Ambulatory Mental Health Treatment under Universal Coverage: Policy Insights from Israel

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RHETORIC, MISCONCEPTIONS, AND UNTESTED assumptions have been prominent in shaping mental health policies and service delivery decisions for decades (Mechanic 1987). In the aftermath of deinstitutionalization, misconceptions about the functioning of public mental health systems have been widespread (e.g., Mechanic and Rochefort 1992; Kiesler and Sibulkin 1987), particularly regarding ambulatory services. Despite more than three decades of community-based services, there has been little rigorous examination of the content of ambulatory care. Thus, three misconceptions, highlighted by Goldman and Taube (1988), persist in policy and planning decisions: "(1) all use is alike, (2) any use leads to high use, and (3) all high use is discretionary and therefore excessive." As an example, they point to the perception of outpatient treatment as "long-term psychotherapy for the personal growth of relatively healthy individuals and not as medically necessary services." However, their work challenges the accuracy of this view because it discounts the "di-

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versity of outpatient mental health services and the individuals who use them" (Goldman and Taube 1988). Our analysis extends Goldman and Taube's work by testing the three assumptions with nationwide utilization data. A fourth premise, that insurance encourages excessive use, was critiqued and empirically challenged in previous research (e.g., Feinson and Popper 1995; Landerman et al. 1994; Goldman and Taube 1988).

A remarkably rich data set from Israel provides the unique opportunity to examine the content of ambulatory care. In contrast to the U.S. fee-for-service system, where utilization and treatment decisions are heavily influenced by costs and special limitations, services in Israel are provided under universal coverage. "Treatment is provided free of charge and the duration and type of treatment in each center is not restricted by insurance constraints or by central administrative directives" (Lerner et al. 1991). Within the limits of existing staff and budgetary resources, treatment decisions largely represent professional judgments and ideologies related to the mental health needs of clients. Compared with the United States, where providers have little incentive to address the needs of chronic patients, particularly when reimbursement has been low (Mechanic and Rochefort 1992), fiscal disincentives and reimbursement constraints do not influence treatment decisions in Israel. (This is scheduled to change under new legislation that is being implemented [Mark and Shani 1995].)

A nationwide survey covering all public ambulatory mental health centers in Israel provides an extensive and detailed data set to explore these policy assumptions. Two central issues guide the analysis:

- What is the clinical composition of ambulatory utilizers in a public mental health system with universal coverage? Do Israeli data confirm that public community mental health centers (CMHCs) provide services to "a heterogeneous clientele, with many users not seriously mentally ill" (Mechanic and Rochefort 1992)?
- What is the content of care provided to ambulatory utilizers? Specifically, how do type of treatment, frequency of visits, and length of time in treatment vary according to clinical indicators of need? What variations in treatment are found according to sociodemographic characteristics? Do these data confirm that all use is alike, any use leads to high use, and all high use is discretionary and therefore excessive?

Review of U.S. Studies: A "Dearth of Data"

To place the Israeli survey in context, we begin by reviewing studies from the United States, which, in general, reflect a "dearth of data" for examining these assumptions. An adequate database (in terms of size and representativeness) with detailed clinical and treatment data does not exist. What little is known about ambulatory care comes mostly from community surveys of self-reported utilization, national surveys of providers' medical records, or claims data from insured and treated samples.

Community Surveys of Utilization

Most large U.S. mental health studies are community-based surveys that provide valuable knowledge about sociodemographic characteristics of utilizers and correlates of help-seeking behaviors (e.g., need, predisposing, and enabling factors). Self-report survey data (using symptom checklists or diagnostic survey instruments like the Diagnostic Interview Schedule [DIS]) provide gross estimates of need, number of visits, and provider setting (i.e., specialty mental health or general medical sector). With the focus primarily on correlates of help-seeking behaviors, these surveys generally do not elicit information on the content of care once clients enter treatment. For example, respondents reporting psychiatric symptoms in the Epidemiologic Catchment Area (ECA) Survey did not provide details either of their treatment or of its intensity (Shapiro, Skinner, and Kessler 1984).

In the 1987 National Medical Expenditure Survey (NMES), only 2.4 percent of the respondents (931 of 38,446) reported receiving psychotherapy treatment. Like the ECA, with the exception of provider setting, type of visit, and medication prescribed, the NMES offers no details on the nature of the clinical visit or on specific treatment practices (Olfson and Pincus 1994a; Freiman, Cunningham, and Cornelius 1994). The 1980 National Medical Care Utilization and Expenditure Survey (NMCUES) is similarly limited (Taube et al. 1988); with only 400 out of 18,000 reporting a mental health visit, empirical analysis is extremely difficult (McGuire 1994).

Thus, despite a vast community survey literature, most studies focus on determinants of utilization and supply limited, or no, information about the diversity of treatment and the clinical composition of clients. The lack of details on actual treatment practices in large epidemiologic studies do not permit specific diagnoses to be linked to treatment data (Olfson and Pincus 1994a). Moreover, "the dearth of data on what occurs during these visits forces a wide variety of mental health services to be aggregated into a single variable" (Olfson and Pincus 1994b).

Medical Records and Claims Data

More promising data concerning the details of treatment come from studies of medical records and insurance claims, although both are limited in several respects. One limitation concerns the relatively small size and unrepresentativeness of treated samples (e.g., Wells et al. 1987; Hankin, Steinwachs, and Elkes 1980; Kessler, Steinwachs, and Hankin 1980). In the RAND Health Insurance Experiment, for example, older adults and those with high incomes were excluded. In addition, previous utilizers of mental health services were less likely to enroll in the experiment, and few participants had severe and persistent mental illness, reflecting typical HMO selection biases of healthier populations (Wells et al. 1987).

Another drawback, replicated by RAND, is that the average use of mental health services in HMOs is substantially lower than under unmanaged, fee-for-service insurance plans (Mechanic, Schlesinger, and McAlpine 1995; Sturm et al. 1995; Howard et al. 1989; McGuire and Fairbank 1988). Because HMO treatment is generally restricted by number of visits or cost-sharing measures, it is difficult to disentangle which factors most influence treatment decisions: coverage and affordability; professional ideology; clinical judgments of need; perceptions of treatment success within HMO limitations; fiscal and staffing constraints; or other administrative considerations.

Several extremely large but unrepresentative data sets that offer few details about treatment are available from outpatient public mental health systems in California (e.g., Flaskerud and Hu 1992; Hu et al. 1991). Although utilizers broadly represent the racial–ethnic population of Los Angeles, the results are not generalizable to the U.S. population (e.g., 43 percent of utilizers are white, 20 percent are black, and 25 percent are Latino). Findings also are limited by the large proportion of low-income utilizers eligible for publicly funded services and by the retrospective design and the use of data collected more for clinical than research purposes (Flaskerud and Hu 1992).

The 1989 National Ambulatory Medical Care Survey contains valuable information from providers on the number of office visits that include psychotherapy, although this study is limited by a small sample of psychiatrists and a lack of detailed treatment data (Olfson and Pincus 1994a). The Medical Outcomes Study (MOS) is an unusual data set based on a sample of depressed patients of both prepaid and fee-for-service clinicians (Sturm et al. 1995). However, details of treatment are missing from patient self-reports, which are subject to usual biases of recall and accuracy. Similarly, other research using claims-based data, like those, for example, from Blue Cross/Blue Shield (Padgett et al. 1994) and United Mine Workers of America (Wallen, Roddy, and Meyers 1986), focus on patterns of utilization rather than on content of treatment.

In brief, despite numerous data sets, this review confirms a "dearth of data" on many aspects of ambulatory mental health treatment. However, data from Israel begin to redress this dearth with important implications for policy makers and planners in the United States.

Survey Methodology

Overview of Israeli Survey

The first nationwide survey of all public mental health facilities (*N* = 136) was conducted by the Ministry of Health in 1986, at a time when all citizens were entitled to receive mental health treatment free of charge, regardless of their health insurance. In accordance with a 1978 government agreement, the public mental health sector is responsible for providing ambulatory treatment to the entire population. All outpatient facilities provide walk-in services, which, unlike other specialized medical services, can be accessed directly through self-referral.

The Israeli survey provides, in a single data set, a comprehensive and detailed picture of the content of care provided in public services to every utilizer. It includes all persons who received any type of mental health treatment in hospitals, ambulatory clinics, or day care units during a one-week time period (May 27 through June 2). This analysis focuses on the full range of services provided by 52 public ambulatory clinics and community mental health centers.

During the survey week, 13,500 persons received treatment in ambulatory facilities. We excluded certain groups from this analysis: those who came for an initial "intake" interview; those who had a single consultation session in conjunction with a medical problem in a hospital facility; those attending day care facilities; those with primary diagnoses of substance abuse who received treatment in specialized drug and alcohol units; and children under age 18. Our final sample consists of 8,603 adult utilizers.

Survey questionnaires, completed by professional staff for every utilizer during each visit, include detailed clinical, demographic, and socioeconomic information. (For complete survey details, see Levinson et al. 1996a; Feinson, Popper, and Handelsman 1992.) Accuracy is exceptionally high, as data were collected in a carefully monitored, uniform process, and there was a 100 percent completion rate. The usual sources of bias and error related to respondent recall, accuracy of answers, nonresponse, or sample selection are not present. Thus, the advantages of these data for examining the content of ambulatory treatment become apparent.

Description of Variables

In this analysis, we focus primarily on the relation between need for treatment, as reflected in clinical status, and the content of care, as indicated by type of treatment, frequency, and length of time in treatment. We also present data on prior treatment, referral sources, profession of providers, and selected sociodemographic characteristics.

Clinical Status. A cogent analysis of ambulatory treatment depends on classifying utilizers in a conceptually meaningful way. Professional judgments concerning clinical status (i.e., severity of symptoms) are central to any classification. Psychiatric diagnoses, according to International Classification of Diseases (ICD)-9 codes, were obtained from medical records and were categorized according to traditional psychiatric standards as either major or nonmajor diagnoses (Lerner et al. 1991). Major diagnoses include schizophrenic disorders, paranoid states, affective psychoses, and organic conditions. Nonmajor diagnoses include neuroses and psychosomatic disorders, personality disorders, adjustment and stress reactions, childhood disturbances, and V-codes (for conditions not attributable to a mental disorder but requiring treatment).

Diagnoses, however, provide only a partial picture of clinical status (e.g., Cook and Wright 1995; Brown 1987; Loring and Powell 1988).

An important advantage of this survey is the inclusion of a functional measure of impairment. In Israel, functional capacity related to a mental impairment is corroborated by receipt of a National Insurance (NI) disability pension. Eligibility is based not only on diagnosis, but also on the presence of significant impairment that affects the level of functioning in major areas of daily living and economic self-sufficiency (Wittman and Lerner 1990). Additional indicators of clinical status are type of previous mental health treatment, prior hospitalization, and sources of referral into current treatment.

Content of Care. Detailed information measuring different aspects of treatment is included in the survey. Eighteen *types of treatment* connected with each visit are grouped into five categories: individual therapy; family and couples therapy; group therapy; medication treatment, including prescription, injection, check-up, or change of dosage; and other types of visits, including consultation with agencies or meetings with families. *Frequency of treatment* represents how often clients receive treatment and is measured by the number of elapsed days between the date of the most recent visit (prior to the survey week) and the survey week visit. *Length of time in treatment* is calculated by the elapsed amount of time from the date clients first entered the clinic for the current episode of treatment up until the survey week. Because the survey is cross-sectional, this variable represents the distribution of the length of time this clinic population was in treatment at the time of the survey. Each questionnaire elicited the *type of professional* providing treatment, including psychiatrist, psychologist, psychiatric nurse, and social worker.

A broad range of detailed sociodemographic information was obtained for each ambulatory utilizer, including gender, age, marital status, years of education, and employment status. Because of the large number of utilizers in this survey, all findings are statistically significant (except as noted otherwise), even those reflecting relatively small group differences.

Results

Clinical Composition of Clientele

A clinical description of the population, utilizing both diagnosis and disability pension, is presented in table 1. Beginning with diagnoses (columns 1,2), 47 percent of utilizers have major and 53 percent have

TABLE 1
Composition of Adult (18+) Ambulatory Utilizers by Diagnosis, Disability Pension, and Clinical Group, 1986

Diagnosis[a]	Number 8,603	Percent 100.0	Number with disability pension 2,281 (26.5%)	PA-DIS[d] 4,559 (53%)	NAP[e] 4,044 (47%)
A. Major diagnoses					
Schizophrenia	2,923	33.9	1,539	64.1	—
Paranoid states	136	1.6	24	2.9	—
Affective disorders	752	8.8	148	16.5	—
Organic conditions	235	2.7	57	5.1	—
Subtotal	4,046	47.0	1,768	89.0	—
B. Nonmajor diagnoses					
Neuroses and psychosomatic disorders	1,648	19.2	154	3.3	36.9
Personality disorders	1,550	18.0	185	4.0	33.7
Adjustment and stress reactions	502	5.9	70	1.5	10.6
Childhood disturbances[b]	174	2.0	57	1.2	2.9
V-codes[c]	683	7.9	47	1.0	15.7
Subtotal	4,557	53.0	513	11.0	100.0

[a] For the ICD-9 codes in each diagnosis, see Appendix.
[b] Adults who were diagnosed in childhood.
[c] For conditions that are a focus of treatment but not attributable to a psychiatric disorder (e.g., marital or work problems).
[d] The PA-DIS clinical group consists primarily of individuals with major diagnoses (psychotic, affective) (n = 4,046) plus 513 persons with nonmajor diagnoses whose functional impairment due to mental condition qualifies them for disability pension.
[e] The NAP clinical group consists of individuals with nonmajor diagnoses and no disability pension.
Source: Levinson et al. 1996a.
Abbreviations: ICD-9, International Classification of Diseases-9; PA-DIS, *P*sychotic, *A*ffective–*DIS*ability pension; NAP, *N*euroses, *A*djustment, and *P*ersonality disorders.

nonmajor diagnoses. The largest group (column 2) consists of those with schizophrenic diagnoses, or 34 percent. The next two largest groups, comprising more than one-third (37.2 percent) of the clinic population, are those with nonmajor diagnoses, namely, neuroses and psychosomatic disorders (19.2 percent) and personality disorders (18 percent).

Data in column 3 reveal that, of all utilizers, more than one-quarter (26.5 percent) have functional impairments that qualify them for disability pensions. Of these, three-quarters (77.6 percent) have major diagnoses. Interestingly, of those with schizophrenic diagnoses, only half (1,539 out of 2,923) receive pensions, whereas almost one-quarter of those receiving disability pensions (22.6 percent) are diagnosed with nonmajor disorders. These findings support other research showing that diagnoses alone provide an incomplete clinical picture (e.g., Klerman et al. 1992; Mechanic, Angel, and Davies 1991). The 513 utilizers with nonmajor disorders who receive disability pensions are considered more seriously impaired and thus have been included with the more impaired utilizers (see column 4).

In brief, ambulatory utilizers comprise two clinical subgroups: more seriously impaired clients with major diagnoses and/or receiving disability pension (column 4) referred to as PA-DIS (*P*sychotic, *A*ffective-*DIS*ability pension); relatively less seriously impaired utilizers with nonmajor diagnoses and no disability pension (column 5), referred to as NAP (*N*euroses, *A*djustment, and *P*ersonality disorders). Using diagnoses, in order to measure the severity of symptoms, together with entitlement to disability pension, in order to measure the degree of functional impairment, produces the finding that more than half of the ambulatory population are seriously impaired (53 percent); of this group, almost two-thirds have diagnoses of schizophrenia.

Additional indicators relevant to clinical status are presented in table 2. As shown in section A, column 3, among PA-DIS utilizers, 83 percent received prior mental health treatment, compared with half of the NAP group (column 4). An interesting observation is that 3 percent of PA-DIS and 11 percent of NAP clients received private treatment prior to entering the public system. One-third of all utilizers had psychiatric hospitalization in the previous three years (section B, column 2), including more than half (53 percent) of PA-DIS and 11 percent of NAP clients. As shown in section C, a substantial proportion of PA-DIS clients (39 percent) were referred to ambulatory services from another mental health provider (e.g., hospital, day care, private). Fully one-quarter and one-third of PA-DIS and NAP clients, respectively, received referrals from general health providers.

In summary, these descriptive data of clinical status and prior treatment do not corroborate the view that outpatient psychiatric treatment in the public sector is “for the personal growth of relatively healthy individuals and not as medically necessary services” (Goldman and Taube 1988). The finding that over half of PA-DIS and one-tenth of NAP clients had been hospitalized previously further challenges that assump-

TABLE 2
Prior Mental Health Treatment and Referral Sources of Adult (18+) Ambulatory Utilizers by Clinical Group, 1986

Variable	Number 8,603	Percent 100.0	PA-DIS[e] 4,559 (53%)	NAP[f] 4,044 (47%)
A. Last type of treatment[a]				
Hospitalization	2,631[d]	33.0	55.0	9.0
Day hospital	208	3.0	3.0	1.0
Public ambulatory clinic	2,013	26.0	22.0	30.0
Private treatment	500	6.0	3.0	11.0
None	2,501	32.0	17.0	49.0
B. Any previous hospitalization[b]				
No	5,708	66.0	47.0	89.0
Yes	2,895	34.0	53.0	11.0
C. Sources of referral[c]				
Self	1,876	32.0	19.0	44.0
Family/friends	465	8.0	11.0	5.0
Mental health	1,306	23.0	39.0	9.0
General health	1,766	31.0	26.0	34.0
Welfare/education	374	6.0	5.0	8.0

[a] Prior to entering the clinic for the current episode.
[b] These data come from the case register.
[c] Excludes utilizers who were receiving treatment in the clinic for more than one year.
[d] Numbers do not add to total because of missing data.
[e] The PA-DIS clinical group consists primarily of individuals with major diagnoses (psychotic, affective) (n = 4,046), plus 513 persons with nonmajor diagnoses whose functional impairment due to mental condition qualifies them for disability pension.
[f] The NAP clinical group consists of individuals with nonmajor diagnoses and no disability pension.
Source: Levinson et al. 1996a.
Abbreviations: See table 1.

tion. Moreover, the fact that almost one-third were referred from general health providers supports the contention that ambulatory facilities treat many utilizers with serious mental health problems (Mechanic, Angel, and Davies 1991).

The sociodemographic composition of the two clinical subgroups (table 3) is substantially different. The more seriously impaired (PA-DIS) are older (38 percent vs. 27 percent 45 years and older), are more often unmarried (55 percent vs. 48 percent), and have substantially less education (40 percent vs. 60 percent with 12 or more years) than NAP

TABLE 3
Demographic Characteristics of Adult (18+)
Ambulatory Utilizers by Clinical Group, 1986

Variable	Number 8,603	Percent 100.0	PA-DIS[b] 4,559 (53%)	NAP[c] 4,044 (47%)
A. Gender				
Men	3,797[a]	44.0	48.0	40.0
Women	4,739	56.0	52.0	60.0
B. Age				
18–24	1,065	12.0	9.0	17.0
25–44	4,690	55.0	53.0	56.0
45–64	2,193	25.0	29.0	21.0
65+	655	8.0	9.0	6.0
C. Marital status				
Single	3,064	36.0	38.0	33.0
Married	4,148	48.0	45.0	52.0
Divorced/widowed	1,374	16.0	17.0	15.0
D. Education (years)				
Less than 8	938	12.0	15.0	8.0
8	1,201	15.0	18.0	11.0
9–11	1,927	24.0	27.0	21.0
12	2,006	25.0	23.0	28.0
More than 12	1,957	24.0	17.0	32.0
E. Employment status				
Working	3,349	39.0	24.0	57.0
In sheltered work	480	6.0	9.0	2.0
Student	479	6.0	3.0	9.0
Homemaker	1,087	13.0	14.0	11.0
Retired	451	5.0	6.0	4.0
Not working	2,614	31.0	44.0	17.0

[a] Numbers do not add to total because of missing data.
[b] The PA-DIS clinical group consists primarily of individuals with major diagnoses (psychotic, affective) (n = 4,046) plus 513 persons with nonmajor diagnoses whose functional impairment due to mental condition qualifies them for disability pension.
[c] The NAP clinical group consists of individuals with nonmajor diagnoses and no disability pension.
Source: Levinson et al. 1996a.
Abbreviations: See table 1.

utilizers. The largest difference is in employment status, as 44 percent of PA-DIS clients do not work, compared with the majority (57 percent) of NAP utilizers who do work. The one demographic similarity is that women predominate in both groups, comprising fully 60 percent of

NAP utilizers. There are few group differences regarding physical comorbidity, alcoholism, or prior suicide attempts (data not shown).

Content of Ambulatory Care

Type-of-treatment data, shown in table 4 (section A), reveal significant contrasts between the two clinical subgroups. During the survey week, 52 percent of PA-DIS users received medication treatment, a figure lower than expected and possibly the effect of a one-week survey. That is, common clinical practice is to provide medication treatment to the vast majority of PA-DIS clients. However, during the survey week, only half (52 percent) were scheduled for medication visits, whereas the remainder received other types of treatment, including one-quarter (24 percent) who received some form of individual therapy. One interpretation of this finding is that seriously impaired clients come to clinics not only for medication, but for other types of treatment as well. This contrasts with the vast majority of NAP clients (61 percent), whose visits consist primarily of individual therapy.

Frequency-of-treatment data further document considerable differences between the two clinical groups (section B). NAP clients (column 4) receive the most frequent treatment, with more than half (53 percent) visiting clinics once a week or more (one to eight days between visits). This is in contrast to one-third of the PA-DIS clients (35 percent) who receive treatment as frequently (column 3). An examination of the relation between frequency data and length of time in treatment (Levinson et al. 1996a) revealed similar patterns for both clinical groups, namely, less frequent visits the longer the time in treatment. However, regardless of the length of time in treatment, PA-DIS clients consistently received less frequent treatment than NAP clients.

Time-in-treatment comparisons (table 4, section C) reveal that, at the time of the survey, more than half of PA-DIS utilizers (53 percent) had been receiving care for two years or more. In comparison, NAP users had been in treatment for considerably shorter periods of time: 41 percent for less than half a year. However, more than a quarter (27 percent) of NAP utilizers had been treated for two years or more.

Interestingly, a related analysis about the types of treatment provided to utilizers at various points during the first two years reveals a consistent pattern: most NAP clients receive individual therapy, and most

TABLE 4
Treatment of Adult (18+) Ambulatory Utilizers
by Clinical Group, 1986

Variable	Number 8,603	Percent 100.0	PA-DIS[c] 4,559 (53%)	NAP[d] 4,044 (47%)
A. Type of treatment[a]				
Individual therapy	3,490	41.0	24.0	61.0
Couple/family therapy	489	6.0	4.0	8.0
Group therapy	672	8.0	8.0	8.0
Medication	2,281	27.0	52.0	13.0
Other	938	11.0	12.0	10.0
B. Frequency of treatment (days between visits)				
1–4	510	7.0	7.0	6.0
5–8	2,881	37.0	28.0	47.0
9–15	1,182	15.0	16.0	14.0
16–31	1,201	15.0	19.0	11.0
32–60	875	11.0	13.0	9.0
61+	1,188	15.0	17.0	13.0
C. Time in treatment[a] (months)				
1–3	1,742	21.0	16.0	27.0
4–6	919	11.0	8.0	14.0
7–24	2,272	27.0	23.0	32.0
25+	3,368	41.0	53.0	27.0
D. Type of professional[b]				
Psychiatrist	3,756	41.0	54.0	32.0
Psychologist	2,170	24.0	13.0	39.0
Psychiatric nurse	1,302	14.0	25.0	4.0
Social worker	1,998	22.0	19.0	28.0

[a] Numbers do not add to total because of missing data.

[b] Numbers add to more than total because utilizers could receive treatment from more than one professional.

[c] The PA-DIS clinical group consists primarily of individuals with major diagnoses (psychotic, affective) (n = 4,046) plus 513 persons with nonmajor diagnoses whose functional impairment due to mental condition qualifies them for disability pension.

[d] The NAP clinical group consists of individuals with nonmajor diagnoses (neuroses, personality disorders, etc.) who do not receive disability pension.

Source: Levinson et al. 1996a.

Abbreviations: See table 1.

PA-DIS clients receive medication treatment. An important finding, however, is that, within both clinical groups beyond two years of treatment, there appears to be a shift toward a decrease in individual therapy and an increase in medication treatment. More specifically, after two years in treatment, half of NAP clients (down from 64–68 percent) and 20 percent of PA-DIS clients (down from 27–30 percent) continue to receive individual therapy. Similarly, medication treatment increased to 21 percent (from 8–9 percent) and to 58 percent (from 43–46 percent) for NAP and PA-DIS clients, respectively (Levinson et al. 1996a, 30).

In brief, these data document that both clinical groups receive substantial ambulatory treatment, but with significant variations. The seriously impaired (PA-DIS) are more likely to receive medication treatment at less frequent intervals and for substantially longer periods of time. In contrast, NAP clients are more likely to receive individual therapy more frequently, but their treatment spans shorter periods of time.

Data on the *types of professionals* (section D) indicate more treatment differences between the two clinical subgroups. PA-DIS clients are most often treated by psychiatrists (54 percent) and nurses (25 percent), an expected finding based on the large proportion of medication visits each week. In contrast, almost 70 percent of NAP clients receive treatment from psychologists (39 percent) and social workers (28 percent). A striking similarity is that psychiatrists provide the most treatment to older clients in both groups (64 percent of PA-DIS and 52 percent of NAP clients). Also, psychologists and social workers provide the largest proportion of individual therapy to both clinical groups (32 and 33 percent to PA-DIS; 47 and 29 percent to NAP utilizers, respectively), whereas psychiatrists are less involved in this type of treatment (25 percent to PA-DIS; 19 percent to NAP) (Levinson et al. 1996a).

Correlation and Multivariate Analyses

To examine more closely the relation between clinical status and treatment, we did bivariate correlations (table 5) as well as multivariate analyses. Because of the large number of utilizers ($N = 8{,}603$), most correlations (except three) are statistically significant ($p \leq .000$), although modest in size. Zero-order correlations between the type, frequency, and length of time in treatment are small (coefficients $<.22$), an indication that they are measuring different dimensions of care.

Beginning with type of treatment, there are relatively strong associations with clinical status in the expected directions; medication treatment is most strongly associated with more impairment (PA-DIS) ($-.45$), whereas individual therapy is most strongly associated with less im-

TABLE 5

Zero-Order Correlation Coefficients for Study Variables

Variable	1	2	3	4	5	6	7	8	9	10
A. Demographic										
1. Age	—									
2. Education	−.22	—								
3. Gender	.06	.08	—							
4. Marital status	.31	−.14	NS	—						
5. Work status	−.13	.30	NS	.03**	—					
B. Clinical status										
6. Clinical group	−.14	.25	.09	.07	.35	—				
7. Prior treatment	−.05	.08	.03**	.08	.14	.36	—			
C. Treatment										
8. Medication	.20	−.24	−.10	.06	−.21	−.45	−.20	—		
9. Individual	−.20	.24	.14	−.09	.22	.42	.22	−.62	—	
10. Frequency	.20	−.19	−.05	.14	−.09	−.14	−.07	.27	−.16	—
11. Length of time	.18	−.16	NS	.03*	−.13	−.27	−.20	.23	−.20	.15

Note: All correlations are significant ($p \leq .000$) except as indicated by *($p = .05$) or **($p = .01$).

Coding: Age and education are categorical variables (see table 3).

Gender	0 = Male	1 = Female
Marital status	0 = Not married	1 = Married
Work status	0 = Not working	1 = Working
Clinical group	0 = PA-DIS	1 = NAP
Prior treatment	0 = Prior treatment	1 = No prior treatment
Medication treatment	0 = No	1 = Yes
Individual therapy	0 = No	1 = Yes

Frequency and length of time are continuous variables in days and months, respectively (see table 4).

paired status (.42). Sociodemographically, type of treatment is associated most strongly with education; less educated clients are somewhat more likely to receive medication treatment (−.24), whereas more education is associated with individual therapy (.24).

Regarding frequency of treatment, the correlation with clinical status is surprisingly small (−.14), but in the expected direction of less frequent treatment for more impaired utilizers. This is consistent with less frequent visits for medication treatment ($r = .27$) more often provided to PA-DIS clients (−.45). In contrast, length of time in treatment has a stronger association with clinical status (−.27), consistent with the previous finding that 53 percent of seriously impaired clients (PA-DIS) are in treatment more than two years, compared with 27 percent of NAP clients. Correlations between frequency of treatment and sociodemographics suggest that younger (.20), more educated (−.19) clients receive more frequent treatment. In a related analysis (data not shown), significant interactions reveal that frequency of treatment tended to be lower for both clinical groups the longer the time in treatment ($f = 4.53, p < .0035$); however, more impaired PA-DIS clients consistently receive less frequent treatment than NAP clients, regardless of type and length of time in treatment ($f = 5.49, p < .0009$).

Stepwise regressions and analyses of variance are consistent with previous descriptive findings. The amount of explained variance is largest for type of treatment (20 percent for individual, 21 percent for medication), with clinical status the strongest predictor. That is, NAP status most strongly predicts individual therapy, whereas PA-DIS status accounts for medication treatment. In addition, being female and being younger are significant predictors of individual therapy, whereas older age significantly predicts medication treatment. Regarding the amount of explained variance for length of time in treatment (11 percent), most is accounted for by more impaired clinical status and older age. Finally, younger age and more education are the most significant predictors of frequency of treatment. The relatively small amount of explained variance for frequency (8 percent) may be a function of the one-week sampling design, which tends to favor more frequent utilizers and to be somewhat biased against those with sporadic or low rates of service use.

In summary, we expected that mental health need, as reflected in severity of symptoms and functional impairment, would strongly influence treatment decisions. The data only partially support this hypothesis. Clearly, clinical status is the strongest determinant of the type of treatment provided to ambulatory clients (medication, individual therapy), but gender and age are important predictors as well. In contrast, clinical status is relatively less important for explaining length of time in treatment and makes virtually no contribution to explaining the frequency of treatment where more education and younger age are the most important factors. We discuss the implications of these findings in the following section.

Discussion

The Israeli survey provides, for the first time, detailed data on mental health treatment for an entire population of ambulatory utilizers. The findings are particularly compelling because, in a system with universal coverage, treatment decisions (i.e., whom to treat with what types of treatment for what length of time) more likely reflect clinical judgments and professional ideologies than financial incentives or reimbursement disincentives. Additionally, the survey's comprehensiveness, plus the capacity to link detailed diagnostic and treatment data for over 8,500 clients, represents significant methodological advantages.

However, we begin with a note of caution concerning the relevance of Israeli data to the United States. Although it is possible that ambulatory treatment in Israel differs somewhat from that in the United States, such differences are not considered significant enough to affect the comparisons. The systems share many organizational similarities, and the range of services provided in Israel's clinics closely resembles that offered in U.S. community mental health centers (Feinson and Popper 1995). Despite the similarities, these findings and relevant policy implications should be carefully applied.

Composition of Clientele

Empirical verification of the clinical and demographic heterogeneity of ambulatory clients is a major contribution of this study. Ambulatory utilizers encompass a broad cross-section of the general population as well as the full range of psychiatric diagnoses. (See Feinson, Popper and Handelsman 1992 for population rates.) In this regard, Israeli utilizers may be more broadly representative of the population than are public ambulatory utilizers in the United States (e.g., a large proportion of whom are Medicaid clients). Nevertheless, the findings clearly provide empirical support for the observation that outpatient clinics perform a "comprehensive service mission" in providing services to a clinically heterogeneous clientele (Mechanic and Rochefort 1992).

A second major finding is the verification of the substantial and diverse mental health needs of ambulatory clients. More than one-half of all utilizers are seriously impaired (PA-DIS), and one-third have schizophrenic diagnoses. The degree and extent of mental health needs are corroborated in the finding that more than half of the seriously impaired had been previously hospitalized, as had 11 percent of less impaired NAP clients. Although further disaggregation of these subgroups is necessary, these data document that ambulatory clients represent a clinically diverse population of "individuals with different disorders and needs, varying types of disabilities and capacities, and at different points in their illness trajectories" (Mechanic 1987). Clearly, carefully designed policies and systems of services responsive to substantially differing treatment needs require greater understanding of variations among ambulatory subgroups, as the following discussion highlights.

Myth #1: All Use Is Alike

The assumption that "all use is alike" is refuted by these data. Varying patterns occur not only between the two clinical subgroups but also within each of the groups. Treatment of more seriously impaired clients (PA-DIS) is substantively and quantitatively different from that provided to relatively less impaired clients (NAP). PA-DIS utilizers generally receive medication treatment in addition to other types of treatment. The largest proportion of NAP clients receive primarily individual therapy. However, even among NAP clients, 40 percent received treatment other than individual therapy during the survey week. These findings provide empirical support for observations drawn from U.S. national survey data (using respondents' self-reports) that "all mental health care is not psychotherapy" (Olfson and Pincus 1994a).

Moreover, there is variation in the type of treatment according to length of time in treatment. Among clients in treatment more than two years, a smaller proportion receive individual therapy, compared with those in treatment for less than two years. A reverse pattern is found with the provision of medication treatment (i.e., a larger proportion receive it after two years than were given it previously). Varying patterns also are shown by the types of professionals providing treatment. Almost three-quarters of PA-DIS utilizers receive treatment from psychiatrists and psychiatric nurses, compared with NAP clients, who receive substantially more treatment from psychologists. Thus, these data not only refute the perception that all ambulatory use is alike; they also persuasively document substantial variations in type, frequency, and length of time in treatment between and within clinical subgroups.

With regard to professional practice patterns, the finding that Israeli psychiatrists treat more seriously impaired clients replicates U.S. data (Rogers et al. 1993; Flaskerud and Hu 1992; Windle et al. 1988; Taube, Burns, and Kessler 1980). In an examination of private sector practice patterns, Taube, Burns, and Kessler (1980) suggested that insurance reimbursement mechanisms may be responsible for psychiatrists, rather than psychologists, treating more seriously ill clients. However, a similar finding in the Israeli public system, where economic incentives are minimal, suggests an alternative explanation. Namely, psychiatrists provide services for which they are qualified, including evaluating and monitoring patients for medication and making differential diagnoses. "Since these services may be more common for severely impaired patients, psychiatrists would serve such a clientele disproportionately . . . ." (Windle et al. 1988). The provision of individual therapy primarily by Israeli psychologists and social workers, and to a lesser extent by psychiatrists, partially supports this explanation. Furthermore, an implication of the findings is that factors other than economic, such as practitioner training, orientation, and ideology, influence professional practice patterns.

Myth #2: Any Use Leads to High Use

Although "high use" is a vague concept, Israeli data refute the assumption that any use of public ambulatory services leads to high use. If high use is defined as long-term treatment, the findings indicate substantial variations according to clinical status. More than one-half of the seriously impaired (PA-DIS) had been receiving treatment for more than two years, compared with one-quarter of the less impaired (NAP). Although we have not analyzed the relation between inpatient and ambulatory treatment, a reasonable explanation is that longer outpatient treatment for a substantial proportion of PA-DIS clients may actually contribute to "lower" inpatient use. Recall that more than half of the PA-DIS clients (55 percent) had been hospitalized before entering ambulatory clinics.

If "high use" is conceptualized as frequent treatment, again, the descriptive findings indicate that frequency varies according to clinical status and type of treatment. The clearest trend is less frequent visits for medication treatment ($r = .27$) provided primarily to seriously impaired clients. Visits also are less frequent the longer the time in treatment for both clinical groups. Age and education, rather than clinical status, are the strongest determinants of frequency, with more frequent visits provided to those who are younger and more educated.

In a related analysis, Levinson et al. (1996b, figure 2) found that the median number of annual visits for both PA-DIS and NAP clients was five and that approximately 65 percent of both groups make 10 visits or less. Thus, for the majority of ambulatory utilizers, regardless of clinical status, treatment ends after a small number of visits (10 or fewer), a finding consistent with U.S. trends (e.g., Narrow et al. 1993; Taube et al. 1988).

In brief, U.S. mental health policies, both public and private, consistently place greater limits on ambulatory mental health treatment than on medical care visits (Freiman, Cunningham, and Cornelius 1994). Such limitations reflect, in part, an underlying premise that "any use leads to high use" and should be reconsidered in light of empirical evidence from a system with no special limits. Clearly, frequent and long-term treatment, especially for "relatively healthy individuals," is not supported by these data, as the following discussion reveals.

Myth #3: All High Use Is Discretionary and Therefore Excessive

Closely related to the second misconception is the controversial issue of discretionary and excessive use. The term "discretionary" implies that treatment is optional, not medically necessary, and thus, by definition, excessive. However, as Landerman et al. (1994) point out, this definition incorporates an economic concept of need that differs from a medical or public health perspective. Israeli data clearly challenge the notion of discretionary or excessive treatment. To the contrary, the findings suggest a plausible relation between the clinical status of utilizers and the treatments they receive. Ten or fewer visits for 65 percent of utilizers can hardly be considered excessive. Moreover, more seriously impaired clients are provided with longer-term medication treatments at less frequent intervals. Less seriously impaired clients receive individual therapy more frequently; however, this treatment is provided for relatively shorter periods of time. None of these patterns support assumptions of discretionary or excessive treatment being provided in ambulatory facilities.

Conclusion

Although empirical evidence from Israel provides important insights into the composition of clients and the content of care, it is necessary to address a problematic aspect of these findings, namely, the relatively small amount of total variance explained by the regression models (7 to 21 percent). In the absence of financial considerations and with the availability of detailed diagnostic and treatment data, we expected that clinical status would be a more important predictor of treatment, that it would explain a larger proportion of the variance. This was based on the understanding that when utilizers enter the system with emotional or psychological symptoms, clinicians assess the problem and provide care in direct response to the complaints (Mechanic, Angel, and Davies 1992). The finding that 20 percent or less of the treatment variance was explained suggests, among other possibilities, that the relation between clinical diagnosis and subsequent processes of treatment is complex and not fully captured by these data.

More specifically, the Israeli survey provides compelling evidence that mental health treatment patterns are not explained by a single variable (clinical status) related to professional standards of severity of impairment. Undoubtedly, other factors are operating in treatment processes that are not a part of this cross-sectional survey and are perhaps more amenable to qualitative research (Mechanic 1979). These include professional ideology, compliance of utilizers, and the dynamic, personal interaction between professionals and clients. In the absence of such studies, it is conceivable that additional analyses, which include a further disaggregation of the two clinical groups, would undoubtedly add to our understanding. For example, the more seriously impaired group is a heterogeneous one, as reflected in the finding that one-quarter were working and almost half had never been previously hospitalized. Examination of this group according to current work status, prior hospitalization, and length of time with a diagnosis (recent versus long term) might further clarify patterns of ambulatory care.

Finally, as Mechanic, Angel, and Davies (1991) cogently argue on a related issue, clinicians' perception of the risk associated with symptoms may be more influential than diagnoses in treatment decisions (i.e., specifically, referrals to specialty mental health services). Professionals' perceptions of the seriousness of the condition or the likelihood of success are not directly addressed by these data. However, an indication of professionals' decisions reflecting the prospects of success is partially supported by the finding that more frequent treatment is provided to younger and more educated clients, regardless of clinical group status.

These findings, however, do provide cogent support for the view that diagnosis is a rough index of illness severity and does not fully explain subsequent treatment decisions. As Klerman and his colleagues (1992) explained:

> Some individuals may have "severe diagnoses," but it may be misleading to categorize them as severely mentally ill because their course of illness is not prolonged or seriously impairing. On the other hand, many individuals, such as those with severe personality disorders . . . may run highly incapacitating courses of illness.

A further implication of this study for policy makers in both the United States and Israel is that there is little empirical evidence to support special restrictions for ambulatory mental health treatment. All use is not alike, and any use does not lead to high use. Rather, ambulatory utilizers are clinically heterogeneous, and this becomes apparent in the diversity of treatment patterns provided in the Israeli system. Continuing concerns by U.S. policy makers about uncontrollable use of ambulatory services with expanded mental health coverage are not corroborated by data from a system with universal coverage. Clearly, mental health policies should reflect cogent empirical evidence rather than rhetoric, misconceptions, and untested assumptions, as has occurred so often in the past. The policy insights derived from Israel's mental health system provide an opportunity for progress in this direction.

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Appendix

Psychiatric Diagnoses-ICD-9

Major diagnoses	
Schizophrenia	295, 299, 298.1, 298.2, 298.8, 298.9
Paranoid states	297, 298.3, 298.4
Affective disorders	296, 298.0
Organic conditions	290, 293, 294, 310, 345
Nonmajor diagnoses	
Neuroses and psychosomatic disorders	300, 306, 311
Personality disorders	301, 302
Adjustment and stress reactions	308, 309, 316
Childhood disturbances	307, 312, 313, 314, 315
V-codes	V7100, V7040, V7010, V6520, V7109