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Effects of cultural factors on mental health care for American Indians living in New York State

Kathleen Alison Earle

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Effects of cultural factors on mental health care for American Indians living in New York State

Abstract
The literature suggests that American Indians need a unique mental health approach based on different cultural norms. Yet research supporting the existence of cultural differences among American Indian mental health clients is rare.

The hypothesis of this study was that American Indian and White, non-Hispanic mental health care recipients have differences in demographic characteristics, services received, and attitudes which may necessitate an alternative therapeutic approach for American Indians. Research methods were an analysis of a secondary data base and a field study using a questionnaire.

Preliminary analysis identified a difference in rate of mental health services received between all American Indian residents (rate of 1/100 population) and White, non-Hispanic residents (11/100 population) of upstate New York.

The study found that thirty-eight American Indian subjects were more likely to have an alcohol problem or to report a religion other than Christian or Jewish, and less likely to have been treated over one year ago or to have completed high school than thirty-eight White, non-Hispanic recipients of services matched by age, gender and program.

On an attitudinal questionnaire, fourteen American Indian clients differed from twenty-six White clients regarding the importance to good or poor mental health of the following: has visions, sees things others do not, guides life according to spirits, views things differently at different times, is bored, attempts to improve self, and communicates directly and honestly. There were differences in response between eleven federally enrolled members of the Seneca Nation and three other American Indians.

The results indicate the importance of assessing degree of acculturation in social work practice and of the synthesis of the client’s belief system with the therapeutic process. Policy implications are that the awareness of cultural differences and the extent of difficulties in care related to these must be clarified so that American Indians can help design their own mental health care.

Future research needs to replicate these findings with other American Indian groups and to identify successful treatment approaches based on different cultural characteristics and beliefs.

Keywords
Social Work, Health Sciences, Mental Health

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EFFECTS OF CULTURAL FACTORS
ON MENTAL HEALTH CARE
FOR AMERICAN INDIANS LIVING IN NEW YORK STATE

by

Kathleen A. Earle

A Dissertation
Submitted to the University at Albany, State University of New York
in Partial Fulfillment of
the Requirements for the Degree of
Doctor of Philosophy

Nelson A. Rockefeller College of Public Affairs and Policy
School of Social Welfare

1996
EFFECTS OF CULTURAL FACTORS
ON MENTAL HEALTH CARE
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Kathleen A. Earle

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DEDICATED

To My Friend and Colleague
Beverly Gordon, Doctor-to-be,
who has been my confidant and support throughout this process.
ACKNOWLEDGEMENTS

Thanks to the members of my committee for their support, good advice and hard work on my behalf. They are Jan Hagen, Ph.D., Chair, Professor of Social Welfare; Steve Banks, Ph.D., NYS Office of Mental Health; Bob Jarvenpa, Ph.D., Professor of Anthropology; and Ed Sherman, Ph.D., Professor of Social Welfare, Retired.
ABSTRACT

The literature suggests that American Indians need a unique mental health approach based on different cultural norms. Yet research supporting the existence of cultural differences among American Indian mental health clients is rare.

The hypothesis of this study was that American Indian and White, non-Hispanic mental health care recipients have differences in demographic characteristics, services received, and attitudes which may necessitate an alternative therapeutic approach for American Indians. Research methods were an analysis of a secondary data base and a field study using a questionnaire.

Preliminary analysis identified a difference in rate of mental health services received between all American Indian (rate of 1/100 population) and White, non-Hispanic (11/100 population) residents of upstate New York.

The study found that thirty-eight American Indian subjects were more likely to have an alcohol problem or to report a religion other than Christian or Jewish and less likely to have been treated over one year ago or to have completed high school than thirty-eight White, non-Hispanic recipients of service matched by age, gender and program.

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between eleven federally enrolled Senecas and three members of other tribes.

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Future research needs to replicate these finding with other American Indian groups and to identify successful treatment approaches based on different cultural characteristics and beliefs.
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CHAPTER 1:

INTRODUCTION

The study reported here is an attempt to begin researching the mental health needs of American Indians, an area which is the purview of social workers as well as psychologists, psychiatrists, nurses, and occupational or other specialized therapists. As an introduction to the topic, the initial focus will be on two areas: a discussion of the role of culture in mental health and mental illness; and current knowledge of the mental health needs of American Indians. Also as part of the introduction to this topic, current mental health services provided to the indigenous people of New York State, many of whom belong to one of the six Nations of the Iroquois Confederacy, will be explored.

The Role of Culture in Mental Health

The importance of providing culturally relevant mental health care is the subject of some debate in the social work and mental health literature. Authors have cited the poor record of social work and the other helping professions in responding to the particular needs of ethnic groups (Campfens, 1981; Durst, 1994; Lefly & Bestman, 1984) and have also provided advice on how to address these special needs (Gallegos, 1982; Greene, Jensen & Jones, 1996; Kumabe, Nishida & Hepworth, 1985; Sue and Moore, 1984). Hall and Kirk (1995) have decried the lack of research regarding the effects of ethnic and racial differences on culturally relevant social
work policy, programs and service. In their recent editorial in *Social Work Research*, Hall and Kirk noted there are still differences among Americans which may reduce social workers' ability to provide adequate care and that current efforts to improve the cultural relevance of practice may be in the destructive path of countermeasures aimed at affirmative action.

The field of counseling between persons of different ethnic backgrounds is called "multiculturalism" or "multi-cultural counseling" (Jackson, 1995). According to Gould (1995), the issue of multiculturalism has been the subject of debate based on the enhancement of the definition to suggest a prescriptive dimension. The prescriptive approach was widely publicized on the campus of Stanford University when the requirement for a core curriculum of Western civilization requiring fifteen books by white males came under fire and was replaced in 1988 by a substantial revision of the course to include the input and treatment of all ethnic groups (Gould, 1995).

In keeping with its concern with minority rights, the profession of social work includes in its Council on Social Work Education Guidelines a requirement that schools of social work provide content on ethnic diversity (CSWE, 1988), widely interpreted as teaching about people of color (Gould, 1995). Similar guidelines were adopted by the American Psychological Association in 1973 and the Association for Counselor Education and Supervision in 1977 (D'Andrea & Daniels, 1995).

Courses in multiculturalism as they have developed in the social work, counseling and psychology fields have been criticized for the following reasons: lack
of integration into the overall curriculum, lack of a strong conceptual framework, lack of resources beyond a basic course, and instruction from a purely intellectual perspective (D'Andrea & Daniels, 1995). These shortcomings in many courses on multiculturalism have led to rote learning about other groups which fails to modify the dominant attitude of conformity with an ethnocentric, primarily English European, view (Gould, 1995; Ivey, 1995). The solution according to Gould is to concentrate on the integration of the dominant, mostly white ethnocentric view with those of other groups, leading to a transcultural model in which no one group is dominant. This differs from the commonly accepted approach of providing specific strategies for ethnic-sensitive practice (Gould, 1995).

One area of ethnicity which has recently received increased attention and review in the literature is that of "Native American" or "American Indian" ethnicity. The field has not even come to a decision as to what to call the subjects of its scrutiny. Current thought is that the correct terminology is reference to a person's tribe or nation. The correct global appellation is "American Indian", since "Native American" refers to anyone of any ethnicity born in the United States.

Although there has been an increase in articles and books about American Indians, the finding by Manson, Tatum and Dinges (1982) that there were no studies of the usefulness of different approaches in mental health for American Indians has not been improved upon, as a review of the current literature found. There are, however, a few studies of global differences in approaches to mental health treatment between the "mainstream" American culture and ethnic groups in general. Several
authors have lumped these groups together and concluded that their specific as well as general differences need to be addressed in mental health treatment.

Although social workers have long included cultural factors as an aspect of environment which is central to social work practice (Gould, 1995; Moxley, 1989), they may be less cognizant than some other mental health practitioners of the pitfalls of cultural psychiatry debated in the anthropological and mental health literature (Price Williams, 1987; Leff, 1990). These include limitations of standard diagnostic tools (Chance, 1962), possible lack of relevance of diagnostic labels, and contrasting cultural interpretations of the causes of mental illness (Price-Williams, 1987). By overlooking the complexity found in the intersection of these various fields, social workers may be applying incomplete knowledge to their practice with ethnically diverse groups.

For example, such standard areas of social work expertise as the role of the family in treatment takes on a new perspective when analyzing mental health needs from a cultural perspective. Mental health is an area with its own debates and difficulties apart from social work and questions of ethnically-relevant care. The major current debates in the mental health arena concern the importance of biological determinants (Kline, Becker & Giese, 1992) and the role of institutional (Lamb, 1988; 1992) versus community (Foley, 1983; Mechanic & Rochefort, 1992) care. Social workers who are trained to work with families must be aware of developments in the biological/medication arena and must also be able to help families decide the most appropriate (home, community, or institution) locus of care.
Although there is much information in the literature regarding families who must deal with the problems of a sibling, child or parent with a diagnosis of mental illness (see Clausen, 1980; Wahl & Hermon, 1989; Brodoff, 1988), these accounts have been written primarily from a western, or dominant viewpoint, focusing on middle-class, White subjects with intact families.

A few authors have begun to recognize and to report that family supports are very different in different cultures and that the differences are core to the belief system of the culture (Lefley, 1989, 1990). These studies have shown that the type of support received in non-western cultures may even help the client recover more readily than does standard mental health care (Lefley, 1989; Lin & Kleinman, 1988; Waxler, 1977, 1979).

One of the most well known studies of differences in cultural aspects of mental illness was completed in 1988. This prospective study of cross cultural differences in outcome of schizophrenia found significant differences among cultures. Schizophrenia, recognized as a debilitating form of mental illness, is described in the DSM-IV (APA, 1994) as follows:

The characteristic symptoms of schizophrenia involve a range of cognitive and emotional dysfunctions that include perception, inferential thinking, language and communication, behavioral monitoring, affect, fluency and productivity of thought and speech, hedonic capacity, volition and drive, and attention. The positive symptoms appear to reflect an excess or distortion of normal functions, whereas the negative symptoms appear to reflect a diminution or loss of normal functions. (p. 274)

Hallucinations and delusions are specifically included as part of the diagnostic criteria for schizophrenia. Therefore, cultures which accept or encourage such
experiences would appear to be vulnerable to the misdiagnosing of schizophrenia. However, according to the authors of this study, the core schizophrenic syndrome can be diagnosed across all cultures (Lin and Kleinman, 1988), perhaps based in its departure from "normalcy" as stated in the DSM-IV.

Lin and Kleinman's (1988) International Pilot Study of Schizophrenia compared the long term course of diagnosed schizophrenia among a total of 1202 schizophrenic inpatients over a five year period in Denmark, India, Colombia, Nigeria, England, Russia, Czechoslovakia, Taiwan, and the United States. Assessments after two and five years were carried out using the same or similar standard instruments as those used for the initial assessment. India and Nigeria had the best long term outcome, defined as symptomatic outcome, length of episode of inclusion, percent of time spent in a psychotic episode, pattern of course, type of subsequent episodes, degree of social impairment, and length of time out of hospital. Persons in the industrialized countries had the most negative outcomes.

The authors' findings support the hypothesis that schizophrenic patients in non-industrialized countries enjoy a significantly better prognosis than their western counterparts. The authors further hypothesize that these results may be due to the fact that developing countries are more "sociocentric", emphasizing society and group identity, and that western societies are more "egocentric", stressing individualism which may lead to social isolation and alienation. In the latter type of society, people with mental illness are seen as lifelong deviants (Lin & Kleinman, 1988).

Waxler (1977, 1979) suggests that differences between the prognosis for
schizophrenia in western and non-industrialized societies relates to cultural expectations. The capacity for non-western cultures to "cure" seriously mentally ill people is based on four factors: (a) messages that call for a quick return to normality; (b) the strength of family responsibility for accepting the patient back; (c) availability of other culturally appropriate forms of therapy that allow the family to seek a cure related to their belief system; and (d) the fact that mental illness is believed to be caused by external forces rather than the patient's personality or upbringing (Waxler, 1977, 1979).

Lefley (1990) delineates the following aspects of ethnic minority culture (of any kind) which may exist and which may positively affect a client's prognosis within that community:

- Belief in an external causation for mental illness which precludes viewing him or her as an agent in his own disability
- A cultural stress on interdependence, rather than the independence touted by American civilization.
- Lack of belief in mastery over mental illness (or anything else) which leads to acceptance of what is (Lefley 1990).

Lefley has also highlighted cultural aspects which make western care of persons in minority cultures more problematical for western therapists. These include:

- Differential response to medication, based on cultural belief as well as on different physical responses to different medications.
- Belief by many cultures in supernatural causation or possession as a basis for mental illness.
- Different conceptions of time, which may lead to missed or late appointments as well as to overstimulation for persons who are accustomed to a more leisurely pace (Lefley 1990).

Although there are various sources of information regarding the mental health

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characteristics and needs of ethnically diverse groups, information regarding
American Indians is less likely than data for other specific groups to include specific
rates of mental disorder or other problems such as poverty rates and rates of alcohol
and drug abuse which would be useful in designing appropriate treatment
interventions. Following is a review of available information regarding the prevalence
of mental illness among American Indians, and information concerning the role of
culture in defining mental health problems, the importance of special federally
recognized status, and the locus of American Indian mental health care.

Current Mental Health Needs of American Indians

There are between 1 1/2 and 2 million American Indians living in the United
States, making up less than one percent of the population (Nelson, McCoy, Stetter
& Vanderwagen, 1992; Joe & Malach, 1992). American Indians are officially
clustered in 500 federally recognized communities or reservations in the United
States (Mental Health Program Branch, Indian Health Service (IHS), 1991), with
approximately 50% of American Indians living on the reservations (Sue & Sue, 1990).
Approximately 50% of the American Indian population are under age 18 (Mental
Health Program Branch IHS, 1991).

Prevalence Rates of Mental Illness

The National Plan for American Indian Mental Health Services (U.S. Indian
Health Service, 1989) reports that American Indians have much more serious and
numerous mental health problems than the general population. Data on actual
prevalence of mental illness among American Indians is difficult to obtain due to
under-reporting by American Indians in census figures (Schaaf, 1990), and the difficulties of obtaining true figures regarding mental illness among American Indians. The latter is due not only to problems of definition and of diagnosis, but also to the lack of reporting of data regarding mental health among American Indians, even from the Indian Health Service. In Spring 1995 the researcher made a telephone call to the federal offices of the IHS to determine the number of Indians receiving mental health services at IHS clinics in New York State and was referred to the individual clinics, which reported they do not have such data available.

Neither a recent article regarding mental health services for American Indians (Nelson et al., 1992), nor the National Plan for American Indian Mental Health Services (U.S. Indian Health Service, 1989) includes rates of mental illness for American Indians. Specific rates for specific groups of American or Canadian Indians have been reported in the literature in the past. Almost twenty years ago, Roy, Choudhuri and Irvine (1978) found a prevalence rate of 27.3 per 1000 among Native people and 15.2 per 1000 among the other people living in a rural population of the Canadian province of Saskatchewan. Other studies from the 1970s also identified a high rate of mental illness among specific groups of Native people in the United States and Canada (Fritz, 1976; Jilek-Aall, Jilek & Flynn, 1978; Shore, 1973).

In lieu of a specific rate, the National Plan reports that "the incidence and prevalence of mental health problems and family disruption is high" (U.S. Indian Health Service, 1989, pg 1) and attributes this to life situations which face many American Indians such as poverty, lack of employment and other meaningful
activities, racial discrimination, geographical isolation, inadequate educational opportunities, and cultural identity issues brought on by rapid encroachment of a dominant technological society.

**The Role of Culture in Defining Mental Health Problems**

Other authors hold that the prevalence and patterns of such problems as alcoholism, homicide, and suicide among American Indians are explainable in terms of culture rather than as responses to acculturation and social disorganization (Levy & Kunitz, 1971; Young, 1990; 1991). Widely different results found in studies of prevalence rates among specific groups of American Indians bring into question the validity of standardized instruments for identifying true mental disorder among members of a totally different culture such as American Indians (Price-Williams, 1987). O'Dell adds to this point, suggesting that high prevalence rates may be related to difficulties in interpreting different styles of presentation. These include "flat affect", "hallucinations involving spirits", and "prolonged mourning", which have been reported as being more frequent among American Indians (O'Dell, 1989).

In addition, there are reports in the literature of emotional difficulties among American Indians which are not defined in the dominant culture. Mental disorders peculiar to American Indians have been identified in studies by Trimble, Manson, Dines, & Medicine (1984), Manson, Shore & Bloom (1985), Johnson and Johnson (1965), Matchett (1972), and Lewis (1975). The disorders presented in these findings include a disorder called "totally discouraged" as well as "when people pout when they don't get what they want" among the Sioux. The authors of these studies also
report difficulty interpreting these disorders in terms of western diagnostic labels. For example, although "totally discouraged" can be taken at face value to imply clinical depression, the authors of this study found that the description cut across a range of official designations such as alcoholism, suicide, destruction of property, child and family neglect, and lack of social responsibility. Yet there was a common tribal definition for these symptoms, which included conditions of present deprivation as well as cultural beliefs related to dead relatives and the spirit world (Johnson and Johnson, 1965).

Despite the differences in definition found among American Indian nations, the interface between the American Indian nations and the rest of the United States cannot be ignored as a source of emotional disruption for Native people. For American Indians, there is an additional source of possible difficulty and conflict not found in other ethnic groups. This is the unique status of American Indians in relation to the U.S. government.

**Special Status of American Indians**

The American Constitution describes American Indian tribes as sovereign nations who may deal only with the federal U.S. government, and not with the states in which they are located (Prucha, 1990). Escalating conflicts with the states around issues of land ownership led in 1831-1832 to the Cherokee v. Georgia and Worcester v. Georgia Supreme Court decisions which reaffirmed that Indian nations are separate from the U.S., but that they are "dependent nations" for whom the federal government is responsible (Canby, 1988). This federal responsibility was extended to
health care with the establishment of the Bureau of Indian Affairs (BIA) in the War Department in 1824, under which army medical personnel were assigned to oversee health care of American Indians on reservations (Attneave, 1984).

The BIA was transferred from the War Department to the Department of the Interior in 1849 and from Interior to the Department of Health, Education and Welfare in 1955. In 1965 the Indian Health Service (IHS) Office of Mental Health was established. Before this time it was widely thought that American Indians had no mental health needs or resources (Attneave, 1984).

This ongoing relationship of Indian nations with the federal government appears to reflect the mood of the national psyche. For example, during a time of attempted assimilation or removal of the American Indians from their homelands, oversight was provided by the War Department. Based on prior history, the relationship with the U.S. is considered fragile by Indian people, many of whom have decided not to trust the federal government to provide for their welfare. Meanwhile, the special status of Indian nations with the U.S. leads to frequent clashes with state governments over issues of taxation and rights and puts individual members of tribal groups in frequent conflict with their White neighbors (Nabokov, 1991).

At the same time, designation as a federally enrolled American Indian in a federally recognized tribe or nation provides access to free health and mental health services to American Indians which are not available to non-Indians or to non-enrolled Indians (Attneave, 1984; Mental Health Program Branch IHS, 1991; LaFromboise, 1988; Blount, Thyer & Frye, 1992) and which are in addition to other
services also available to American Indian people.

Locus of Mental Health Care

Federally operated Indian Health Service (IHS) health and mental health clinics are usually located within the boundaries of Indian reservations. Yet they are currently only able to provide about half of the health and mental health services needed (Mental Health Program Branch IHS, 1991), resulting in frequent use of outside providers of care (Cunningham, 1993).

In addition, there are many American Indians who do not attend these clinics for other reasons. They may have decided not to accept federal Indian status, may be too far from an IHS clinic to attend, or may not be enrolled in an officially recognized tribe or nation. The result is that both federally enrolled, or recognized American Indians, and persons who identify with the American Indian culture but who are not enrolled must receive treatment for mental health and other problems outside of the services provided specifically for American Indians by the federal government.

An effort is made by the IHS to provide culturally appropriate mental health care at the IHS clinics, to hire American Indians as therapists whenever possible, and to incorporate traditional healing practices as much as is feasible into mental health treatment (Mental Health Program Branch IHS, 1991). In contrast, mental health treatment outside of the reservations is generally grounded in a universalist perspective, which emphasizes standard "western" conceptualization of mental illness leading to standard diagnoses which have evolved from and which reflect the views
of the dominant American culture (Attneave, 1984). The universalist perspective includes a western interpretation of symptoms among American Indians which, to other members of the tribe, may appear to be something else entirely (O'Dell, 1989).

To provide some perspective as to the type and numbers of mental health services provided to American Indian people in the United States today, data regarding services in New York State to the (primarily) Iroquoian people are included here.

**A Modern Example: The Haudenosaunee**

The Haudenosaunee, called "Iroquois" by the early French settlers (Barreiro and Cornelius, 1991; Morgan, 1962), have resided for centuries in New York State (NYS) and more recently, in the lower Ontario and Quebec provinces of Canada and parts of the mid-Western United States. The Iroquois Confederacy consists of six separate nations united into one confederacy of nations. The five original nations were, from east to west: Mohawk, Oneida, Onondaga, Cayuga, and Seneca. Sometime before 1720 the Tuscarora, an Iroquoian-speaking people, left North Carolina after a conflict with the European settlers and became the sixth Iroquois nation (Morgan, 1962; Richer, 1992; Tarbell, 1976). During the century following the American Revolution many of the Iroquois were displaced and dispersed by new settlers of European descent. By the early 1900s most of their land was gone and their traditions had begun to fade.

Interviews of key informants from the five original nations were undertaken in 1994 to determine the extent of traditional belief among the modern
Haudenosaunee. In these same face to face interviews, rules for federal enrollment among the Iroquois Nations were described. Information regarding acceptable blood quantum is decided by the tribe or nation and is not available from written material. It is considered privileged knowledge.

Among the Iroquois, enrollment is determined through matrilineal descent, but the proportion of American Indian blood allowed varies from one-half among the Onondaga, to one-thirty-second among the Seneca. The Cayugas require that the person's mother already be an enrolled member of the Cayuga Nation. Among the Mohawk, Tuscarora, and the Oneida, the blood quantum is one-quarter. Table 1 shows the number of enrolled Iroquois as reported by the NYS Office of the U.S. Bureau of Indian Affairs (BIA) in September 1994.

Table 1

<table>
<thead>
<tr>
<th>IROQUOIS NATION</th>
<th>Population 1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seneca (Allegheny, Cattaraugus)</td>
<td>6,469</td>
</tr>
<tr>
<td>Tonawanda Seneca</td>
<td>1,050</td>
</tr>
<tr>
<td>Cayuga</td>
<td>462</td>
</tr>
<tr>
<td>St. Regis Mohawk</td>
<td>6,140</td>
</tr>
<tr>
<td>Tuscarora</td>
<td>1,200</td>
</tr>
<tr>
<td>Onondaga</td>
<td>1,694</td>
</tr>
<tr>
<td>Oneida</td>
<td>1,109</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18,124</strong></td>
</tr>
</tbody>
</table>

(Source: Eastern Area Office, U.S. Bureau of Indian Affairs, Sept. 1994)

Figure 1 shows the current locations of the Iroquois nations. The Seneca reside at the Allegheny, Cattaraugus, and Tonawanda reservations; the Cayuga reside
at Cattaraugus as well. In addition, there are many Iroquois who do not live on the reservations (Schaaf, 1990). As a frame of reference, the location of proximal New York State operated psychiatric centers is also included on the map.

**New York State**

*Location of Iroquois Confederacy and Proximal Psychiatric Centers*

According to the U.S. census, there were 24,638 American Indians living in the central and western counties of New York State in 1990 (NYS Dept.of Health, 1991). Counties included in these figures were those included in the NYS Office of Mental Health (OMH) Central and Western Regions and are shown in Appendix C. These areas of New York were included because of their proximity to reservations of the Iroquois Confederacy and to avoid data collection problems of the New York State operated psychiatric centers.
City, Long Island, and downstate regions of New York State. Early analyses found that the term "Native American" used in data collection in these areas frequently led to the capture of information for first generation Americans, especially those of Asian descent.

While it is probable that a large number of Iroquois people live in the identified counties, there are also enrolled Iroquois in Canada, Wisconsin, Oklahoma, and other areas of New York and other states. However, it was hoped that many Iroquois would be included in data from these counties.

**Current Mental Health Care Among the Iroquois**

In New York State, there are four federal IHS clinics located in three disparate areas of the State, and each site includes a mental health clinic. These are all on the grounds of Iroquois reservations. One is located on the Mohawk reservation, one on the Oneida reservation, and one at each site (Allegheny and Cattaraugus) of the main two Seneca reservations. However, as stated above, IHS clinics do not provide services to all eligible persons, and there are also persons who self-identify as Iroquois living at or near reservations who are not eligible for IHS care.

Following is a description of types and locations of mental health care available to the Haudenosaunee from the federal government, private providers, the state government, and traditional healers. Obtaining this information required a year long process of extensive searches of computerized data bases and contacts with several people in different federal, state, and Iroquois communities. It is hoped that
these data will provide an indication of the numbers and types of services provided to an American Indian group, the Haudenosaunee, in relation to the provision of services to White members of the same communities, and further that these data are somewhat generalizable to all American Indian communities.

**Mental Health Treatment by the Federal Government**

Table 2 shows the number and type of mental health services provided to federally enrolled Iroquois at the four IHS clinics in 1994, the numbers of mental health staff, and the numbers of services referred outside the IHS clinics. Numbers of American Indian individuals served were not available from the IHS.

<table>
<thead>
<tr>
<th>Clinic:</th>
<th># MH Staff</th>
<th># MH Services Provided 1994</th>
<th># Referrals Outside</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Regis Mohawk</td>
<td>5</td>
<td>1446</td>
<td>4</td>
</tr>
<tr>
<td>Cattaraugus Seneca</td>
<td>11</td>
<td>1803</td>
<td>5</td>
</tr>
<tr>
<td>Allegheny Seneca</td>
<td>196</td>
<td>131</td>
<td>0</td>
</tr>
<tr>
<td>Oneida</td>
<td>3</td>
<td>196</td>
<td>11</td>
</tr>
</tbody>
</table>

(Source for Tables 2,3: Statistics Office, Health Care Research, U.S. Bureau of Indian Affairs)

The Cayuga, Onondaga, and Tuscarora Nations do not have IHS services. A telephone call to Betty Claymore, Ph.D., of the Health Care Research Office of the Bureau of Indian Affairs established that these nations have chosen not to have these services (Claymore, 1995, personal communication). Types of services provided at one clinic are shown in Table 3.
Table 3
Reasons for Services Provided at an IHS Mental Health Clinic in New York State by Number and Percent of Visits, 1994.

<table>
<thead>
<tr>
<th>Reason for Service:</th>
<th>Number of Visits</th>
<th>% of Total Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia</td>
<td>25</td>
<td>19%</td>
</tr>
<tr>
<td>Neurosis</td>
<td>18</td>
<td>14%</td>
</tr>
<tr>
<td>Psychiatric d/o</td>
<td>4</td>
<td>3%</td>
</tr>
<tr>
<td>Drug Use</td>
<td>59</td>
<td>45%</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>15</td>
<td>11%</td>
</tr>
<tr>
<td>Child/Adolescent</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>131</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The high (total of 56%) percentage of services for alcohol or drug use is noteworthy but cannot be explained without additional information regarding the individuals served. Programs certified by the Office of Mental Health do not admit persons with a primary alcohol or substance abuse problem without a concomitant mental health diagnosis (Source: New York State Office of Mental Health Bureau of Licensing and Certification, 1995). It appears from the above data that the IHS clinics do treat alcohol and drug abuse problems without a mental health diagnosis at the mental health programs.

In addition to IHS services, American Indians are eligible for mental health care at all other programs in their geographic area. These include programs operated by the state, the county, and private or proprietary mental health providers.
Mental Health Treatment, All Providers

The NYS Office of Mental Health surveys all mental health providers every two years to determine the numbers of services and people provided during a one-week time frame. This is called the "Patient Characteristics Survey" (PCS). These data do not reflect individuals served. For example, a person who is living in a community residence, attending a clinic, and who has been screened at a continuing treatment program would be reported three times during the week.

As shown in Table 4, White, non-Hispanic persons were seen an average of 11 visits per 100 population and American Indians were seen an average of 1 visit per 100 population. Population figures used for rates are from the 1990 US census data (NYS Dept. of Health, 1991). They are: White Non-Hispanics, 4,517,653; American Indians, 24,638.

These rates cannot be considered true rates of care, as the number of persons seen may include an individual person more than once. However, these data do suggest that American Indians receive fewer mental health services than White, non-Hispanic persons in the central and western areas of New York State.
Table 4
Number of Programs and American Indian Clients Served, All Mental Health Providers during a one-week time frame, Central and Western Regions NYS OMH, 1993.

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>UPSTATE (CENTRAL &amp; WESTERN) REGIONS OF NYS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Programs</td>
</tr>
<tr>
<td>New York State</td>
<td>Inpatient:</td>
</tr>
<tr>
<td></td>
<td>Outpatient/residential/other:</td>
</tr>
<tr>
<td>Local Providers:</td>
<td>Inpatient:</td>
</tr>
<tr>
<td></td>
<td>Outpatient/residential/other:</td>
</tr>
<tr>
<td>TOTAL</td>
<td>#: 480,782</td>
</tr>
</tbody>
</table>

(Source:Bureau of Licensing and Certification, NYS OMH, 1993; Patient Characteristics Survey, Bureau of Research and Evaluation, NYS OMH, 1993)

The IHS St. Regis Mohawk mental health clinic was included among the outpatient providers of care surveyed with the Patient Characteristics Survey in 1993, but reported only two visits during the survey week; the other three IHS clinics did not appear in the survey results.

American Indians who attended state (OMH) programs during 1993-1994 attended programs affiliated primarily with four OMH psychiatric centers: Buffalo Psychiatric Center (PC) (which includes the former Gowanda Psychiatric Center), Hutchings PC, Mohawk Valley PC, and St. Lawrence PC. The locations of these centers are shown on Figure 1 above.
**Mental Health Treatment by the State Government**

In addition to the Patient Characteristics Survey described above, the NYS Office of Mental Health (OMH) gathers mental health program data in the computerized Department of Mental Hygiene Information System (DMHIS), which electronically tracks all persons admitted to, transferred to or from, or discharged from NYS OMH-operated mental health programs only. This system identified approximately 88 American Indians who received inpatient or outpatient services at New York State Office of Mental Health operated programs located in the chosen counties during the first ten months of 1994. This compared to 10,010 White, non-Hispanic persons who attended mental health programs in the same counties in New York State during the same time frame. During the first ten months of 1994, 43 (49%) of the American Indians receiving mental health services from a NYS program were receiving them through the Central New York forensic psychiatric center which oversees and tracks services at mental health clinics located in jails. This compares to 3946 persons (39%) among the White non-Hispanic clients and is "borderline" in terms of statistical significance ($X^2 = 3.25; 1 \text{ df; } p>.07$) (DMHIS, 1994).

Other than the Central New York PC providers, the primary locations of New York State operated programs which served American Indians during the first ten months of 1994 and the number of American Indians served are shown in Table 5 (DMHIS, 1994). Services included are clinics, day treatment, continuing treatment, inpatient, partial day hospital, crisis residence, and vocational rehabilitation.
Table 5  
Number of Programs and American Indians Served, NYS OMH, in the Central and Western Region, Jan-Oct., 1994.

<table>
<thead>
<tr>
<th>OMH Psychiatric Center and Program</th>
<th>CENTRAL AND WESTERN REGIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Clients</td>
</tr>
<tr>
<td>BINGHAMTON PC:</td>
<td></td>
</tr>
<tr>
<td>Vocational Rehab.</td>
<td>1</td>
</tr>
<tr>
<td>BUFFALO PC:</td>
<td></td>
</tr>
<tr>
<td>Program Unknown</td>
<td>1</td>
</tr>
<tr>
<td>Inpatient</td>
<td>2</td>
</tr>
<tr>
<td>Education Intervention</td>
<td>1</td>
</tr>
<tr>
<td>Continuing Day Treatment</td>
<td>3</td>
</tr>
<tr>
<td>Clinic</td>
<td>14</td>
</tr>
<tr>
<td>ROCHESTER PC:</td>
<td></td>
</tr>
<tr>
<td>Crisis Residence</td>
<td>1</td>
</tr>
<tr>
<td>Voc.Rehab.</td>
<td>1</td>
</tr>
<tr>
<td>ST. LAWRENCE PC:</td>
<td></td>
</tr>
<tr>
<td>Inpatient</td>
<td>2</td>
</tr>
<tr>
<td>Clinic</td>
<td>2</td>
</tr>
<tr>
<td>Continuing Treatment</td>
<td>1</td>
</tr>
<tr>
<td>Children's Day Treatment</td>
<td>2</td>
</tr>
<tr>
<td>HUTCHINGS PC:</td>
<td></td>
</tr>
<tr>
<td>Program Unknown</td>
<td>3</td>
</tr>
<tr>
<td>Clinic</td>
<td>5</td>
</tr>
<tr>
<td>ELMIRA PC:</td>
<td></td>
</tr>
<tr>
<td>Partial Hospital</td>
<td>1</td>
</tr>
<tr>
<td>WESTERN NY CHILDREN'S PC BOCES</td>
<td>2</td>
</tr>
<tr>
<td>MOHAWK VALLEY PC:</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
</tr>
<tr>
<td>Crisis Residence</td>
<td>1</td>
</tr>
<tr>
<td>Children &amp; Youth Day Treatment</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>45</td>
</tr>
</tbody>
</table>

(Source: DMHIS, Management Information Services, NYS OMH; Bureau of Inspection and Certification, NYS OMH, 1995)

A total of 45 American Indians were seen at OMH programs other than mental health clinics affiliated with jails during the first ten months of 1994. The
largest provider was the Buffalo PC. Of particular note is the number and percentage (21/45 = 47%) of American Indian persons seen at programs operated by Buffalo PC. Since almost half of the American Indians seen at upstate OMH programs were seen by one provider, the reminder of the upstate area may be relatively underserved.

**Traditional Mental Health Treatment**

For a more personal indication of current mental health care among the Haudenosaunee, the researcher had telephone conversations with two "key informants" within New York State in May 1995. The first key informant was a Seneca storyteller and official spokesperson, Duwayne Leslie ("Duce") Bowen of the Allegheny Seneca Reservation in Salamanca, New York. Duce was the key informant interviewed earlier about the current status of Iroquois traditions among the Seneca. According to Duce, people on the Allegheny and Cattaraugus Seneca reservations attend the local IHS mental health clinics as well as the state and county programs. The IHS has good counsellors, he said, but if the problems are severe, people must sometimes go elsewhere, including to a traditional healer.

Duce described the healing practices of traditional Seneca people as follows: first a person talks to a medicine person, one of three older women who know how to use traditional herbs and teas to calm a distressed person. The person may talk about signs or dreams which are problematical and the medicine woman may prescribe a ceremony to help. Ceremonies include the False Face ceremony, Dark Dance ceremony (as described by Wallace, this ceremony is also known as the Little
Water or Dark Dance Society Rite and is called for when a person has a vision (Wallace, 1959), or "shake the punkin". The ten-day feast or one-year feast first described in the Iroquois Great Law as the "Condolence Ceremony" (Parker, 1968) is indicated for mourning. These ceremonies were variously referred to by Duce as "Doings". A "Doing", he said, can be for a person, for a household or for a community and is a private ceremony.

The second key informant was Rob Higgens, Director of the St. Regis Mohawk Mental Health Clinic. Rob was referred by the American Indian administrator of the Mohawk people, Deborah Terrance, and by an IHS official, Betty Claymore, Ph.D., as a person knowledgeable about mental health care among the Mohawk. Rob is a White, non-Hispanic employee of the IHS clinic located on the grounds of the St. Regis Mohawk Reservation. According to Rob, problems of drugs and alcohol use, as well as the political situation among the St. Regis Mohawk people, have led to an overwhelming and partially unmet need for mental health services available through the clinic. When asked about the use of "traditional" healing among the Mohawk, Rob stated that this is not an option for most of the people with severe problems because they are not able to give up drug and alcohol use. Earlier conversations with the five key informants from the five original Iroquois Nations cited above indicated that traditional members of the Haudenosaunee must give up alcohol and illicit drug use as part of their adherence to Iroquois tradition.

**Summary**

The importance of providing culturally appropriate and useful mental health
care for specific ethnic groups is an area of study which has been debated in the social work and mental health literature. The needs of American Indians have been included in these analyses, but without concurrent empirical or even descriptive studies.

Information regarding cultural relevance of mental health care for specific ethnic groups suggests that the emphasis on a standard approach to care by social work and other practitioners does not take advantage of the unique and possibly unknown strengths of ethnic groups. These strengths, which may include strong family ties, a lack of assignment of responsibility to the patient for his or her problem, and the availability of other, culturally appropriate forms of treatment, are considered useful in returning clients to normalcy. Yet there are few empirical studies, especially of American Indians, to support these notions.

A review of information on American Indians and mental health revealed some of the possible reasons for this lack of research. These included limitations of standardized tools in the American Indian cultural milieu, different definitions for mental illness among American Indians, and the reluctance of American Indians to provide information regarding an area as sensitive as mental health.

With much time and effort, it was possible to ascertain the approximate level and type of mental health services available to American Indians in New York State using an "accidental" sample (Reid and Smith, 1989) accessible for the purposes of this analysis. Services included an eclectic array of federal, state, local and traditional approaches. Comparisons with White non-Hispanic recipients of service appeared to
indicate that American Indians in upper and western New York State are underserved in the area of mental health.

Meinhart & Vega (1987) reported that parity of service utilization is a frequently used but not necessarily valid method of projecting need for services among specific ethnic groups, and they suggest the use of surveys to ascertain true need. The literature regarding American Indians indicates, however, that surveys regarding personal demographic characteristics are not a viable option for American Indian clients (Mander, 1991; Sue & Sue, 1990), especially in a sensitive area such as mental health (Marshall, Martin, Thomason & Johnson, 1991; Trimble et.al., 1984). In addition, the possible presence of differences in definitions of mental illness cited above may render such surveys useless to the researcher. The lack of data, and the difficulties of obtaining useful information, make the need for such data even more compelling.
CHAPTER 2:

LITERATURE REVIEW

The following review of the literature defines the current state of awareness of the need for culturally appropriate treatment of American Indians at mainstream mental health programs and of the methods of treatment which have been found successful in the provision of mental health services to Native people. Descriptions of mental health services provided to members of the Iroquois Confederacy are included as an example of how the mental health needs of American Indians have been depicted in the literature.

"American Indians are Different from Americans"

In the treatment of mental illness, the literature enumerates various aspects of American Indian culture which reduce the utility of a western approach. Examples are lack of emphasis on the individual and reluctance to discuss feelings. The western emphasis on face-to-face, individual treatment is problematical for members of the American Indian culture (Sue & Sue, 1990) because the culture does not "teach, revere, or in any way expect" self-revelation. Among the Sioux Indians, for example, it is considered rude to inquire about a person's psychological well-being (Trimble et.al., 1984). As Carol Laine (WICHE, 1993) noted:

Our people are taught to keep feelings to themselves or within the family, so typical day programs are not conducive to helping (them) be as well as (they) can be.(p. 18)
Other aspects of American Indian culture which may need to be recognized when dealing with mental illness among American Indian clients include the continuance of tribal social and religious functions, the extended family network, close communication with nature, respect for children and elders, and the use of native healers (Edwards, Drews, Seaman & Edwards, 1994; Nelson et al., 1992).

Gross (1995) has described the values usually associated with the American Indian culture as "artificial dichotomies in the canon" (p. 210). She argues that many of these values are falsely attributed to American Indian people, primarily by American Indian people, and that social workers have been unable to help American Indian clients partially because the non-Indian worker is not allowed into this sacrosanct area of knowledge or expertise. Gross (1995) states that:

...values are typically set forth as oppositional and dichotomous, in which case the best resolution of any dilemma is to want to acquire the Indian stance (presumed traditionalist outlook and behaviors) and, therefore, to ignore the complexities associated with modern and postmodern approaches to social problems in American communities. (p. 209).

Gross argues further that an over-reliance on stereotypes is part of the "political correctness" movement currently operational in the U.S., and it is this reliance on stereotypes that prevents social workers from being able to effectively treat American Indians or from having any input into addressing the needs of American Indian clients in the literature. An example of these stereotypes appears in a book by Mander (1991). The following grid (Table 6) is a partial listing of a "Table of Inherent Differences" developed by Mander to delineate differences between American Indian and western cultures.
### Table 6
Differences in Values of Technological and Native Peoples

<table>
<thead>
<tr>
<th>TECHNOLOGICAL PEOPLES</th>
<th>NATIVE PEOPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Politics and Power</strong></td>
<td></td>
</tr>
<tr>
<td>Hierarchal political forms</td>
<td>Mostly non-hierarchal; prevent discord; may agree with counsellor to prevent disharmony</td>
</tr>
<tr>
<td>Decisions made by executive power, majority rule, or dictatorship</td>
<td>Decisions based on consensual process involving whole tribe</td>
</tr>
<tr>
<td>Spectrum from representative democracy to autocratic rule</td>
<td>Direct participatory democracy; rare examples of autocracy; rights of the individual dominate decisions</td>
</tr>
<tr>
<td>Laws are codified, written. Adversarial process. Criminal cases settled by strangers.</td>
<td>Laws transmitted orally. No adversarial process. Laws interpreted for individual cases using &quot;natural law&quot; as basis. Criminal cases settled by groups of peers.</td>
</tr>
<tr>
<td><strong>Sociocultural Arrangements and Demographics</strong></td>
<td></td>
</tr>
<tr>
<td>Large scale societies, high population density</td>
<td>Small scale societies, all acquainted, low population density.</td>
</tr>
<tr>
<td>Lineage mostly patrilineal</td>
<td>Lineage matrilineal, with some variation. Family property runs through the female.</td>
</tr>
<tr>
<td>Nuclear one or two parent families</td>
<td>Extended families, generations, sometimes many families, live together</td>
</tr>
<tr>
<td>Revere the young</td>
<td>Revere the old</td>
</tr>
<tr>
<td>History written in books, portrayed in docudrama</td>
<td>History oral, carried through memory</td>
</tr>
<tr>
<td><strong>Relation to Environment</strong></td>
<td></td>
</tr>
<tr>
<td>Living beyond nature's limits encouraged; natural terrain not considered a limitation; conquest of nature a celebrated value</td>
<td>Living within narrow ecosystem encouraged; harmony with nature the norm; only mild alterations of nature for immediate needs</td>
</tr>
<tr>
<td>High impact technology created to change environment</td>
<td>Low impact technology</td>
</tr>
<tr>
<td>Humans viewed as superior life form, Earth viewed as dead</td>
<td>Entire world viewed as alive. Humans not superior, but equal part of web of life. Reciprocal relationship with non-human life.</td>
</tr>
<tr>
<td>TECHNOLOGICAL PEOPLES, cont’d</td>
<td>NATIVE PEOPLES, cont’d.</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Religion and Philosophy</strong></td>
<td></td>
</tr>
<tr>
<td>Separation of spirituality from rest of life in most western cultures; materialism dominant philosophy in western countries</td>
<td>Spirituality integrated with all aspects of daily life</td>
</tr>
<tr>
<td>Either monotheistic concept of single, male god, or atheistic</td>
<td>Polytheistic concepts based on nature, male and female forces, animism</td>
</tr>
<tr>
<td>Futuristic, linear concept of time, de-emphasis of past</td>
<td>Integration of past and present</td>
</tr>
<tr>
<td>The dead are gone</td>
<td>The dead are regarded as present</td>
</tr>
<tr>
<td>Individuals gain most information from media, schools, authority figures outside their immediate community or experience</td>
<td>Individuals gain information from personal experience</td>
</tr>
<tr>
<td>Time measured by machines, schedules dictated when to do things</td>
<td>Time measured by awareness according to observance of nature; time to do something when time is right; deal in the present; no long term plans</td>
</tr>
<tr>
<td>Saving and acquiring</td>
<td>Sharing and giving; non-competitive</td>
</tr>
</tbody>
</table>


Mander concludes that not only are American Indians not American, but they do not want to be American:

They see themselves as eventual survivors, while we represent a people who have badly misunderstood the way things are on the earth. They do not wish to join the technological experiment...They see our way as a striving for death...Their goal is to stay out of its way and survive it (p.220).

This view, and its logical conclusion that American Indians need to be treated within the American Indian culture, is in direct conflict with the view presented by Gross. More in keeping with Gross' (1995) view is the recognition that American Indians are not necessarily a homogeneous group and that, in addition, there are many persons who may be labelled "American Indian" who may have grown up apart from any American Indian source of identity or heritage. These people may have a
different set of characteristics due to a confusion of identity, or to an acceptance of
the identity of the dominant culture (Jarvenpa, 1984; Sue & Sue, 1990; Williams &
Ellison, 1996). It is thus important for practitioners to assess the extent of American
Indian identity and affiliation of their clients before designing interventions (Blount,
Thyer & Frye, 1992; Trimble et al., 1984; Williams & Ellison, 1996).

The presence of attitudes related to traditional American Indian beliefs may
indicate differences in mental health need among American Indian clients. Tyler and
colleagues (1983, 1990) developed a 99-item questionnaire to measure attitudes
toward mental which captures some of the differences in traditional beliefs found in
American Indian people. The Mental Health Values Questionnaire (MHVQ) asks
respondents to rate each of the 99 statements as indicating from "very good" to "very
poor" mental health on a five point scale, with 3 neutral. Included among the
questions are several which the authors have grouped into an "Unconventional
Reality" subscale (Tyler, Clark, Olson, Klapp & Cheloha, 1983). These questions,
related to such things as visions, spirits, and seeing things other do not see, were
found to successfully discriminate between American Indian and White college
students who completed the MHVQ (Tyler & Suan, 1990).

The 93 Caucasian students were sampled from an undergraduate psychology
course and the 66 American Indians were respondents to a mailed survey sent to 252
students at the college who had identified themselves as "American Indian" in their
registration materials. Significant differences were found between the two groups on
both the "Religious Commitment" and "Unconventional Reality" subscales. The
American Indian students indicated, for example, that having visions was not only not a sign of mental illness but may be indicative of good mental health. The authors point out that these data are important, given the fact that mental status exams typically inquire about visual or auditory experiences which may indicate psychosis (Tyler et.al., 1983; Tyler & Suan, 1990).

The authors did not obtain information about the tribal affiliation or extent of American Indian identification of these students; nevertheless, they were all taking classes at a mainstream university at the time of the study, which may indicate some degree of assimilation into the dominant culture.

Differences in need for mental health care may exist not only between enrolled and non-enrolled members of the same tribe, but between different tribal groups (Gross, 1995). The Iroquois Indians of New York State provide a population for analysis which is unique from other American Indian groups but whose description may help to suggest avenues of inquiry for analyses of other Native populations. The treatment of mental illness among the Iroquois Indians of New York State described in the literature is presented here, in order to clarify the direction of inquiry of this investigation.

**Historic Treatment of Mental Illness Among the Haudenosaunee**

In 1959 a study of early and modern indigenous treatment of psychopathology among the Iroquoian people, or Haudenosaunee, was published (Wallace, 1959). Wallace traced the reported instances and treatment of psychiatric disturbances among members of the Iroquois Confederacy and a related Iroquoian people, the
Hurons, using historical accounts furnished primarily by western observers. Specific mental problems and the approaches used were described by Wallace as follows:

**Depression**: One of the identified problems was severe reaction to personal loss of a family member or leader. Wallace described this phenomenon as a type of depression which, if it appeared among the larger population, would need to be treated as a mental illness. The Iroquois people had found a way to treat depression which he labelled a "cathartic" approach, consisting of total abandonment to grief (Wallace, 1959).

This extreme reaction to loss which has been described among the Iroquois Indians is actually part of a prescribed method of mourning for members of the Confederacy who have died. The exact performance of this ritual mourning appears in the Great Law of the Confederacy, under the heading "Condolence Ceremony" (Parker, 1968).

**Paranoid Delusions, Obsessions, Hallucinations and Hysteria** were sometimes interpreted as possession by an alien spirit or as a result of witchcraft by intrusion of foreign matter into the body. The cult of dreams was crucial to these problems. Like Freud, the Iroquois saw dreams as a window into the soul. The soul had wishes of which the conscious mind was unaware but which were expressed in dreams. Also, dreams could include the wishes of a supernatural being. If these were not gratified, the soul would vex the mind or body, causing illness or even death.

Special procedures for diagnosis were required and sometimes the entire community participated in the cure. For example, dreams could be told in the
Midwinter and Green Corn ceremonies as a prophylactic measure - failure to do so would cause one to have one's head "stuck to the ceremonies" (p. 72, Wallace). Medicine Societies were linked to the dream cults and specific societies had cures for specific ailments. An example described by Wallace (1959) was the False Face Ceremony:

The faces of the Gods, then, are really the faces of the Seneca themselves. They represent the strange and forgotten part of the self when repressed and disallowed desires of various sorts, but usually childlike and infantile in form and content, normally subsist in silent turmoil. Rage and fear, lust and hate....With unconscious wisdom, the Society of Faces found a means of venting these emotions, of bleeding them off harmlessly, and without too much frightening the patient (p. 80).

Many Iroquois had apparently abandoned these traditional practices by the early 1800s. This was encouraged by the U.S. government, which began an official policy of removal or assimilation of American Indians (Canby, 1988) at this time. Although the Iroquois did not suffer the type of large-scale, physical removal experienced by the Cherokees and other tribes (Nabokov, 1992), the Iroquois sociocultural system was disrupted by wars, cultural invasions, arrival of settlers, and loss of land. The formerly proud and self sufficient Iroquois now saw himself as a failure by the standards of his own people, unable to care for himself or to avenge wrongs (Wallace, 1959).

This situation set the stage for a new order, through the use of religion to control unacceptable urges and mental problems. Among the Seneca people, Handsome Lake founded a new religion based on visions he had while he was sick.
with severe alcoholism. The Handsome Lake religion condemned alcohol, witchcraft, abortion, and suicide based on the concept of a Christian afterlife. Inspired partly by the Quakers (Krott, 1992) who lived among the Iroquois prior to 1800, the Handsome Lake religion tried to meld elements of Christianity with traditional Iroquois beliefs. It eventually spread among the other Iroquois nations as well (Greymont, 1988). A description of the Handsome Lake religion is provided in Wallace’s (1959) paper on Iroquois mental health:

Men and women must live self-controlled, cooperative lives; those who sinned would burn in hell, and if sin remained rampant then the world would be destroyed...even the old cathartic rituals were dangerous because they led to the excesses of self-indulgence which were destroying the nation (p.90).

In short, the Handsome Lake religion and Christianity led many Iroquois people to abandon traditional healing practices in favor of mainstream treatment, in both the health and mental health realms.

By 1927 the assimilation of Iroquois people in New York State and the abandonment of traditional healing practices was reflected in the tone of an article written by Dr. Anne Perkins (1927) at Gowanda State Hospital, near the Cattaraugus Reservation in Western New York, regarding admissions of Senecas to the Gowanda hospital since 1898. Among twenty-six Seneca Indians admitted to Gowanda State Hospital during this time, most, she wrote, were suffering from manic-depression. Many of these people, she described, were feeling grief from the death of a relative. Alcoholism, tuberculosis and syphilis were common in family histories. Perkins (1927) described specific psychiatric symptoms as follows:

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Many saw and talked with their dead relatives and heard their voices, saw angels or evil spirits...the trend in all the psychoses was often of a religious nature, a desire to preach to their nation, or grandiose ideas of being great chiefs, triumphing over the white race, regaining all their territory, raising the dead by religious power, etc...The Christian Indians had ideas against the pagan Indians, that they were bewitching their children, setting fire to their houses... (p. 339).

It is interesting to note that Handsome Lake had been a medicine man and a chronic and dissipated alcoholic before he took to his bed deathly ill and awoke with his new religion (Greymont, 1988). His brother Cornplanter, one of the greatest chiefs among the Seneca, was said to suffer from paranoid delusions as he aged, and Cornplanter’s delusions and prophetic speeches were laughed at while those of his brother, Handsome Lake, were taken seriously. (p. 67, Wallace, 1959).

An analysis of the course of mental health treatment among the Iroquois helps to suggest elements of mental health care which have been consistent over time, despite the intrusion of western values and treatment approaches. Most notable is the continued use of traditional approaches by the Haudenosaunee found in the key informant interviews with Iroquois persons described in the previous chapter.

The two accounts of mental illness among the Haudenosaunee discussed here are of interest not only for the rich descriptions they offer, but also for the voices of the persons, Wallace (1959) and Perkins (1927) who observed the Iroquois people. In describing Iroquois people and traditions in western terms both authors may mislead readers into conceptions of mental illness among the Iroquois which may be inaccurate. The extreme form of depression described by Wallace (1957), for example, was in fact part of a ritual which was prescribed in the Iroquois "Great
Law" in the 14th century with specific activities and time frames (Parker, 1968).

Similarly, Dr. Perkins described the desire to preach to their nation, be a great chief, triumph over the White race and regain their lands in her Seneca patients as "grandiose" ideas. Yet the founder of the Seneca religion, Handsome Lake, had been an incarnation of some of these ideas, and triumphing over the White race and regaining all of their land is still a fervent hope among some of the Seneca people, as well as among members of other tribes and nations. Traditional folklore among many American Indian groups holds that the American Indian people will, indeed, regain their former lands and freedom merely by outwaiting the rest of the people living in the U.S. (Mander, 1991).

The descriptions of Iroquois mental pathology by Wallace and Perkins provide a useful introduction to reports in the literature of suggested approaches to mental health treatment for American Indians.

Approaches That Are Useful in a Therapeutic Relationship with American Indians

There are authors who argue that care cannot be culturally appropriate unless it is provided by persons who are of the same culture as an American Indian client (Marshall et.al., 1991; Nelson et.al., 1992). When these services are provided in a setting apart from the American Indian culture, however, there is a risk of alienating the American Indian practitioner from his or her own culture and norms, thus decreasing his or her effectiveness in providing services rather than helping others (McShane, 1987). Additionally, as the Lin and Kleinman (1988) study of cross cultural prognosis for schizophrenic patients illustrates, the culture in which non-
westernized groups live may be not only a more appropriate but also a more successful locus of care (Lin and Kleinman, 1988).

According to the literature there are, however, attitudes and understandings of American Indian culture which, if adopted by westernized mental health practitioners who work with American Indians, may assist them in providing culturally appropriate care.

Various authors have attempted to identify types of services that "work" for American Indians with mental health problems. As pointed out by Gross (1995), relevant papers have been primarily written by American Indians about American Indians, as non-Indian people are not assumed to have the expertise to understand the American Indian culture. Few empirical studies have been completed to determine the types of intervention that work (Blount et al., 1992; Manson et al., 1982).

One of the few empirical investigations was undertaken by O'Sullivan, Peterson, Cox & Kirkeby (1989). This series of studies compared demographic and service data for White and Asian, Black, Hispanic, and American Indian mental health clients in the Seattle, Washington area in the 1970s and 1980s. The original studies in the 1970s brought into question the appropriateness and responsiveness of services to minorities and called for changes in service delivery which were largely undertaken over the next ten years.

These changes included the development of ethnic-specific mental health centers, increases in professional and para-professional service providers who were
members of the ethnic groups to whom services were provided, and the encouragement and funding of culturally unique and relevant treatment modalities. The replicated study in 1980 found dramatic changes in failure-to-return rates, that variability in failure-to-return rates was related to level of functioning and not to minority status, and that the mean number of services for all groups had increased (O'Sullivan et al., 1989). This investigation illustrates that providing culturally appropriate care can be accomplished apart from immersion in the culture.

Some of the approaches to treatment which have been suggested for use with American Indian clients are reviewed below. These have been largely based on a knowledge of American Indian culture rather than on empirical studies.

**Assessing degree of Acculturation:**

Trimble and colleagues (1984), and Williams & Ellison (1996) have suggested that when treating American Indians, one must determine whether they are culturally American Indian or whether they have become part of the larger society in terms of belief and behaviors. Acculturation has been defined as the "degree to which the individual (in this case, the American Indian person) accepts and adheres to both the majority (White/Euro-American) and tribal cultural values" (p.76, Choney, Berryhill-Paapke & Robbins, 1995).

Signs which may indicate American Indian heritage include growing up on or near a reservation, extended family orientation, involvement in religious or tribal activities, education on or near a reservation, social activities primarily with other American Indians, knowledge about own culture, low priority on materialistic goals,
and the use of shyness or silence as a sign of respect (Sue & Sue, 1990). Other "ties of interest" (Jarvenpa, 1985) may include residing in an American Indian community, whether rural or urban, and use of an American Indian language.

**Therapeutic Approach:**

Blount, Thyer & Frye (1992) suggest that the therapist needs to appear trustworthy and must have a positive helping attitude. This involves gaining the respect of the client and also using a non-directive, facilitative approach (Blount et.al., 1992; Green, Jensen & Jones, 1996). The non-directive attitude of the therapist is defined even more narrowly by Good Tracks (1973) as one of "non-interference." Good Tracks states that over-zealous social workers who want to "rescue" their client are seriously over-stepping a boundary they do not even know exists (Good Tracks, 1973).

The therapist should learn the communication styles within the specific American Indian culture. This may involve, for example, learning to allow silences and to be more reserved, or to follow a leisurely pace in establishing contact. Differences in attitudes toward time must be respected. For example, if a therapist knocks on a door as asks "Is this a good time to visit?" and the American Indian family says "no", the therapist needs to go away without question, accepting the families' decision that the time was not right (Joe & Malach, 1992). Even aspects of body language such as the western expectation that eye contact will be established may not work with American Indians (Sue & Sue, 1990).

Therapists must also be aware of pervasive attitudes among American Indians
such as distrust of the dominant culture, different expectations for personal encounters, and the lack of value ascribed to success or education (Harrison Wodarski & Thyer, 1992; Jones, 1978; LaFromboise, 1988; Lynch & Hansen, 1992; Sue & Sue, 1990; Wilkinson, 1980). The importance of an understanding of the values and characteristics of American Indians was given voice by Sherry Saddler (WICHE, 1993):

I know as a Native American, and many of you out there know, that we are not an aggressive people. We will not push our way through and ask for needed help. So, the collaboration and networking needs to be done with Native American people in a very gentle, understanding, and respectful way. (p. 21).

Training of non-Native therapists in American Indian culture is considered crucial, as is training of already culturally competent people in the fields of social work and psychology (Blount et.al., 1992; LaFromboise, 1988; Lefley, 1987, 1990; Marshall et.al., 1991; Williams & Ellison, 1996).

Procedures:

All procedures such as taking a history, medical procedures, or admission to a hospital must be explained in detail and clients and families must be allowed to discuss them (Joe & Malach, 1992). Flexible psychotherapy schedules have been attempted in an effort to accommodate American Indians who show up when they are ready to talk and stay until they are finished, but these have been found to frequently conflict with the White middle-class expectations of the therapists involved (McShane, 1987).
Involvement of Family:

Families are not always involved in the treatment of serious mental illness, partially due to the loss of family ties by persons with a severe mental illness (Clausen, 1980). However, the literature supports the inclusion of families in mental health treatment for American Indian clients (Red Horse, 1980; 1982). When they are included, communication should be directed to all family members, not just the identified client. The therapist must show respect and allow ideas to be introduced by all (Joe & Malach, 1992).

Collective or group treatment:

In a culture which values group membership and identity, the use of group treatment is a preferred approach (Blount et.al., 1992; Edwards & Edwards, 1980, 1984; Lefley, 1990). This may take the form of total involvement in the indigenous community, fitting the available services into the existing structure (Red Horse, 1980; Owan, 1982). The collective treatment of troubled individuals not only heals the individual but encourages the individual to experience self as embedded in the group culture (LaFromboise, 1988).

Use of Traditional Healers:

A therapist should not assume that a client or family is or is not using traditional healers, but should ask (Joe & Malach, 1992; Williams & Ellison, 1996). Where traditional healers exist, it is important to determine the extent of contact with and belief in the effectiveness of the traditional healer for an American Indian client (Blount et.al., 1992). However, this must be done with a minimum of questions.
about the actual ceremonies themselves, which are considered private information (Joe & Malach, 1992). Natural healers should be considered a viable option for clients who believe in their powers (Jilek, 1971).

**Summary**

Mental health care of American Indian people has been the responsibility primarily of the Federal government in keeping with a history of federal responsibility for American Indian people. However, with only half of American Indians living on reservations and many of those off reservation becoming acculturated to some degree, it is difficult to gauge the extent of true need for culturally appropriate mental health services to American Indian people in the United States. There are a confusing array of American Indian people and of mental health services that they currently attend. Along with a dearth of empirical studies of mental health services for American Indian people, there is a lack of definition of who among American Indians is getting mental health services, from whom, and what these services consist of. The literature assumes American Indian identity even for those who are not living on reservations or who are not enrolled American Indians. The literature further assumes that mainstream services are not culturally appropriate and that when they are not, they are not useful to American Indian people.
CHAPTER 3:

METHODS AND DATA ANALYSIS

The review of literature regarding mental health services provided to American Indians, informed by data regarding services provided to a specific group of American Indians in New York State, suggested the design for a research study to obtain information which would improve social workers' ability to provide relevant care to this group.

Study Design

A multi-site descriptive design using a comparison between two groups of subjects was undertaken. This included two quantitative elements as described below. Comparison was between the American Indian and White non-Hispanic recipients of services originally identified in a secondary data source, the Department of Mental Hygiene Information System (DMHIS) in the first ten months of 1994 (Part I of the study), plus a sample of persons receiving services in 1995-1996 (Part II).

The first part of the study compared American Indians who were identified in 1994 as receiving services from programs operated by the New York State Office of Mental Health (OMH) to White non-Hispanic persons who also received services during 1994. The second part of the study compared attitudes toward mental health of a group of American Indian respondents to attitudes of a group of White non-Hispanic respondents, using a standard questionnaire. Both groups were recipients
of mental health services. The subjects in the two parts of the study were different.

The research questions and hypothesis, based on the review of the literature regarding mental health for American Indians, were as follows:

**Research Questions:**

(1) Can variables which may be related to culture such as religion, household composition, employment and educational status, length of stay, and diagnosis be used as predictors of American Indian group membership among a cohort of recipients of mental health services?

(2) Do American Indian and White recipients of mental health services have different attitudes toward mental health which may affect their mental health care?

The literature suggests that American Indians need a different therapeutic approach based on different cultural norms. These may be reflected both by demographic and attitudinal variables.

**Hypothesis**

American Indian recipients of service and White, non-Hispanic recipients of service differ in the following areas:

(1) demographic characteristics

(2) services received (type, length of time), and

(3) attitudes related to mental health.

It was hypothesized that differences in demographic characteristics and in beliefs exist which reflect cultural differences. These cultural differences indicate the
need for an alternative approach in the mental health treatment of American Indians.

**Operational Definitions:**

- "Recipients of service": These are persons who have been admitted to mental health programs in New York State with a mental illness diagnosis as described in the DSM IV (APA, 1994). The programs are limited geographically to the western and central areas of New York State in order to maximize the opportunity to include members of the Iroquois Confederacy, the local indigenous residents of New York State.

- "Demographic Information": information regarding demographic characteristics obtained from Department of Mental Hygiene Information System (DMHIS). The DMHIS is based on material generated from the completion of two central and several peripheral New York State forms when a person is admitted to, or released from, an OMH-operated program. Either one or the other of these two forms, the "ADMISSION/SCREENING FORM" (FORM ADM 725) and the "DISPOSITION REPORT (FORM 116), is completed each time there is a change in status for any recipient of services. The demographic variables available in the DMHIS are taken largely from these two forms as they appear in Appendix A. Variables which are available in the DMHIS were used to compare American Indian and White recipients on those aspects identified in the literature as being important to mental health care. Variables available in the data base appear in Appendix A and include the following:
- age, sex, and program
- length of stay, legal status, number of admissions and discharges
- inpatient and outpatient locus and length of care; number of programs
- referral source and reason for referral
- diagnosis
- other demographic variables available on the computerized record keeping system maintained by OMH such as education level, marital status, household composition, veteran status, etc. were used if enough of the fields had been completed to provide a meaningful analysis.

Variables chosen for inclusion in the first part of the study were those found in the literature to be important to culturally appropriate treatment for American Indians. Demographic variables which may be important in measuring cultural factors important to treatment include marital status, household composition, religion, U.S. citizenship, and gender.

Socioeconomic variables may be a confounding factor in the analysis. Lower socioeconomic status has been found to be associated with higher levels of mental disability (APA, 1994). Some of these confounding variables for which data had been collected in the DMHIS were educational level, income, employment status, and source of financial support.

- "Services received": Information from the DMHIS on the number of American Indian and White persons served at each type of program were compared as well as length of stay at each program and each program type.
"Attitudes related to mental health": The literature has reported that, unlike many mental health practitioners and recipients of mental health services, American Indians believe that mental illness is caused by external forces rather than the patient’s personality or upbringing (Waxler, 1977). The presence of a view of mental illness among American Indians which is different from that of the majority may indicate the need for a different therapeutic approach.

The measurement of attitudes related to mental health was operationalized by the use of the Mental Health Values Questionnaire (MHVQ) (Tyler, Clark, Olson, Klapp & Cheloha, 1983; Tyler & Suan, 1990) to compare attitudes of American Indians and Whites. The MHVQ asks respondents to rate statements about people as being indicative of good or poor mental health on a five point scale, with 3 being neutral. It was developed at the University of North Dakota in the early 1980s and has been found by its authors to discriminate between different cultural attitudes among American Indian and Caucasian subjects. This questionnaire includes eight factor subscales as follows: self-acceptance; negative traits; achievement; affective control; good interpersonal relations; untrustworthiness; religious; and unconventional reality (Tyler et.al., 1983). American Indians were found by the authors to differ significantly in their responses to the negative traits, achievement, religious, and unconventional reality subscales, as shown in Table 7.
Table 7:
Comparison of American Indian and White University of North Dakota Student Responses: Selected Subscales of the Mental Health Values Questionnaire

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>Mean Score: American Indian (n=66)</th>
<th>Mean Score: Caucasian (n=93)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEGATIVE TRAITS SCALE: association of negative personal traits with poor mental health</td>
<td>2.47</td>
<td>2.59*</td>
</tr>
<tr>
<td>ACHIEVEMENT SCALE: association of achievement with good mental health</td>
<td>3.64</td>
<td>3.48*</td>
</tr>
<tr>
<td>RELIGIOUS COMMITMENT SCALE: association of religious commitment with good mental health</td>
<td>4.03</td>
<td>3.82**</td>
</tr>
<tr>
<td>UNCONVENTIONAL REALITY SCALE: association of unconventional experiences with good/bad mental health</td>
<td>2.89</td>
<td>2.31***</td>
</tr>
</tbody>
</table>

* p<.05  
** p<.01  
*** p<.001  
(Source: Tyler et.al, 1990)

Differences were greatest related to the association between mental health and unconventional experiences found in the "Unconventional Reality" subscale. Table 8 illustrates differences on specific items within this subscale.
Table 8:
Comparison of University of North Dakota American Indian and Caucasian Responses: Unconventional Reality Subscale of the MHVQ

<table>
<thead>
<tr>
<th>ITEM</th>
<th>University of North Dakota Students 1990</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score: American Indian (n=66)</td>
</tr>
<tr>
<td>3. The person has visions</td>
<td>3.38</td>
</tr>
<tr>
<td>10. Person can communicate with the spirits of the dead</td>
<td>2.91</td>
</tr>
<tr>
<td>98. Person guides his or her life according to spirits</td>
<td>2.79</td>
</tr>
<tr>
<td>79. Person sees things that others do not see</td>
<td>2.70</td>
</tr>
<tr>
<td>22. Person hears things that others do not hear</td>
<td>2.36</td>
</tr>
<tr>
<td>41. Person experiences the world differently from other people</td>
<td>3.35</td>
</tr>
<tr>
<td>28. Person feels that he or she has special powers to influence others</td>
<td>2.56</td>
</tr>
<tr>
<td>65. Person views things differently at different times</td>
<td>3.52</td>
</tr>
<tr>
<td>32. Person believes him/herself to be an agent of God</td>
<td>2.48</td>
</tr>
</tbody>
</table>

* p<.01
* p<.001
(Source: Tyler et.al., 1990 p. 24)

As shown above, the American Indian students responded that most of the items in the "Unconventional Reality" subscale were less indicative of poor mental health than did the White students. Having visions was actually reported as a sign of good mental health by the American Indian students. A connection between these values and the therapeutic encounter, in which beliefs related to visions and spirits...
could be interpreted as pathology, is not hard to make. For example, an American Indian client who sees or hears things that are not there may not consider these traits to represent problems in functioning, although the therapist may. A copy of the questionnaire appears in Appendix B.

Methods and Data Analysis

The two research questions were addressed differently, using different subjects, sampling, and data analysis. The two questions, and the approaches taken, are addressed separately.

Research Question #1: Can American Indian identity be predicted using demographic and service variables?

Subjects

The first research problem was addressed through statistical analyses of the DMHIS data maintained by the Office of Mental Health. The DMHIS data were used to identify all American Indians recipients of service at OMH programs in the western and central areas of New York State and to compare these data to data regarding White, non-Hispanic recipients of service. Early data analysis identified 88 American Indian and 10,010 White, non-Hispanic subjects who received services from OMH during the first ten months of 1994.

Sampling

Initial analyses compared the entire available population of 88 American Indian and 10,010 White persons regarding all variables available in the DMHIS. Based on this initial review, as many as possible of the original group of 88 American Indian...
Indians were identified for further analysis. These analyses identified 43 (48.9%) American Indians and 3946 (39.4%) White non-Hispanic persons who were receiving mental health services in jails; these were excluded from further analysis, leaving 45 American Indian and 6064 White subjects.

The group of 45 American Indians was then matched to a group of White, non-Hispanic recipients of service for final analyses. Pairs were matched by age, gender, and program in order to control for these important factors.

Data Analysis

All analyses were done using the Statistical Package for the Social Sciences (SPSS) software package. First order analyses consisted of comparisons of the 45 American Indians to the 6064 White, non-Hispanic recipients of service. The analysis of continuous data such as age and length of time in service consisted of comparison of means by using the student's t-test, while analyses of categorical data consisted primarily of crosstabulations of these variables by ethnicity (independent variable). Chi-square tests were used for the categorical data to determine if the results obtained were statistically significant. Categorical variables with multiple categories such as diagnosis were dichotomized for further analysis, so that, for example, the probability of one group having more members with a specific diagnosis such as depression compared to any other diagnosis could be determined.

Once these initial analyses indicated possible associations between or among variables, the SELECT IF command in SPSS was used to match American Indian subjects to an equal number of White, non-Hispanic subjects and more sophisticated
analyses were performed on the matched sample.

One of the most commonly used analyses for comparing groups on nominal or categorical data is the logistic regression model. This procedure simulates the prediction of a dichotomized dependent variable (in this case, membership in the American Indian group, given as yes (1) or no (0) value) with all of the possible independent variables. The step-wise approach evaluates each variable in terms of its relationship with the dependent variable, and attempts to determine which variables will predict membership in the group. Logistic regression was used to predict American Indian ethnicity, based on variables which were identified from the literature as those important to American Indian mental health treatment and from the initial chi-square analyses.

**Research Question # 2: Do American Indian and White Attitudes Toward Mental Health Differ?**

**Subjects:**

The Mental Health Values Questionnaire was given to the director of the Buffalo PC outpatient programs for distribution to American Indian and White recipients of service. One hundred and eighty forms were provided to outpatient locations which had been identified as serving a number of American Indian recipients of mental health care. In keeping with the procedures of non-explanation used in the original study using the MHVQ, the questionnaire was available for persons to complete on a voluntary basis.

A pilot of this procedure was done at a class in American Indian Policy at the
State University of New York at Albany in 1995. The pilot identified significant differences in response between males and females, but had a very low response rate for American Indians (only one part-American Indian of the 6 American Indian or part-American Indian students responded). This led to a slight change in procedure from the original study. Due to the low response rate, a dollar bill was attached to each form in Part II of the study, with a statement that the person can keep the dollar whether or not they complete the form. Also attached was a stamped envelope addressed to the researcher, a description of the questionnaire, and a thank-you for participating in the study.

**Sampling**

The choice of subject was accidental, based on the American Indian and White recipients who were at the mental health sites and who chose to complete the questionnaire, put it in the envelope, and drop it in a mail box. In order to obtain an adequate sample, approximately double (180) the number of desired responses (90) were left at the outpatient program sites. In order to increase the number of American Indian respondents, sites other than the OMH program sites were utilized. The forms were distributed during approximately a six-month period of time, from October 1995 through March 1996.

**Data Analysis**

The Mann-Whitney U test was used to compare the differences on the sample means of the 8 subscales of the instrument and on individual variables of interest between the two groups of subjects. The Mann-Whitney U test is appropriate when
there are two independent groups, the variable is measured at the ordinal level of measurement and the normality assumption is not plausible (Kenny, 1987).

Using the data on the last page of the form regarding sex and age, analysis of covariance was used to determine the possible antecedent effects of sex and age on subscale and individual item scores. In addition, a question related to federal enrollment as an American Indian was included on the last page of the questionnaire, in order to identify possible differences between American Indians who are identified as such by the federal government and those who may identify themselves as Indian but who are not enrolled tribal members.

**Overall Analysis**

Together, it was hoped that the answers to research questions 1 and 2 above would provide an indication of the need for culturally appropriate care. The two parts both complement and support each other. For example, lack of educational attainment has been linked to both American Indian cultural values (Nabokov, 1991) and to higher levels of mental illness (APA, 1994). It was anticipated that the MHVQ might provide an additional, contradictory perspective if American Indians rated educational achievement as being indicative of better mental health than Whites did, as was the case in the original study.

Similarly, there are variables related to religion in Part I and to spiritual belief in Part II. It was anticipated the findings in these two areas would support or reject findings in the literature that spiritual beliefs and practices need to be taken into account when treating American Indians. In addition, as with education, the findings
in one part could have either supported or brought into question the findings in the other part. It was hoped that either consistent or incongruous findings regarding a specific subject area would help to build an arena of discussion and a foundation for future research.

**Human Subjects**

This study was approved by the Institutional Review Boards (IRBs) of the State University of New York at Albany, the NYS Office of Mental Health, the Research Foundation of Mental Health and the Buffalo Psychiatric Center. Following are elements of this aspect of the study.

**Choice of Subjects:**

The first part of the study was an analysis of secondary data and did not involve the use of identified subjects. For the second part of the study, participation was voluntary. The questionnaire was left at outpatient mental health sites for persons to complete and mail, in self-addressed, stamped envelopes, to the researcher. By completing the questionnaire, persons indicated their consent, and no further interaction or completing of consent forms was required.

**Confidentiality:**

Part I:

Data maintained in the DMHIS data base is accessible only to persons specifically authorized access by the New York State Office of Mental Health using a password-protected personal computer and IBM mass storage files. The researcher was given specific permission for the use of this data base for the purposes of this
study. No one except for the researcher will be granted access to the data collected as part of this study. During the first, comparative data phase of the study, no identifying information was included in the analysis. All printouts with names were destroyed, following OMH Institutional Review Board protocol.

Part II:

Subjects demonstrated agreement to participate by completing and mailing the questionnaire left at anonymous sites. Clients were able to take the form with them when leaving the site, and could, if they chose, complete the questionnaire, put it into a stamped envelope also given to them, and mail.

Women and Minority Subjects

The purpose of this study was to obtain information regarding mental health treatment for a specific group of minority subjects, American Indians. They are compared only to White, non-Hispanic recipients of service in order to control for perceived differences in treatment and need among all ethnic groups. It was anticipated that the proportion of women included in the two groups being analyzed would differ in the two parts of the study.

In Part I, the number of women included was based on the number of American Indian women who received services from Office of Mental Health programs during the chosen time frame. Subjects were matched by gender, age, and program to a group of White non-Hispanic recipients to control for these important variables. In Part II, the original intent was to control for differences in gender statistically (using analysis of variance techniques), but this was not necessary because
there were no statistically significant differences in the percent of male and female respondents in the two groups.

Study Limitations

The study used both a secondary data base, the Department of Mental Hygiene Information System (DMHIS) for Part I and a questionnaire developed and tested at the University of North Dakota in the 1980s, the Mental Health Values Questionnaire (MHVQ) in Part II. Limitations of these two sources of information will be discussed separately.

Department of Mental Hygiene Information System

The DMHIS has been maintained by the New York State Office of Mental Health since the 1980s. It consists of data entered at each of the thirty psychiatric centers from forms generated whenever a person is admitted, discharged, or transferred at any inpatient, outpatient, or residential program operated by OMH. These data are then transferred electronically to the main frame computer in central office, where they are used in planning and research by persons in the central office.

Certain data are of interest to the psychiatric centers (primarily related to movement and census) and these are accessed by the centers for their own use from remote sites. Demographic data, particularly in areas such as religion, household composition, education, and employment status, all important to this study, are less likely to be accessed at the facility level where the data are entered. This makes the center staff less concerned with ensuring the completion or the accuracy of these fields on the source documents.
Before the study began, the researcher reviewed the DMHIS data for a four-year period (1990-1994) to see if a study of American Indian versus White non-Hispanic recipients of service could be undertaken using this data base. Initial analyses identified several hundred American Indian recipients of service during that time, using the field "Native American" for American Indian. A review of some of the last names of the identified subjects, however, revealed that many of the persons entered in the computer in the New York City and surrounding areas during this time had last names such as "Foo", "Wong", "Batachari", or other obviously Asian names.

A discussion with the head of the Multicultural Advisory Committee at OMH, Barbara Morrison, Ph.D., confirmed the problem and that the group was aware of the difficulties associated with the use of the term "Native American" for "American Indian/Alaskan Native". The use of the term "Native American" was subsequently changed in the source documents, but existing information on ethnicity for the New York City, Long Island, and lower "upstate" areas of New York State were then suspect for use in an analysis of ethnicity. A review of names for American Indians in upstate New York did not show any of these problems so this fact, combined with the proximity to reservations of the Iroquois Confederacy in upstate New York, led to a decision to drop the downstate areas from inclusion in the study.

At each subsequent step of the study, fields which were not sufficiently completed for the study population were dropped from the analysis. This approach helped to render the variables eventually chosen for inclusion as useful as possible,
given the limitations of the data.

**Mental Health Values Questionnaire**

The MHVQ was developed by its authors specifically to measure opinion regarding what constitutes good mental health or healthy emotional adjustment. Tyler, Clark, Olson, Klapp and Cheloha (1983) followed the following steps in construction of the MHVQ:

- The domain of good mental health was defined by asking groups of mental health clients, professional mental health workers, and college students to generate a pool of traits related to being mentally healthy. The sampling instrument was a 2-item open ended questionnaire.

- Using factor analysis, a multi-scale measuring device was designed to represent the responses to the group definitions. The original questionnaire had 236 items, based on the responses to the group surveys plus some items added by the researchers.

- The original device was administered to undergraduate students and factor analysis was again used to develop subscales of the questionnaire. Items within a scale were intercorrelated and those with the highest intercorrelations were selected as the best items for that scale. The reliability of each scale was calculated using coefficient alpha. The seven resulting scales consisted of 77 items on 7 scales.

- The resulting MHVQ was revised to include 99 questions (the same as in the final version) and was administered to students to provide a
cross validation of the factor structure. Two additional scales were administered (a 16-item demographic questionnaire and the Eysenck Personality Questionnaire) to determine if there was a correlation of the MHVQ with personality and demographic variables.

In short, the instrument was rigorously tested by its authors using traditional psychometric scaling techniques. The results of these modifications led the authors to report that the instrument showed promise for ascertaining the relative attitudes of different groups (Tyler et. al., 1983). The instrument was subsequently (Tyler & Suan, 1990) used to identify significant differences between the responses of Indian and Caucasian American college students at the University of North Dakota. These were reported in Tables 7 and 8 above. Both Tyler et.al. articles reported significant differences in response by gender to all trials of the questionnaire. In the original study, the authors also reported differences between people who had received personal counselling or who had a relative who had been diagnosed with an emotional illness, and other respondents (Tyler et.al., 1983).

Given the reports by Tyler and colleagues, the MHVQ appeared to be a promising instrument for the current study, with the caveat that differences in gender must be controlled for.

The questionnaire was left at various sites to be completed by subjects. This was in keeping with the original studies by Tyler and colleagues, in which persons were either given (White psychology students) or mailed (American Indian students) a form and filled it out anonymously. Because the subjects in this study were
recipients of mental health services, and because there was a low response rate to the pilot, there was a question as to whether face-to-face interviews should be conducted to complete the questionnaires.

The disadvantages of face to face interviews were that subjects would have to complete a consent form and that there are many opportunities for bias on the part of the interviewer and the interviewee in face-to-face data collection. Bias may have occurred if the researcher unwittingly led the interviewee, by tone of voice or look, to respond to a question in a desired manner. Bias by the respondent may have occurred if he or she felt a certain response was desired, regardless of his or her feelings. Responding in expected ways was listed as a characteristic of American Indians by Mander (1991), who stated that Native people are mostly non-hierarchal and may agree with a counsellor to prevent disharmony. Another disadvantage of face-to-face interviews is the increased time and money needed to send a researcher into the field to conduct an on-site study.

The advantage of a face-face approach is in the control the researcher has over the subjects, in terms of number and gender of respondents as well as in consistency of administration. In this case, control of the process of administration was given to the OMH director who was on-site, and who received instructions to leave the completion of the MHVQ entirely up to respondents with no guidance from staff or others.

The original study design included 60 White and 30 American Indian subjects. The circumstances surrounding the eventual collection of data led to the eventual
collection of 26 White and 14 American Indian responses to the questionnaire. All of the White subjects attended programs operated by the New York State Office of Mental Health (OMH), but it is unclear how many of the American Indian subjects were in the same OMH programs. It was important to the study that all of the study subjects were receiving mental health services of some kind, as the receipt of mental health services was found to be an important factor in response to the questionnaire in the original study by Tyler and colleagues (1983). This factor was adhered to by the on-site administrator of the study.

Due to an initial low response rate from American Indian recipients of service at the OMH programs, the OMH director left several forms at a New York county mental health clinic located on the grounds of a nearby Indian reservation, and asked an American Indian member of the Consumer Advisory Board of his program to give 35 copies of the questionnaire to American Indian recipients of mental health services from any mental health provider, including the Indian Health Service clinic at the reservation. This important variable, program, controlled for in Part I of the study through the matching of subjects, was thus not controlled for in the second part of the study.

The New York State programs are usually the providers of last resort in New York State and are attended by persons who are either so indigent or whose mental health needs are so great that they are referred by other programs. This means there may have been differences in degree of mental health need among the White clients of the OMH programs and the American Indian clients, many of whom attended
other mental health programs.

In addition, leaving the questionnaire at other sites created the possibility that a different procedure may have been followed in giving out the questionnaire. The OMH director asked workers at the county clinic and asked the American Indian consumer not to give any instructions to the respondents to the MHVQ. Differences in response among items of interest on the (five) questionnaires obtained by the American Indian consumer, sent in later than the rest of the copies of the MHVQ, indicate that there was no pattern of response which would suggest that specific instructions were given. That is, the responses to items which became important to the results were found to differ dramatically among these last five respondents.

There was an advantage to obtaining American Indian responses to the questionnaire at these additional sites other than the obvious one of increasing the number of American Indian respondents. That is that the number of enrolled Indians completing the questionnaire was also increased, allowing the ability to control for enrollment in a tribe or nation. These advantages greatly outweighed possible differences in mental health need among respondents.
CHAPTER 4: RESULTS

The hypothesis of the study, that differences exist between White non-Hispanic and American Indian recipients of mental health services which may require a different approach for American Indians, was tested using the Department of Mental Hygiene Information System for demographic and service variables, and the Mental Health Values Questionnaire for attitudinal variables.

Differences in Demographic and Service Variables

The Department of Mental Hygiene Information System (DMHIS) data base includes information which may indicate the presence of differences in demographic and service variables when American Indian and White clients are compared. Fields in the DMHIS were analyzed for inclusion based on whether or not they related to the demographic and service variables which may affect treatment of American Indians. They were also reviewed for completion rate on the forms used to create the DMHIS and variables with a low completion rate were excluded.

Variables which were found to both relate to the study and to have a high enough completion rate to be included were (indicative of group membership:) marital status, household composition; (indicative of receipt of services:) length of time since last visit, type of visit; (demographic:) age, gender, diagnosis, religion, use of alcohol and drugs; (success in terms of the dominant culture:) employment,
education.

Some fields in the DMHIS source which may have provided useful information either had a low completion rate (examples: US citizen; accepted for further service) or showed no initial differences between the two groups (examples: legal status; source of financial support; source of referral), and were therefore not included in the analysis.

Table 9 shows the results of comparing demographic variables for the 6064 White Non-Hispanic and the 45 American Indian clients seen in NYS Office of Mental Health programs between January and October, 1994.

As shown in Table 9, the 45 American Indian clients did show differences from the 6064 White, non-Hispanic clients of the OMH outpatient programs, and of these, religion and marital status differed at statistically significant levels. Other variables, although not statistically significant, appeared to show differences between the groups in some areas. These were that American Indians were more likely (55.9%) to be living with relatives compared to White recipients (44.7%) and that American Indians were more likely to be unemployed (60%) than White recipients (47.4%). There did not appear to be major differences in education between the two groups.
Table 9

Demographic Characteristics of White and American Indian recipients of MH services from the NYS OMH, Jan-Oct 1994, by percentage of recipients of service (DMHIS, 1994), and Chi-square values.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Ethnicity</th>
<th></th>
<th>Chi-square</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White (n=6064) %</td>
<td>American Indian (n=45) %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protestant</td>
<td>34.2</td>
<td>33.3</td>
<td>23.01</td>
<td>3</td>
<td>.0004</td>
</tr>
<tr>
<td>Catholic</td>
<td>46.5</td>
<td>18.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jewish</td>
<td>1.4</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Specified</td>
<td>17.9</td>
<td>48.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never Married</td>
<td>48.5</td>
<td>52.3</td>
<td>8.27</td>
<td>3</td>
<td>.04</td>
</tr>
<tr>
<td>Separated</td>
<td>21.1</td>
<td>31.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>13.0</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>17.3</td>
<td>15.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living with:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alone</td>
<td>22.0</td>
<td>23.5</td>
<td>4.21</td>
<td>4</td>
<td>ns</td>
</tr>
<tr>
<td>Relatives</td>
<td>44.7</td>
<td>55.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With Others</td>
<td>19.4</td>
<td>5.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resid.Care</td>
<td>11.6</td>
<td>11.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Address</td>
<td>2.4</td>
<td>2.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutionalized</td>
<td>2.5</td>
<td>-</td>
<td>4.82</td>
<td>3</td>
<td>ns</td>
</tr>
<tr>
<td>Unemployed</td>
<td>47.4</td>
<td>60.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not in work force</td>
<td>39.5</td>
<td>26.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>10.5</td>
<td>13.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than HS</td>
<td>42.3</td>
<td>41.7</td>
<td>1.30</td>
<td>5</td>
<td>ns</td>
</tr>
<tr>
<td>HS</td>
<td>34.3</td>
<td>36.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some Tech/College</td>
<td>16.5</td>
<td>19.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Yrs College</td>
<td>4.6</td>
<td>2.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grad School</td>
<td>1.7</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>.5</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(NOTE: "unknown" responses were not included in the calculations).

It was hypothesized that there would be differences in service as well as
characteristics of White and American Indian clients. Items from the DMHIS used to measure differences were type of service, and length of time in service. The results of these analyses are shown in Table 10.

Table 10
Service-Related Characteristics of White and American Indian recipients of MH services from the NYS OMH, Jan-Oct 1994, by percentage of recipients of service (DMHIS, 1994), and Chi-square values.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Ethnicity</th>
<th>Chi-square</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White (n=6064) %</td>
<td>American Indian (n=45) %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Service:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screening</td>
<td>37.7</td>
<td>18.6</td>
<td>23.56</td>
<td>6</td>
</tr>
<tr>
<td>OP Admission</td>
<td>23.0</td>
<td>41.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OP from IP</td>
<td>6.1</td>
<td>2.3</td>
<td>23.56</td>
<td>6</td>
</tr>
<tr>
<td>Termination</td>
<td>27.0</td>
<td>27.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>6.5</td>
<td>9.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Since Last Service:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Days</td>
<td>37.5</td>
<td>50.0</td>
<td>3.38</td>
<td>5</td>
</tr>
<tr>
<td>30 Days</td>
<td>16.2</td>
<td>14.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Months</td>
<td>9.3</td>
<td>17.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Months</td>
<td>6.1</td>
<td>7.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Year</td>
<td>6.9</td>
<td>7.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 1 Yr.</td>
<td>23.9</td>
<td>10.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(NOTE: "unknown" responses were not included in the calculations).

As shown in Table 10, there were statistically significant differences in the type of service received by the two groups. American Indians were more likely to be in the process of admission to an outpatient program such as a clinic, day treatment program, or continuing treatment program and less likely to be in the screening process, which may not lead to admission. Time since last service appears to be
shorter for American Indians and longer for White recipients, although these differences were not statistically significant. Other information which may be important in the treatment of American Indians includes demographic data such as age, gender, and diagnosis. These are shown in Table 11.

Table 11
Characteristics of White and American Indian recipients of MH services from the NYS OMH, Jan-Oct 1994, by percentage of recipients of service (DMHIS, 1994), and levels of significance.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Ethnicity</th>
<th>Statistical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White (n=6064)</td>
<td>American Indian (n=45)</td>
</tr>
<tr>
<td>Average Age</td>
<td>40</td>
<td>33</td>
</tr>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>47.6</td>
<td>53.3</td>
</tr>
<tr>
<td>Axis I or Axis II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSM III-R Diagnosis:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>16.7</td>
<td>15.6</td>
</tr>
<tr>
<td>Depression</td>
<td>13.2</td>
<td>10.8</td>
</tr>
<tr>
<td>Manic</td>
<td>4.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Other Affective</td>
<td>9.8</td>
<td>13.5</td>
</tr>
<tr>
<td>Alcohol/Drug Related</td>
<td>9.3</td>
<td>27.0</td>
</tr>
<tr>
<td>OBS-Non-Sub.Abuse</td>
<td>8.8</td>
<td>2.7</td>
</tr>
<tr>
<td>Other Psychosis</td>
<td>13.8</td>
<td>10.8</td>
</tr>
<tr>
<td>MR/DD</td>
<td>2.0</td>
<td>5.4</td>
</tr>
<tr>
<td>Personality d/o</td>
<td>12.6</td>
<td>18.9</td>
</tr>
<tr>
<td>Other</td>
<td>30.3</td>
<td>35.1</td>
</tr>
<tr>
<td>Significant Alcohol Problem?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>10.9</td>
<td>28.9</td>
</tr>
<tr>
<td>No/Unknown</td>
<td>89.1</td>
<td>71.1</td>
</tr>
<tr>
<td>Significant Substance Abuse Problem?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>6.1</td>
<td>15.6</td>
</tr>
<tr>
<td>No/Unknown</td>
<td>93.9</td>
<td>84.4</td>
</tr>
</tbody>
</table>
As shown in Table 11, American Indians were significantly younger than White recipients of service and were found to have more alcohol and substance abuse problems than the White recipients of service and fewer serious (schizophrenic, depressive, manic, other psychosis) mental health problems, although these differences were not significant. A review of diagnoses in the "Other" category above found that six American Indian and three White subjects had a diagnosis of "Diagnosis on AXIS I-II Deferred." These results, although intriguing, were not statistically significant.

*Differences In Demographic and Service Variables: Matched Groups*

The results of a logistic regression on the above data set predicted group membership correctly 99.34% of the time using the following dichotomized variables: living with relatives (yes/no); alcohol Use (yes/no); employment status; non-standard religion (yes/no). However, the model did this by assuming membership in the White group. Since 99% of the cases were White, this was not a rigorous analysis and indicated the need for a more sophisticated approach.

A more demanding model was constructed by matching the 45 American Indian subjects to 45 White, non-Hispanic subjects. These cases were matched by age, gender, and program to control for these important variables. Matches were found from the 6064 White cases for all but one of the 45 American Indian subjects. Further analysis found that 6 of the 44 American Indian subjects were under age 18. Since some of the variables of interest (household composition, employment, education) are more meaningful when applied to adults, the 6 children were dropped
from the analysis, leaving 38 American Indian and 38 White non-Hispanic subjects. To create a more powerful model, all variables of interest were dichotomized into characteristic-yes or characteristic-no/unknown. This did not compensate for missing data but was found to be the strongest model; that is, the model which was needed to use the logistic regression approach most successfully. All variables of interest were included in the model. The average age of members of each matched group was 39, and there were 48.7% males and 51.3% females in each group. Chi-square analyses were performed on the remaining, dichotomized variables, as shown in Table 12.

Table 12 shows that the only dichotomized variables which reflected statistically significant differences between the White and Indian subjects were: "last service over one year ago"; and "alcohol problem." Note that "marital status-never married" and "screening visit-yes" have changed direction from the larger sample, so that more Whites were never married, and more American Indians were on screening status. The screening status may be related to the programs attended and argues for controlling for this important variable whenever such analyses are undertaken.

Also notable are that with a matched sample and no children included, the percentage of American Indians who did not complete high school (26.3%) was higher than the percentage of Whites (13.2%), as expected given the lack of value granted education by American Indians according to the literature.
Table 12
Characteristics of Matched ADULT Groups of White and American Indian recipients of MH services from the NYS OMH, Jan-Oct 1994, by percentage of recipients of service (DMHIS, 1994)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Ethnicity</th>
<th></th>
<th>Chi-square</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White</td>
<td>American</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n=38)</td>
<td>Indian</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>(n=38)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Standard Religion:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>26.3</td>
<td>34.2</td>
<td>.56</td>
<td>1</td>
<td>ns</td>
</tr>
<tr>
<td>No/Unknown</td>
<td>73.7</td>
<td>65.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status Never Married?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>47.4</td>
<td>44.7</td>
<td>.05</td>
<td>1</td>
<td>ns</td>
</tr>
<tr>
<td>No/Unknown</td>
<td>52.6</td>
<td>55.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screening Visit?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>15.8</td>
<td>18.4</td>
<td>.09</td>
<td>1</td>
<td>ns</td>
</tr>
<tr>
<td>No/Unknown</td>
<td>84.2</td>
<td>81.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living with Relatives?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>28.9</td>
<td>36.8</td>
<td>.53</td>
<td>1</td>
<td>ns</td>
</tr>
<tr>
<td>No/Unknown</td>
<td>71.1</td>
<td>63.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>57.9</td>
<td>68.4</td>
<td>.90</td>
<td>1</td>
<td>ns</td>
</tr>
<tr>
<td>No/Unknown</td>
<td>42.1</td>
<td>31.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Less than HS?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>13.2</td>
<td>26.3</td>
<td>2.07</td>
<td>1</td>
<td>ns</td>
</tr>
<tr>
<td>No/Unknown</td>
<td>86.8</td>
<td>73.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last Service Over 1 Year Ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>31.6</td>
<td>13.2</td>
<td>3.71</td>
<td>1</td>
<td>.05</td>
</tr>
<tr>
<td>No/Unknown</td>
<td>68.4</td>
<td>86.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significant Alcohol Problem?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>13.2</td>
<td>31.6</td>
<td>3.71</td>
<td>1</td>
<td>.05</td>
</tr>
<tr>
<td>No/Unknown</td>
<td>86.8</td>
<td>68.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significant Substance Abuse Problem?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>7.9</td>
<td>18.4</td>
<td>1.84</td>
<td>1</td>
<td>ns</td>
</tr>
<tr>
<td>No/Unknown</td>
<td>92.1</td>
<td>81.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The number of American Indians with a religion which is not Protestant, Catholic, or Jewish decreased from 16 of the original group of 45 Indians to 13 of the 38 adult Indians, indicating that three of the subjects under age 18 reported a non-standard religion.

In keeping with earlier analyses, American Indians were still more likely to be living with relatives, to be unemployed, and to have a substance abuse diagnosis. An additional variable not entered in the equation helped to clarify the differences in diagnosis between groups. A separate question in the DMHIS asks if the person has a "Significant Mental Illness." This is part of the same question as the "Significant Alcohol Problem?" and "Significant Substance Abuse Problem?" statements above. The responses to this question were that 97.4% of the Whites, but only 89.5% ($X^2 = 1.93, 1 \text{ df, } p = .165 \text{ (ns)}$) of the Indians were found to have a mental illness, suggesting that the primary problem for these American Indian clients was alcohol and substance abuse, as was indicated in data from the federally operated IHS clinics in New York State. The difference is that, in the OMH clinics, there must be a concomitant mental health diagnosis in order to be admitted for treatment.

**Logistic Regression Analysis**

Regression analysis allows the researcher to determine the combined influence of several variables upon an independent variable, and to use these variables to predict membership in a dichotomized group, in this case the American Indian group. The dependent variable in this case is: American Indian: yes/no. Using the LOGISTIC REGRESSION command in SPSS, the final classification table for the
dependent variable was as follows:

Table 13
American Indians plus Matched Group of White non-Hispanic recipients of service from the OMH, 1994; Logistic Regression Prediction Model

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Percent Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WHITE</td>
<td>AM.INDIAN</td>
</tr>
<tr>
<td>WHITE</td>
<td>25</td>
<td>13</td>
</tr>
<tr>
<td>AM.INDIAN</td>
<td>15</td>
<td>23</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This model correctly predicted ethnicity 63.16% of the time. Using Cohen’s Kappa, this yields a value of $r^2 = .26$. (computed by subtracting .5 from .6316 and dividing by 1 minus .5) ($.6313-.50 /1-.5 = .26$), indicating the variables chosen by the model explain 26% of the variation between the two ethnic groups. Table 14 shows the variables kept in the equation by the model.

Table 14
Variables in the Equation for Ethnicity, Indian or White

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>BETA COEFFICIENT</th>
<th>BETA STANDARD ERROR</th>
<th>WALD'S CHI-SQUARE STATISTIC</th>
<th>df</th>
<th>Sig</th>
<th>R</th>
<th>Exp (B) (Odds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alc.Problem</td>
<td>-6103</td>
<td>.3156</td>
<td>3.7401</td>
<td>1</td>
<td>.0531</td>
<td>-.1285</td>
<td>.5432</td>
</tr>
<tr>
<td>Last Seen &gt; 1 Yr.</td>
<td>.5243</td>
<td>.3089</td>
<td>2.8807</td>
<td>1</td>
<td>.0896</td>
<td>.0914</td>
<td>1.6893</td>
</tr>
<tr>
<td>Educ. &lt; HS</td>
<td>-.5203</td>
<td>.2740</td>
<td>1.0453</td>
<td>1</td>
<td>.3066</td>
<td>.0000</td>
<td>.7556</td>
</tr>
</tbody>
</table>

The beta coefficient expresses the change in the dependent variable that is due to the independent variable when the effects of all other variables are held
constant or controlled (Reid & Smith, 1989). It is important to note the size of the coefficient compared to the size of the standard error; a higher coefficient is desirable (SPSS, 1988).

Note that the following variables were "dropped" from the model by the logistic regression procedure: unemployed-yes/no; lives with relatives-yes/no; and substance abuse problem-yes/no. "Marital status" and "type of visit" were not entered into the model due to their low chi-square values shown in Table 12 above. Of interest is that "non-standard religion," which yielded a low chi-square value when the two groups were compared, remains in the model when all variables are analyzed together and that "substance abuse problem," which yielded a relatively high (although not statistically significant) chi-square value, was dropped by the model.

The odds ratio shows the relative weight of each category of response on the dependent variable. The "alcohol problem-yes" (1) response of .54 indicates a corresponding "alcohol problem-no" (0) value of 1.84 (the corresponding value for the other category of response is obtained by dividing the odds ratio shown into 1). The relative weight of each category of response can then be computed by dividing the low rate of response into the high rate.

In the case of "alcohol problem," for example, this would show that a person with an alcohol problem is 3 times less likely to be in the "White" category. Similarly, the odds ratio of 1.68 for "last seen over one year ago" indicates a corresponding value of .59, or that the "yes" response is 2.8 times (1.68/.59) more likely for White respondents. Using the same methodology, persons with education less than high
school were 2.8 times less likely to be White, and persons reporting other than a major religion (Christian or Jewish) were 1.7 times less likely to be White.

The importance of this analysis, however, is in the percent of variation between the two groups (26%) due to the four variables identified by the logistic regression model. To reiterate, the variables which were chosen by the model were treatment oriented (time since last service) and demographic (diagnosis, education level, religion). These findings support the first two parts of the hypothesis of this study: that American Indian and White non-Hispanic clients differ in demographic characteristics and in services received. The third part of the hypothesis was tested using the Mental Health Values Questionnaire.

**Differences in Attitude: the Mental Health Values Questionnaire**

Of the 180 copies of the Mental Health Values Questionnaire (MHVQ) left at mental health sites to be completed, 47 (26%) were returned. The low response rate was affected by two unexpected occurrences which were out of the researcher's control and which happened at the time of the study. These were that the Office of Mental Health began a major reorganization in 1995-1996 in which many outpatient programs were told they may be closed, and there was a disruption at the Iroquois reservation adjacent to the study site in which two persons were killed right before the beginning of the data collection phase.

The effect of possible closure of the program is difficult to ascertain but was probably sufficiently traumatic for clients that it affected their willingness to complete a voluntary questionnaire. This population had already experienced the closure of the
adjacent inpatient psychiatric hospital (Gowanda PC, where Perkins had completed her study in 1927) a few years earlier. This was a stressful event for both staff and clients of the related inpatient and outpatient programs.

Before the study began it was anticipated that the federal Indian Health Service (IHS) mental health clinic on the Seneca reservation would be a possible study site if needed to increase the number of American Indian subjects. By the time the study began, however, the elected tribal council of the Iroquois reservation had voted not to allow the questionnaires to be left at the IHS clinic. The OMH program director, to compensate for the loss of the IHS site when there were few American Indian respondents from the OMH programs, solicited other sites.

A Seneca member of the consumer advisory board of the OMH mental health clinic agreed to give several copies of the questionnaire to persons whom she knew were receiving mental health services from any program. In addition, a therapist at a county operated clinic located on the grounds of another reservation agreed to give copies of the questionnaire to American Indian clients, thus leading to a relatively high response rate from Indian people.

Although the Iroquois tribal council had voted not to take part in the study, the ability of individual members of the Nation to participate was not in violation of this decision. It has long been the tradition among Iroquois people that rule is not hierarchal and that an individual may decide with impunity not to go along with a decision of the leaders of their nation or of the Iroquois Confederacy (Shafer, 1941).
Demographics

Of the 47 forms returned, one Indian and six White forms could not be used because the questionnaires were completed incorrectly. Information about the remaining 40 respondents is shown in Table 15. A variable which was found to lead to significantly different responses in the original studies using the MHVQ (Tyler et al., 1983; Tyler & Suan, 1990), gender, was found to not be different at a statistically significant level for the White and Indian groups ($X^2 = .046, 1 \text{ df}, p = .83$). Subsequent analyses of ethnicity controlling for gender (using the SPSS ANOVA command), as indicated by the results cited by Tyler, found that gender was not important as a covariate.

Table 15 shows the gender, age, and tribe/nation or ethnic group for the 40 White and American Indian respondents to the MHVQ. Differences in age were not statistically significant even when categories of age were dichotomized in order to maximize any differences between the White and American Indian respondents.

Of interest is that one of the American Indian respondents (Mohawk/Blackfoot/Cheyenne) also checked the "White" category, giving a total of 27 White and 14 American Indian responses with one person counted twice (included as an American Indian in Table 15).
## Table 15
Demographic Characteristics of 40 Respondents to the Mental Health Values Questionnaire (MHVQ): 1995-1996

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>WHITE</th>
<th></th>
<th>AMERICAN INDIAN</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>13</td>
<td>50</td>
<td>6</td>
<td>42.9</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>46.2</td>
<td>8</td>
<td>57.1</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>3.8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Age:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-20</td>
<td>2</td>
<td>7.7</td>
<td>2</td>
<td>14.3</td>
</tr>
<tr>
<td>21-30</td>
<td>3</td>
<td>11.5</td>
<td>1</td>
<td>7.1</td>
</tr>
<tr>
<td>31-40</td>
<td>11</td>
<td>42.3</td>
<td>4</td>
<td>28.6</td>
</tr>
<tr>
<td>41-50</td>
<td>4</td>
<td>15.4</td>
<td>4</td>
<td>28.6</td>
</tr>
<tr>
<td>51-60</td>
<td>4</td>
<td>15.4</td>
<td>2</td>
<td>14.3</td>
</tr>
<tr>
<td>Over 60</td>
<td>1</td>
<td>3.8</td>
<td>1</td>
<td>7.1</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>3.8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethnicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>26</td>
<td>65.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian</td>
<td>14</td>
<td>35.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Ethnic Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>German</td>
<td>12</td>
<td>46.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>11</td>
<td>42.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irish</td>
<td>9</td>
<td>34.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>5</td>
<td>19.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dutch</td>
<td>5</td>
<td>19.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polish</td>
<td>4</td>
<td>15.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scottish</td>
<td>4</td>
<td>15.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italian</td>
<td>1</td>
<td>3.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russian</td>
<td>1</td>
<td>3.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>19.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American Tribe/Nation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seneca</td>
<td>11</td>
<td>78.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mohawk/Blackfoot/Cheyenne</td>
<td>1</td>
<td>7.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cherokee</td>
<td>1</td>
<td>7.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shoshone</td>
<td>1</td>
<td>7.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolled in Tribe/Nation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (all enrolled in Seneca Nation)</td>
<td>11</td>
<td>78.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>21.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The American Indian category of response used to compare White/Indian ethnicity thus included three different categories: eleven people were enrolled members of the Seneca Nation; a Cherokee and Shoshone considered themselves American Indian but were not enrolled in their tribe/nation; and one person considered himself/herself as both (unenrolled) American Indian (Mohawk/Blackfoot/Cheyenne) and White. Enrollment refers to federal enrollment in an American Indian tribe or nation and also includes membership in and recognition by the tribe or nation itself.

Most of the White respondents, almost all of whom checked more than one category of ethnicity, were partly of German or English ancestry followed by Irish, French, Dutch, Polish, Scottish, Italian, and Russian. Included in the 5 "other" category were American (2 responses), Belgian, Spanish, and Czech.

**Attitudes Toward Mental Health**

The Mental Health Values Questionnaire (MHVQ) asks respondents to rate statements about people as being indicative of good or poor mental health on a five point scale, as follows:

1 = Very poor mental health

2 = Poor mental health

3 = Neutral, statement not related to mental health

4 = Good mental health

5 = Very good mental health

There were no significant differences in response found among the several
groups of White subjects listed above. American Indian and White respondents to the questionnaire had significantly different responses to one of the eight original subscales as well as to specific questions on the MHVQ, as shown in the following tables. Two additional subscales showed significant differences using the Mann-Whitney U test but not the t-test. Only results which achieved statistical significance using both measures were included to compensate for the small sample size.

The Mann-Whitney U test was used to compare the differences in response on the subscales of the instrument as well as on individual variables of interest between the two groups. The Mann-Whitney, or Wilcoxon test, is based on the average ranks assigned to cases in two groups from the same population. Similar ranks are expected. If one group has more than its share of large or small ranks the underlying distributions are probably different (Norusis, 1990).

Table 16

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>Average Score</th>
<th>Mann-Whitney Z Score</th>
<th>Mann-Whitney 2-tailed p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White</td>
<td>Amer. Indian</td>
<td></td>
</tr>
<tr>
<td>Subscale 8: Unconventional Reality (Avg.score)</td>
<td>2.2</td>
<td>2.8</td>
<td>-2.4095</td>
</tr>
<tr>
<td>3. The person has visions.</td>
<td>2.0</td>
<td>3.0</td>
<td>-2.5224</td>
</tr>
<tr>
<td>79. The person sees things that others do not see.</td>
<td>1.8</td>
<td>2.9</td>
<td>-2.4741</td>
</tr>
<tr>
<td>98. The person guides his/her life according to spirits.</td>
<td>2.2</td>
<td>3.0</td>
<td>-2.3813</td>
</tr>
<tr>
<td>65. The person views things differently at different times</td>
<td>3.0</td>
<td>3.7</td>
<td>-1.9675</td>
</tr>
</tbody>
</table>
Differences found on the "Unconventional Reality" subscale of the MHVQ between the American Indian and White respondents were similar to those found in the original study conducted by Tyler et.al. in 1990, using White and American Indian college students at the University of North Dakota, except fewer of the specific items included in the "unconventional reality" were found to be significantly different (using both the Mann-Whitney U test and the students's t-test) in this analysis. As shown in the above table, the American Indians reported that:

- Having visions was rated an average score, "3", which is "Neutral, statement not related to mental health"; while White respondents averaged a "2" response, indicating "poor mental health."
- "(Seeing) things that others do not see" and "(guiding) his/her life according to spirits" were also rated neutral (guiding life) or slightly less than neutral (seeing things) by the American Indian respondents, and were rated as being close to "poor mental health" by White respondents.
- "(Viewing) things differently at different times was rated "Neutral' by White respondents, but closer to "good" mental health by American Indians.

Other specific questions which were found to differ significantly between the two groups are shown in Table 17.
Table 17
Differences in Response Between White and American Indian Respondents to the MHVQ: 1995-1996: Specific items not in Unconventional Reality Subscale.

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>Average Score</th>
<th>Z Score</th>
<th>Mann-Whitney 2-tailed p</th>
</tr>
</thead>
<tbody>
<tr>
<td>47. The person is bored most of the time.</td>
<td>2.0</td>
<td>2.8</td>
<td>-2.3234</td>
</tr>
<tr>
<td>70. The person makes attempts to improve him/her self.</td>
<td>4.5</td>
<td>4.1</td>
<td>-2.134</td>
</tr>
<tr>
<td>85. The person communicates directly and honestly with others.</td>
<td>4.5</td>
<td>4.1</td>
<td>-2.7055</td>
</tr>
</tbody>
</table>

In all of these responses the direction of the item was similar; the difference was in degree. Being bored showed "poor" mental health for White respondents, but was closer to neutral for American Indians. "(Making) attempts to improve (one)self" and "(Communicating) directly and honestly with others" were rated as showing "good" mental health by American Indians, but closer to "very good" mental health by Whites.

**Analysis of Variance: the effects of enrollment in the Seneca Nation**

Eleven of the 14 American Indian respondents to the MHVQ reported they were enrolled in the Seneca Nation. This signifies a level of commitment and belonging to American Indian ethnicity which may provide a different frame of reference than would be found in American Indians who are not enrolled in a tribe or nation but who identify themselves as American Indian (Jarvenpa, 1985). To ascertain the relative effects of Indian ethnicity and enrollment on these scores, an analysis of variance procedure was used.
When assumptions of normal distribution are not appropriate, the Kruskal-Wallis non-parametric test is more appropriate than the ANOVA procedure for assessing the relative weight of a covariate (Kenny, 1987). The Kruskal-Wallis allows for the testing of a multi-level independent variable using the same procedure as the Mann-Whitney U test, that is, a ranking of data from smallest to largest.

The Kruskal-Wallis then compares the ranks using the chi-square statistic. Table 18 lists the ranks of each response to the variable "enrollment" and shows chi-square values for each of the above responses on the MHVQ by enrollment. Enrollment is categorized as: (1) White, not enrolled in Indian Nation; (2) American Indian, not enrolled in Indian Nation; (3) American Indian, enrolled.
Table 18
Differences in Response Between White (Group 1), Non-enrolled American Indian (Group 2), and Enrolled American Indian (Group 3) recipients of MH services 1995-1996 (Kruskal-Wallis analysis of variance).

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Mean Rank</th>
<th></th>
<th></th>
<th>X^2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCALE 8: UNCONVENTIONAL REALITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group (1)</td>
<td>Group (2)</td>
<td>Group (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.33</td>
<td>23.67</td>
<td>24.25</td>
<td></td>
<td>5.813</td>
<td>.05</td>
</tr>
<tr>
<td>3. HAS VISIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.81</td>
<td>16.33</td>
<td>27.45</td>
<td></td>
<td>8.976</td>
<td>.01</td>
</tr>
<tr>
<td>79. SEES THINGS OTHERS DO NOT SEE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.31</td>
<td>20.33</td>
<td>28.09</td>
<td></td>
<td>7.268</td>
<td>.03</td>
</tr>
<tr>
<td>98. GUIDES LIFE ACCORDING TO SPIRITS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.06</td>
<td>26.00</td>
<td>25.85</td>
<td></td>
<td>5.671</td>
<td>ns</td>
</tr>
<tr>
<td>65. VIEWS THINGS DIFFERENTLY AT DIFFERENT TIMES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.94</td>
<td>17.33</td>
<td>27.41</td>
<td></td>
<td>5.778</td>
<td>ns</td>
</tr>
<tr>
<td>47. IS BORED MOST OF THE TIME</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.17</td>
<td>32.27</td>
<td>23.55</td>
<td></td>
<td>7.059</td>
<td>.03</td>
</tr>
<tr>
<td>70. MAKES ATTEMPT TO IMPROVE SELF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.02</td>
<td>9.83</td>
<td>17.45</td>
<td></td>
<td>5.877</td>
<td>.05</td>
</tr>
<tr>
<td>85. COMMUNICATES DIRECTLY AND HONESTLY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.75</td>
<td>9.00</td>
<td>15.95</td>
<td></td>
<td>8.384</td>
<td>.02</td>
</tr>
</tbody>
</table>

By looking at the results of the Kruskal-Wallis test, the direction and relative size of mean rank indicates the effect of enrollment in the Seneca Nation on the variable of interest. For example, in the subscale "Unconventional Reality" and for variables 3 (Has visions) and 79 (Sees things others do not see), the direction of response is from White to non-enrolled Indian, to enrolled-Indian, with a much higher rank for the enrolled Indians relative to both Whites and non-enrolled Indians on variables 3 and 79. This indicates that the enrolled Indians account for the variation between White and Indian responses using the Mann-Whitney test above.
To clarify these findings, the three groups (White, non-enrolled Indian and enrolled Indian) were re-grouped based on the findings in Table 18 and analysis was done using the Man-Whitney U test to determine the relative effects of enrollment or non-enrollment on the results. Table 19 shows the results of grouping non-enrolled Indians with Whites and Table 20 shows the results of grouping enrolled Indians with Whites.

Table 19
Differences in Response Between White or Non-enrolled American Indian versus Enrolled American Indian recipients of MH services 1995-1996 (Mann-Whitney U test).

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Mean Rank</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Whites or Non-enrolled Indians</td>
<td>Enrolled Indians</td>
<td></td>
</tr>
<tr>
<td>Scale 8: Unconventional Reality</td>
<td>16.29</td>
<td>24.25</td>
<td>-2.0353</td>
</tr>
<tr>
<td>3. Has Visions</td>
<td>15.87</td>
<td>27.45</td>
<td>-2.9950</td>
</tr>
<tr>
<td>79. Sees Things Others Do Not See</td>
<td>17.62</td>
<td>28.09</td>
<td>-2.6587</td>
</tr>
<tr>
<td>98. Guides Life According to Spirits</td>
<td>17.98</td>
<td>25.85</td>
<td>-1.9659</td>
</tr>
<tr>
<td>65. Views Things Differently at Different Times</td>
<td>17.88</td>
<td>27.41</td>
<td>-2.4019</td>
</tr>
<tr>
<td>47. Is Bored Most of the Time</td>
<td>18.78</td>
<td>23.55</td>
<td>-1.2115</td>
</tr>
<tr>
<td>70. Makes Attempt to Improve Self</td>
<td>21.66</td>
<td>17.45</td>
<td>-1.1659</td>
</tr>
<tr>
<td>85. Communicates Directly and Honestly</td>
<td>22.22</td>
<td>15.95</td>
<td>-1.7101</td>
</tr>
</tbody>
</table>

Table 19 shows that enrollment had a strong effect on the variables associated with "Unconventional Reality" but had no effect on the remaining three variables of interest, which were related to the importance of boredom, self improvement, or...
communication style to mental health.

Table 20 shows the results of combining enrolled Indians with White respondents, to gauge the relative effects of the non-enrolled Indians on the results.

Table 20
Differences in Response Between White or Enrolled American Indian versus Non-enrolled American Indian recipients of MH services 1995-1996 (Mann-Whitney U test).

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Mean Rank</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Whites or</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enrolled Indians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCALE 8: UNCONVENTIONAL REALITY</td>
<td>18.03</td>
<td>23.67</td>
<td>-0.89</td>
</tr>
<tr>
<td>3. HAS VISIONS</td>
<td>19.24</td>
<td>16.33</td>
<td>-0.46</td>
</tr>
<tr>
<td>79. SEES THINGS OTHERS DO NOT SEE</td>
<td>20.51</td>
<td>20.33</td>
<td>-0.03</td>
</tr>
<tr>
<td>98. GUIDES LIFE ACCORDING TO SPIRITS</td>
<td>19.50</td>
<td>26.00</td>
<td>-0.99</td>
</tr>
<tr>
<td>65. VIEWS THINGS DIFFERENTLY AT DIFFERENT TIMES</td>
<td>20.76</td>
<td>17.33</td>
<td>-0.51</td>
</tr>
<tr>
<td>47. IS BORED MOST OF THE TIME</td>
<td>18.94</td>
<td>32.67</td>
<td>-2.12</td>
</tr>
<tr>
<td>70. MAKES ATTEMPT TO IMPROVE SELF</td>
<td>21.36</td>
<td>9.83</td>
<td>-1.89</td>
</tr>
<tr>
<td>85. COMMUNICATES DIRECTLY AND HONESTLY</td>
<td>21.43</td>
<td>9.00</td>
<td>-2.00</td>
</tr>
</tbody>
</table>

As shown in Table 20, the non-enrolled American Indians differed significantly from both White and enrolled Indian respondents in the questions related to boredom, and communicating directly and honestly. Differences were not significant for "Makes attempt to improve self." These results indicate that the enrolled Indians differed significantly on items in the "Unconventional Reality" subscale, and the non-enrolled Indians differed significantly on the importance of "boredom" and...
"communicating directly and honestly" as measures of good or poor mental health.
For item 70, "Makes an attempt to improve him or her self," the two Indian groups together differed significantly from the White respondents, but neither group alone was apparently responsible for the differences.

Findings related to the "Unconventional Reality" subscale are consistent with the third hypothesis of this study as well as with the earlier study reported in the literature (Tyler et.al., 1990). What had been unclear in that study was the degree of "Indianness" which is reflected by these responses. From this analysis it appears that enrollment in an American Indian tribe or nation may be an important variable to consider when analyzing the spiritual beliefs of an American Indian client. It is possible as well that enrollment is related to other variables such as residing in an Indian community which were not analyzed as possible covariates in this study.

Summary

The results of this study support the hypothesis that differences between White and American Indian recipients of mental health services exist which may require a different approach for American Indians. The following variables were found to differ between the two groups:

- Demographic: education level less than high school, other than Christian or Jewish religion, alcohol problem.
- Service: time since last service less than one year.
- Attitudinal: having visions, seeing things others do not see, guiding life according to spirits, viewing things differently at different times, being
bored, making attempt to improve self, and communicating directly and honestly with others.

The next chapter will discuss these results in detail.
CHAPTER 5:

DISCUSSION

The purpose of this study was to ascertain whether or not differences in demographic variables, service variables and attitudes exist between White, non-Hispanic and American Indian recipients of mental health services which may affect mental health care by social workers and other clinicians.

The study was undertaken in three parts. First, a background analysis was completed to determine the approximate numbers and locus of services provided to American Indians in New York State. This was a necessary precursor to the actual study design. Second, an analysis of secondary data from the New York State Office of Mental Health data base was completed to compare demographic and service variables of interest between White non-Hispanic and American Indian recipients of mental health services in upstate New York. Third, White, non-Hispanic and American Indian recipients of service anonymously completed a questionnaire which measures attitudes toward mental health.

The key findings of this study were that:

- American Indians receive proportionately fewer mental health services from State, federal, local or private providers compared to White, non-Hispanic persons living in the same areas of New York State. In addition, almost half of the mental health services provided to American Indians by the State of
New York in upstate New York are provided by one psychiatric center.

\* American Indian recipients of mental health services differed from White, non-Hispanic recipients of mental health services in displaying the following demographic and service variables which may affect the relevance of care: education less than high school, religion other than Christian or Jewish, alcohol problem, less likely than Whites to have been last seen over one year ago.

\* American Indian recipients of mental health services differed from White, non-Hispanic recipients of mental health services in regard to the following attitudes toward mental health which may affect the relevance of care: having visions, seeing things others do not see, guiding life according to spirits, viewing things differently at different times, being bored, making attempt to improve self, and communicating directly and honestly with others.

These findings support each other in suggesting the need for services for American Indians which take note of ethnic differences. Following is a discussion of the study design, findings regarding demographic and service variables, findings regarding attitudes related to mental health, and study limitations. These sections are followed by implications for practice, policy, and research, and a summary of the chapter.

Study Design

The hypothesis of this study was tested using a secondary data source, the Department of Mental Hygiene Information System, and by performing a field study
using the Mental Health Values Questionnaire, an instrument designed and tested at the University of North Dakota.

A descriptive design was used to test the hypothesis as a first step toward a more sophisticated, empirical study. There are a dearth of studies of the relative effectiveness of mental health services for American Indians. Studies regarding prevalence rates of mental illness among American Indians or of demographic variables which differ between American Indian and other recipients of mental health care are also rare. This descriptive study was an initial attempt to increase the knowledge base in this important area and to suggest direction for future research.

Before the analysis of secondary and primary sources of data was undertaken there was a need to define the extent and locus of mental health care for American Indians. New York State was chosen as a geographic study area because of proximity to the researcher. Finding out where and by whom mental health services to American Indians in New York State are provided took a year and involved the cooperation of persons in several different organizations. These included the following:

- New York State Office of Mental Health: Bureau of Licensing and Certification; Bureau of Research; Bureau of Management Information Systems; Multi-Cultural Task Force; Bureau of Affirmative Action.
- New York State Office of Indian Affairs.
- United States Bureau of Indian Affairs: Eastern Area Office; Health Care Research, Statistics Office; Mental Health Programs Branch,
Indian Health Service (IHS); St. Regis IHS mental health clinic

- Iroquois Confederacy: key informants at five of the six nations

From these disparate sources the approximate numbers and types of mental health services provided to American Indians in upstate New York were estimated. The initial data indicated that, relative to White non-Hispanic recipients of service, American Indians were underserved. Data from only the Office of Mental Health (OMH) operated programs in upstate New York showed that almost half of OMH services to American Indians in the western and central areas of New York State were provided by one upstate psychiatric center. These data indicated the likely site for data collection in Part II of the study as well as providing background information.

**Findings Related to Demographic and Service Variables**

**Procedures**

When the total populations of all White (6064) and all American Indian (45) clients seen in a several-county area were compared, marital status, religion, type of service, and the presence of a significant alcohol problem or significant substance abuse problem were found to differ at a statistically significant level. The American Indian recipients of service were also significantly younger than White recipients.

The American Indian subjects were consequently matched to a group of 44 (one subject could not be matched) White subjects by age, gender, and program. A first, important finding from these data was that 6 children had been included among the 45 American Indian subjects. All persons under age 18 were dropped from the
analysis because of the importance to the study of variables related to adult status such as marital status, unemployment and education.

When the adult groups of the remaining 38 White non-Hispanic and 38 American Indian clients were compared significant differences were identified for only two of the original variables. These were "last service over one year ago" and "significant alcohol problem." Other variables which appeared to identify important differences between the two large groups no longer differed when the matched groups were compared. These were marital status and type of service. These differences in findings underline the need for matching on important variables such as age, gender, and program when doing analyses in the field of mental health.

Other variables still of interest but not statistically significant based on chi-square values were religion, living with relatives, unemployed, education less than high school, and significant drug abuse problem.

The variable "non-standard religion yes/no" had shown significant differences for the group of 6064 Whites and 45 American Indians but did not show significant differences for the matched adult groups. In the original analysis of 45 Indian and 6064 White subjects, 16 of the 45 Indians reported a specific religion other than Christian or Jewish. In the analysis of 38 White and 38 Indian subjects only 13 American Indians reported a specific religion other than Christian or Jewish. Evidently, three of the six children dropped from the analysis had reported such a religion. This may be a reflection of the recent increased emphasis on the teaching of traditional values and beliefs to the younger generations in American Indian
communities (Edwards et al., 1994).

Results

All variables of interest were analyzed using the logistic regression procedure in order to see if they had prediction value for American Indian status. Some of the demographic variables (alcohol problem, education less than high school, non-standard religion) and service variables (last seen less than one year ago) provided a 26% improvement over chance in prediction. Each of these will be discussed separately.

The presence of relatively high rates of alcohol problems among American Indians with mental health needs has been reported by the federal government (U.S. Indian Health Service, 1989), in the literature (Levy & Kunitz, 1971; Young, 1990; 1991), and in literature regarding New York State populations (Perkins, 1927; Wallace, 1959). In upstate New York 56% of the services provided to persons by the Indian Health Service (IHS) mental health clinics were for problems of alcohol or drug use.

The results of this study support these findings but add a new dimension: concomitant drug use problems of the American Indian clients may be less of a factor than alcohol problems in bringing an American Indian to a mental health program. Data also suggest, although not definitively, that the concomitant mental health problems of American Indians may be less severe than those of White clients of the same programs.

The literature reported that American Indians do not value education or
success as defined by the dominant culture (Harrison et al., 1992; Jones, 1978; LaFromboise, 1988; Lynch & Hanson, 1992; Sue & Sue, 1990; Wilkinson, 1980). This study supports that assumption in the prediction of Indian group membership based partly on non-completion of high school. Low levels of education may be related to socioeconomic level which is in turn related to a higher level of severity of mental illness (APA, 1994). However, the results of this study indicate that the American Indian clients with less than a high school education also may have had less severe mental health problems. It is possible that education away from the American Indian community may take children away from a valuable support system of family and community, leading to stress. This was true in the past, when American Indian children were sent away to boarding schools in an attempt at assimilation (Nabokov, 1991), but may also be a factor in schooling close to home.

Specific data regarding socioeconomic status was not available in the DMHIS, prohibiting a more rigorous analysis of the interaction of variables related to education, socioeconomic status, and mental illness.

The finding that non-standard religion is an important variable in distinguishing between White and American Indian clients suggests the religion reported is a traditional American Indian religion. However, the DMHIS data did not include that category of response. The only conclusion at this time is that many American Indian clients in Part I of the study had a religion other than Christian or Jewish and that, given the options, this was probably a traditional American Indian religion. The importance to therapists of knowing to what religion the American
Indian client belongs, as reported in the literature (Blount et al., 1992; Joe & Malach, 1992), is underscored by this finding.

At first review the variable "last seen over one year ago" appears to indicate a severity of mental health problem in American Indians, who were less likely than Whites to have been seen over a year ago. This finding can also be interpreted as being related to chronicity, as clients diagnosed with a chronic mental illness may be seen over a longer period of time, but much less frequently. In many cases persons diagnosed with a chronic mental illness are stabilized and come to outpatient programs only when problems become severe. According to this interpretation, chronicity appears from these findings to be greater among White than Indian clients. The latter interpretation is partially supported by the finding of a high alcohol-use problem among the American Indian clients, as an alcohol problem may look like a psychosis initially but when diagnosed would not lead to long-term care in a mental health program.

**Use of Logistic Regression Analysis**

Combined by the logistic regression procedure, the findings of the first part of the study supported the first part of the hypothesis, that differences exist between American Indian and White, non-Hispanic recipients of service which may affect mental health care. "Alcohol problem" and "last service over 1 year ago" were found to differ significantly for Whites and American Indians when using chi-square analysis, which indicates they are important differences in their own right. However, "substance abuse problem", significant for the total population using the chi-square,
was dropped from the logistic regression procedure indicating that this variable interacts sufficiently with the others to lose importance in its own right as a predictor of differences between the two groups. Education and religion, not found to differ significantly between groups, are included as predictors using logistic regression.

**Findings Related to Mental Health Attitudes**

**Procedures**

Copies of the Mental Health Values Questionnaire were left at several mental health programs for persons to pick up, complete, and mail if they wanted to do so. The use of several sites including those located on the grounds of an American Indian reservation enriched the study by increasing the number of American Indian subjects who were enrolled in an Indian Nation.

The level of "Indianness" of a person was reported in the literature to have an effect on attitudes and beliefs (Jarvenpa, 1985; Sue & Sue, 1990; Trimble et al., 1984; Williams & Ellison, 1996). Among the survey respondents in this study, there were eleven enrolled members of an Iroquois Nation out of fourteen Indians surveyed. This provided an opportunity to control for this variable when analyzing the effects of ethnicity on response.

Studies by Tyler et al. (1983, 1990) found gender to be an important covariate as well. Analyses of data in the current study found little difference in gender between the White and American Indian subjects, making gender not important as a covariate.
Results

Significant differences in response to questions on the Mental Health Values Questionnaire (MHVQ) were found among White and American Indian respondents on one subscale (Unconventional Reality) and seven individual items both within and apart from the subscale. Both the Student's t-test and the Mann-Whitney U test were applied to the data and only results which were significant using both measures were included in the results. This conservative approach was used to compensate for the small sample size.

Significant differences on the "Unconventional Reality" subscale were due to the large number of items (4 of 9 items) within the subscale on which White and American Indians subjects differed. In addition, Whites and American Indians differed significantly on three questions not in the subscale. Further analysis found differences in relative effect between enrolled and non-enrolled American Indians on two of these questions.

American Indians were found to differ significantly from White respondents on the following items: The person has visions; The person sees things others do not see; The person guides his or her life according to spirits; The person views things differently at different times. These were all included in the "Unconventional Reality" subscale of the MHVQ.

Having visions is one of the criteria listed in the DSM IV (APA, 1994) to look for when making a diagnosis of schizophrenia. It is thus an important factor in treatment. For American Indians having visions was not related to good or poor
mental health but was neutral, not related to mental health at all. In contrast, the White subjects responded that "having visions" indicated poor mental health.

More rigorous testing established that the enrolled Seneca Indians accounted for the difference between Whites and Indians on this item. The importance of visions and dreams to traditional religion among the Iroquois people was chronicled by Wallace in 1959, and the vision of Handsome Lake while he was severely ill from alcoholism was credited by Greymont (1988) as being the impetus behind the founding of the Handsome Lake religion in the 1800s.

Information about visions or other traditional beliefs or practices among American Indians is kept private, not generally regarded as public information by American Indians (Joe & Malach, 1992). The responses to this item confirm the importance of ascertaining the extent of traditional belief from American Indian clients.

In the pilot study of the use of the MHVQ, feedback from respondents indicated that they were unsure if the question "Person sees things others do not see" is related to visual hallucinations or to "understanding" things that others do not understand. It is unclear if this was a problem for the White and American Indian respondents in this study. The direction of response for this item is the same as for "has visions" with the same (stronger) differences among the enrolled Seneca. White subjects reported that seeing things others do not indicates "poor" mental health and American Indians reported this is not related to mental health.

Likewise, "guiding ones' life according to spirits" was felt to show poor mental
health by Whites but was "neutral" for American Indians. This is another item which may fit traditional American Indian beliefs, although "spirits" are part of the Christian religion as well. For this variable, differences from White respondents were significant for enrolled Indians and not significant for non-enrolled Indians. However, the differences were greatest when the two groups of Indians were grouped together.

The importance of "viewing things differently at different times" to mental health also differed significantly for White and Indian respondents and most significantly for enrolled Indian respondents. Enrolled Indians felt that this was a sign of good mental health, while Whites and non-enrolled Indians felt it was not related to mental health.

The flexibility of response indicated by the assignment of "good" mental health to the ability to change one's mind is an indication of the importance of individual decision making among the Iroquois people. This attribute has been reported in the literature (Shafer, 1941) and was demonstrated in this study by the Seneca woman who circulated the MHVQ survey among members of her nation despite the decision by the Seneca Tribal Council not to take part in the study. Iroquois tradition guarantees that her decision to do so will go unchallenged.

The findings related to the "Unconventional Reality" subscale of the MHVQ support the findings from Part I of this study that the religious views of American Indian clients may differ from those of White, non-Hispanic clients. Some of these beliefs may be problematical in a standard approach to therapy. This is an important finding for social workers who counsel American Indians.
Jarvenpa in 1985 and Williams and Ellison in 1996 both described different levels of Indian belief systems. Williams and Ellison (1996) defined "traditional" Indians as those who have maintained their beliefs over time and "middle class" Indians as those who have grown apart from their heritage and are comfortable with Western medicine, although they no longer fit in either the White or the Indian worlds. "Pan-Indians" are persons of Indian descent who are attempting to re-establish lost traditions through identity with the larger Indian group (Jarvenpa, 1985; Williams and Ellison, 1996).

The significantly different responses of the non-enrolled Indians to questions related to the relationship of mental health to boredom and to communicating directly and honestly may be explained by assigning the non-enrolled Indian respondents to the "pan-Indian" group.

Being bored was a sign of "poor" mental health for White respondents and was neutral for American Indian respondents, indicating it was not related to mental health. Subsequent testing showed that the responses by the non-enrolled Indians were responsible for this result.

Attitudes toward communicating directly and honestly also differed significantly between Indians and Whites. All of the Indian respondents felt that communicating directly and honestly, although indicative of "good" mental health, was less important to positive mental health than did the White respondents. The non-enrolled Indians were most responsible for assigning less value to communicating directly and honestly.
This finding supports, to some extent, descriptions in the literature of the inability of American Indian clients to benefit from direct, one-on-one treatment due to its emphasis on self-revelation (Laine, WICHE, 1993; Sue & Sue, 1990; Trimble et al., 1984).

Although both Indian and White subjects found efforts at self-improvement to indicate "good" mental health, the American Indian respondents were significantly less positive about it than Whites. Differences between enrolled and non-enrolled American Indians were not significant, indicating a congruity of opinion among all persons with an Indian identity. Lack of interest in success or education has been linked to American Indian identity by several authors (Harrison et al., 1992; Jones, 1978; LaFromboise, 1988; Lynch & Hanson, 1992; Sue & Sue, 1990; Wilkinson, 1980).

Differences in response to this item support the finding in Part I that American Indian clients were less likely than White clients to have completed high school. The two findings together help to reaffirm the comparative lack of emphasis given to success by American Indians.

American Indian clients of New York State mental health programs differ from White non-Hispanic clients in demographic and treatment variables and display different attitudes toward mental health. To the extent that data from New York State is generalizable to American Indian groups in other geographic areas, there are some major implications for both practice and policy based on these results.
**Study Limitations**

This study was limited by different factors for the two parts. Part I, the analysis of a secondary data source, the Department of Mental Hygiene Information System (DMHIS), was affected by the limitations of this data base. These are in the lack of information available which may have been important to the study and in the lack of completion of all items for those variables which were present. These limitations guided selection of variables to be included and affected the results of the chi-square and the logistic regression procedures. To be successful, use of the logistic regression model required dichotomizing variables into characteristic: yes or characteristic: no/unknown. By lumping the "no" responses with the "unknown" responses some valuable information may have been lost.

The use of a large, state-operated data base such as the DMHIS is limited by gaps in data over which the researcher has no control, but the alternative, collection of new data, is prohibitive as it requires extensive permissions, paperwork, time and money not necessary when using an publicly accessible and anonymous secondary data base. The large size of the DMHIS data base helped to compensate for its limitations. An example of this was in finding matches for all but one of the adult American Indian subjects among the 6064 White, non-Hispanic subjects.

Part II was limited, first, by the self-selection nature of a self-administered questionnaire. According to Fowler (1993), the use of a self-administered questionnaire limits response to those who are motivated and able to complete the form provided. These subjects may differ from other possible respondents. In the case

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of persons with a diagnosed mental illness, persons who are most disabled would be the least likely to complete the questionnaire, lacking both motivation and ability.

This limitation was related to the second limitation, small sample size. Of 180 questionnaires left at various sites, only 40 (26 White and 14 American Indian) were part of the final analysis. In order to increase the number of American Indian respondents there was a need to go outside of the Office of Mental Health system to a related, county-operated clinic and among persons living on the Seneca/Cayuga reservation who had received mental health services from unknown providers. The two groups of respondents, White and American Indian, may have thus differed in program. Differences in program may be due to differences in level of psychiatric disability which, in turn, would be reflected in attitudes.

There may be limits to the generalizability of these results to members of all American Indian tribes or nations. The primary study group was the Seneca Nation of New York State. Results from the use of the Mental Health Values Questionnaire in the second part of the study found that the three American Indian persons who were not part of the Seneca Nation did differ in response from the eleven Seneca respondents. This finding suggests that different results may be obtained from different groups. However, information that these three American Indians were not enrolled members of their tribes further suggests that enrollment, or other variables related to tribal affiliation, rather than belonging to a specific group was responsible for these differences.

Similarities in response to the original study (Tyler & Suan, 1990) on the
"unconventional reality" subscale among the 14 American Indian recipients of mental health services in this study and the 66 American Indian students in the original study helps to argue for the generalizability of the results reported here.

Information on tribal affiliation or federal enrollment of Indians was not available for Part I of this study. It is assumed, since 17 of the 45 original subjects in Part I received services from the same outpatient programs as the subjects of Part II, that many of the Part I subjects were also members of the Seneca Nation of the Iroquois Confederacy. However, there are no data available to confirm this assumption.

Given the limitations, the study still provides some important implications for practice and policy. There are implications for future research as well.

Implications for Practice

The following elements have been reported in the literature to be important when working with American Indians in general:

- Assessing degree of acculturation
- A non-directive, facilitative approach
- Learning the communication styles for the culture
- Awareness of pervasive attitudes of distrust, different expectations, and lack of value ascribed to education or success
- Flexible yet thoroughly explained procedures
- Involvement of family
- Collective or group treatment
Use of traditional healers

This study supports some of these findings, in the following ways.

The importance of assessing degree of acculturation (Choney et al., 1995; Trimble et al., 1984; Williams & Ellison, 1996) was perhaps the most important finding of this study and was reinforced by similar indications in both parts. The presence of a specific, non-Christian or Jewish religion was noted for the matched sample of clients of the New York State Office of Mental Health in the first part, and spiritual beliefs regarding mental health which may be related to this religion were expressed in the second part. These findings together boldly underscore the need to ascertain the level of traditional belief of an American Indian client.

Differences between enrolled and non-enrolled American Indians related to belief further confirm the importance of assessing degree of acculturation. Variables other than enrollment may be present as well which indicate "ties of interest" (Jarvenpa, 1985) to an American Indian community. These may include residence in such a community or the use of a traditional American Indian language.

By not assessing degree of acculturation and consequent belief system, the therapist risks misdiagnosing a person from a traditional American Indian background for whom visions, seeing things others do not see and guiding one's life according to spirits are an accepted part of life rather than a symptom of pathology.

Once an identification with an American Indian culture is ascertained, the use of traditional healers may be an option. American Indian clients may be seeing a traditional healer anyway, as reported above by Duce Bowen, Seneca storyteller. The
therapist may even personally incorporate traditional with other therapeutic interventions (Williams & Ellison, 1996). The findings that support incorporation of traditional healers are:

- American Indians in New York State are apparently underserved by the traditional mental health providers, as illustrated by a rate of 1/100 services provided to American Indian clients by all programs, compared to 11/100 services to White, non-Hispanic clients.

- Traditional healers are still treating members of the Iroquois Nation totally apart from Western medicine, and usually in secret. These traditional healing practices apparently have some success but are not understood by the wider mental health community.

- Some of the traditional beliefs of the enrolled Seneca Indians may be in conflict with Western definitions of mental illness.

When assessing degree of acculturation, the two parts of this study support as well the need to ascertain the American Indian's attitudes toward education or success. Especially when setting goals, the therapist does not want to conflict with the client's belief system which may, for example, devalue the community college education which the therapist thinks the client needs to progress in life.

The concept of progression toward a goal of success itself may be of dubious merit for some American Indians (Harrison et al., 1992; Jones, 1978; LaFromboise, 1988; Lynch & Hansen, 1992; Sue & Sue, 1990; Wilkinson, 1980). It is possible that goals based on traditional beliefs or practices (for example, learning the language of
the tribe) would be more appropriate for many American Indians. For middle class or urban Indians who have been acculturated to some degree there may be differences in attitude regarding success. Williams and Ellison (1996) report that "middle class" American Indian clients are more likely than other American Indians to have a higher degree of formal education and to have accepted the importance of education and success.

Results from the survey of attitudes toward mental health also support earlier findings (Blount et al., 1992; Good Tracks, 1973; Green et al., 1996) that American Indians may differ from other clients in their lack of comfort with a therapeutic approach encouraging an open, direct style of communication. American Indians are not direct. Along with this characteristic, they wait for the right time to do things. This calls for a flexible schedule with the American Indian client, and a cautious approach using the client's cues.

Greene, Jensen and Jones (1996) have recommended the use of the constructivist approach in social work practice with ethnically diverse clients. The use of the narrative approach, consistent with constructivism (Greene et al., 1996) as described by Borden (1992) allows the client to describe his or her own reality and the worker to operate within it. This would provide an opportunity to both assess the degree of acculturation and to identify goals important to the client.

This study did not address some of the elements listed above and addressed but did not support others. The only indication that flexibility (Joe & Malach, 1992; McShane, 1987) was important to the Indian clients was in their response to the
importance to mental health regarding "viewing things differently at different times", but this was a flexibility of the client rather than of the therapist.

The relatively low level of service use by American Indians in this study may be an indication that current procedures at many programs are not appropriate for Native people, but there is no direct evidence of this.

The involvement of family (Joe & Malach, 1992; Red Horse, 1980, 1982) was a difficult factor to measure with the tools which were available for this study. It was hoped that the variable "household composition-lives with others" would be one of the discriminators for American Indian identity in the first part of the study, but it was not. Likewise, marital status did not show any differences for White and American Indian clients. This subject remains a topic for further study.

The preference for group rather than individual treatment reported in the literature (Blount et al., 1992; Edwards & Edwards, 1980, 1984; Lefley, 1992; Owan, 1982; Red Horse, 1980), was not supported by this study. The relative lack of value conferred to direct communication would argue for group rather than individual practice with American Indians. However, the results of this study did not address the value of this approach directly.

Problems related to alcohol use by American Indian clients provided the major source of statistical difference from White, non-Hispanic clients. The importance of this variable to the therapist is related to knowledge of treatment issues around alcohol abuse as well as to how these issues are approached in the American Indian community. There is currently an emphasis away from alcohol use
and toward the embracing of traditional beliefs (Choney et al., 1995) which, rather than forbidding the use of alcohol, make it unnecessary (Plummer, WICHE 1993).

Drug use is an issue of some debate among American Indians. For example, the use of peyote is directly tied to the religious practices of some American Indian groups (Flood, WICHE 1993). Therapists need to know how their American Indian client feels about this subject when setting treatment goals.

Also important for the therapist is an understanding of how much the American Indian client's presenting problem is due to alcohol and how much to an underlying mental health disorder. The data regarding the variables "diagnosis" and "time since last visit" found in this study suggest that many American Indian clients do not display the same level of mental illness found in White, non-Hispanic clients. These two variables suggest a pattern of admission for an alcohol problem without long-term commitment to standard mental health care.

As alluded to by Hall and Kirk (1995), the improvement in the ability of social workers to provide culturally relevant care is entangled with the larger power struggle between people of color and the dominant majority in the United States and, according to Jackson (1995) "the jury is still out" (p. 14).

Implications for Policy

This study comes at a time of new awareness of the importance to the social work field of understanding ethnic diversity. The emphasis on multiculturalism has its roots in the civil rights movement of the 1960s. But thirty years later there are still basic inequalities and the country is still struggling with issues of sexism and racism.
(DiNitto, 1991). The multicultural movement is being debated in the current literature and the heart of the debate has to do with how much power the White dominant group is really willing to give to persons of color. In social work education, for example, multiculturalism has been addressed through the rote, intellectualized teaching of courses on ethnic differences in our schools of social work (D'Andrea & Daniels, 1995; Gould, 1995), in contrast to the ideal situation in which there is a true integration of different multicultural views at all levels of teaching, administration and research.

This study has helped to confirm that American Indians are underserved compared to White, non-Hispanic people. The policy implications of this finding are that there is a great unmet need for services, especially in some areas of New York State. Social welfare policy can be impacted at the local, state, or federal levels. For American Indians, who have no official relationship to state governments, change has been most effective at the federal level or in the courts (Prucha, 1990). However, even at the federal level the usual approaches to change such as the influence on or involvement of sympathetic legislators is difficult. DiNitto (1991) states that although there is currently one American Indian Congressman, the needs of the American Indian constituents of most legislators are often in conflict with those of the larger society (p. 257, DiNitto).

An example of the difficulties of attempting policy changes at the state level was provided at the time of this study. The outpatient programs which provided services to 17 of the total of 45 American Indians which were the site for Part II of
the study have been slated to be reduced as part of the State Office of Mental Health re-structuring initiative. The program director, who was primarily responsible for the treatment of members of the Seneca Nation, is scheduled to be laid off. Letters to state legislators, the governor, and the Office of Mental Health by the researcher and by employees of the outpatient programs have not appeared to have an effect on the decision to down-size this valuable provider of services. Once again, as stated by DiNitto (1991), the needs of the many (in this case, to reduce taxes in New York State) overshadow the needs of the few (to provide continuous services to an underserved ethnic minority). The availability and access of Indian people to mainstream mental health care is simply not important to the government or to individuals who depend on votes for their livelihood since Indians do not pay taxes and in many cases do not vote.

Another policy implication is found in differences in religion for American Indians and anecdotal material regarding traditional Indian mental health care. Apparently much of the unmet mental health need of American Indians can and may already be provided by indigenous healers and traditions. Federal policy has recently begun to allow Indian Health Service (IHS) mental health clinics to integrate such services into the otherwise westernized care provided at the clinics (Mental Health Program Branch IHS, 1991). Movement toward this goal has not been begun at the state or local levels, but could be encouraged through information in the professional or popular media. The latter have helped to change attitudes toward American Indians recently through such sympathetic popular films as "Dances with Wolves",
"Black Robe", and "Pow Wow Highway" and through many articles supportive of the American Indian traditional life style in the popular press.

The popular media may help as well to teach U.S. society in general to allow American Indians to have more of a say in their own futures. The involvement of Indian people in their own mental health care may provide the best solution to current gaps in service or apparent ineffective services.

Chapin (1995) advocates the "strengths perspective" in social policy development. This is as opposed to the "problem centered" approach which emphasizes individual pathologies and deficits (p. 507). The strengths perspective, according to Chapin (1995), can be used by social workers and other advocates to:

...conceptualize a new understanding of the relationship between those that are helped and those doing the helping. When policy practitioners no longer view themselves as experts bringing solutions to the unwashed but as collaborators with traditional client groups...the nature of their work changes (p. 512).

The "new nature" of their work involves helping ethnically diverse clients speak to policy makers, giving them input into policy initiatives and policy evaluation, involving legislators who are sympathetic to the group of interest, and developing resources and strengths helpful to the group that may already exist in the community (Chapin, 1995).

Mental health policy for American Indians is the result of changing attitudes toward Indian people as reflected in decisions of law and in federal regulations and statutes. The issue is complicated by issues of identity and tribal allegiance. Thus social workers and other providers of service must take an active role in helping
Indian people to effectively address issues which affect them.

The involvement of Indian people in Indian mental health policy, issues, and treatment is a current trend on a national level. This is a positive development and opens up the possibility that policy makers, with the help of advocates, will recognize the importance of using the strengths perspective in developing mental health policy for American Indians.

Implications for Research

The study reported here is a first step in the definition of the need for culturally relevant care for American Indians. First, a relatively low rate of existing services was identified. Secondly, differences between American Indian and White, non-Hispanic clients were found in alcohol use, time in care, education, religion and attitudes toward mental health.

The next step is to replicate these findings with other American Indian tribes or nations. Future studies should also incorporate specific questions related to religion and language, as these covariates help to further define degree of acculturation. Subsequent studies should research the effects of contrasting therapeutic interventions, given identified differences between American Indian and other mental health service recipients.

This study also identified, in its lack of findings, areas for future research. These were in family and group treatment. Specific areas of needed research have been delineated by other authors. Some of these are summarized by Choney and colleagues (1995) as follows:

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Community based research to determine the similarity of identified problems across groups.

Further investigation into the counseling process and outcomes with American Indian clients.

Identification of variables related to adaptive rather than maladaptive functioning of Native people (p.88-89).

Summary

By describing variables affecting the mental health care of members primarily of the Iroquois Confederacy in New York State it is hoped that earlier understandings have been supported and new avenues of inquiry have been established or reaffirmed. The findings of this study support the need to integrate practice, policy and research efforts of social workers with those of the American Indian people.

In undertaking research in this area I was particularly sensitive to the fact that I do not have an American Indian identity. According to Gross (1995) this could reduce the level of acceptance of my findings. The study process, however, was undertaken with the help (sometimes proactive) of American Indian people within the Iroquois Confederacy. The process as well as the results provide hope around this last issue, that the study of American Indians can be successfully undertaken by other than American Indians. My experience has been that a researcher must be careful to learn as much as possible about American Indian people before research is begun and to solicit their input and help in the research process. Obtaining trust is crucial in research, as it is in practice and policy.

In short, these results indicate that collaboration between cultures is important.
to practice, policy and to research as well. Indications are that an ethnocentric approach which stresses the values of the dominant, Western civilization dooms the process.
REFERENCES


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health services by ethnic groups. *Hospital and Community Psychiatry, 38:* 1186-1190.


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Waxler NE. (1979) Is outcome for schizophrenia better in nonindustrial societies? The case of Sri Lanka. Journal of Nervous and Mental Disease, 167, 144-158.


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APPENDIX A

Department of Mental Hygiene Information System (DMHIS)

Source Documents
**ADMISSION/SCREENING FORM**

**PURPOSE:**

- Admitting Diagnoses ()(Check principal diagnosis by an "X" in the appropriate "□")

- Clinical Syndromes and V Codes

- Developmental Disorders and Personality Disorders

- Physical Disorders and Conditions (ICD-9-CM)

- Severity of Psychosocial Stressors

- Global Assessment of Functioning (Enter two digit score from 1-100)

**1. "O" NUMBER**

**2. FACILITY NAME**

**3. FACILITY CODE**

**4. SOCIAL SECURITY NUMBER**

**5. PATIENT'S PHONE**

**6. PATIENT NAME**

**7. MAIDEN NAME OR AKA**

**8. SCHOOL DISTRICT**

**9. LOCAL CATCHMENT AREA OR CENSUS TRACT**

**10. COUNTY OF RESIDENCE**

**11. SCREENING/EVALUATION UNIT**

**12. UNIT COD**

**13. INTERVIEW DATE/ TIME**

**14. DATE OF BIRTH**

**15. SEX**

**16. PRIMARY LANGUAGE**

**17. EDUCATION**

- Grammar School
- High School
- Some College
- College Graduated

**18. CURRENT MARRITAL STATUS**

- Never Married
- Married
- Divorced
- Widowed

**19. SIGNIFICANT PROBLEMS**

- Mental Illness
- Alcohol
- Mental Retardation/Developmental Disabilities
- Substance Abuse
- Significant Physical Impairment
- Other (Specify)

**20. OTHER SERVICES FOR DISABILITIES (Check all that apply)**

- Employment/Residential
- Outpatient
- This Facility
- Other State Facility
- Other

- Time Since Last Service—Less Than:
  - 1 Day
  - 2 Days
  - 3 Days
  - 4 Days
  - 5 Days
  - 6 Days
  - 1 Week
  - 2 Weeks
  - 3 Weeks
  - 4 Weeks
  - 5 Weeks
  - 6 Weeks
  - 1 Month
  - 2 Months
  - 3 Months
  - 4 Months
  - 5 Months
  - 6 Months
  - 1 Year
  - 2 Years
  - 3 Years
  - 4 Years
  - 5 Years
  - 6 Years

- Number of Persons Decendent on

**21. MEDICARE CLAIM NO.**

**22. MEDICAID CLAIM NO.**

**23. OTHER HEALTH INSURANCE**

- Yes
- No

- Vietnam Era-1/18/65-7/31/71
- Other Tires (Not Vietnam)
- States of Service Known

**24. RESPONSIBLE PARTY**

- Last Name
- First Name
- M.I.

**25. ADDRESS**

- Street
- City
- State
- Zip Code

**26. PHONE**

- Relationship

**27. SIGNATURE OF PERSON COMPLETING FORM**

- Title
- Date Completed

**Purposes:**

- Admitting Diagnoses (Check principal diagnosis by an "X" in the appropriate "□")

- Clinical Syndromes and V Codes

- Developmental Disorders and Personality Disorders

- Physical Disorders and Conditions (ICD-9-CM)

- Severity of Psychosocial Stressors

- Global Assessment of Functioning (Enter two digit score from 1-100)

**Patient's Case Record Copy**

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## DISPOSITION REPORT

**Type of Disposition**

1. **Termination, No Further Service**
2. **Permanent Transfer**
3. **Temporary Transfer Out of Facility**
4. **Return to Original Facility After Temporary Transfer**
5. **Service Changed From**
6. **Service Changed From**
7. **Family Care Placement**
8. **Convalescent Care Placement**
9. **Death**

**Facility Name:**

**Facility Code:**

**Unit Code:**

**Place Code:**

**Service Plan Status**

- Service Plan Completed
- Service Plan Not Completed
- Service Plan Being Prepared

**Release Data**

- Source of Support Unknown
- Source Support Unknown

**Referral Status**

- Patient Referred
- Patient Returned
- Source Support Unknown

**Provider Information**

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**Signature of Person Completing Form**

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<th>Date</th>
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APPENDIX B

Mental Health Values Questionnaire (MHVQ)
This survey measures what people think is important for good mental health. Different people have different ideas about what it means to be mentally and emotionally healthy.

The following statements tell something about a person. Read each statement carefully. Then decide whether the statement means that person has good mental health or poor mental health.

To the left of each statement is a blank in which you are to record your answer for that statement. For each statement, place a 1 in the blank if the statement indicates very poor mental health. Place a 5 in the blank if the statement indicates very good mental health. If you think the statement falls somewhere in between, place either 2, 3, or 4 according to this guide:

1 = Very poor mental health
2 = Poor mental health
3 = Neutral, statement not related to mental health
4 = Good mental health
5 = Very good mental health

Enter only one number for each question. Try to answer each question.

After you finish the questionnaire, please put it in the attached stamped envelope and mail to Kathleen Earle, PO Box 287, Port Clyde, Maine 04855

PLEASE KEEP THE DOLLAR WHETHER OR NOT YOU WANT TO DO THIS QUESTIONNAIRE

THANK-YOU!
1 = Very poor mental health
2 = Poor mental health
3 = Neutral, statement is not related to mental health
4 = Good mental health
5 = Very good mental health

1. The person never becomes violent.
2. The person can be trusted.
3. The person has visions.
4. The person likes everyone.
5. The person is very even-tempered.
6. The person believes in God.
7. The person works well with others.
8. The person discusses all of his problems with others.
9. The person doesn’t get along with others very well.
10. The person can communicate with the spirits of the dead.
11. The person seldom gets upset.
12. The person enjoys his or her family.
13. The person is loving.
14. The person does not smile.
15. The person seldom complains about anything.
16. The person makes decisions without consulting others.
17. The person doesn’t think about others’ needs much.
18. The person rarely believes his/her ideas are best.
19. The person has a professional career.
20. The person seldom tells the truth.
21. The person is seldom depressed.
22. The person hears things that others do not hear.
23. The person gets along with others.
24. The person is very religious.
25. The person’s physical health is good.
26. The person thinks life has little meaning.
27. The person is cheerful.
28. The person feels he/she has special powers to influence others.
29. The person shows consideration of others.
30. The person does not like to live alone.
1 = Very poor mental health
2 = Poor mental health
3 = Neutral, statement is not related to mental health
4 = Good mental health
5 = Very good mental health

31. The person is willing to help others.
32. The person believes him/her self to be an agent of God.
33. The person cannot be trusted.
34. The person feels that people can change drastically from day to day.
35. The person is poetic.
36. The person knows his or her own capabilities.
37. The person always keeps his or her cool.
38. The person does not believe in God.
39. The person is usually a leader.
40. The person had very high grades in school.
41. The person experiences the world differently from other people.
42. The person has had a lot of education.
43. The person treats others badly.
44. The person swears.
45. The person is not polite.
46. The person's life is very active.
47. The person is bored most of the time.
48. The person likes to drink.
49. The person drinks a lot.
50. The person is a hard worker.
51. The person says he or she doesn't have problems.
52. The person views other people pretty much as everyone else.
53. The person is open-minded about other people's ideas.
54. The person has a working system of values.
55. The person does not act without advice from others.
56. The person thinks money is very important.
57. The person is friendly.
58. The person is pleasant.
59. The person comes from a stable family.
60. The person is able to play.
1 = Very poor mental health  
2 = Poor mental health  
3 = Neutral, statement is not related to mental health  
4 = Good mental health  
5 = Very good mental health

61. The person is dependable.
62. The person distrusts everyone.
63. The person believes it is important to live near relatives.
64. The person is well-groomed.
65. The person views things differently at different times.
66. The person is able to love others.
67. The person believes life has meaning.
68. The person cares for others.
69. The person is reliable.
70. The person makes attempts to improve him or herself.
71. The person is able to forgive other people for their mistakes.
72. The person feels in control of things around him/her.
73. The person is not happy working at his or her job.
74. The person is physically active.
75. The person had average grades in school.
76. The person has confidence in himself (herself).
77. The person is not very religious.
78. The person does not dress very neatly.
79. The person sees things that others do not see.
80. The person's speech is easy to hear and understand.
81. The person accepts full responsibility for his or her own actions.
82. The person believes others know best.
83. The person is seldom fearful.
84. The person likes him or her self.
85. The person communicates directly and honestly with others.
86. The person likes to gossip.
87. The person likes to be with other people.
88. The person is in poor physical health.
89. The person seldom cries.
90. The person is very intelligent.
1 = Very poor mental health
2 = Poor mental health
3 = Neutral, statement is not related to mental health
4 = Good mental health
5 = Very good mental health

91. The person sees things as either right or wrong.
92. The person is frank and honest when stating beliefs and wishes.
93. The person is not a hard worker.
94. The person makes good use of his or her talents and abilities.
95. The person is honest.
96. The person is happy most of the time.
97. The person is not satisfied with himself or herself.
98. The person guides his or her life according to spirits.
99. The person seldom asks for assistance.
Please Check the following categories which describe you:

Your Gender:  
- Male
- Female

Your Age:  
- 18-20
- 21-25
- 26-30
- 31-35
- 36-40
- 41-45
- 46-50
- 51-55
- 56-60
- 61-65
- 66-70
- 71-75
- 76-80
- 81 or older

Ethnicity/Race:  
- White
- Indian/Native American

Cultural Identity:  
IF WHITE:  
- Italian
- French
- English
- Dutch
- Polish
- Greek
- Russian
- Scotch
- Irish
- German
- Other: 

IF INDIAN/NATIVE AMERICAN:  
- Seneca
- Cayuga
- Onondaga
- Oneida
- Mohawk
- Tuscarora
- Cherokee
- Algonquin
- Sioux
- Delaware
- Other: 

Are you an enrolled member of your nation/tribe?  
- YES
- NO

THANK YOU!
APPENDIX C

New York State Counties Included in the Analysis
### NEW YORK STATE COUNTIES INCLUDED IN ANALYSES:
**CENTRAL AND WESTERN REGIONS OF NYS OMH**

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<th>1990 U.S. CENSUS: American Indian, Eskimo or Aleut</th>
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<td><strong>TOTAL</strong></td>
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