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[Introduction to] Mental Health Among Elderly Native Americans

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MENTAL HEALTH AMONG ELDERLY NATIVE AMERICANS

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I

INTRODUCTION

Providing mental health services to the elderly generally and particularly to elderly Native Americans[1] has been an issue of some concern for the last several decades. Despite this rise in concern for the mental health of elderly Americans, however, the fact remains that public decisions are made based on inadequate data. As Birren and Renner state: "A major problem has been that our knowledge of the mental health problems and the frequency of psychiatric disturbances in the elderly has a weak information base."[2] When one turns to minority elderly in general and elderly Native Americans in particular, the data base virtually disappears. In fact, the survey upon which much of this study rests represents "the first research effort ever undertaken to document the conditions of life of older Native American and Alaskan native people nationwide."[3] Because of this lack of data, there has been little research devoted to determining the factors associated with mental health among elderly Native Americans. Instead, the growing body of mental health research "has been based on limited samples, primarily of middle-majority Anglos."[4] Thus, the purpose of this research is to utilize existing data to close this gap in our understanding of mental health among elderly Native Americans. Specifically, multiple regression will be employed to describe the relationship between mental health and several theoretically-derived independent variables. Initially, this will involve a determination of whether the same relationships that hold for the dominant population are consistent with data drawn from elderly Native Americans and, if not, what alternative models should be examined. Secondly, the research will attempt to assess the relative importance of the various independent variables on mental health as well as analyze the interrelationships among these independent variables.

The study is of consequence beyond merely closing this intellectual gap in our understanding. Pragmatically, policy makers have been forced to design mental health programs for elderly Native Americans using information drawn from the dominant population and therefore without necessarily understanding the unique circumstances of this population sub-group. Thus, determining the efficacy of existing programs has been virtually impossible and the present research effort is intended to provide the requisite information for an eventual comprehensive evaluation of the mental health network for elderly Native Americans.

In essence, then, this study falls within the broad confines of the policy studies perspective, which has been defined as "systematically studying the nature, causes, and effects of alternative public policies, with particular emphasis on determining the policies that will achieve given goals."[5] According to this perspective, two types of knowledge are required for effective public policy making: policy-issue knowledge, that which is pertinent to a specific policy; and policy making knowledge, that which relates to policy making as a process.[6] It is clear that this research is directed toward the former: seeking the type of knowledge through basic research that is relevant to devising an effective mental health policy for elderly Native Americans.

A common complaint levelled at the field of policy analysis is that it cannot offer solutions to problems when there isn't general agreement on what the problems are.[7] It is the point of this research to address that issue: namely, to begin to clarify the very nature of the mental health problem faced by elderly Native Americans. In so doing, this research will suggest what policy should be in this area. But its significance does not stop there. This type of research also has implications for the management of those programs as well. In effect, research of this type can suggest the means to most effectively deliver the services deemed appropriate from the type of analysis to be conducted. And finally, given the paucity of information on this issue generally, the most significant aspect of this effort may be in the establishment of an appropriate research agenda for analysts and policy makers interested in or responsible for the mental health problems faced by elderly Native Americans.

Having said that, it is important to note that the research effort is necessarily exploratory in nature, given the lack of grand theory to guide the researcher coupled with a paucity of similar studies and problems associated with the data set employed. Nevertheless, the uniqueness and richness of the data along with the versatility of the multiple regression technique should enable the research to shed some light on this important issue.

The Status of Elderly Native American Mental Health

Evidence from a variety of sources, including the OARS (Older Americans Resources Survey) instrument employed in this research effort, suggests that Native Americans generally face an inordinate amount of mental health problems. For example, suicide rates are twice as high as those of the general population while homicide rates are 3.3 times as high.[8] Moreover, rates of alcoholism remain a staggering 6.5 times as high as the general population.[9] For the Native American elderly, mental health problems revolve around feelings of loneliness, depression and isolation from both the Native American and dominant societies.[10] One indicator of the status of the mental health of elderly Native Americans is found in the strong demand for mental health services, expressed generally by the National Indian Council on Aging's report to the first National Indian Conference on Aging[11] and supported by the services supplement attached to the OARS instrument employed in this research.[12] Thus, the point is that both data and perception indicate that the Native American elderly are faced with sufficient mental health problems to warrant attention. Two fundamental questions, then, need to be addressed in this research. The first revolves around the identification or isolation of those factors that might explain the poor mental health status of elderly Native Americans. Once identified, the question becomes how to best determine the precise relationships between these factors and mental health and between these factors and each other. In other words, is there a coherent theory to guide research on elderly Native American mental health? It is to these two questions that attention now turns.

The State of Present Knowledge

As indicated previously, a weak information base exists in terms of the mental health of elderly Native Americans. Thus, the general objective of the present effort is to develop an understanding of the correlates of mental health or illness for this population sub-group. Such varied disciplines as biology, sociology, psychiatry, and psychology have all examined this issue. In terms of present interests, these disparate disciplines have coalesced around common elements—these are, the concept of stress and the notion or model of a stress process.

While stress theory can be traced as far back as Hippocrates, modern conceptions place increasing importance on the role played by social factors in the onset of illness.[13] In its simplest form, stress theory argues that external stimuli exert pressure on the individual, forcing the individual to respond.[14] The response to these stimuli or stressors, as they are called, often involves the development of illness in the individual.[15] Schematically, stress theory thus appears as follows:

stressors→mediating influences→consequences

Current research on stressors has focused either on stressful life events or on chronic life strains.[16] The former approach attempts to demonstrate a temporal association between the onset of illness and a recent increase in stressful life events.[17] The latter approach, employed in this effort, is best exemplified by epidemiological studies which attempt to relate the distribution of psychological disorders in a given population to specific population characteristics.[18] With respect to mental health, researchers have tended to focus primarily on socioeconomic status and physical health.[19] More importantly, for our purposes, both of these stressors have been shown to be positively and directly related to mental illness generally and with respect to the elderly.

Secondly, the stress process model posits that the effects of stressors of all types and duration do not always have a direct and predictable influence on behavior or illness. Instead, the effects of stress are often mediated by certain conditions or behaviors that reduce the impact of these stress-provoking conditions. The two most commonly suggested mediators are social supports and coping.[20] Generally speaking, social support refers to the quality and quantity of social relations[21] while coping refers to "the modification of the situation giving rise to stressful

problems; the modification of the meaning of problems in a manner that reduces their threat; and the management of stress symptoms."[22] Both have been well documented as mediators between stressors and mental health in general and between the specific stressors of physical health and socioeconomic status and the mental health of the elderly.

Other Relevant Literature

About 50 percent of all Native Americans live in urban areas.[23] Hence, some attention needs to be directed to the additional strains faced by urban Native Americans, providing us with another avenue to investigate. In addition, some attention needs to be devoted to sex variations in terms of the effects of stress on mental health.

As with most sub-cultures, rural to urban migration tends to occur among the more upwardly mobile. It is not surprising, then, that the urban Native American is in a better economic position relative to his reservation counterpart.[24] At the same time, however, the uniqueness of reservation culture has made adjustment to urban life both difficult and psychologically painful.[25] Moreover, access to services, particularly health services, has been shown to be more difficult for the urban Native American, due generally to federal variations in health policy.[26] As one recent study noted: "Indian Health Service facilities are located on or near reservations, and most urban Indian elderly are too far away to go there. The few urban Indian programs are understaffed and underfunded."[27] Thus, for these reasons, it will be important to investigate differences between the urban and reservation Native American.

Lastly, most studies fail to indicate that one sex is generally more prone to psychological disorder than the other, although there is evidence of differences in susceptibility to various types of disorder.[28] Further, studies have demonstrated that each sex learns to respond to stressors in different ways.[29] The point for present purposes is simply to test and verify whether or not either of these hypotheses are borne out in fact. Ultimately, the design of an appropriate and a successful public policy might depend on the nature or extent of differences, if any, noted between the sexes.

The Theoretical Model

The initial intent of the present research effort is to test the stress process model as it relates to elderly Native Americans. As indicated previously, the stress process model postulates that the impact of various stressors is mediated by the influence of mitigating or intervening variables. The generalized model appears as follows:

stressors→mediators→consequences

The consequence of interest is mental health or illness. From the review of the literature, the two most prominent stressors are socioeconomic status and physical health. For reasons to be discussed below, two of the components of socioeconomic status will be examined independently rather than as a single construct of that variable. Their influence on mental health is mediated by social supports and coping behavior, both of which are considered to have a direct effect on mental health as well. Thus, the following relationship will be tested with respect to elderly Native Americans:

$$MH = INC + ED + PH + SS + COP$$

where:

INC = income;
ED = education;
PH = physical health;
SS = social support;
COP = coping;
MH = mental health.

Mathematically, the model appears as follows:

$$MH = b_0 + b_1INC + b_2ED + b_3PH + b_4SS + b_5COP + e$$

Additional Hypotheses

After testing the efficacy of the proposed model with respect to elderly Native Americans, several additional hypotheses suggested by the previous review of the literature will also be examined. Specifically, these hypotheses are as follows:

H1: That the model holds for both men and women;
H2: That the model holds for both reservation and urban elderly Native Americans.

Without belaboring the point, H1-2 have both substantive and policy implications for those involved in designing and implementing mental health programs geared to this particular population sub-group.

Comments on Methodology

The Variables

Operationalizing the variables under consideration comprises the first step in analyzing the data. Where possible, multiple indicators will be combined to form a scale of the concept under investigation to reduce random and systematic error.[30]

The dependent variable under investigation is mental health. Specifically, present concern is with the degree or extent to which functional psychopathology exists in the population under investigation. The measure employed as the operationalization of this variable is the Short Psychiatric Evaluation Schedule (SPES) developed by Pfeiffer in 1975. Specifically, the schedule is a fifteen-item "yes-no" questionnaire measuring the presence or absence of functional psychiatric symptomatology (i.e. symptoms of anxiety, depression, suspiciousness, hypochondriacal complaints, and other physical manifestations of emotional disturbances).[31] When combined, an index of 0-15 is created with 0 being the absence of symptoms of mental health problems and 15 indicating serious symptomatic disturbances. The schedule is a recent adaptation of the Minnesota Multiphasic Personality Survey (MMPI), which was developed in 1956 and is still widely used. Unlike the original MMPI, which contained several hundred questions, the schedule was specifically designed for quick administration and is ideally suited to the survey research format. Preliminary administrations by Pfeiffer have shown the measure to be a valid and reliable indicator of the degree of functional psychopathology among the elderly.[32]

The operationalization of physical health will involve the construction of an index related to whether or not the respondent has any or all of 26 distinct illnesses.

Social support has two dimensions: the quality and the quantity of social interaction.[33] Operationalization will thus involve the creation of a construct designed to tap both of these dimensions.

Income and education will be operationalized using specific questions from the survey asking the respondent to indicate their income and years of education, respectively.

Lastly, coping will be viewed as a multidimensional concept. One indicator consistently employed in the literature is the degree of self-assessed life satisfaction. Other researchers have argued that life satisfaction should be considered to be a major component of any conception of the level of adjustment.[34] Moreover, as Riley has noted in her review of the literature on mental health and aging, life satisfaction has been shown to be positively related to a variety of indices of physical health,[35] socioeconomic status,[36] and the level of social interaction (support).[37] Other dimensions of coping include both levels of worry and overall perceptions of the amount of excitement in one's life. Thus, coping will be operationalized employing questions that tap these various dimensions.

The various decision rules applied to the manipulation of the data, the operationalization of the variables, and the actual results of the analysis will be discussed in later chapters.

Data Analysis

Multiple regression will be employed to examine the relationship between mental health and the various predictor variables. In this way, the technique is being employed as a descriptive tool "by which the linear dependence of one variable on others is summarized or decomposed."[38] Specifically, the research objective is to control confounding factors in order to evaluate the contribution of a specific variable or set of variables on the dependent variable under investigation.[39] The primary methods of analysis are linear correlations and step-wise backward elimination multiple regression. The latter technique will be utilized in order to establish the hierarchical order of the independent variables in terms of their contributions to the explained variance in the dependent variable[40] and to arrive at the most parsimonious model for each sample. The point is not necessarily to create a predictive model

so much as to understand the relationship between the various independent variables and the mental health status of elderly Native Americans.

Once the relevant relationships have been discerned, attention will shift to applying those relationships to hypotheses 1-2 stated previously. This will involve simple manipulations of the data and should pose no particular problems for the researcher. In effect, 5 regressions will be run: one on the full sample, one on males, one on females, one on reservation Native Americans, and the last on urban Native Americans.

The type of analysis proposed ideally requires linear relationships, normal distributions, and equal variances among the independent variables. It should be noted that these ideals are not fully met by some of the variables and relationships that will be considered. Of particular concern is the ordinal nature of the variables to be employed in the analysis. Nonetheless, ordinal data is widely used in regression analysis and several statisticians have demonstrated that their use does not introduce substantial error into the results.[41] A more complete discussion of the methodological implications of the use of this technique will be included in Chapter IV.

The Data

The data to be used in the analysis has been drawn from the National Indian Council on Aging's (NICOA) study of older American Indians and Alaskan Natives (aged 45 and over). The study was conducted between 1978-1980 and was supported by a grant from the Administration on Aging of the Department of Health and Human Services. The eventual survey utilized combined the Older Americans Resources and Services (OARS) instrument along with an housing and transportation supplement. The former was designed at Duke University while the latter was designed by the research team. The entire survey contains over 400 individuals items and it was administered to a sample of 692. The instrument and various problems associated with its use will be discussed further in Chapter IV.

Implications of the Study

As noted throughout this Introduction, a considerable gap exists in the understanding of the mental health status of elderly Native Americans. There is considerable evidence to suggest that elderly Native Americans generally face severe mental health problems. Yet, as this Introduction has tried to convey, there is little understanding of the underlying dynamics leading to these manifestations of such serious mental health problems. Thus, the overall purpose of this research effort is twofold: first, to begin a systematic assessment of the mental health status and needs of the Native American elderly; and second, to provide this information in a manner that future researchers can use to assess the efficacy of existing mental health programs for this population sub-group. In order to accomplish both of these objectives, it should be noted that a significant portion of the research will be devoted to methods, both with respect to those employed presently and as to how future researchers might be better served in this regard. Specifically, this includes the creation of valid and reliable constructs of the variables under consideration as well as the eventual manipulation of those constructs according to the theoretical underpinnings of the research. Given the paucity of available data on both this population and in terms of the issue of mental health, the point is that the present effort must necessarily devote considerable attention to questions of methods and methodology.

The research effort thus has implications both in terms of policy formulation and design and in terms of theory-building. The implications for theory-building are quite clear. On the one hand, the stress process model is in its early stages of development. Thus, the present research will attempt to further validate previous research in that area. Moreover, applying the model to this particular population sub-group will serve to both refine and extend present conceptions. Future researchers will be able to use the results of this research both for comparison to other populations and as a foundation to further investigate mental health and the Native American elderly. Third, most previous research has failed to demonstrate the relative importance of the specified contributors to mental health. This research effort will attempt to specify the importance of each variable as well as the relationships

among the various predictors. Lastly, the present effort will help in the design of future community surveys. In particular, the researcher will suggest ways for future researchers to refine their surveys in terms of gathering data relevant to mental health.

When one turns to questions of the design and formulation of mental health policy specifically with respect to elderly Native Americans, the research becomes imperative. As indicated above, all signs point to the fact that elderly Native Americans have serious mental health problems. The point of the present effort is to begin to determine how these problems originate and to suggest the most appropriate strategies for dealing with them. Up until now, policy makers have been making choices for elderly Native American mental health based on studies conducted on a different population. The principal hypothesis of this research involves testing the adequacy of this theoretical assumption; that is, determining if in fact the same causal agents are at work in the Native American community as those found to be relevant for the dominant population. Only by understanding these relationships can policy makers begin to take the appropriate corrective steps. If the principal hypothesis is confirmed and policy makers have therefore been making the correct assumptions all along, the question then becomes one of service delivery and program implementation rather than one of design. Specifically, previous research has demonstrated that the elderly generally underutilize existing mental health services for a variety of reasons, ranging from the high cost associated with the services, to resistance on the part of the elderly to solicit help, to the lack of services available to in-home patients.[42] The present effort may suggest whether or not this is a function of program design or program implementation, at least with respect to the population under investigation. Whatever the case, the present research design should provide a clearer indication of where emphasis should be placed and resources should be concentrated.

Overview of the Research Effort

Chapter II focuses on the state of present knowledge. Attention will focus initially on stress literature and the development of the stress process model. Literature discussing each of the components of

the stress process model will be reviewed and, wherever possible, contributions from studies conducted on the elderly and on Native Americans will be incorporated into the review. Generally, the chapter will demonstrate the shortcomings in our understanding of mental health for elderly Native Americans as well as provide the background for testing hypotheses relative to this particular population sub-group.

Chapter III develops a generalized model or function of mental health for elderly Native Americans based on the research cited in Chapter II. Two related hypotheses will be posited and discussed in this chapter.

Chapter IV is devoted to research methods, including the construction of scales and their respective reliabilities along with a discussion of the data and the procedures applied to its manipulation.

Chapter V presents the results of the research. The regression results comprise the heart of this chapter although brief attention will be paid to analysis of variance and covariance along with the presentation of correlation and partial correlation results. The chapter ends with a summary of the major results of the research.

Chapter VI examines the implications of the present effort. Both the policy implications and the theoretical implications of the research will be examined in this chapter. Lastly, attention will be focused on a critical assessment of the methods employed in the research.

Chapter VII summarizes the findings of the present research effort and places those findings in the context of previous research. Policy implications will be summarized and directions for future research will be explored. In particular, emphasis will be placed on the contributions of the present effort in the areas of theory, methods, and policy, and on setting an agenda for future research into the problem of elderly Native American mental health.

NOTES

1. Throughout this study, the term "Native American" is inclusive of Alaskan Natives. The term "Indians" will normally not be used except when it is part of the title of an organization or has been included as part of a direct quotation.

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3. National Indian Council on Aging, *American Indian Elderly:* A National Profile (Albuquerque, N.M.: National Native American Council on Aging, 1981), p. 1.
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6. Yehezkel Dror, *Public Policymaking Reexamined* (Scranton: Chandler Publishing Company, 1968), pp. 7-8.
7. Thomas R. Dye, *Understanding Public* Policy (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1972), p. 12.
8. U.S., Department of Health, Education and Welfare, *The Indian Health Program* (Washington, D.C.: U.S. Government Printing Office, 1972), p. 13.
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10. National Tribal Chairmen's Association, *The Indian Elder, A Forgotten American* (Albuquerque, N.M.: National Tribal Chairmen's Association, Inc., 1978), p. 13.
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12. National Indian Council on Aging, *American Indian Elderly: A National Profile* (Albuquerque, N.M.: National Indian Council on Aging, 1981), p. 39.
13. Judith G. Rabkin and Elmer L. Struening, "Life Events, Stress, and Illness," *Science* 194 (December 1976): 1013.
14. Michael Micklin and Carlos Leon, "Life Change and Psychiatric Disturbance in a South American City: The Effects of Geographic and Social Mobility," *Journal of Health and Social Behavior* 19 (March 1978): 92-93.
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18. Bruce P. Dohrenwend and Barbara S. Dohrenwend, *Social Status and Psychological Disorder: A Causal Inquiry* (New York: John Wiley and Sons, Inc., 1969), p. 9.
19. See, for example, M.F. Lowenthal and Paul L. Berkman, Aging and Mental Disorder in San Francisco (San Francisco: Jossey-Bass, 1967), or, Thomas S. Langer and Stanley T. Michael, et al., Mental Health in the Metropolis (New York: McGraw-Hill, 1962).
20. Pearlin, Menaghan, Lieberman, and Mullan, "The Stress Process," p. 340.
21I. bid.
22. Ibid., p. 341.
23. Ibid., p. iii.
24. Ibid., p. 23.
25. Ibid., p. 136.
26. Ibid., chapter on health services.
27. Association of American Indian Physicians, Inc., *Aging: Its Impact on the Health of American Indians* (Rockville, Maryland: U.S. Department of Health, Education, and Welfare, 1978), p. 53.
28. Dohrenwend and Dohrenwend, *Social Status and Psychological Disorder*, p. 31.

29. Ibid., p. 24.
30. David C. Leege and Wayne L. Francis, *Political Research* (New York: Basic Books, Inc., 1974), p. 138.
31. Duke University Center for the Study of Aging and Human Development, *Multidimensional Functional Assessment: The OARS Methodology* (Durham, N.C.: The Center for the Study of Aging and Human Development), p. 69.
32. Eric Pfeiffer, "A Short Psychiatric Evaluation Schedule." Paper presented at the 28th Annual Meeting, Gerontological Society, Louisville, Kentucky, October 26-30, 1975, p. 235.
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34. Erdman Palmore and Clark Luikart, "Health and Social Factors Related to Life Satisfaction," in *Normal Aging* II, ed. Erdman Palmore (Durham, N. C.: Duke University Press, 1974), p. 185.
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