

patterns of psychiatric utilization by diagnosed schizophrenics in the kansas city area

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This report deals with the use of psychiatric care by diagnosed schizophrenics in the Kansas City area. It is one of several reports issuing from a large and detailed survey designed to ascertain the extent and utilization of psychiatric services, public and private, inpatient and outpatient. Of central concern here are not only schizophrenics as a major diagnostic group per se but, more specifically, that particular group's fate in its encounter and interactions with the psychiatric care system.

Accordingly, mental health facilities are examined with respect to available resources and various treatment modes. The characteristics of the patients are then explored, including their life space or social milieu. Such social dimensions as marital status, living arrangements, socioeconomic status, referral source, and urban/rural residence are also examined.

Method

The data about schizophrenic patients were collected from psychiatric agencies in the seven-county area which includes Kansas City, Mo., and its environs. The counties of Jackson (population 654,558) and Clay (population 123,322) make up the urban area, while the counties of Platte (32,081), Johnson (34,172), Cass (39,448), Henry (18,451), and Bates (15,468) make up the rural area. Virtually all of Kansas City proper (population 507,087) is located in Jackson County. The psychiatric care system consists of public facilities (Western Missouri Mental Health Center, the VA Hospital in Kansas City, and the Missouri State hospitals that serve patients from

the area) and the private sector (36 of the 42 psychiatrists in private practice, i.e., 86 percent, who participated in the study).

The data obtained were demographic and socioeconomic characteristics of patients, presenting problems, psychiatric diagnosis, treatment assignment, previous inpatient treatment, source of referral, marital status, and living arrangements. The source documents were patients' records at the various facilities and offices of private psychiatrists. Two basic patient populations were studied: The first comprised all persons applying for psychiatric services over a year's time. This population will be referred to as the *1-Year Applicant population*; it should be borne in mind that applicants rather than applications for service were counted, thereby yielding an unduplicated count. The second population referred to throughout the report, the *1-Day Prevalence population*, comprised all patients receiving psychiatric service on a given day. These data were collected for the year 1968. Data were collected on both of these two patient populations because the 1-Year Applicant population tends to capture the traffic flow, the short-term as well as the potential long-term users, while the 1-Day Prevalence population captures in its count not only patients recently entering treatment but also those who have stayed in treatment for long periods of time. Hence, the two populations can be compared to provide useful insight into what Gardner et al. (1963) have called "retention patterns."

The present report focuses on diagnosed schizophrenics and, except where otherwise indicated, deals with patients 18 years of age and older.

Results

Distribution by Class of Illness and Facilities

Type of Illness

In the 1-Year Applicant population, as shown in table 1, schizophrenia ranks second among the diagnostic groups and constitutes 17 percent of this population. In the 1-Day Prevalence population, schizophrenia ranks first and comprises 36 percent of the population. Further, this is the only diagnostic group for which the 1-Day Prevalence count is larger than the 1-Year Applicant count.

Ratios

The ratio between Applicant and Prevalence schizophrenics, as shown in table 2, offers an important index of the kind of use of psychiatric care facilities made by schizophrenics as compared with other diagnostic groups. The ratios indicate how many Applicant patients there are for every Prevalence patient. It should be recalled that Applicant populations tend to capture the traffic flow, the short-term as well as potential long-term

users. The 1-Day Prevalence population captures in its count not only patients recently entering treatment but also those who have stayed in treatment for long periods of time. Comparisons of the two populations for different diagnostic groups provide an immediate and cogent picture of, first, which persons seek help from psychiatric agencies and, second, which patients stay on and/or are retained in treatment.

For example, table 2 shows that at one extreme the alcoholics are primarily short-term users. The 5.9 Applicant/Prevalence ratio means that for every alcoholic in the overall Prevalence population, 5.9 alcoholics are found in the Applicant population. Put another way, the alcoholic uses psychiatric services frequently but only briefly and episodically and almost never stays in treatment on a continuous long-term basis. At the other extreme, schizophrenics clearly fall within the long-term-user category—hence, the low Applicant/Prevalence ratio in table 2 of 0.9. Schizophrenic patients remain in psychiatric service on a long-term chronic basis. Put another way, a disproportionately large number of Applicants diagnosed schizophrenic stay on in psychiatric services to join ongoing groups of long-term chronic users.

This finding makes clear that any meaningful survey of psychiatric disorders should include both Applicant

Table 1. Five major diagnostic groups ranked by frequency in Applicant and Prevalence populations

1-Year Applicant ¹	No.	Percentage	1-Day Prevalence ²	No.	Percentage
Neurotics	2,263	25.4	Schizophrenics	1,624	36.4
Schizophrenics	1,496	16.8	Neurotics	1,013	22.7
Alcoholics	1,360	15.3	Personality disorders	431	9.7
Personality disorders	960	10.8	Brain syndromes	412	9.2
Brain syndromes	584	6.6	Alcoholics	231	5.2
Other diagnoses combined	740	8.3	Other diagnoses combined	530	11.9
Diagnosis not given ³	1,416	15.9	Diagnosis not given ³	197	4.4
No psychiatric disorder	84	0.9	No psychiatric disorder	20	0.5
Total	8,904	100.0	Total	4,457	100.0

¹ Adults applying for psychiatric services in 1968.

² Adults in psychiatric service on May 1, 1968.

³ The large number of patients in the Applicant population with no recorded psychiatric diagnosis reflects, in part, early dropouts with a deferred diagnosis, or evaluation for treatment only, without concern for diagnosis.

Table 2. 1-Year Applicant/1-Day Prevalence population ratios

Diagnosis	Ratios for Applicant/Prevalence
Organic brain syndromes	1.4
Schizophrenic reaction	0.9
Neurotic reactions	2.2
Alcoholism	5.9
Personality disorders	2.2

and Prevalence populations. Either population viewed alone would yield a misleading picture.

Public and Private Facilities

This section deals with psychiatric care givers and the types of treatment assignments. It is to be expected that a chronic psychiatric disorder such as schizophrenia, which entails both impairment in social functioning and long-term use of psychiatric services, will draw heavily on public psychiatric facilities.

Table 3 shows where schizophrenics go to seek help, and how the responsibility for serving them is shared by the various available facilities. In the Applicant population, 68.4 percent is served by the public sector and 31.6 percent by the private sector of psychiatry. The private sector plays a less important role (14.8 percent) in the

Prevalence population. The fact that the Western Missouri Mental Health Center services well over 40 percent of both Applicant and Prevalence populations represents an outgrowth of a recognizable trend of the past 15 years for community-oriented public facilities to assume responsibility for the ongoing care of schizophrenic patients previously confined to State hospitals (Epps, Barnes, and McPartland 1965).

As can be seen in table 4, 992 (about 60 percent) of the 1,624 schizophrenic patients in the Prevalence population are treated outside rather than inside the hospital. In the Applicant population, which reflects the more acute and socially unmanageable phases of the patients' condition, 860 of the 1,496 are assigned to inpatient services. Thus, 43 percent of schizophrenic Applicants during the study period received outpatient services assignments. Among services, inpatient is the most frequently used, followed by the Medication Clinic. The high number in the "individual therapy" category (that is, 192 in the Applicant population) reflects the fact that the private sector treats 31 percent of all Applicant schizophrenics (table 3), assigning most of them to outpatient service where they receive individual psychotherapy, the treatment mode most commonly used by private psychiatrists. The Prevalence population contains 632 inpatients, of whom 558 are at State hospitals (table 3), leaving only 74 (10 percent) who are hospitalized at other facilities.

Noteworthy is the fact that, of the 1,623 patients in the Prevalence population, 992 (that is, slightly more than half) are treated outside the hospital rather than

Table 3. Distribution of schizophrenics by facilities

Facility	1-Year Applicant population (N = 1,496)		1-Day Prevalence population (N = 1,624)	
	No.	Percentage	No.	Percentage
Western Missouri Mental Health Center	704	47.0	700	43.0
State Hospitals	180	12.0	558	34.4
VA Hospital (Kansas City services)	140	9.4	126	7.8
Private sector services	472	31.6	240	14.8
Total	1,496	100.0	1,624	100.0

Table 4. Distribution of schizophrenics among psychiatric services/type-of-treatment

Population	Inpatient	Holding clinic	Evaluation/consultation service	Aftercare in medication clinic	Group therapy	Individual therapy	Others combined	Total
1-Year Applicant	860	28	112	136	64	192	104	1,496
1-Day Prevalence	632	1	11	617	62	205	96	1,624

inside—a finding considerably different from that obtained by Gardner et al. (1963) in their 1960 epidemiological survey of Monroe County. This change is directly attributable to—indeed only made possible by—the presence of the Western Missouri Mental Health Center, and it vividly illustrates the central role of a comprehensive mental health center in the community maintenance and care of schizophrenic patients.

Characteristics of Patients

Age and Sex

When such demographic characteristics as age, sex, and race are examined in the two patient populations, interesting differences emerge. The females outnumber the males in both populations, but particularly so in the Prevalence population, indicating that women are more likely to become long-term users than men.

In the distribution of schizophrenics by age, the pattern for Applicant males differs from that for their female counterparts: Males reach their peak in numbers at age 25-34, followed by a sharp decline, in contrast to women whose peak extends from age 25 to 44 and is followed by a gradual decline. In the Prevalence group, such male/female differences are absent, with both sexes reaching their peak at age 35-44, and then steadily declining in numbers.

Age-specific rates per 1,000 show similar distribution patterns with one important exception, namely, Applicant females reach their peak at age 35-45, a decade later than Applicant males; in the three age decades from 25 through 54, women's rates per 1,000 are 3.4, 4.0, and

3.1. By contrast, men's highest rates, that is, 2.3, 4.7, and 3.6, occur in the three earlier decades at age 15-44 and are significantly different from each other ($\chi^2_2 = 45.10, p < .001$); at age 25-34, their rate of 4.7 is significantly different from the female rate of 3.4 ($\chi^2_1 = 11.60, p < .01$).

The Prevalence age-specific rates per 1,000 display a pattern similar to that of the Applicant group; male rates again exceed female rates until age 35, after which female rates are consistently significantly higher than male rates. In contrast to the Applicants, however, both sexes in the Prevalence group reach their utilization peak at the same age, that is, at age 35-44 and then decline.

The earlier peak and sharper decline noted for Applicant men as compared with Applicant women reflects the fact that males are identified and diagnosed as schizophrenics at an earlier age period than females. A possible explanation for this difference is that social impairment can remain unexposed for a longer time period in women than in men, whose social roles provide less shelter for impairment. Further evidence for this explanation is included in the section on marital status and living arrangements. Despite the fact that men enter the treatment arena at younger ages than women, there are fewer males in treatment in a 1-Day Prevalence count.

There are 684 males and 941 females in the Prevalence population and a smaller difference of 700 males versus 796 females in the Applicant population. This difference between men and women in use of psychiatric services reflects the greater tendency of women to use outpatient services and may suggest that women, by the nature of their socioemotional role, find outpatient services more congenial than do men.

Race

Another demographic variable to be considered is race. Calculations of black/white rates per 1,000, all ages, pertain to Kansas City proper, since virtually all black patients live there, as do 96 percent of all blacks in the seven-county general population. Computations are based on the 1970 census count. The Applicant schizophrenic group yields a white rate of 2.28 and a black rate of 2.83. This black/white difference is significant ($\chi^2_1 = 10.02, p < .01$). Among the Prevalence schizophrenics, the difference between the white rate of 2.31 and the black rate of 3.40 is even more significant ($\chi^2_1 = 39.52, p < .001$). However, the possibility that such differences may be misleading is explored in the section on socioeconomic class.

Accordingly, the analysis is made more cogent by further confining it to the first 100 census tracts where the Applicant schizophrenic rates per 1,000, all ages, are 3.20 for whites and 2.83 for blacks (no significant difference). The Prevalence rates are 3.22 for whites and 2.73 for blacks ($\chi^2_1 = 5.87, p < .02$). These rates, we believe, are more pertinent than are the all-Kansas City rates above. First, in this area are compressed, in addition to many affluent neighborhoods, virtually all of the city's blacks, its poor, and its variously socially disabled. Second, by reducing the number of affluent and nuclear-family-based whites contained in an all-Kansas City analysis, a more meaningful comparison between black and white rates is possible. This is particularly true in view of the fact that not only are neighborhoods changing rapidly and in complicated ways, but blacks, by continuing to be handicapped by residential discrimination, cannot move as far away from social disorder as whites can; that is, they cannot "sort themselves out" into distinct groups of "well" and "not well" as whites can (and do).

Another interesting perspective on race is offered by an examination of the black/white distribution of diagnosed schizophrenics in the overall patient population, all diagnoses combined, as shown in table 5, and enables the analysis to address itself to two separate but related questions, namely:

- Among all blacks and whites in the entire Applicant and Prevalence populations, all diagnoses combined, how many are diagnosed schizophrenic?

- Among all schizophrenics, how many are black and how many are white?

Note first in table 5 that no matter how the data are organized, women outnumber men among both blacks and whites.

In answer to the first question above, among all blacks, 23.5 percent in the Applicant population and 50.1 percent in the Prevalence population are diagnosed schizophrenic. Among all whites, 15.0 percent and 34.0 percent in the Applicant and Prevalence populations, respectively, are diagnosed schizophrenic.

As to the second question, that is, how many schizophrenics are black and how many are white, the Applicant schizophrenics are 19.5-percent black and 80.5-percent white, while in the Prevalence population 20.5 percent are black and 79.5 percent are white.

Stated another way, the above percentages show that schizophrenics are by no means disproportionately black even if, conversely, black patients are disproportionately schizophrenic. This pattern is in part created by the lack of black representation among diagnosed neurotics (Hornstra and Udell 1971). That so many blacks are diagnosed schizophrenic may mean that blacks usually turn to psychiatric services only when the disturbed behavior becomes severe and unmanageable. Short of that point, they may feel less impelled than whites to turn to or rely on psychiatric resources for help. What ethnic/cultural factors may be at work here and how these intersect with social class remains obscure. Ethnic/cultural variations seem apparent in psychiatric definitions and in patterns of sanctioning, restraint, and support. Such patterns thus help determine 1) whether one uses psychiatric resources at all and 2) for what purpose and at what gradient point on a continuum of disturbed behavior.

Table 6 shows the percentages of diagnosed schizophrenics distributed by race and sex among the facilities. It is clear from the table that black applicants do not seek help from private psychiatrists. Of particular interest in table 6 is the disproportionately high percentage of black males who are in State hospitals as inpatients: 30.5 percent and 48.2 percent of schizophrenic black males in the Applicant and Prevalence populations, respectively. No other group shows such high percentages at State hospitals. The pattern most diametrically opposed to the black male's is that of the

Table 5. Distribution of schizophrenics by race and sex among all patients, all diagnoses combined

	1-Year Applicant population (Adults only)								
	Black males	White males	Black females	White females	All blacks	All whites	All males	All females	Total
Total 1-Year Applicants, all diagnoses combined	666	4,022	572	3,644	1,238	7,660	4,688	4,216	8,904
Number diagnosed schizophrenic	131	572	161	632	292	1,204	703	793	1,496
Horizontal percentage	8.8	38.2	10.8	42.2	19.5	80.5	47.0	53.0	
Vertical percentage	19.7	14.2	28.1	17.3	23.5	15.7	14.8	18.8	
	1-Day Prevalence population (Adults only)								
	Black males	White males	Black females	White females	All blacks	All whites	All males	All females	Total
Total 1-Day Prevalence, all diagnoses combined	300	1,710	366	2,075	666	3,785	2,015	2,442	4,457
Number diagnosed schizophrenic	137	543	196	748	333	1,291	683	941	1,624
Horizontal percentage	8.4	33.4	12.1	46.1	20.5	79.5	42.1	57.9	
Vertical percentage	45.6	31.7	53.8	35.9	50.1	34.0	33.7	38.5	

black female. Among schizophrenic black female Applicants, 86.9 percent are served by a State hospital. Of black female schizophrenics in the Prevalence population, only 28.9 percent are to be found in the State hospitals, which is the lowest State hospital inpatient population percentage among the four race-sex groups.

When figures for the State hospital by itself are compared to those for other facilities combined, the black male pattern emerges more sharply anomalous (see table 7).

Table 7 again underscores that more women than men receive a diagnosis of schizophrenic reaction regardless of race, and that black males contribute disproportionately to State hospital admissions and to the Prevalence population of State hospitals. This overrepresentation of black males may mean that fewer of them have families who are willing or able to accommodate them upon discharge.

Similarly, high (overall) nonwhite Applicant and Prevalence patterns for State hospitals were found by Bahn et al. (1966) in their review of four register areas. Even if it is currently true, as Crawford (1969) believes, that for the nation as a whole the "adjusted incidence and prevalence rates of 'mental illness' between blacks and whites are more similar than different," the differences in their utilization patterns are real enough. Earlier case finding and improved techniques in offering and giving help might encourage blacks to seek help more readily and earlier for themselves and their families.

Presenting Problems

Nothing about a patient is more interesting or important than his presenting problem, that is, what it is that brings him to psychiatric care. As such, it consti-

Table 6. Distribution of schizophrenic patients by sex, race, and facility

	1-Year Applicant population								Total
	White males		Black males		White females		Black females		
	No.	%	No.	%	No.	%	No.	%	
Western Missouri Mental Health Center	208	36.4	64	48.9	292	46.2	140	87.0	704
State hospitals	44	7.7	40	30.5	76	12.0	20	12.4	180
VA Hospital	120	21.0	20	15.3	0	0.0	0	0.0	140
Private sector	200	34.9	7	6.1	264	41.8	1	0.0	472
Total	572	100	131	100	632	100	161	100	1,496

	1-Day Prevalence population								Total
	White males		Black males		White females		Black females		
	No.	%	No.	%	No.	%	No.	%	
Western Missouri Mental Health Center	170	31.3	52	38.0	344	46.0	137	69.6	703
State hospitals	189	34.8	66	48.2	246	32.9	57	28.9	558
VA Hospital	102	18.8	18	14.0	3	0.4	0	0.5	123
Private sector	82	15.1	1	0.0	155	20.7	2	1.0	240
Total	543	100	137	100	748	100	196	100	1,624

Table 7. Distribution of schizophrenics by race and sex: State hospitals compared to all other facilities combined

	1-Year Applicant population					1-Day Prevalence population			
	White males	Black males	White females	Black females		White males	Black males	White females	Black females
State hospital	44	40	76	20	State hospital	189	66	246	57
Other facilities combined	528	71	556	141	Other facilities combined	354	71	502	139
Total	572	131	632	161	Total	543	137	748	196

tutes an important part of his record. At times this presenting problem is a shorthand verbal account of the patient's story. As a general rule, however, it is a composite picture, recorded by a clinician, which takes into account the patient's story, as well as statements about his condition made by "significant others" acting in the role of either a concerned or complainant party, or both. Thus, the presenting problems recorded in our study contained elements derived from statements by patients, statements by involved parties, and gross observational items from the clinician. An ordering of all those accounts of presenting problems yielded a total problem array of 50 different categories. Simple ground rules for interpretation of the stated problems made it possible to achieve an intercoder reliability coefficient beyond 0.90, using three coders. Each patient was allowed up to six presenting problems. The median number per patient was three problem categories. A ranking by frequency resulted in 11 top-ranking problems covering 80 percent or more of the patients. Subsequent analyses were confined to the 11 top-ranking problems within each diagnostic category.

Table 8 deals with the presenting problems of schizophrenic patients. It should be noted that the items

are not additive since the list contains a duplicated count of persons.

Delusional and/or hallucinatory experience is the most frequently recorded problem of schizophrenic patients, but not of any other diagnostic group. The next most frequently reported problem of schizophrenics is disruptive behavior. This finding is not surprising since a delusional and/or hallucinatory person is generally so out of touch with reality that he is a disruptive influence, disorganizing the flow of affairs in his immediate environment. The finding that delusional-hallucinatory and disruptive behavior are the most frequently recorded problems of schizophrenics may reflect the fact that schizophrenic reactions come very late to the attention of clinicians.

The early struggles of schizophrenic patients with their own oblique communicative style (Artiss 1959) are not interpreted by the immediate environment as mental disorders but as a personal idiosyncratic stance or mere eccentricity. It is therefore not difficult to view many of the nine problems that follow the first two as "ensuing problems." "Disoriented (time and place)" may also appear out of place with schizophrenia. It should be remembered, however, that presenting problems are not

Table 8. Eleven most frequently reported presenting problems of schizophrenics

1-Year Applicant population		1-Day Prevalence population	
Problem (N = 1,496)	How often reported (Adults covered = 1,236)	Problem (N = 1,624)	How often reported (Adults covered = 1,453)
Delusional	596	Delusional	725
Disruptive behavior	256	Disruptive behavior	320
Nervous	196	Nervous	235
Depressed	172	Depressed	234
Physical complaint	164	Physical complaint	211
Acts bizarre	164	Acts bizarre	193
Marital problems	160	Aftercare transferred from State hospital	174
Sleep problems	152	Disoriented (time, place)	173
Disoriented (time, place)	128	Danger to self	166
Danger to self	116	Sleep problem	161
Danger to others	108	Danger to others	152

mental status items but statements (as in "disoriented," for example) about the patient's apparent lack of attention to time and place as reported by persons in the immediate environment. Lending support to the explanation that schizophrenic patients come late to psychiatric attention is the previously reported finding that all too many required hospitalization when they applied.

Previous Inpatient Experience

In the study of previous inpatient experience, we relied on recorded information about patients in treatment and persons applying for psychiatric service. Since data recorded about previous outpatient experience are notoriously unreliable, this investigation limited itself to the gathering of information regarding previous psychiatric hospitalization. To put schizophrenia as a diagnostic category in perspective vis-a-vis other major diagnostic categories, table 9 presents comparative data of previous inpatient experience. This table shows that, of all schizophrenics in the Applicant population, 900 (60 percent) of the 1,496 had previously been hospitalized, as had 1,293 (79 percent) of the 1,623 in the Prevalence population. This diagnostic group contains the highest percentage of patients with previous inpatient experience. No other diagnostic group comes even close to schizophrenia in these percentages.

These findings strikingly illustrate the unique position of schizophrenic reactions among the psychiatric disorders. They emphasize the chronicity of the schizophrenic reactions with their episodic need for hospital-

ization (McPartland and Richart 1966, Pentecost 1968, Peterson and Olson 1964, and Rutledge and Binner 1970). The year 1970 may continue to show a decrease in the total inpatient population of schizophrenic patients, but barring a major scientific discovery, schizophrenic patients will continue to present a major challenge for the management of this group in community-oriented programs in the face of the expected general population growth (Kramer 1967).

Marital Status

The data presented here relate to the social networks surrounding the patient as they are manifested through marital status, living arrangements, socioeconomic status, referral source, and urban-rural differences.

During the last decade, increased attention has been paid to the marital status and living arrangements of schizophrenic patients. This focus has operational implications in the context of reducing the resident population of State hospitals and particularly for community-oriented programs aiming at a realistic optimum for the social functioning of patients suffering from schizophrenia. It is in this context that tables 10 and 11 are presented.

The interpersonal impairment of schizophrenic patients is very obvious when one examines their marital status. This fact is most clearly illustrated by the striking difference between men and women in the "single" category. Among the men in the Applicant population, 46 percent are single, and among women, this figure is

Table 9. A comparison of previous inpatient experience among five major diagnostic groups

Category	1-Year Applicant population			1-Day Prevalence population		
	Previous inpatient experience	No previous inpatient experience	Total	Previous Inpatient experience	No previous inpatient experience	Total
Organic brain syndrome	184	400	584	259	153	412
Schizophrenia	900	596	1,496	1,293	330	1,624
Personality disorder	300	660	960	178	253	431
Alcoholism	608	752	1,360	160	71	231
Neurosis	544	1,720	2,264	501	509	1,010

Table 10. Marital status of schizophrenics

Marital status	1-Year Applicant			1-Day Prevalence		
	Male	Female	Total	Male	Female	Total
Single	324	104	428	340	321	571
Married	268	404	672	218	358	576
Divorced-separated-widowed	108	280	388	121	346	467
Unknown	3	5	8	1	9	10
Total	703	793	1,496	686	944	1,624

Table 11. Living arrangements of schizophrenics

Living arrangement	1-Year Applicant			1-Day Prevalence		
	Male	Female	Total	Male	Female	Total
Alone	136	152	288	130	176	306
With spouse	252	392	644	186	352	538
With other	280	232	512	311	362	673
Unknown	35	17	52	56	54	107
Total	703	793	1,496	680	944	1,624

13 percent. Conversely, 51 percent of the women are married, while this is true of only 38 percent of the men. Furthermore, fewer men (15 percent) than women (35 percent) have ever been married ("divorced-separated-widowed" category). Similar differences between men and women are apparent in the Prevalence population, where the "single" group is even larger, containing 50 percent of the men and 34 percent of the women. In part, the larger percentage of single men and women in the Prevalence population stems from their having less opportunity to marry, either because of long hospitalization in State hospitals and/or the stigma associated with it.

Living Arrangements

One hundred and thirty-six (19 percent) of the 703 men and 152 (19 percent) of the 793 women in the Applicant group live alone. That men do not outnumber the women in living alone reflects the fact that more single men than single women live with their parents or extended family. Similar differences between men and women can be observed in the Prevalence population.

In the section on race, sex, and age, the observation was made that men came to the attention of psychiatric care givers at a younger age than women. Advanced as an explanation was the demand of society for more (and

better) instrumental role performance from men than from women. The designation as a "psychiatric" or "mental hospital" patient by itself appears to provide insufficient explanation for the fact that significantly more men than women remain single. The specific role of women in this society supports an additional explanation for the difference between men and women in the marital status and living arrangement. Women are more able and/or willing to get married and stay married than are men, despite the same disability (schizophrenia). The female role seems to enable women to be sustained, accommodated, and sheltered more easily than men. The adult social role for men, particularly married men, requires support of a female and therefore some sort of employment. For men, getting married, let alone staying married, is generally associated with proven ability to earn a living.

Socioeconomic Class

Various studies have explored the relationship between social class and schizophrenia. With one exception, all studies tend to support the finding that, in the incidence and prevalence of schizophrenia, higher rates are associated with lower socioeconomic position. In some studies social class was inferred from the area in which patients lived, and in others it was defined by occupation, education, and/or income.

This study has used occupational status as the index for social class.¹ In each instance the usual occupation of the breadwinner in the family was used whether or not the patient was the breadwinner, inasmuch as women and children derived their socioeconomic status from their husbands or fathers. In any case, table 12 shows what has been repeatedly shown in numerous studies, namely, the significantly inverse relationship between social class and schizophrenia. The meaning of this concentration of diagnosed schizophrenics among the lower socioeconomic levels remains ambiguous and will be further explored in the discussion section.

¹ As abridged by Paul R. Binner, Ph. D., Fort Logan Mental Health Center, Denver, Colo., from Two Factor Index of Social Position by August B. Hollingshead, 1965.

The class-specific rates pertain to Kansas City proper where patient data regarding social class are more complete than those for the overall seven-county area. Calculations are based on general population data obtained from the 1970 United States census count.

It is pertinent here to return to the question of race. Blacks are predominantly in the lower class, and so it is quite possible, if not probable, that, when social class is kept constant, black/white differences in rates per 1,000, that is, the significantly higher schizophrenic rate for blacks, disappear and may in fact reverse. This possibility can be examined even in the absence of a 1970 census occupational breakdown for blacks if it were for the moment supposed (not incredibly) that around 100,000 of Kansas City's 112,005 blacks belong to classes IV and V. Class-specific rates per 1,000 for classes IV and V combined would be 3.08 and 3.47 for black and white Applicants, respectively, and for Prevalence schizophrenics, 3.30 and 4.23, respectively.

Referral Source

Referral source data reflect some incomplete but valuable information about the pathways of patients to treatment resources. The records of many long-term patients in the Prevalence population did not reveal a referral source (fully 45 percent had an unknown referral source or one outside of our major categories), so this analysis pertains only to the Applicant population.

In the Applicant group, where data are available on 80 percent of the population, table 13 shows the sources of referral among male and female schizophrenic patients.

Since more females than male patients are diagnosed as schizophrenic, there is an important difference in the "significant other" category (family, friend, etc.) for the male versus the female schizophrenic (30 percent vs. 19 percent). Obviously males are more frequently subjected to pressure from their immediate environment to submit to psychiatric care. The route via a physician or intermediary is more common for women than for men (40 percent vs. 26 percent). This finding accords with the commonly observed finding that women consult physicians more often than men. It also suggests that

Table 12. Social-class distribution of schizophrenics in Kansas City, Mo.

Population	Class-specific rates per 1,000 (All ages)				
	Class I	Class II	Class III	Class IV	Class V
	Professional exec.	Admin. managers	Clerical sales skilled	Semiskilled	Unskilled unemployed
1-Year Applicant	0.72	1.10	1.56	1.95	4.58
	$\chi^2_{(4)} = 383.69 p < .001$				
1-Day Prevalence	1.04	0.86	2.07	2.21	5.25
	$\chi^2_{(4)} = 4.7.63 p < .001$				

Table 13. Major referral sources of schizophrenic patients in 1-Year Applicant population

Patients (Adults only)	Medical referrals	Family, friend, landlady, employer	Courts, jail, police	Self	Total
Males	164	160	116	92	532
Females	288	124	124	116	642
Total	452	284	240	208	1,174

women apparently present more problems that are insoluble by ordinary medical means.

The law is called upon in 21 percent of the Applicant population, and about equally for men and women. This small percentage represents a marked difference from the figure of 41 percent obtained in 1963 in Kansas City, Mo. (Epps, Barnes, and McPartland 1965). Even the involvement of the law does not mean involuntary admission. In many instances the police function as social traffic managers and provide a free transportation service.

Urban-Rural Differences

Data regarding urban/rural differences in patterns of utilization of services reveal a significant correlation between population density and rates per 1,000 in total Applicant and Prevalence populations. The most urban county, Jackson, with 1,234 persons per square mile, has utilization rates four times as high as the most rural county, Cass, with only 60 persons per square mile. This difference in utilization is observed among all diagnostic groups, including schizophrenia. The overall rate per

1,000 for schizophrenic patients in the Applicant population for the most urban county is 2.11 as compared with 0.75 per 1,000 for the more rural counties combined. For the Prevalence population these figures are, respectively, 2.32 and 0.65 per 1,000.

Rural rates are generally low in the younger age categories, particularly in the Applicant population. The highest rural age-specific rates are seen in the 65-and-older age groups in the Prevalence population. Among the schizophrenic patients who live in rural areas, many end up in State hospitals as a place of last resort. Only in the older age groups are the rates on a par with the urban rates, that is, around 2.0 per 1,000 in the general population. The peak rate in the most urban county is 4.2 per 1,000 for the 35-44 age group, while in the more rural counties, 2.6 per 1,000 is the highest in the Prevalence population.

That rural rates are so low raises questions about the impact of rural cultural attitudes toward psychological disorder upon psychiatric utilization or, equally interesting, the possible tendency of rural schizophrenics to leave their homes for the more comfortable anonymity of the city, thus displaying what amounts to a pattern of "horizontal drift."

Discussion

This discussion explores implications of the data around three issues:

- The relation of treated schizophrenia to social class;
- The public sector as a treatment resource for schizophrenics; and
- Prospective social arrangements for schizophrenics.

Schizophrenia and Social Class

The data and findings once more show what has been repeatedly shown in numerous other studies: namely, the association between diagnosed schizophrenics and lower socioeconomic status. It could be asserted, of course, that the relationship is a false one, that it shows little more than a utilization differential between social classes, and that the middle and upper levels harbor as many persons who, if examined, would be judged

schizophrenic but who instead manage to go undiagnosed, untreated, and uncounted. But until such an assertion can be demonstrated we continue to be confronted with the finding at hand and its possible meanings.

Can the disproportionately high number of women reported in this and other studies be related to a characteristic behavioral style derived from the female's traditional social/emotional role? More specifically, could this sanctioned expressive style with its high diffusiveness and affectivity contain a potential for extreme acting-out and undersocialized behavior? Analogously, do lower-class cultural styles with their characteristic web of behavioral sanctions and latitudes contain a similar potential?

A related issue involves social tolerance of deviant behavior. In a review of studies relating social status and psychological disorder, Dohrenwend and Dohrenwend (1969) state that the results suggest less tolerance for deviant behavior among better educated groups and among ethnically advantaged groups. This implies, conversely, more tolerance for such behavior within the less advantaged group. Cultural/class differences persist even if "tolerance" turns out to be indifference toward difficult behavior or tolerance based on quite different norms. In any case, this would be related to both the persistence of disturbing behavior and, equally important, how soon or late help was sought for such behavior by primary group members.

Consideration of these possibilities is in no way discordant with serious attention given to genetic factors, which could, and probably do, coexist with cultural and psychological factors in a complex mix entailing mutual reinforcement and interaction.

Public Sector Role

From the data reported above, it is clear that for the diagnosed schizophrenic in Kansas City, Mo., the public sector of psychiatry is the principal source of care and care giving; and this refers to State hospitals and the Community Mental Health Centers. Specifically, it is the latter to whom the schizophrenic and his family primarily turn during intermittent episodes of acute breakdown requiring immediate care and, perhaps more important, on whom they can alone rely for steady,

long-term outpatient contact. Indeed, for many a schizophrenic the presence or absence of such a facility spells the difference between prolonged stay, however marginal, in the community as against prolonged stay in a State hospital. Only such a facility with its round-the-clock service as well as its broad diversity of treatment services can make it possible, on an average day, for more than half of the diagnosed schizophrenics to be outside rather than inside a hospital.

Prospective Social Arrangements

Like the hospitalized schizophrenic, the formerly hospitalized schizophrenic has become the target for enlightened concern, for innovative planning and programming with a view toward effective community maintenance. This is a necessity if the genuine achievements of the community mental health movement are not to deteriorate into a disguised transfer of the problem from the State hospitals to the community, ending up as a travesty of the comprehensive mental health movement.

Central to this issue is the continuing question of how schizophrenics are to be assessed. To deny them their genuine handicaps and limitations may appear humane but may in effect amount to little more than a heartless optimism, ultimately rendering a grave disservice to the patient, his family, and all those who work on his behalf. Thus, it is to be hoped that the services of Community Mental Health Centers will be further extended, making available a wider range of alternative social arrangements with respect to jobs and community housing. Community housing should mean a wider choice among living arrangements. For those bereft of families the need is obvious, but even for those with families the need, less self-evident, may be equally acute. The toll that some patients and some families exact from each other may be more than should be expected. Moreover, for any one patient, different living arrangements may be appropriate at different time periods. Ideally and not unrealistically, the schizophrenic should be free to live alone when he wishes, live with his family when he wishes and can, and as an added and enlightened alternative, live with similar persons when he wishes in a communal social setting, one that is cohesive enough to give support yet casual enough not to be too demanding.

Summary

Epidemiological data and findings were presented on the extent and utilization of psychiatric services by diagnosed schizophrenics in a seven-county area which includes Kansas City, Mo., and its environs. Patients' records were carefully studied in all formal psychiatric facilities, public and private, inpatient and outpatient, in order to collect data regarding age, sex, race, referral sources, marital status, living arrangements, social class, previous hospitalization, type of treatment, diagnosis, and presenting problems. The data were organized around two basic epidemiological populations: 1) for persons receiving service on May 1, 1968, called the 1-Day Prevalence population and 2) for persons applying for services during 1968 called the 1-Year Applicant population (an unduplicated count). The analysis, except for a few designated exceptions, pertained to adults 18 years and over.

Of all diagnostic groups, schizophrenics ranked second among the Applicant population and first among the Prevalence population. On a given day, more than half were outside rather than inside a hospital. Further, they were likely to 1) be chronic, long-term users, inpatient and outpatient, of public facilities; 2) have an excess of single males in contrast to women, more of whom, despite the same disability, were willing or able to marry and whose sheltered social role was reflected in a later Applicant age peak; and 3) be concentrated among the lower socioeconomic strata.

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upcoming international congress

The Vth International Congress of Social Psychiatry will be held September 1-7 in Athens, Greece. Conducted in English, the Congress will focus on the following theme: "Towards a Systems Approach to Psychosocial Functioning and Malfunctioning." The registration fee for the Congress will be \$65 (\$35 for accompanying persons). For further information, contact: John L. Carleton, M.D., Secretary, American Association for Social Psychiatry, 2323 Oak Park Lane, Santa Barbara, Calif. 93105.