particular disease. With regard to developmental consequences I think an elaboration of the language development consequences would be very helpful. You could be more concrete and specific about that, possibly elaborating with classroom cases that again might serve the purpose of content for teaching, or as an illustration to inspire providers. . .

In the latter part of the paper you describe a very complex process of instituting prevention programs. Could you elaborate on the cultural dimensions of the many linkages between different professions and disciplines that are involved in getting these systems together? Concrete examples of how you dealt with what appeared to be conflicting motives and incentives; how you overcame some of these, possibly stating case examples?

We hear a lot about service underutilization by Indian groups. This paper illustrates how to overcome such a problem and the amount of effort required. Could you elaborate on that and the social ecology of the process of prevention? I think that this aspect is greatly underestimated. We see lists of reasons for underutilization for all kinds of services, but no one ever shows how it all goes together to work. So the people in the field read that list and say, "Gee, this looks sort of hopeless, I think I'll move over somewhere else where there aren't so many problems," and don't go beyond

that. You illustrate that these problems can be overcome; I'm not sure at what cost to the person who sets about overcoming them, but it did work. Finally you describe the programs, but not the outcomes in terms of the kinds of quantitative outcomes I'd like to see. Certainly these programs, just by getting these connections and these kinds of people working together, must have had some impact. I suspect a significant impact. But from a cost-benefit, cost-effectiveness standpoint, it would be very interesting to know subsequent impact on prevalence and incidence. It would also help in terms of the transferability of such programs to other delivery ecologies.

Bernard Bloom: I take it that otitis media is a problem that's been around a long time, yet only recently has anyone gotten interested in some forthright way to try to do something about early detection, if not do something about prevention. I'm curious if you know how it developed that there's been more than passing interest in doing something about otitis media?

Damian McShane: My sense is that the individual professionals working in the field, particularly physicians in the Public Health Service, are really becoming aware of the problem. They see a lot of the same kinds of things. It's primarily been a medical concern for the longest time; there have been a few physicians, I believe, who have begun to collaborate with others. To this point, except for one, two or three isolated instances, there really hasn't been a multidisciplinary look at the problem. That, I think is a function of the individuals having difficulty stepping out of their roles. In terms of delivery problems, I remember a good example from the Minneapolis Indian program. When I was in the process of stepping out of my role into the medical arena, the pediatrician, who had been there for a couple of years dealing with these problems, and who practiced in the clinic on a part-time basis on loan from a large common medical center, was asked by the chief of staff, "Why is a psychologist doing this? Why aren't you doing this?" Which made for difficult collaboration.

The only study that I'm aware of that dealt with pre-contact disease prevalence looked at the older people who were born before World War I. The investigators were not able to find any evidence of middle ear problems, scarring on the eardrums, etc., or any reports of this nature. Nor could these elderly people remember draining ears, which most parents have talked about. If you ask your parents if they have ever seen a kid with draining ears, they will almost undoubtedly say, "Sure." But there isn't that sort of anecdotal data evidence among older people.

Bea Medicine: This interest is also generated by behavior problems that were seen in young children at school. Current interest and research in education brought this to everyone's attention so it's

kind of a multi-problem noticed by many people.

Art Blue: One of the problems, certainly a major problem in Canada among reserve children, especially from a physician's point of view, is the existence of the upper respiratory illnesses of which otitis media is a part. A major problem is consistently getting parents to give a prescription of antibiotics. They give it and the problem goes away and they stop. Three months later, two weeks later, it's back again.

Spero Manson: I find your suggestion about and, in some cases, documentation of the psycho-educational difficulties which may be a consequence of otitis media most intriguing. Here is a fairly clear, available preventive intervention that can lead to early identification, which can forestall or at least ameliorate some of these psycho-educational difficulties. To be able to attack such a major problem in this fashion strikes me as extremely important.

Joe Trimble: One of the things that your paper brings out is the notion of the systematic relationship between some physiological problems and psychological correlates. My brother lost complete hearing in one ear and suffered 15% reduction in the other. He didn't know what was happening. . . He was 36 years old and losing his hearing. It started for some unknown reason which the physician could not or did not detect or diagnose other than some other sort of infection; prescribed antibiotics which didn't do anything. Nonetheless, there was a gradual deterioration of my brother's psychological well-being to the extent that when I saw him three years later I didn't recognize him. His hair turned almost completely white. He had duodenal ulcers. He had undergone tremendous stress. I'm sure it was compounded by this interaction, the loss of hearing and not knowing what had caused it. Finally, too late, it was diagnosed as otitis media and he was operated on. It really brings home to me the importance of early detection and of implementing prevention programs in various institutions in Indian communities, perhaps through schools where children periodically can be tested.

Damian McShane: Picture a child with a hearing problem in the academic situation, under pressure, constantly subject to the teacher's demands to perform. Apart from whether or not you are competent in the areas of the tasks that are being asked of you, you cannot understand what the tasks are. This happens all too frequently. The psychological impact is not difficult to imagine.