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## Psychotropic Drug-users and Non-users in General Practice

### *I. A Three-year Retrospective Study from an Island Community in Northern Norway*

GUNNAR TELLNES,<sup>1</sup> ARILD BJØRNDAL<sup>1</sup> and PER FUGELLI<sup>2</sup>

<sup>1</sup>Department of General Practice, University of Oslo, <sup>2</sup>Department of General Practice, University of Bergen, Norway

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In an island community in Northern-Norway 18.7 % of the population received one or more prescriptions of psychotropic drugs during a three-year period. This is the first of two articles that describe the general practitioner's prescribing of psychotropic drugs in this municipality (1). This article compares the psychotropic drug-users and non-users in order to identify and define the characteristics of local risk groups. Socio-demographic data and use of health services are analysed. The aim is to get a baseline for prevention of mental problems in the local community. The study indicates that high risk groups regarding psychotropic drug-use in this defined community were men  $\geq 65$  years, females  $\geq 45$  years, previously married/unmarried, disabled pensioners, young wives (25-44 years) with fulltime occupation outside the home, and middle-aged wives (45-64 years) without fulltime occupation outside the home. Thus suggestions and advice for prevention of mental problems can be listed and presented for local authorities, which by law are responsible for prevention of diseases (2).

**Key words:** psychotropic drugs, general practice, health services, prevention, mental problems.

G. Tellnes, Department of General Practice, University of Oslo, Frederik Stangs gate 11/13, 0264 Oslo 2, Norway.

Most studies from developed countries describe a point-prevalence of mental diseases from 15 to 25 % (3). A survey from Norway confirms that 27 % of patients seen in general practice were classified to have a psychiatric diagnosis (main diagnosis 15 %, additional diagnosis 12 %) (4). About one half of the patients with a psychiatric diagnosis in general practice are treated with psychotropic drugs (5).

Fugelli described the community diagnosis of Vaerøy & Røst for the period of 1970-73 (6). The two-year prevalence of mental diseases was 31 % (female 36 %, male 27 %), while 23 % of the inhabitants consulted the local physician with such problems. Mental problems were the most frequent motivation for encounter (16 %). Among all inhabitants 17 % of the women and 11 % of the men used psychotropic drugs one or more times during a one-year period (7).

Thus, prevention and treatment of mental problems are a great challenge for general practitioners. One way to learn more about this difficult profes-

sional task is for the physicians to study their own practice. This survey describes how this can be done. The results are presented in two articles. The first one focuses on the psychotropic drug-users. Special attention is paid to epidemiological aspects and potentials for prevention. The second article focuses on psychotropic drugs with special reference to the prescription patterns, especially for long-term-use (1).

The aims of the first part of the study are to analyse the socio-demographic data and the use of health services among psychotropic drug-users and non-users in a defined community. This is done in order to identify and define characteristics of local risk groups and to provide a baseline for prevention of mental problems in the municipality.

## METHODS

Vaerøy is an island located just north of the Arctic circle, approximately 80 km from the Norwegian

Table I. Total population by age, sex and rate of psychotropic drug-users

Age	Total population			Rate of psychotropic drug-users in per cent of the total population		
	Fe-	Male	Total	Fe-	Male	Total
	male			male		
0-14	109	114	223	3.7	4.4	4.0
15-24	60	66	126	6.7	0.0	3.2
25-44	110	122	232	27.3	13.1	19.8
45-64	110	105	215	36.4	21.0	28.8
65-	77	70	147	42.9	31.4	37.4
Total	466	477	943	23.8	13.6	18.7

mainland. The island has 1068 inhabitants (1982). Coastal fishing is the basis for existence. Fifty-seven per cent of the adult men are fishermen or workers employed in fish processing. There was only one physician in this municipality during the study period. He worked as a general practitioner and medical officer (G. Tellnes).

A retrospective study was carried out for a three-year period from 1st September 1979 to 31st August 1982. The population included were those of the registered inhabitants (per 31st August 1982) who had stayed on the island more than half of the survey period. Most of the drug prescriptions on Vaerøy are given by the doctor calling a pharmacy in the nearest city, Bodø. These prescriptions are written in a telephone prescription book in the physician's office as well as in the patients' records.

A form was filled in for each of the included inhabitants ( $N=943$ ). Sources of information were

Table II. Rate of psychotropic drug-users in per cent by marital status and age

Age	Married/living as married		Previously married/unmarried		Total	
	n	%	n	%	n	%
25-44	201	19.4	31	22.6	232	19.8
45-64	187	28.4	28	32.1	215	28.8
65-	88	33.0	59	44.1	147	37.4
Total	476	25.4	118	35.5	594	27.4

Table III. The rate of psychotropic drug-users among wives in per cent by age and occupation outside the home

Age	Occupation outside the home					
	Not occupied/ up to halftime		Half to fulltime		Total	
	n	%	n	%	n	%
25-44	54	22.2	51	35.3	105	28.6
45-64	67	38.8	25	20.0	92	33.7
Total	121	31.4	76	30.3	197	31.0

the patients' records, the telephone prescription book, the local office of the National Health Insurance, the Population Register of Vaerøy and the physician's knowledge of the population. The inhabitants were asked directly about occupation if this was not exactly known from other sources.

The data registered were:

- age, sex, marital status and occupation,
- psychotropic drug-use; persons who had got one or more prescriptions at all kinds of encounters in general practice were recorded as users,
- wives' occupation outside the home,
- females with children < 17 years,
- disabled pensioners per 1st March 1981,
- number of consultations in the general practitioner's office, referrals to specialists or X-ray examination, referrals to physiotherapists and hospital admissions.

Psychotropic drugs as defined in this study are neuroleptics, minor tranquillizers, hypnotics and sedatives, antidepressants and antihistamines (antihistamines were included only when prescribed for sleeping disturbances). Lithium was not prescribed to any patient.

## RESULTS

During three years 176 persons (111 females, 65 males) were registered as psychotropic drug-users and 767 as non-users.

Table I shows the population by age, sex and rate of users in per cent of the population at risk. The rate of psychotropic drug-users was higher for females (23.8%) than for males (13.6%). The rates increased with age up to 79 years with a decline for

Table IV. Rates of psychotropic drug-users in per cent by occupation and sex

Occupation	Female		Male		Total	
	n	%	n	%	n	%
People working in service, administration, trade, etc.	74	27.0	30	13.3	104	23.1
Fish processing workers	55	18.2	55	12.7	110	15.5
Fishermen	—	—	133	13.5	133	13.5
Workers not in the fish industry	16	18.8	43	4.7	59	8.5
Total	145	22.8	261	11.9	406	15.8

those older than 80 years. In Table II the rate of users is shown by marital status and age.

Table III shows the rate of psychotropic drug-users among wives working outside the home. The rate of users among females between 25 and 54 years with children younger than 17 years was nearly the same as the rate among those without children (25.4% versus 32.0%).

Psychotropic drug-users and non-users are described by occupation and sex in Table IV. There were 50 disabled pensioners in the community. Their mean age was 56 years for both sexes. Sixty-eight per cent of the females and 52% of the males were psychotropic drug-users.

Table V shows the mean number of consultations during the three-year period. The consultation rate among the users is twice that of the non-users. The mean number for all groups combined was 2.1 per

Table V. Mean number of consultations per person by age, sex and use of psychotropic drugs during the three years (total population 943)

Age	Female		Male		Total users and non-users
	Users	Non-users	Users	Non-users	
0-14	5.8	2.7	4.2	3.0	2.9
15-24	11.0	8.9	—	4.5	6.7
25-44	10.5	8.0	10.4	3.5	6.4
45-64	10.9	6.3	11.5	6.0	7.6
65-	11.8	6.7	10.0	6.3	8.2
Total	10.8	6.1	10.2	4.3	6.2

inhabitant per year. There was no rate difference between the sexes among psychotropic drug-users  $\geq 25$  years.

The mean number of referrals to physiotherapists during three years was found to be higher for users (0.7) than for non-users (0.2). The same trend was also registered for referrals to specialists (users 1.6, non-users 0.7) and for hospital admission (users 0.7, non-users 0.3). Two per cent of the psychotropic drug-users were referred to a psychiatrist and six per cent admitted to mental hospital during the three years. None of the non-users were referred to such health services.

## DISCUSSION

Patients receiving psychotropic drugs do not constitute all the persons with mental problems in a community. Some patients receive no drug-treatment or non-drug treatment, for example supportive psychotherapy, and some do not contact the physician for their illness at all (6, 8). It is possible that some patients have received psychotropic drugs which were not recorded, for instance when drugs were prescribed at home-calls. There is, however, no doubt that this number is very small, while the number of patients that received psychotropic drugs from their family or friends is unknown.

This study represents one physician's drug prescribing during one year in a small population. The interpretation of the results must therefore be considered more as tentative than conclusive. The rate of psychotropic drug-users in this survey does not differ much from other studies. In 1971-72 Fugelli found a similar rate in the same population (females 17.0%, males 11.4%) (7). In a one year survey from England the rates were 17.1% for females and 8.0% for males (9). In neither of these studies, however, were antihistamines prescribed for sleeping disturbances included. A female/male ratio of 1.7:1 is also in accordance with results from other studies (7, 9, 10).

The rate of psychotropic drug-users increased with age in our survey, a finding which is well known from other studies (7, 9). Many of the patients over 80 years of age were in a nursing-home during the study period, which is the main reason for the lower rate of users in this age group.

Previous studies have described higher rates of psychotropic drug-use and mental diseases among previously married than married persons (6). Table

II reveals the same trend for those  $\geq 65$  years. Looking at all groups combined, the rates of psychotropic drug-users among wives are similar for those not employed or those working up to half time outside the home as for those working half to full-time (Table III). However, there is an age difference. Among wives 25–44 years the rate seems to be highest for those with a high work load, while the opposite is true for wives 45–64 years. The explanation may be that young wives in full-time jobs have an extremely hard work-load since most of them are taking care of their homes and children as well. The situation is reversed for wives in the age group 45–64 when the children have grown up and left home.

Surprisingly we found that the rate of psychotropic drug-users among fishermen was similar to the rate among men in other occupations. Fishing is a dangerous work with an extremely irregular life pattern (11). The economy of the individual as well as the municipality depends on the results of the fisheries. The instability does of course affect the fishermen and their families. It is, however, possible that the mental strain connected with fishing excludes mentally weak persons.

The rates of psychotropic drug-users among disablement pensioners were higher than for the corresponding age groups in the total population. This also corresponds with an earlier study from the community which found that mental problems caused disablement pension in 42.6% (6). Limited possibilities to get an easier job near the home may force people to become disablement pensioners against their will. Such a situation may also lead to mental problems and use of psychotropic drugs.

The psychotropic drug-users are high consumers of medical services. The rates of contacts per person are significantly higher for users than for non-users when analysed for consultations, hospital admissions, referrals to physiotherapists and specialists ( $t$ -test:  $p < 0.001$ ). Further studies, however, are needed to determine the specific reasons for this. Somatic diseases and frequent contacts with health-services can produce psychotropic drug-users, or the opposite could be true. Although a preventive campaign will require financial support, it is likely that prophylaxis will show a cost-beneficial profit. Prevention of mental problems will possibly lead to a decline in the use of such health services and absence from work, as well as in the actual consumption of drugs.

Table V shows no sex and age difference in the rates of consultations among psychotropic drug-users  $\geq 25$  years (mean 3.6 per person per year). This suggests that the contact between the general practitioner and the patients is nearly the same for all groups of adult psychotropic drug-users—a situation that offers the possibility of regular drug therapy evaluations and discussions of non-drug treatment with most of these patients. The low rates of the use of psychiatrists and mental hospitals illustrate that the general practitioner takes care of most of the psychiatric patients in a rural community.

Because of methodological limitations the results do not permit any strong conclusions. However, a few valid suggestions are called for. The results have been presented for the Committee of Health and Social Services at Vaerøy which by law is responsible for prevention of diseases (2). Among our advice for prevention of mental problems were:

- to arrange weekly social meetings and clubs for disabled pensioners and elderly people,
- to help young families where the wife is employed full-time outside the home; i.e. to create possibilities for the children to enter a kindergarten and for the parents to work part-time,
- to offer possibilities for full-time work outside the home for wives (45–64 years) who want such occupation.

If the general practitioner wants to learn more about mental problems and the possibilities for prevention in a local community, one method is to study the psychotropic drug-users in the district. Such a survey cannot give a complete picture of the prevalence of mental diseases, but it will enable the physician to characterize local risk groups among psychotropic drug-users. This can be one of several necessary steps towards the prevention of mental problems in the community.

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