

Use of Psychiatric Facilities in the Upper Bavarian Follow-Up Field Study

Ingeborg Meller¹, Manfred M. Fichter^{1,3}, and Siegfried Weyerer²

¹ Abteilung Psychiatrie, Universität München, Nußbaumstrasse 7, D-8000 München 2,

² Zentralinstitut für Seelische Gesundheit, D-6800 Mannheim J5

³ Medizinisch-Psychosomatische Klinik „Roseneck“, D-8210 Prien am Chiemsee, Federal Republic of Germany

Summary. Utilization of psychiatric facilities by non-institutionalized persons aged 20 years and older was examined. Data were based on the representative community sample of the Upper Bavarian Follow-up Field Study, the original sample size being 1668 persons. In the 5-year follow-up 1384 (83.0%) subjects were interviewed; 80 subjects (4.8%) had died meanwhile. The follow-up sample contained 44 people who refused the first interview and agreed to participate at the follow-up. The 5-year prevalence of mental illness according to the definition used was 31.4%. The rate for psychiatric treatment (in- or outpatient) was 8.5%. We analyzed which people with mental illness seek help from professionals in psychiatric hospitals, from psychiatrists in private practices and psychosocial services, according to type of diagnosis, course of disorder (incidence, remission, chronic), sociodemographic data and psychosocial factors.

Key words: Psychiatric epidemiology – Mental disorders – Illness behavior – Help-seeking behavior

Introduction

The distribution of patients undergoing psychiatric treatment does not enable conclusions to be drawn as far as the distribution of the mentally ill among the general population is concerned. The use of psychiatric facilities implies the readiness of the mentally disturbed individual to adopt the “sick role” (Parson 1951), one of the stages of illness behavior, which by definition refers to the varying perceptions, thoughts, feelings and acts affecting the personal and social meaning of illness and its consequences (Mechanic 1977; Zola 1964; Mc Kinley 1972). In several industrial nations approximately 2% of those in the general population, who were over 15 years of age, undergo psychiatric treatment during the course of 1 year (Dilling and Weyerer 1978; Wing et al. 1967; Weissman et al. 1981). The true prevalence is much higher than the treated prevalence (Katschnig and Strotzka 1977; Lauter 1977; Dilling

and Weyerer 1978). According to Dohrenwend and Dohrenwend (1969) the estimated average true prevalence rate of mental illness on the basis of 33 field studies conducted since 1950 was 18%. Only field studies in representative community samples can determine the true prevalence in the general population. For the planning of mental health service facilities and the determination of risk groups field studies are necessary. However, cross-sectional field studies do not allow the determination of the incidence of mental illness and treatment, longitudinal studies dealing with treated and untreated cases are necessary. For the analysis of the course of illness and the determination of the true incidence of illness or treatment only a few psychiatric epidemiological studies have been conducted in the Federal Republic of Germany and no extensive prevalence study of the population has been carried out since those conducted by Brugger (1931, 1933, 1937). In our present study, a follow-up epidemiological study on the general population, we looked for some aspects of illness behavior, those seeking help from professionals, with respect to psychiatric hospital, psychiatric hospitals, psychiatrists in private practices, and psychosocial services. The help-seeking behavior with respect to professionals was studied in cases identified as mentally ill in a representative community sample. In this epidemiological study we determined the 5-year prevalence and incidence of mental illness and of professional treatment. Within the sample we compared mentally ill help-seekers with mentally ill nonhelp-seekers according to the type of diagnosis, course of disorders (incidence, remission, chronic), sociodemographic data, psychosocial factors such as insight into illness, suffering due to illness, disturbance in family life, limitation of working capacity and social activity.

Methods

Our data were based on a follow-up epidemiological study on a general population in three differently structured communities in Upper Bavaria – a rural community with 1973 residents (December 31, 1974), most people occupied in agriculture and forestry; an industrial community with 12655 residents (December 31, 1974), employees in production processes; and a service community with 14418 residents (De-

Offprint requests to: I. Meller at the above address

This study was supported by the German Research Foundation (Deutsche Forschungsgemeinschaft) within the research division 116 ‘Psychiatric Epidemiology’

cember 31, 1974), civil servants, administrative employees and retired persons. In the first cross-section study (1975–1977) conducted by Dilling and Weyerer (1980), out of a representative random sample of 1668 persons aged 15 years and older, chosen from the resident register, 1536 subjects could be interviewed. The refusal rate of the first cross-section study was 7.9% ($n = 132$). Of these subjects 1384 (83.0%) of the original sample of 1668 subjects were interviewed in the Upper Bavarian Follow-up Field Study. 44 had refused to participate in the first cross-section by Dilling and Weyerer (1980), 4.8% ($n = 80$ out of 1668) had died in the interval, and 12.2% ($n = 204$ out of 1668) refused or could not be traced. In both studies the subjects were interviewed in their homes by research psychiatrists of the University of Munich. The semistructured Clinical Psychiatric Interview by Goldberg et al. (1970), which was especially designed for the use in community studies to assess psychopathology, was used and questions as to case history, present health status, familial and social case history, alcoholism, the use of medical and psychosocial services, residential, working, and leisure situations were added. Self-rating scales such as the complaint list ("Beschwerdenliste") by von Zerßen (1976) assessing somatic, psychological and psychophysiological symptoms, symptom scales for demoralization of the PERI by Dohrenwend et al. (1980) were employed. Psychiatric diagnosis was classified according to ICD 8th and 9th revision and DSM III (American Psychiatric Association 1980). The necessity for different types of treatment, such as mental hospitals, outpatient psychiatric treatment, outpatient medical treatment, were noted. The severity of the illnesses diagnosed was evaluated on a scale of 0 to 4 (0 = no impairment; 1 = slight impairment; no medical intervention required; 2 = marked impairment; usually requiring general medical treatment; 3 = very distinct impairment, usually requiring of outpatient psychiatric treatment; 4 = severe impairment, generally requiring inpatient psychiatric treatment). The definition of a case was fulfilled if the severity of the illness diagnosed amounted to a severity of 2. The psychiatric facilities of treatment included psychiatrists in private practices, psychotherapists, psychosocial services, psychiatric and psychotherapeutic hospitals, which were summarized as psychiatric professional treatment. Social class was determined according to Moore and Kleining (1968), whereby occupation is the sole class criterion (class I

and II: upper class, upper middle class – professional occupation and management; class III: lower middle class – skilled occupation; class IV: upper lower class – partly skilled occupation; class V: lower lower class – unskilled occupation).

Results

True Cases and Treated Cases

Of the 1384 subjects 287 (20.7%) interviewed in the follow-up study showed a mental disorder with a severity of at least 2 at the 7 day cross-section, fulfilling our case definition. Some

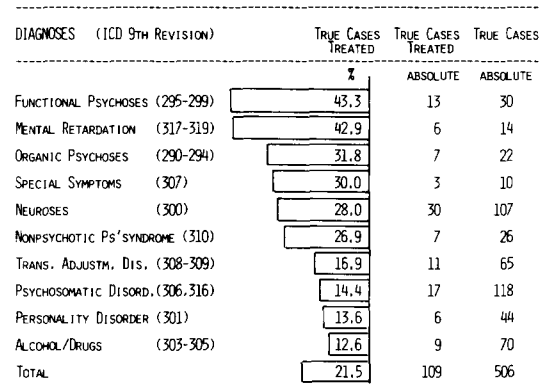


Fig. 1. Percentage of true cases treated during 5-year interval according to diagnoses

Table 2. Social characteristics of true and treated rates of psychiatric disorders (5-year interval)

	<i>n</i>	True (%)	Treated rate (%)	Percentage of true rate treated (%)	
Type of community					
Rural	265	30.2	5.3	15.4	$\chi^2 = 2.9$
Service	571	32.2	7.4	18.0	2 <i>df</i>
Industrial	548	31.2	8.8	23.7	n.s.
Sex					
Male	623	30.5	7.3	19.4	$\chi^2 = 0.035$
Female	761	32.2	9.5	20.1	1 <i>df</i>
					n.s.
Age (years)					
20–44	637	30.8	8.8	22.8	$\chi^2 = 2.2$
45–64	434	35.3	9.9	18.5	2 <i>df</i>
65 +	313	27.5	6.2	15.1	n.s.
Marital status					
Single	241	35.7	10.5	23.8	$\chi^2 = 3.6$
Married	899	28.7	7.4	18.4	3 <i>df</i>
Divorced	61	47.6	15.8	27.6	n.s.
Widowed	183	33.9	8.6	16.1	
Social class					
I + II	168	21.4	5.1	14.3	$\chi^2 = 1.69$
III	575	28.2	8.2	22.4	3 <i>df</i>
IV	463	33.9	8.9	17.9	n.s.
V	170	47.1	12.0	20.5	

Table 1. Professional treatment for psychiatric disorders during the past 5 years; $n = 1384$ interviewed at follow-up study

	Absolute	Percentage of $n = 1384$
Outpatient		
Private Psychiatrists	91	7.5
Psychotherapists	5	0.4
Psychosocial service	3	0.2
Self-help group	1	0.1
Inpatient		
Psychiatric hospital	11	0.9
Psychotherapeutic hospital	2	0.2
Other professional	14	1.1
Any of the above	104	8.5

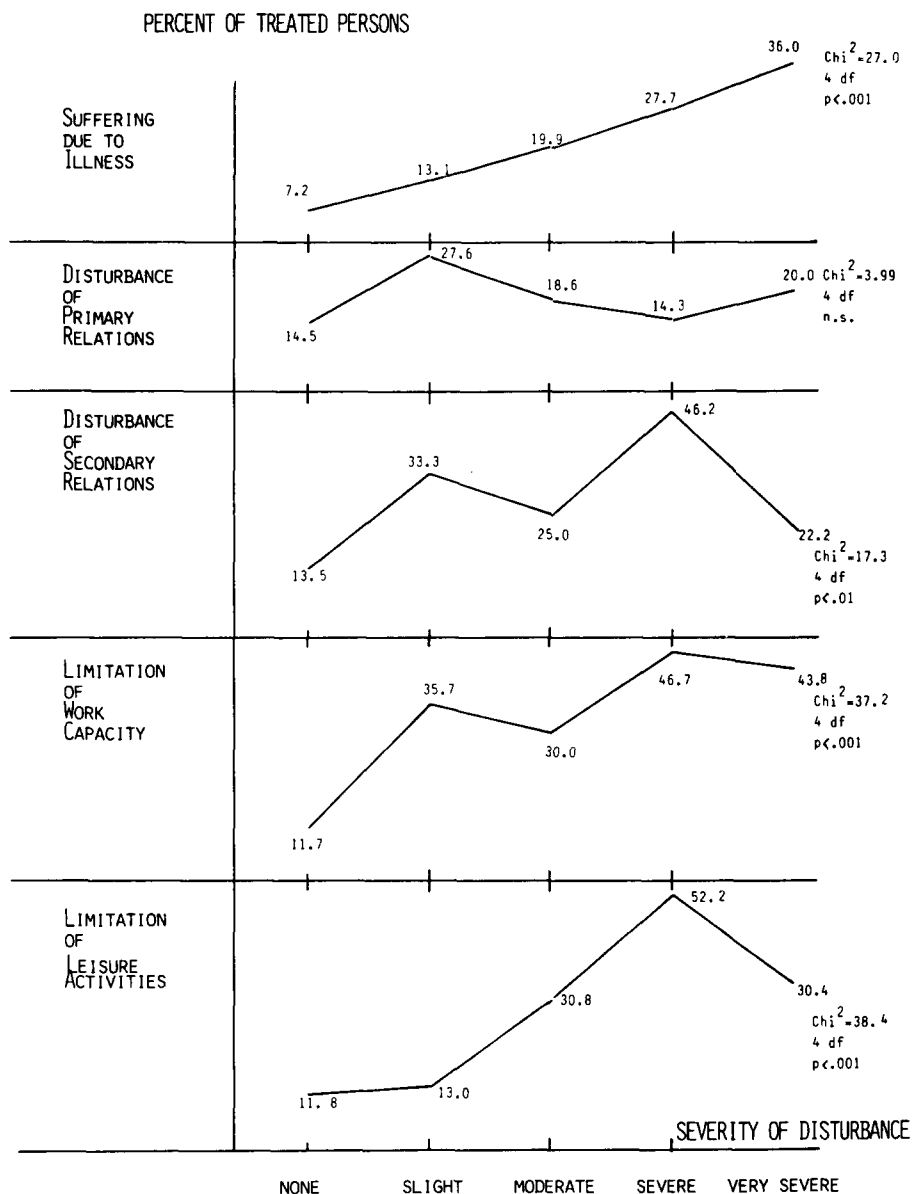


Fig. 2. Psychosocial factors influencing help-seeking behavior of the mentally ill

17.6% showed a mental disorder of a severity of 1, which required no medical intervention.

The 5-year rate of mental illness with a severity of at least 2 was 31.4% ($n = 435$ out of 1384). The 5-year rate of mental illness with a severity of 1 was 12.3% ($n = 95$ male, 75 female), however, the rate of persons, who received psychiatric treatment during these 5 years, was only 8.5%. The treated subjects consulted various facilities during the 5 years, as shown in Table 1.

The majority were outpatients, e.g. 91 persons (7.5%) consulted a psychiatrist in private practice and only 11 persons were admitted as inpatients to psychiatric hospitals.

Psychiatric Treatment and Diagnosis

The percentage of true cases treated by any of the facilities mentioned, differed according to diagnosis (Fig. 1).

The functional psychoses demonstrated with 43.3% the highest percentage of treated cases, followed by the mentally retarded with 42.9%. Subjects with alcohol and drug addiction

and personality disorders used professional institutions very rarely. Most true cases in need of treatment were found in the diagnostic group of psychosomatic disorders ($n = 118$) followed by neuroses ($n = 107$).

Psychiatric Treatment and Sociodemographic Status

In Table 2 the social characteristics of true and treated rates of mental disorders are shown. Although the true rate of psychiatric disorders was almost identical in the three communities, the treatment rate was lower in the rural community and the industrial community had the highest percentage of treated rates ($\chi^2 = 2.9$, 2 df; n.s.). There were slight differences due to sex in the true rate as well as in the treated rate ($\chi^2 = 0.035$, 1 df; n.s.). The older people (over 65 years of age) were treated less often than the younger ones ($\chi^2 = 2.2$, 2 df; n.s.). Marital status was of importance. Divorced subjects had the highest true prevalence rate (47.6%) and the highest treated rate (15.8%). Married subjects had the least prevalence of mental illness, widowed subjects the least prevalence of cases

treated ($\chi^2 = 3.55$, 3 *df*; n.s.). According to social class the highest true prevalence rate was found in the lowest class V with 47.1% ($\chi^2 = 1.77$; 3 *df*; n.s.).

Psychiatric Treatment and Psychosocial Factors

It was attempted to determine certain psychosocial factors influencing help-seeking behavior from professionals (Fig. 2).

Persons who were rated as mentally ill by the interviewing psychiatrist at the follow-up interview and as having a sufficient degree of insight into illness were asked for different psychosocial factors influencing help-seeking behavior from professionals. Cases with a higher degree of suffering due to illness made more use of psychiatric facilities ($\chi^2 = 27.0$; 4 *df*; $P < 0.001$). Cases with disturbances in secondary relations (relations to neighbours, friends, colleagues) ($\chi^2 = 17.3$; 4 *df*; $P < 0.01$), limitation of work capacity ($\chi^2 = 37.2$; 4 *df*; $P < 0.001$), and social activities ($\chi^2 = 38.4$; 4 *df*; $P < 0.001$) made more use of psychiatric facilities, whereas cases with disturbances in primary relations (family) made no significant use of psychiatric facilities ($\chi^2 = 3.99$; 4 *df*; n.s.).

Psychiatric Treatment and Medical Knowledge

Another important factor influencing help-seeking behavior from professionals was the knowledge about the availability of professional facilities.

In the rural community all facilities asked about (psychiatrist in private practice, psychotherapist, counselling services and self-help group) were less known. The elderly people and members of social class V were less informed and there was almost no difference due to sex. The best known psychosocial institution was the psychiatrist in private practice.

Table 3. Social characteristics of persons informed about the availability of psychosocial services

	Percentage of persons informed				
	<i>n</i>	Psychiatrist	Counselling service	Psychologist Ps' therapist	Self-help organization
Type of community					
Rural	261	59.0	36.4	19.9	15.3
Industrial	520	64.6	53.7	27.0	52.6
Service	530	74.5	46.6	27.2	26.5
Sex					
Male	591	62.8	48.7	27.1	33.8
Female	719	71.3	46.1	24.5	35.3
Age (years)					
20-44	610	66.4	49.4	30.1	43.1
45-64	410	73.9	52.9	25.4	34.1
65 +	291	60.8	35.1	17.2	17.9
Social class					
I + II	161	76.4	54.0	41.6	45.3
III	543	70.2	48.6	24.7	38.7
IV	441	66.0	48.0	23.9	31.1
V	162	53.7	34.0	17.9	17.9

Table 4. Percentage of persons under professional treatment in the past 5 years – due to course of illness

	Percentage of treated persons according to		
	Incidence	Remission	Chronic
Type of community			
Rural	12.5 (4/32)	12.5 (1/08)	12.0 (3/25)
Service	14.3 (10/70)	13.0 (7/54)	22.5 (9/40)
Industrial	14.8 (8/54)	11.3 (6/53)	36.7 (18/49)
Sex			
Male	14.5 (12/83)	17.5 (7/40)	21.6 (8/37)
Female	13.7 (10/73)	9.3 (7/75)	28.6 (22/77)
Age (years)			
20-44	12.3 (10/81)	12.8 (5/39)	36.8 (14/38)
45-64	19.1 (9/47)	17.8 (8/45)	20.9 (9/43)
65 +	10.7 (3/28)	3.2 (1/31)	21.2 (7/33)
Social class			
Upper + middle class	14.1 (11/78)	4.4 (2/45)	38.6 (17/44)
Lower classes	14.1 (11/78)	17.1 (12/70)	18.6 (13/70)

Table 5. Previous psychiatric treatment (as determined in cross-section I) and professional treatment the following 5-year interval

Professional treatment (life time) in the first cross-section	Percentage of professional treatment in the past 5 years	
	<i>n</i>	(%)
None	1197	89.3
Out-patient only	112	8.4
In-patient only	7	0.5
In- and out-patient	24	1.8
Total	1340	100.0

Psychiatric Treatment and Course of Illness

Out of 1340 subjects who were interviewed twice, three groups due to the course of illness were defined: a chronic group, subjects who were diagnosed as mentally ill at first cross-section and at 5-year follow-up interview; an incidence group consisted of subjects who had been healthy in the first cross-section and had been diagnosed as mentally ill at follow-up study; and a remission group of subjects with a mental disorder in the first assessment and who appeared mentally healthy at the follow-up interview. As expected, the highest percentage (25.9%) of professional treatment in the past 5 years was found for the chronic group ($\chi^2 = 87.9$; 2 *df*; $P < 0.01$); 14.1% of the incidence group and 11.3% of the remission group had received treatment in the 5-year interval.

Table 4 shows the percentage of treated persons according to course of illness related to sociodemographic status. In the rural community cases of illness were treated to a lesser extent in the incidence and chronic group. In the industrial community 36.7% of the cases with a chronic course of mental illness had been treated in the 5-year interval, which was the highest treatment rate. Due to sex, in the remission group males dominated in the rate of treatment, whereas in the chronic

group the females were treated slightly more. The elderly people consulted a mental health professional less frequently in any group of course of illness. According to social class, the upper and middle classes in the chronic group were treated to a higher extent, whereas the lower classes dominated in the remission group.

Table 5 shows the percentage of treated subjects during the 5-year period in relation to previous treatment status as determined in the original sample. The percentage of the former untreated subjects treated for the first time during the 5-year interval was 4.6%. A total of 42.9% of the former psychiatric inpatient and 23.2% of the former psychiatric outpatients received professional treatment during the 5 years. If we consider the psychiatric status as determined in cross-section I, the 5-year treatment rate was 17.9% for the cases defined as mentally ill in cross-section I much higher than for the healthy ones at cross-section I with 4.2%.

Discussion

Seeking help from professionals is a complicated process, depending on and influenced by sociodemographic data, family attitude, social network, personality factors, sensibility and awareness of symptoms and conflicts, advantages through the illness, medical knowledge, the knowledge on the availability of institutions, attitude towards medical services and coping behavior, whereas help-seeking behavior is perhaps one kind of coping behavior. McKinley (1972) reviewed illness behavior studies, where different aspects dominated such as economic, sociodemographic, geographic, sociopsychological, sociocultural and organizational aspects. Only field studies which take treated and untreated cases into account can thus give a realistic picture of the illness behavior of a population. Link and Dohrenwend (1980) found only 13 field studies from which untreated cases were mentioned separately from cases treated by mental health professionals. The comparison of different epidemiological studies is complicated by the use of different, sometimes uncomparable, diagnostic or case identification criteria, and due to different cultures with different medical care systems and different attitudes towards mental illness and its treatment. Untreated cases are usually overlooked in health surveys based on samples of treated cases. Furthermore, one must take into account that help-seeking from paramedical systems is neglected. Our field study is the first extensive psychiatric field survey conducted in the Federal Republic of Germany since those carried out by Brugger between the two World Wars. Different from many current psychiatric epidemiological studies interviews in our present study were conducted by psychiatrically trained medical doctors only. We found a 7-day prevalence at cross-section II of 20.7% for subjects aged 20 and older; the 5-year prevalence was 31.4% and 8.5% of the whole sample who had been treated by professional institutions over the past 5 years. A total of 21.5% of all true cases with a degree of severity of at least 2 received professional treatment. Hagnell (1966) found a treatment rate of 5.4% in 2283 subjects. Srole et al. (1962) found a treatment rate of 13.4% in 1660 subjects. Link and Dohrenwend (1980) reported in their review that the average percentage of true cases receiving treatment out of 11 studies providing the necessary information was 26.7%, and according to their review the average percentage of true cases of psychotic disorders ever receiving treatment was 59.7%,

based on evidence from 7 studies. Shapiro et al. (1984) found the highest proportions making a mental health visit were for schizophrenia and affective disorders in his New Haven study. Several others have reported a higher propensity for women than for men to seek help (Kessler 1979; Phillips et al. 1969; Dohrenwend and Dohrenwend 1976; Veroff et al. 1981), we found only very slight differences in psychiatric treatment due to sex, which confirmed the results of Gove and Swafford (1981) and others. Shapiro et al. (1984) described that women with a recent disorder according to the Diagnostic Interview Schedule seek care for their mental or emotional problems more frequently than men, however, men who made such visits were more likely to be seen by a mental health specialist than was the case for women. In New Haven, three to four times as many men visited a speciality sector for mental or emotional problems than visited a general medical practitioner (10.8% versus 2.9%), and the proportions were closer for women (15.8% versus 10.6%). Maybe there has been a change over time, as mainly in recent studies sex differences in treatment rate have been minor. In our study, the rural population, the aged, the widowed and married had the lowest percentage rates of treatment. These results confirm the data of Veroff et al. (1981) and Shapiro et al. (1984) with respect to age: at ages 65 years and over a visit to the mental health speciality sector was rare; and of Myers and Weissman's results from a community study in New Haven (1977) with respect to age and marital status: the true rate and the treated rate being higher for persons who have been divorced or separated than for married persons. Among persons identified as cases, those who are divorced or separated are more likely to have received treatment, than those who are currently married. Somewhat surprisingly the widowed who were identified as cases were the least likely to have received treatment, confirming the data of Warheit (1977) with respect to marital status and type of community; urban people who experienced distress were more likely to have received treatment than similar rural people. A possible explanation could be a low degree of information about the availability of mental facilities in these subsamples, and concerning the widowed, these probably belong to the older population and the lower treatment rate may be related to that fact. Besides the sociodemographic data, psychosocial factors such as suffering due to illness, disturbance of social relations, limitations of work capacity and social activities due to mental illness are most important indicators for helpseeking from professionals in our study, comparable to Zola's (1964) results. We showed that having received treatment, increases the probability of further treatment. This may be due to the course of illness and perhaps to the experiences with the professional institutions.

References

- American Psychiatric Association (1980) Diagnostic criteria for the DSM III. Washington DC
- American Psychiatric Association (1980) Diagnostic and statistical manual for mental disorders (DSM III). Washington DC
- Brugger C (1931) Versuch einer Geisteskranken-Zählung in Thüringen. *Z Ges Neurol Psychiatr* 133:352-390
- Brugger C (1933) Psychiatrische Ergebnisse einer medizinischen, anthropologischen und soziologischen Bevölkerungsuntersuchung. *Z Ges Neurol Psychiatr* 146:489-524
- Brugger C (1937) Psychiatrische Ergebnisse einer medizinischen, anthropologischen und soziologischen Bevölkerungsuntersuchung. *Z Ges Neurol Psychiatr* 160:189-207

- Dilling H, Weyerer S (1978) Epidemiologie psychischer Störungen und psychiatrischer Versorgung. Urban & Schwarzenberg, München Wien Baltimore
- Dilling H, Weyerer S (1980) Incidence and prevalence of treated mental disorders. Health care planning in a small town rural region of Upper Bavaria. *Acta Psychiatr Scand* 61:209-222
- Dohrenwend BP, Dohrenwend BS (1976) Sex differences and psychiatric disorders. *Am J Soc* 81:1447-1459
- Dohrenwend BP, Dohrenwend BS (1969) Social status and psychological disorder: A causal inquiry. Wiley & Sons, New York London Sydney Toronto
- Dohrenwend BP, Shrout PE, Egri G, Mendelson FS (1980) Non-specific psychological distress and other dimensions of psychopathology. *Arch Gen Psychiatry* 33:1229-1236
- Goldberg DP, Cooper B, Eastwood MR, Kedward HD, Shephard M (1970) A standardized psychiatric interview for use in community surveys. *Br J Prevent Soc Med* 24:18-23
- Gove W, Swafford M (1981) Sex differences in the propensity to seek psychiatric treatment. Prevailing thought, beliefs and misuse loglinear analysis. Comment on Kessler et al. *Soc Forces* 59:1281-1290
- Hagnell O (1966) A prospective study on the incidence of mental disorders. Svenska Bokförlaget Norstedts-Bonniers, Stockholm
- Katschnig H, Strotzka H (1977) Epidemiologie der Neurosen und der psychosomatischen Erkrankungen. In: Blohmke M, von Ferber C, Kiska KP, Schäfer H (eds) *Handbuch der Sozialmedizin, Band II*. Enke, Stuttgart, pp 272-307
- Kessler RG, Reuter JA, Greenley JR (1979) Sex differences in the use of psychiatric outpatient facilities. *Soc Forces* 58:557-571
- Lauter H (1977) Epidemiologie der großen psychiatrischen Störungen. In: Blohmke M, von Ferber C, Kiska KP, Schäfer H (eds) *Handbuch der Sozialmedizin, Band II*. Enke, Stuttgart, pp 374-447
- Link B, Dohrenwend BP (1980) Formulation of hypothesis about the ratio of untreated to treated cases in the true prevalence studies of functional psychiatric disorders in adults in the United States. In: Dohrenwend BP, Dohrenwend BS, Schwartz-Gould M, Link B, Neugebauer R, Wunsch-Hitzig R (eds) *Mental illness in the United States. Epidemiological estimates*. Praeger, New York, pp 133-149
- McKinley JB (1972) Some approaches and problems in the study of the use of services: An overview. *J Health Soc Behav* 13:115-152
- Mechanic D (1977) Illness behavior, social adaptation and the management of illness. *J Nerv Ment Dis* 165:79-87
- Moore H, Kleining G (1968) Soziale Selbsteinstufung. Ein Instrument zur Messung sozialer Schichten. *Kölner Z Soz Sozialpsychol* 20:502-552
- Myers J, Weissman M, Tischler G, Holzer C, Leaf P, Orvaschel H, Anthony J, Boyd J, Burke J, Kramer M, Stoltzman R (1977) Results from a community study in New Haven. Personal communication (cit. according to Link and Dohrenwend, 1980, on pp 36)
- Parson T (1951) The social system. The Free Press of Glencoud, New York
- Phillips DL, Segal BE (1969) Sexual status and psychiatric symptoms. *Am Social Rev* 34:58-72
- Shapiro S, Skinner E, Kessler L, Van Korff M, German P, Tischler G, Leaf P, Benham L, Cottler L, Regier D (1984) Utilization of health and mental health services. *Arch Gen Psychiatry* 41:971-978
- Srole L, Langner TS, Michael ST, Opler MK, Rennie RAC (1962) Mental health in the metropolis New York. McGraw Hill, New York
- Veroff J, Kulka RA, Douvan E (1981) Mental health in America: Patterns of help-seeking from 1957 to 1976. Basic Books Inc. Publishers, New York
- Warheit G (1977) Results from a study of a Florida country. Personal communication (cit. by Link and Dohrenwend, 1980)
- Weissman MM, Myers JK, Thompson WD (1981) Depression and its treatment in an US Urban Community 1976-1976. *Arch Gen Psychiatry* 38:417-421
- Wing L, Wing JK, Hailey A, Bahn AK, Smith HE, Baldwin JA (1967) The use of psychiatric services in three urban areas. An international case register study. *Soc Psychiatry* 2:158-167
- Zerssen D von (1976) Die Beschwerdenliste. Beltz, Weinheim
- Zola IK (1964) Illness behavior of the working class: Implications and recommendations. In: Shostak A, Gomborg W (eds) *Blue-collar world*. Prentice Hall, New York, pp 350-361

Received January 21, 1986