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Patterns of Mental Health Care for the Elderly

A Cohort Study in a Dutch Register Area*

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Summary. Four cohorts of patients of 65 years or more who had contact with a mental health service in the first 3 months of 1975, 1977, 1979 and 1981 were followed for 1 year to study their pattern of care. Data were collected in a psychiatric case register covering a town of approximately 45,000 inhabitants in the north of the Netherlands. Patterns of care were analysed for various diagnostic groups. Findings suggest that the socially determined age of retirement of 65 years, makes less sense from a psychiatric point of view. Typical disorders of the aged, such as dementia manifest themselves in significant numbers at a much older age.

Key words: Register – Patterns of care – Elderly – Dementia – Evaluation of Mental Health Services

Introduction

Up to the present our various ideas about mental health care for the elderly have had the following two elements in common. First, that the population aged 65 years or more, with regard to mental health problems can be considered more or less homogeneous. Second, that the major issue is that of dementia. In the Netherlands, retirement at the age of 65 years, which became statutory in 1957, has so rapidly changed into a fact of life that it has almost become a biological inevitability. Since recent economic pressures are bringing forward retirement age, we are increasingly forced to reconsider the reality and significance of psychological and biological differences between people aged 65 and those at the new retirement age of 62 or 61 years. The same applies to the questionable similarity of mental health problems at this early retirement age and, almost 20 years later, at the age of 80 years when a person's life is coming to a close. If mental health problems within this age range prove quite dissimilar, such differences will be magnified by the demographic fact that growth of the population of the elderly is not at all homogeneous.

Considerations of this kind can affect mental health planning, which in the Netherlands distinguishes between child, adolescent, adult and geriatric psychiatry. If the mental health problems of people aged 55 to 64 years are not much different from those of people aged 65 to 74 years, while those of people aged 75 years or more are, it can be argued that the target population of the psychogeriatric services should not include people retiring at the age of 62 or 61 years. Instead, adult psychiatry might be better equipped to take over care of, e.g. people up to the age of 70 or 75 years.

To put substance to the above questions, we studied population changes, mental health problems and patterns of care in a geographically circumscribed area covered by a psychiatric case register. The study focussed on the age group of 65 years and over and its mental health problems, for comparison with the preceding age group of 55 to 64 years.

The Register Area and its Services

In 1973 the Department of Social Psychiatry of the University of Groningen initiated a psychiatric case register. The first step was an inventory of mental health services in and around the study area (Giel and ten Horn 1976). The register covers a largely urban municipality of approximately 45,000, with mainly middle class and upper working class families. There is an abundance of mental hospital beds and a wide range of outpatient services within easy reach of the population. A psychogeriatric nursing home (104 beds), a unit for the psychogeriatric patients in a mental hospital (120 beds), a day hospital (since late 1979 with 9 places) and a social psychogeriatric ambulatory service with one full-time social psychiatric nurse and two part-time physicians are available to the elderly in the province to which the register area belongs. Although the social psychogeriatric service has a coordinating role and forms the gateway to the inpatient services, it is admistratively independent.

On 31 December 1973, we proceeded with a census of patients in care, and continued with registering all new cases and follow-up contacts. On average roughly 1.2% of the population, all ages included, are in contact with a mental health service on any one day. This number includes 0.4% of the population occupying a psychiatric bed. Another 1.4% of the population contact the services in the course of 1 year at least once. The average annual rate of first or new episodes is approximately 10 per 1000 of the population at risk, bringing the registered or administrative annual period prevalence rate up to 22 per 1000 (ten Horn, 1980).

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The Elderly in the Register Area

Table 1 shows that on 1/1/1975 people aged 65 years or more made up 10% of the total population, and this had increased to by 12% by 1/1/81. However, population growth has not been uniform for all age groups in the elderly population. The group of women aged 85 years or more has been growing most rapidly. More and more women are surviving to a very great age.

To discover changes in the pattern of mental health care over a period of 7 years (1975 to 1981), we collected four cohorts of elderly patients. All elderly people in care of any of the mental health services covered by the register, during the first 3 months of 1975, 1977, 1979 and 1981 constituted the four cohorts, and were each followed for a period of 1 year. In care in this study means that patients were in hospital or had at least one face-to-face contact during (part of) the period of 3 months. Patients could participate in more than one cohort.

Table 2 shows the cohorts in numbers and as rates per 10,000 of the population of the same age, sex and marital state. The table shows the following:

— numbers and rates of elderly patients in care were increasing up to 1979, after which they dropped to the level of 1977;
— the majority of the rates for females are higher than for males;
— rates for both males and females appear to go up with age, particularly above the age of 75 years; and
— the majority of the rates for people who are not married (single, divorced or widowed) are higher. The differences

Table 1. Population changes in the register area

Age	1975[a]		1977		1979		1981	
	M	F	M	F	M	F	M	F
0–54 years	17,383	17,783	102	102	101	102	101	101
55–64 years	1,762	1,970	106	108	115	115	117	122
65–74 years	1,073	1,434	111	106	115	115	122	118
75–84 years	559	945	106	107	106	114	106	116
85 years or more	151	240	98	115	105	129	115	146
Total 65 years or more	1,783	2,619	108	107	112	115	116	120
Total	20,928	22,372	103	103	103	103	104	105

[a] The number in each cell on 1/1/1975 is indexed at 100

Table 2. Four 3 months cohorts in care of the services, in numbers and rates per 10,000 population

	65–69 years		70–74 years		75–79 years		80–84 years		85 years or more		All ages	
	n	Rate	*n*	Rate	*n*	Rate	*n*	Rate	*n*	Rate	*n*	Rate
1975, Total	13	96	13	112	24	255	19	337	21	537	90	204
M	3	49	5	108	6	170	6	289	10	662	30	168
F	10	134	8	115	18	305	13	365	11	458	60	229
Married	5	53	7	110	10	232	5	279	5	704	32	141
Not married	8	197	6	115	14	273	14	361	16	500	58	507
1977, Total	20	132	17	142	26	272	20	308	30	709	113[a]	239
M	11	156	7	143	9	254	6	253	10	675	43	223
F	9	110	10	141	17	282	14	339	20	727	70	250
Married	7	65	6	88	10	236	7	346	6	722	36	146
Not married	13	297	11	211	16	299	13	290	24	706	77	338
1979, Total	30	181	20	161	31	324	33	475	36	791	150	299
M	11	150	4	79	7	191	11	485	7	443	40	201
F	19	206	16	218	24	407	22	470	29	935	110	364
Married	13	112	2	28	13	304	8	115	7	795	43	166
Not married	17	342	18	346	18	341	25	507	29	763	107	442
1981, Total	18	108	19	142	25	255	30	427	35	669	127[a]	244
M	3	40	5	90	8	223	11	474	7	405	34	164
F	15	164	14	179	17	273	19	403	28	800	93	296
Married	6	51	6	74	8	181	9	437	5	588	34	125
Not married	12	243	13	245	17	316	21	422	30	685	93	372

[a] One person's sex was not known

Table 3. Patterns of care during year following first contact in first quarter of 1975, 1977, 1979, 1981

Patterns of care	1975		1977		1979		1981		Total	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
1. One outpatient contact only	3	3	12	12	14	9	11	9	40	9
2. Outpatient contacts less than once every 2 weeks, for a period of less than 3 months	7	9	10	8	9	6	9	7	35	7
3. One or more outpatient contacts every 2 weeks, for a period of less than 3 months	2	2	–	–	2	1	4	3	8	2
4. As 2 but for 3 months or more	21	23	19	15	38	25	23	18	101	20
5. As 3 but for 3 months or more	–	–	–	–	–	–	–	–	–	–
6. At least one admission during first 3 months only, preceded by no more than one outpatient contact	2	2	1	1	6	4	8	6	17	4
7. At least one admission extending beyond first 3 months, preceded by no more than one outpat. contact	37	41	57	50	56	37	57	44	207	43
8. As 6, but in combination with more than one outpatient contact	3	3	1	1	2	1	–	–	6	1
9. As 7, but in combination with more than one outpatient contact	15	16	14	13	23	15	16	13	68	14
Total	90	100	114	100	150	100	128	100	482	100

between married and non-married people are less marked in the most elderly.

The above trends concerning rates describe groups of elderly people at a higher risk of being in contact with a mental health service: i.e. females, the eldest and people who are not married. Yet, in terms of numbers the services have obviously to reckon particularly with females aged 75 years or more without a partner who make up 45% to 50% of the cohorts.

Patterns of Care

Table 3 presents the patterns of care as they were arbitrarily selected by us as being most common in the total registered population, all ages included (Giel and ten Horn 1982). The table shows that admissions of more than 3 months were most common (43%), followed by infrequent outpatient contacts spread out over periods of more than 3 months (20%). Next came longer spells in hospital combined with outpatient contacts (14%). Lengthy periods of frequent outpatient contacts, which in adult psychiatry are more or less typical of regular psychotherapy, did not occur. This distribution of patterns of care remained quite stable throughout the years studied.

However, the number of admissions showed a tendency to increase (57, 73, 87 and 81), while the percentage of lengthy admissions just fluctuated somewhat (57%, 63%, 52% and 57%).

Some 30 more of less separate facilities provide care to the register population. Nevertheless, delivery of care to the elderly is in the hands of just a few facilities. To the total of 482 sequences of care presented in Table 3 non-specialised outpatient services contributed 8% in 1975. This percentage grew to 14% in 1979 and then dropped to 9% in 1981. Non-specialised inpatient services contributed 4% in 1975, then increased to 15% in 1979 and dropped to 9% in 1981.

The distribution of the 9 patterns of care shown in Table 3, did not differ much according to the in- or outpatient service involved. For example, pattern 4 with infrequent outpatient contacts spaced out over a long period of time, was by far the most common pattern of outpatient care whatever the type of outpatient service. The same applied to pattern 7 with regard to inpatient care.

Table 4 gives details regarding the care delivered by each type of facility over the course of 1 year. It is obvious that although a first outpatient contact may be decisive in what happens to a patient, e.g. with regard to whether or not he is going to be admitted, it is unlikely to amount to much as a separate form of treatment because on average patients are seen quite infrequently.

As expected, the psychogeriatric nursing home keeps its patients longest. Variations over the years in the average length of stay of patients, particularly in the other inpatient services, cannot be easily explained. It appears that all services except the specialized services had a share in the reduction of the cohort of 1981 compared with that of 1979. A vacancy in the social psychogeriatric service is probably responsible for the drop in the average number of contacts per patient in 1981.

Of special interest is that the day-care programme initiated between 1979 and 1981 was associated with a reversal of the existing trend of admissions to increase in numbers, but not with a reduction in the average length of stay.

Both physicians and social psychiatric nurses took part in the delivery of outpatient care. While on average both had the same small number of contacts with their patients: 3–5 contacts per patient receiving such care, in the course of 1 year, the nurses of the non-specialized outpatient services saw their few patients rather more often: on average 5–7 contacts per patient.

Almost all home visits (45% of all outpatient contacts) were paid by the social psychiatric service; they were also infrequent: on average 2.5–4 per patient receiving such care.

Of the 57 patients in the cohort of 1975, 11 (19%), who were admitted were also seen once or twice by the psychogeriatric service while they were still in hospital. This practice appeared to decrease steadily over the years, to 9 (11%) out of 80 patients in 1981.

Table 4. Days in care, and contacts in numbers and per patient, during the year of follow-up

	1975			1977			1979			1981		
	Contacts or days	pts.	Contacts or days per pt.	Contacts or days	pts.	Contacts or days per pt.	Contacts or days	pts.	Contacts or days per pt.	Contacts or days	pts.	Contacts or days per pt.
Social psychogeriatric service	250	45	5.6	162	48	3.4	292	71	4.1	192	55	3.5
Other outpatient services	46	7	6.6	66	11	6.0	100	21	4.8	36	12	3.0
Psychogeriatric nursing home	9,109	30	304	9,861	35	282	11,641	37	315	11,750	37	318
Mental hospital ward	6,268	28	224	6,766	27	251	9,005	32	281	8,417	34	248
Other inpatient service	629	4	157	4,629	16	289	3,944	22	179	3,382	12	282
Day-care	–	–	–	–	–	–	–	–	–	383	6	63.9
Total outpatient contacts[b]	296	51	5.8	228	56	4.1	392	88	4.4	228	64	3.6
Total day in hospital	16,006	57	281	21,256	73	291	24,590	87	283	23,549[a]	80[a]	294

[a] Day hospital days and patients not included
[b] The total number of patients is less than the sum of column one, because some patients contacted more than one out- or inpatient service

Table 5. Three months period prevalence rates of mental disorder, per 1000 population of the same age.

Diagnosis	ICD codes	55–64 years Rate[a]	65–74 years Rate[b]	75–84 years Rate[b]	85 years or more Rate[b]
Dementia	290	0.7	3.4	23.3	54.3
Psychosis	295–299	3.1	2.2	0.8	1.7
Addiction	291/2,303/4	2.0	1.1	0.3	–
Neurosis, personality disorders	300–302	4.2	2.3	2.6	2.8
Other diagnoses	293/4,305–318	1.3	2.9	3.7	6.6
Not known		1.1	1.7	1.7	2.2
Total		12.5	13.6	32.4	67.6

[a] Based on 1981 figures only
[b] Average rates in the four cohorts

Table 6. State of care at the end of 1 year as a percentage of total in each age group

State of care at follow-up	55–64 years[a] ($n = 56$)	65–74 years ($n = 151$)	75–84 years ($n = 209$)	85 years or more ($n = 122$)
Outpatient	20	28	8	7
Inpatient	36	32	51	45
Not in care	38	32	25	24
Died	2	7	16	23
Moved away	5	1	–	1

[a] 1981 cohort only

Diagnostic Classification of the Cohorts

Inspection of the diagnostic distribution of the four cohorts revealed only minimal differences, therefore we combined them to present Table 5. The 3 months period prevalence rates were calculated by dividing the sum of the four cohorts by the sum of the four census populations and multiplying the quotient by 1000. The rates for the age group of 55–64 years are based on the 1981 cohort only.

Although at the age of 65–74 years the rate of dementia is already 26% of the total rate of mental disorder, its breakthrough as a diagnostic category occurs at the age of 75–84 years (71%), and is still rising at 85 years and above, both as a rate per 1000 of the population and as a proportion of the total rate of mental disorder (80%). The relative importance of other mental disorders in the age group of 65–74 years is still considerable, while the rates for individual diagnostic classes are remarkably similar to those at age 55–64 years.

Diagnosis, Patterns of Care, and Follow-up

The social psychiatric service (42% of all their cases in the four cohorts), the psychogeriatric nursing home (92%), the special mental hospital wards (57%) and the other inpatient services

Table 7. State of care at the end of 1 year as a percentage of the cases[a] in each diagnostic class, by age

ICD codes	State of care at follow-up															Total n = 100%		
	Outpatient (age in years)			Inpatient (age in years)			Not in care (age in years)			Died (age in years)			Moved away (age in years)					
	55–64	65–74	75+	55–64	65–74	75+	55–64	65–74	75+	55–64	65–74	75+	55–64	65–74	75+	55–64	65–74	75+
290	–	10	5	33	50	57	33	21	16	33	18	21	–	–	0.4	3	38	248
295,299	29	42	13	50	29	25	21	21	50	–	8	13	–	–	–	14	24	8
291/2,303/4	33	17	50	11	58	–	33	17	50	–	8	–	22	–	–	9	12	2
300–302	21	31	23	32	15	41	47	54	32	–	–	4	–	–	–	19	26	22
293/4,305–318	–	31	11	67	28	25	17	34	50	–	3	11	17	3	3	6	32	36
Not known	–	47	7	20	10	–	80	42	67	–	–	27	–	–	–	5	19	15
Total	20	28	8	36	32	49	38	32	24	2	7	19	5	0.7	0.6	56	151	331

[a] Age group of 55–64 years includes cohort of first 3 months of 1981 only

Table 8. State of care at the end of 1 year by pattern of care, as percentage of total of cases[a] in each pattern

Patterns of care	State of care at follow-up															Total n = 100%		
	Outpatient (age in years)			Inpatient (age in years)			Not in care (age in years)			Died (age in years)			Moved away (age in years)					
	55–64	65–74	75+	55–64	65–74	75+	55–64	65–74	75+	55–64	65–74	75+	55–64	65–74	75+	55–64	65–74	75+
Outpatient only	33	40	19	–	–	–	58	53	65	–	5	14	8	1	2	24	74	109
Inpatient less than 3 months	–	20	–	–	–	–	86	60	33	14	20	67	–	–	–	7	5	18
Inpatients longer than 3 months	12	17	2	80	67	79	4	8	2	–	8	17	4	–	–	25	72	204
Total	20	28	8	36	32	49	38	32	24	2	7	19	5	0.7	0.6	56	151	331

[a] Age group of 55–64 years includes cohort of first 3 months in 1981 only

(57%) dealt overwhelmingly with dementia, compared with the other outpatient services (13%). But no services were spared their share of other diagnostic categories.

Table 6 gives the state of care of each age group at the end of 1 year of follow-up. People aged 75 years or more were less often outpatients, and more often inpatients or no longer alive. However, Table 7 shows that the above trends are not consistent for all diagnostic categories. Tables 6 and 7 suggest more similarity between age groups 55–64 years and 65–74 years, than between the latter and patients aged 75 years or more.

Finally, Table 8 presents outcome at the end of 1 year according to the pattern of care during the year: i.e. outpatient care only, or inpatient for more or less than 3 months, whether or not combined with outpatients contacts.

Apparently, a continuation of outpatient care until the end is not very common, more often such people are no longer in care after 1 year. The pattern with brief spells in hospitals ends without care at the end of 1 year, or with death particularly for the most elderly people. Longer periods of admission mostly predict a continuation of hospitalization at the end of the first year.

Discussion

The register study presented in this paper, aimed at identifying characteristics of mental health care for the elderly, including recent developments, which could guide us in its planning. A first finding is that population statistics describing aging of a population without taking notice of differential growth within the population aged 65 years or more, will miss the demographic fact that growth is strongest in the most elderly population (Kramer 1980; and Mann 1980). This is the age group standing the greatest chance of having mental problems, which is reflected in the rates of elderly people contacting the mental health services.

A second finding is that dementia becomes a major issue only after the age of 75 years, while up to that age other types of mental disorder are still very important, almost as important as in the age group of 55 to 64 years. In 1969 Åkesson also reported rather low prevalence and incidence rates for senile and arteriosclerotic dementia in a Swedish island population aged 60–70 years. In the age group of 70–80 years the rates started to rise, but very much more so above the age of 80 years.

Thirdly, with regard to the patterns of mental health care we studied and which showed some changes over the years associated mainly with changes in the staffing of services, it is clear that outpatient care is perhaps important for proper assessment and referral of cases, but our findings suggest that it does not serve as an alternative to inpatient care. Contacts were too infrequent for that purpose, while day-care is still too rare to have had much impact. In other words, inpatient care has been until now the most significant provision.

In the Netherlands we distinguish between adult and geriatric mental health services, with the age of 65 years as the major criterion for assigning patients. In psychogeriatric services psychiatry is mostly represented by (social) psychiatric nurses and not by psychiatrists. Such services are more often staffed by physicians who are better trained to deal with the physical handicaps of elderly people than psychiatrists are, and who have little or no (psycho)therapeutic training.

Since retirement age has been brought forward on a large scale, so that at the extreme of the life span population growth is largest, we have to consider redistribution of tasks and target populations. Taking into account the quantity and type of cases, mainly with organic diseases and handicaps, there are strong arguments for having the psychogeriatric services deal only with people aged 75 years or more, leaving those below that age to adult psychiatry. This would give the psychogeriatric services more room for strengthening alternatives to inpatient care and for social support of patient's environment, assisting people to accomodate elderly patients as long as possible. A drawback is that adult psychiatry is not very strong on the more intensive forms of outpatient care of even middle-aged people. In another study (Giel and ten Horn 1982), we found that the pattern of care indicative of (psycho)therapy starts to dwindle as a provision even above the age of 30 years. If the qualitative aspects of mental health care are to prevail over the above more quantitative considerations, it might be concluded to abandon completely the age criterion and the division between adult and geriatric psychiatry.

In that case it might be preferred to allow a certain degree of specialization within an integrated mental health service, with teams trained to support organically affected patients and their environment, and others more specialized in (psycho) therapy with otherwise mentally disturbed people, whatever their age. This latter approach would certainly require more attention to be paid than has hitherto been done, to the emotional problem of middle-aged and elderly people. It would also be in line with the principle of continuity of care, because at least 15% of our cohorts had already been in contact with the services before they had reached the age of 65 years.

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