Mental Health Problems of American Indians Seen in Outpatient Facilities of the Indian Health Service, 1975

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American indians' interest in mental health problems has increased as morbidity and mortality rates associated with acute infectious disease have declined.

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Assistance for the study was provided by Ms. Jo Graber of the Indian Health Service, Mr. Mozart Spector, Director of the Indian Health Service Office of Program Statistics, and Mr. Bill Wilson of the Association of American Indian Physicians. The study was carried out as part of contract No. 256-78-C-6001 from the Indian Health Service through the Association of American Indian Physicians.

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It is not unusual for Indians to assert that mental health afflictions are now their primary health problems. The study reported here was undertaken to analyze patterns of mental health conditions as reflected in visits to outpatient care facilities of the Indian Health Service (IHS).

Quantitative information about the mental health of American Indians obviously must come from the IHS. Diagnoses made in IHS clinics and hospitals are entered into a computer for subsequent tabulation and analysis; these diagnoses are classified as "problems" or "clinical impressions." In addition, problem checklists completed in the Mental Health or Social Services Branches of IHS also provide useful information about Indians' reasons for seeking care.

Data for this study were obtained from the Office of Program Statistics of the IHS. These data are contained in computer printouts showing the number of visits for various problems to IHS and contract facilities. Using these data, we constructed tables to compare the numbers and rates of visits for various diagnoses between

Table 1. Outpatient visits for mental disorders, by age groups and service

Age group	IHS esti servi popula	ice		otal visits for intal disorder			Alcoholism		bre	Organic ain syndrom	ı ə
(years) -	Number	Percent	Number	Percent	Ratio	Number	Percent	Ratio	Number	Percent	Ratio
0–19	301,290	53.7	6,906	11.8	0.2	771	4.2	0.1	83	12.7	0.2
20–39	129,103	23.0	27,897	47.6	2.0	10,157	55.1	2.4	128	19.7	0.9
40–44	24,435	4.3	6,628	11.3	2.6	2,511	13.6	3.2	29	4.4	1.0
45–49	21,902	3.9	5,150	8.8	2.3	1,932	10.5	2.7	38	5.8	1.5
50–54	18,751	3.3	4,083	7.0	2.1	1,280	6.9	2.1	59	9.1	2.7
55–59	17,735	3.2	2,819	4.8	1.5	781	4.2	1.4	49	7.5	2.4
60–64	14,714	2.6	1,962	3.3	1.3	421	2.3	0.9	51	7.8	3.0
65–69	13,102	2.3	1,173	2.0	0.9	232	1.3	0.6	33	5.1	2.2
70–74	8,525	1.5	861	1.5	1.0	142	0.8	0.5	61	9.4	6.3
75 and older	12,029	2.1	781	1.3	0.6	93	0.5	0.2	115	17.7	8.4
Unknown	· • •	• •	377	0.6	• •	108	0.6		5	0.8	
Total	561,584	100.0	58,637	100.0		18,428	100.0		651	100.0	

NOTES: Each percentage was derived by dividing the number in each column by the total of that column, not the total service population in the IHS; for example, mental disorders—0-19 years: 6.906/58.637 = 11.78. The ratio was derived by dividing the number in the percent column for each diagnosis by the corresponding percentage that age group makes up of the total in the IHS; for example, mental disorders—0-19 years: 11.78/53.8 = 2.

different age groups for fiscal year 1975. We also similarly analyzed certain data relating to visits to Mental Health Branches.

The IHS lists the following conditions under the heading "Mental Disorders" for clinic visits: alcoholism, organic brain syndrome, schizophrenia and other psychoses, neurosis, personality disorders, and drug abuse and dependence.

The IHS has 49 hospitals, 101 health centers, and more than 300 health stations. All of these facilities contribute reports to the computer center. During fiscal year 1975, a total of 2,759,000 outpatient visits were made, and 58,637 (2.1 percent) of these visits were for mental disorders.

Results

The overall mental health data for the IHS showed an overwhelming preponderance of visits by the younger age groups (table 1). For example, 59.4 percent of all visits for mental disorders were made by those aged 0–39 years. Of all visits, 70.7 percent were made by persons 0–44 years old. In contrast, those 65 or older contributed only 4.8 percent of the total for mental disorders. Organic brain syndrome was the only category of disorder for which the very old made a significan number of visits; 17.7 percent were made by persons 75 or older.

Neurosis. The leading cause of visits for mental disorders in fiscal year 1975 was some type of neurosis, such as anxiety or depression or other internal conflict.

The largest proportion of all outpatient visits for neurosis was made by persons under age 40. Of a total of 22,458 visits for neurosis, 11,792 (52 percent) were made by persons under age 40; 2,750 (12.2 percent) by those 40–44; 2,151 (9.6 percent) by those 45–49; 3,180 (14.1 percent) by those 50–59; and 2,465 (11 percent) by those 60 or older.

Alcoholism. The second leading cause of outpatient visits, accounting for 18,428 visits, was alcoholism. Persons under age 45 accounted for 73 percent of the clinic visits, compared with 4.8 percent by those 60 and older. Fewer than 10 percent of the visits for alcoholism were made by persons 54 or older.

Psychoses. The third most frequent reason for outpatient visits was psychoses, which accounted for a total of 4,654 visits. A striking preponderance of visits were made by persons 20–39 years old; this age group accounted for slightly more than one-half of all visits for schizophrenia and other psychoses.

Drug abuse and dependence. This category was the fourth most frequent reason for outpatient visits for mental health problems. Again, these conditions were seen primarily in the younger age groups. Persons 45 and older accounted for only 19.5 percent of the visits.

Analysis of data. From the data in table 1, we analyzed the contribution (expressed as a percentage) that each age group made to the total visits for each disease category by tabulating the number of persons

	izophrenia her psychos			Neuroses			ersonality disorders			Drug abus	•		Other	
Number	Percent	Ratio	Number	Percent	Ratio	Number	Percent	Ratio	Number	Percent	Ratio	Number	Percent	Ratio
314	6.7	0.1	1,419	6.3	0.1	195	16.0	0.3	388	26.4	0.5	3,736	38.3	0.7
2,397	51.6	2.2	10,373	46.3	2.0	643	52.8	2.3	676	46.0	2.0	3,523	36.1	1.6
515	11.1	2.6	2,750	12.2	2.8	126	10.3	2.4	111	7.6	1.8	[*] 586	6.0	1.4
387	8.3	2.1	2,151	9.6	2.5	96	7.9	2.0	85	5.8	1.5	461	4.7	1.2
397	8.5	2.6	1,850	8.2	2.5	52	4.3	1.3	73	5.0	1.5	372	3.8	1.2
244	5.2	1.7	1,330	5.9	1.9	38	3.1	1.0	72	4.9	1.6	305	3.1	1.0
155	3.3	1.3	1,020	4.5	1.7	26	2.1	0.8	28	1.9	0.7	261	2.7	1.0
97	2.1	0.9	642	2.9	1.3	17	1.4	0.6	9	0.6	0.3	143	1.5	0.7
40	0.9	0.6	441	2.0	1.3	17	0.9	0.6	10	0.7	0.5	156	1.6	1.1
62	1.3	0.6	362	1.6	0.8	9	0.7	0.3	9	0.6	0.3	131	1.3	0.6
46	1.0	• •	120	0.5	• •	6	0.5	• •	7	0.5	••	85	0.9	•••
4,654	100.0		22,458	100.0		1,219	100.0		1,468	100.0		9,759	100.0	

in each age group accounting for each diagnosis. For example, in the category schizophrenia and other psychoses, 6.7 percent of all the visits were made by those 0–19 years; 51.5 percent by those 20–39; 11.1 percent by those 40–44; 8.3 percent by those 45–49; 8.5 percent by those 50–54; 5.2 percent by those 55–59; and 7.6 percent by those 60 and older.

Likewise, the "profile" for personality disorders shows the following contributions by age groups: 0-19 years, 16 percent; 20-39 years, 52.8 percent; 40-44 years, 10.3 percent; 45-49 years, 7.9 percent; and 50-54 years, 4.3 percent.

Examining each diagnosis in the same way, we noted that nearly one-half (46 percent) of the visits for drug abuse were made by the 20–39 age group. Indeed, of all visits for drug abuse nearly three-fourths (72.4 percent) were made by those under age 40. The only category in which those 60 and older contributed significantly was organic brain syndrome; almost 40 percent of all visits for this disorder were made by persons in this age group. However, since this disorder is often associated with degenerative diseases such as arteriosclerosis and stroke, this finding is not surprising.

Obviously, the preceding kinds of data can be incomplete or misleading if the total number of persons in each age group is not considered. For example, to say that 52.5 percent of all visits for neurosis are accounted for by those 39 or younger suggests that neurosis is a big problem for those in this age group. However, this large proportion of all the diagnoses of neurosis may be explained by the fact that 75 percent of all Indians are in the age group 39 or younger. Because this kind of comparison is crucial for making compari-

sons more meaningful, we included in table 1 the total number of Indian people in each group.

For example, as noted previously, persons 60 or older accounted for 7.6 percent of all visits for schizophrenia and other psychoses. Thus, the question arises as to whether this percentage can be accounted for by the proportion of the total population comprising this age group. As shown in table 1, persons 60 years or older accounted for 8.5 percent of the service population. If schizophrenia and other psychoses were evenly distributed among all Indians by age, the age group 60 or older should have accounted for 8.5 percent of all visits for these disorders. However, since they accounted for only 7.6 percent, they contributed less than one might have predicted. The actual number (or percentage) of visits by each age group can be expressed as the ratio to that expected, based on the population distribution. If the percentage each age group contributed to each disease is the same as contributed by it to the total population, the ratio is 1. If the contribution to a disease by a certain age group is less than expected from the population data, the ratio is less than 1; if the contribution is more than expected, the ratio is greater than 1.

As noted earlier with respect to neurosis, 52.5 percent of all visits were accounted for by the age group 0-39 years. However, since this age group comprises 76.7 percent of the population, it contributed less than expected to all diagnoses of neurosis. Yet, for the two age groups 0-19 and 20-29, the age group 0-19 contributed much less than expected to neurosis (a ratio of 0.1) and the age group 20-39 contributed much more than expected, based on the population distribution (a ratio of 2.0). The latter ratio indicates that

Table 2. Outpatient visits for mental disorders to Indian Health Service facilities, by diagnosis, age group, and

<u>.</u>	All a	ges	0-19 years		20–39 years		40-44 years		45–49 years	
Diagnosis	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Alcoholism	18,428	31.4	771	11.2	10,157	36.4	2,511	37.9	1,932	37.5
Organic brain syndrome Schizophrenia and other	651	1.1	83	1.2	128	0.5	29	0.4	38	0.7
psychoses	4,654	7.9	314	4.5	2,397	8.6	515	7.8	387	7.5
Neuroses	22,458	38.3	1,419	20.5	10,373	37.2	2,750	41.5	2,151	41.8
Personality disorders	1,219	2.1	195	2.8	643	2.3	126	1.9	96	1.9
Drug abuse and dependency .	1,468	2.3	388	5.6	676	2.4	111	1.7	85	1.7
Other	9,759	16.6	3,736	54.1	3,523	12.6	586	8.8	461	9.0
Total visits	58,637	99.9	6,906	99.9	27,897	100.0	6,628	100.0	5,150	100.1

persons aged 20-39 contributed twice as much as expected to visits for neurosis.

Some useful comparisons can be made between the ratios for each diagnosis and each age group. For example, the earlier suggestion of a sharp decline in visits for alcoholism among persons 65–69 is confirmed in table 1. The ratio is less than 1 for this group, whereas it is 3.2 for those aged 40–44. This table also shows that mental disorders, as classified by visits to clinics, are not a great problem for the age group 0–19. However, in almost every category the ratios are greater than 1 for the age group 20–45. Even for organic brain syndrome, an excess number of visits began at age 45, earlier than one might have expected.

Another way to analyze the IHS data relating to outpatient visits for mental disorders is to examine each diagnosis within a given age group and to compare the contribution each diagnosis makes to the total mental health visits within that same age group.

The data in table 2 indicate the various kinds of mental disorders occurring within a given age group; hence, a "profile" of visits of each age group can be obtained. For example, in the age group 60-64, a total of 1,962 clinic visits were for mental disorders. These visits were broken down as follows: 421 (21.5 percent) for alcoholism, 51 (2.6 percent) for organic brain syndrome, 155 (7.9 percent) for schizophrenia and other psychoses, 1,020 (52 percent) for neurosis, 26 (1.3 percent) for personality disorders, 28 (2.4 percent) for drug abuse, and 261 (13.3 percent) for "other." Thus, of all the mental health visits by persons aged 60-64, one-half were for neurosis. Also, within this age group, one of every five visits was for alcoholism. The breakdown of outpatient visits can be analyzed the same way for each age group. It is even possible to make certain tentative comparisons between age groups.

For example, alcoholism accounted for about 1 of every 3 (37.9 percent) visits of those aged 40–44, but only about 1 of every 5 (19.8 percent) of the visits made by the age group 65–69.

Table 3 shows the rate of visits for each diagnosis in each age group. This rate is calculated by dividing the number of visits made by those in each age group by the total number of Indians within that age group. Although the data permit only conclusions about visits (but not about individual patients and thus more accurately expressed as "visit rate"), it may be of some value to examine the data in this manner because it is a way to examine the "load" on IHS facilities. This type of analysis should also have its greatest value in permitting some comparisons between different age groups.

For example, of a total population of 21,902 persons aged 45–49, 5,150 visits were made for some mental problem. The resulting rate of 235.1/1,000 indicates that there were nearly enough visits to account for 1 of every 4 Indians of this age group. A further breakdown of visit rates for this age group shows alcoholism, 88.2/1,000; organic brain syndrome, 1.7/1,000; neuroses 96.2/1,000; personality disorder, 4.4/1,000; drug abuse, 3.9/1,000; and other, 21.0/1,000. Among those 40–49 years, the highest rates of visits were for alcoholism and neuroses. Neuroses were prominent in all age groups except the group 0–19 years.

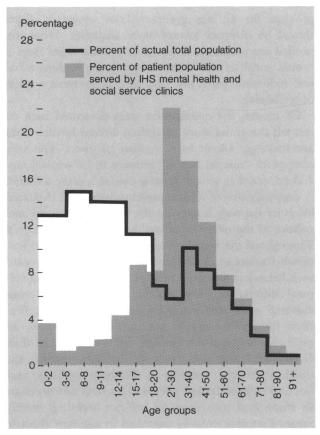
Beiser and Attneave, who collected extensive information about Indian mental health in 1974 by using computer listings as a means of evaluating staffing of the Social Services and Mental Health Branch of the IHS, have provided another source of data for an analysis of the impact of mental health problems on American Indians. These data are valuable because they contain

percentage contribution of each diagnosis to total mental health visits within each age group, fiscal year 1975

50-54	years	55–59	9 years	60–64	years	65–69	years	70-74	years	75 an	d over	Unk	nown
Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1,280	31.3	781	27.7	421	21.5	232	19.8	142	16.5	93	11.9	108	28.6
59	1.4	49	1.7	51	2.6	33	2.8	61	7.1	115	14.7	5	1.3
397	9.7	244	8.7	155	7.9	97	8.3	40	4.6	62	7.9	4	12.2
1,850	45.3	1,330	47.2	1,020	52.0	642	54.7	441	51.2	362	46.4	120	31.8
52	1.3	[′] 38	1.3	26	1.3	17	1.4	11	1.3	9	1.2	6	1.6
73	1.8	72	2.6	28	1.4	9	0.8	10	1.2	9	1.2	7	1.9
372	9.1	305	10.8	261	13.3	143	12.2	156	18.1	131	16.8	85	22.5
4,083	99.9	2,819	100.0	1,962	100.0	1,173	100.0	861	100.0	781	100.1	377	99.9

information about new cases and therefore more closely reflect individual patients than numbers of visits. Of course, these data do not represent all the patients seen in IHS, only those who for some reason were

Distribution by age groups of the entire Indian population compared to the distribution by age groups of the population who visited Indian Health Service (IHS) mental health and social service clinics, fiscal year 1974



SOURCE: Reference 1

referred for specific counseling. Excluded are the unknown number with mental health problems seen by a health worker but not referred for social service or mental health consultation.

Beiser and Attneave found that during calendar year 1974 there were 29,996 referrals for social or mental problems-12,777 referrals for males and 17,219 for females ("Staff and Patient Characteristics. Presenting Problems and Attitudes Toward Mental Health: IHS Mental Health and Social Services, Part I." IHS contract No. 240-75-0001, July 1, 1977). First-time visits totaled 15,531-6,768 by males and 8,763 by females. The disproportion for females is obvious. Beiser and Attneave described "treated prevalence" rates of 27/ 1,000 for males and of 33/1,000 for females. Disregarding visits for social services and examining only visits for mental health, one finds that during 1974 a total of 14,414 patients were evaluated, and 7,355 of these were seen for the first time. These first-time visit patients may be regarded as "new cases" for the purpose of this discussion; therefore, the "treated incidence" rate is 14/1,000.

The data collected by Beiser and Attneave are broken down by age in table 4, again disregarding social service visits. This breakdown permits the best available estimates of the impact of mental disease within each age group. It also permits a comparison of the impact on one age group with that on another age group. The greatest rate of new cases per 1,000 population occurred in the 21–30 age group (22.1), followed by the age group 31–40 (21.1); the rate then declined progressively to 12.6 for the age group 61–70.

Another way to illustrate the changing percentage of each age group visiting the IHS facilities appears in the chart, which shows the age distribution of the

Table 3. Rates of outpatient visits ("treated prevalence") by various age groups to

Age group (In years)	Alco	holism		anic brain Indrome	an	zophrenia d other rchoses	N-	eurose s
(, y.z,	Number	Visits/1,000	Number	Visits/1,000	Number	Visits/1,000	Number	Visits/1,000
0–19	771	2.6	83	0.3	314	1.0	1,419	4.7
20–39	10,157	78.7	128	1.0	2,397	18.6	10,373	80.3
40–44	2,511	102.8	29	1.2	515	21.1	2,750	112.5
45-49	1,932	88.2	38	1.7	387	17.7	2,151	98.2
50-54	1,280	68.3	59	3.1	397	21.2	1,850	98.7
55-59	781	44.0	49	2.8	244	13.8	1,330	75.0
60-64	421	28.6	51	3.5	155	10.5	1,020	69.3
65–69	232	17.7	33	2.5	97	7.4	642	49.0
70–74	142	16.7	61	7.2	40	4.7	441	51.7
75 and over	93	7.7	115	9.6	62	5.2	362	30.1
Unknown '	108		5		46		120	
Total	18,428		651		4,654		22,458	

In this instance, there was no denominator for persons of unknown age in the IHS population; the rates would not be meaningful even if there were a denominator.

entire population served by the IHS. This distribution illustrates the preponderance of young people in the Indian population. Superimposed is the age distribution of those visiting IHS mental health and social service clinics. The "excess" number of visits contributed by the age group 21–50 is readily apparent.

Conclusions and Comments

Certain conclusions can be drawn from the present analysis. The proportion of visits made for neuroses within each age group is lowest for those 0–19 years, and it increases for each group until it reaches a maximum of 64.7 percent of the visits by those 65–69 years (table 2). After age 19, the proportion of visits for schizophrenia and other psychoses remains constant within a fairly narrow range of from about 7.8 to 9.7 percent.

For those 0–19 years, more than half of the visits to mental disorder clinics are classed as "other" (table 2), which undoubtedly represents a variety of situational problems for which adolescents are referred. It is alarming, however, that more than 10 percent of the mental health problems in this age group were associated with alcoholism. The "other" category contributed 8.8 percent of the visits of the age group 40–44. For this age group, neurosis accounted for two of every five visits. About 75 percent of the mental health problems of those 40–55, as reflected by outpatient visits, were accounted for by alcoholism and neuroses. For Indians aged 60–64, neuroses accounted for one of every two visits to the mental health service.

If one assumes that neuroses are maladaptive patterns

of life adjustment made by persons trying to cope with conflicting values, expectations, and life stress, then it is obvious that neuroses are an overwhelming problem for Indian people. Combined with alcoholism as another maladaptive behavior, neuroses become the major problem for all age groups. Major remedial efforts should be directed toward these maladies. What are needed are programs designed to provide relief from a hostile world, as well as the strengthening of those tribal and individual programs that help to preserve a sense of well-being.

Of course, the quantitative data presented here do not tell the entire story of Indian mental health. Data are strikingly absent in a number of areas. The very concept of "mental health" remains to be worked out. Indeed, the diagnosis of mental disease is often difficult. A determination of what represents deviant or abnormal behavior depends largely on the beliefs, traditions, and culture of the observer as well as those of the subject. Throughout the world given groups do not regard certain behaviors as deviant, whereas other groups regard such behaviors as serious mental aberrations. These cultural differences have led to a number of "crosscultural" social and psychological studies. The implications for Indian people are obvious. Essentially, all psychological tests are devised for groups other than Indian and may not apply to Indians. Indeed, the usual psychiatric concepts of Western medicine may not be exact for Indian people. This does not necessarily mean that such concepts are not useful; it merely means that care must be exercised in applying them to Indians so that incorrect conclusions will not be drawn.

	rsonality sorders	Dru	g abuse		Other	for	al visits mental sorders	se	mated rvice ulation
Number	Visits/1,000	Number	Visits/1,000	Number	Visits/1,000	Number	Visits/1,000	Number	Percen
195	0.6	388	1.3	3,736	12.4	6,906	22.9	301,290	53.7
643	5.0	676	5.2	3,523	27.3	27,897	216.0	129,103	23.0
126	5.2	111	4.5	586	24.0	6,628	271.3	24,435	4.3
96	4.4	85	3.9	461	21.0	5,150	235.1	21,902	3.9
52	2.8	73	3.9	372	19.9	4,083	217.7	18,751	3.3
38	2.1	72	4.1	305	17.2	2,819	159.0	17,735	3.2
26	1.8	28	1.9	261	17.7	1,962	133.3	14,714	2.6
17	1.3	9	0.7	143	10.9	1,173	89.5	13,102	2.3
11	1.3	10	1.2	156	18.3	861	101.0	8,525	1.5
9	0.7	9	0.7	131	10.9	781	64.9	12,029	2.1
6		7		85		377		•	
1,219		1,468		9,759		58,637	1,520.6	561,584	100.0

NOTE: The rate of visits was calculated by dividing the number of visits for a given diagnosis in each age group by the total IHS population that age; for example, alcoholism—0-19 years: $771/301.290 \times 1.000 = 2.6$.

For example, Jewell (1) reported the case of a Navajo man who was considered to be psychotic until appropriate personality and, especially, ethnocultural investigations finally led to his release from an institution.

Martin and co-workers (2) attempted to quantify the incidence and types of mental disease by applying the Cornell Medical Index and the Langer Scale to Indians attending IHS clinics in eastern Oklahoma. They found that 25 percent of the Indians studied had evidence of psychiatric problems—a percentage not significantly different from that for the general population. The use

Table 4. Number of new cases (inpatient and outpatient) seen by the mental health services of the Indian Health Service (IHS), calendar year 1974

Age group	Estimated IHS service	New cases				
(years)	population !	Number	Rate			
0–20	301,942	2,658	08.8			
21–30	72,027	1,589	22.1			
31–40	57,196	1,207	21.1			
41–50	46,182	809	17.5			
51–60	36,261	501	13.8			
61–70	27,613	349	12.6			
71–80	13,983	173	12.4			

¹ Figures for total population are not exact and are based on a break-down of age groups 0-19, 20-29, and so on, but for this analysis the error would be insignificant.

of such "culture-bound" tests that have not been standardized for Indians must be evaluated with some skepticism. Such studies might be far more meaningful if tests were devised specifically for Indian people.

Shore (3) has proposed epidemiologic studies to determine the extent and types of psychiatric illnesses among Indians. He and his co-workers compared clinical diagnoses for Indians in a Northwest tribe with the problems observed among a sample of persons from the same tribe who were not referred to clinics. They found that the majority of visits to the clinics were made by young women with neuroses such as anxiety and depression. However, they found that alcoholism in the general community—although a significant problem-was not defined as an illness; therefore, alcoholic persons were not referred to clinics. Interestingly, their data showed the same incidence of schizophrenia as for non-Indians, and they found no instances of manicdepressive psychosis or of "classic" drug addiction. Thus, there is a small but tantalizing suggestion that for certain mental disorders Indians may differ significantly from non-Indians. Further studies of differences between Indians and non-Indians might provide useful information about the nature of mental illness.

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² New cases expressed as incidence per 1,000 population. SOURCE: "Staff and Patient Characteristics. Presenting Problems and Attitudes Toward Mental Health: IHS Mental Health and Social Services, Part I," by Carolyn Attneave, PhD, and Morton Beiser, MD. IHS contract No. 240-75-0001, July 1, 1977.