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## Frequent attenders in general practice: a study from slovenia

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**Abstract.** To compare frequent with infrequent attenders at GPs' surgeries in a rural area in Slovenia with respect to morbidity, type of contact with the GP, referral pattern and the prescriptions given, a random sample of 623 records from a population-based register was analysed retrospectively. The frequent attenders had a higher proportion of contacts for malignant disease, mental disorder, and gastrointestinal disease. They also had a greater probability for a "superficial contact", were more likely to be referred to a specialist, were less likely to receive a psychotropic drug, and were more likely to receive a prescription for an antibiotic. We conclude that there are differences in morbidity between the two groups. The high referring pattern and the high proportion of "superficial contacts" of the frequent attenders may reflect poor doctor/patient relationship of this group.

**Key words:** general practice, use of health care services, frequent attenders, consultations, morbidity, referrals.

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### Introduction

The problem of frequent attenders has gained a lot of interest among researchers in general practice in the past years. Principally two kinds of approaches have so far been used in analysing this group of patients. The approach was either descriptive, or of a kind that requires statistical analyses for comparing frequent and infrequent attenders. When the latter approach is used, the definition of a "frequent" and "infrequent" attender must be very clear. A widely accepted definition of frequent attenders is those whose number of visits observed within a given period of time exceeds the mean number of visits for that age and sex group over the same period (1).

Frequent attenders have been analysed from various aspects, such as psychological (2), family characteristics (3), social background (4), and the effect of doctor's work on the number of visits (5). Several features of frequent attenders are well known: they are predominantly older people, especially women (6, 7), they tend to be more anxious (8), and they

usually come from families in distress (9). One of their most frequently studied features is their morbidity (3, 6, 7, 9).

Frequent attenders have not previously been researched in Slovenia, and we therefore decided to conduct a comparative study concerning differences between frequent and infrequent attenders in our population.

The following differences between the two groups were examined:

- morbidity according to the ICD-9 classification
- variability of symptoms
- prevalence of superficial contacts with the GP
- referrals to specialists
- prescriptions.

### Methods

The research took place at the Ribnica health centre in Slovenia. The health centre provides primary health care for the entire population of the commune of Ribnica (12494 people) and employs 8 pri-

### DISTRIBUTION OF CONTACTS ENTIRE SAMPLE

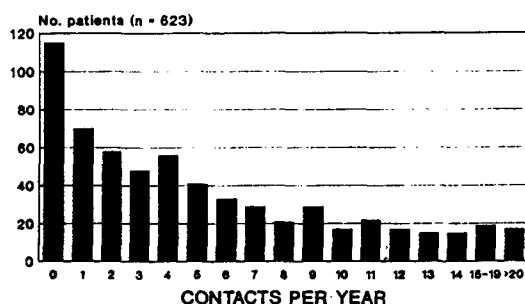
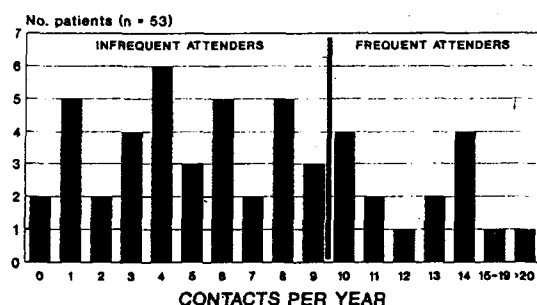


Fig. 1.

primary care physicians. The entire population is registered in the health centre. The area is rural. A random sample of 623 people (304 men, 319 women) was selected from this population. The selected people made 3316 contacts with the primary care physicians in the centre during one year, i.e. 5.32 contacts per person. The distribution of contacts in the entire sample is shown in Fig. 1.

In order to avoid the clustering of frequent attenders in older age groups, the method described by Westhead was used (4): the population was divided into age groups (1-7, 8-14, 15-25, 26-40, 41-50, 51-65, and over 65 years). For each age group, a contact distribution within the group was made. The patients who made a number of contacts which was in the upper quartile of the distribution in each group were regarded as "frequent" attenders, and the rest were regarded as "infrequent" attenders (Figs 2-8). The lower limit of contacts for the frequent attenders' group was therefore different for each of the age groups. The "frequent attenders" group obtained in that way consisted of 188 patients.

### DISTRIBUTION OF CONTACTS AGE GROUP 1 - 7 YEARS



### DISTRIBUTION OF CONTACTS AGE GROUP 8 - 14 YEARS

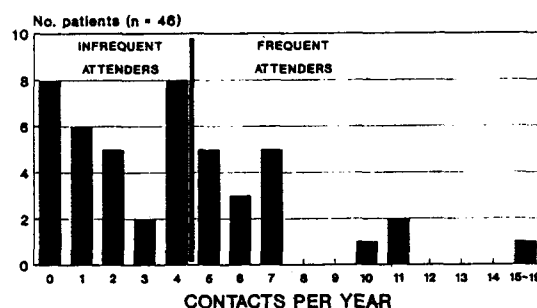


Fig. 3.

There were no sex differences regarding "frequent" and "infrequent" attenders.

Each patient's folder was then examined and the following data were recorded:

- number of contacts with the physician in a year  
Only the person to person contacts were included, thus excluding telephone calls.
- number of "superficial" contacts

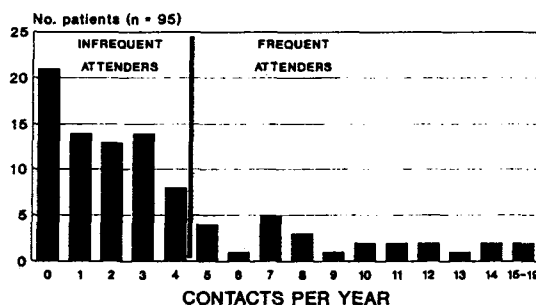
These were defined as the contacts in which the patient was seen in the office purely for administrative purposes (e.g. repeat prescriptions).

- diagnosis of the main problem of the patient during one year

All the diagnoses were retrospectively coded by one of the researchers (IS). The main problem of the patient was defined from the folder. In cases of doubt, the patient's doctor was consulted. The ICD-9 classification was used.

We compared the differences in diagnoses attributed to the two groups of patients using two approaches. In the first, every attender was given

### DISTRIBUTION OF CONTACTS AGE GROUP 15 - 25 YEARS



### DISTRIBUTION OF CONTACTS AGE GROUP 26 - 40 YEARS

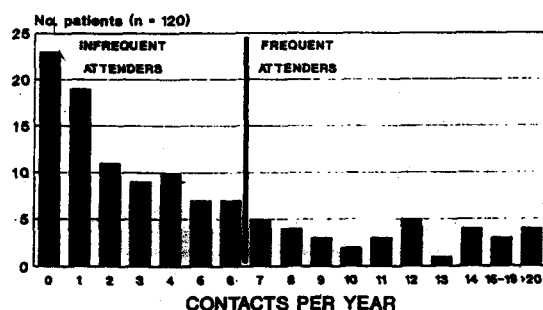


Fig. 5.

only one diagnosis during the observation year. In the second, the diagnosis for each contact with the doctor was recorded. An attempt was made to find out which of the two methods would be more appropriate.

- diagnosis of every reason for contact  
Only one reason was allowed for every contact with the doctor.
- number of referrals
- number of prescriptions (all drugs)
- number of prescriptions for antibiotics and psychotropic drugs

In order to be able to compare some of the data that were related to the frequency of visits, the following indexes were formulated:

- number of different diagnoses in a year
- number of visits per diagnosis
- index of superficial contacts: (superficial contacts/all contacts)  $\times 100$

### DISTRIBUTION OF CONTACTS AGE GROUP 41 - 50 YEARS

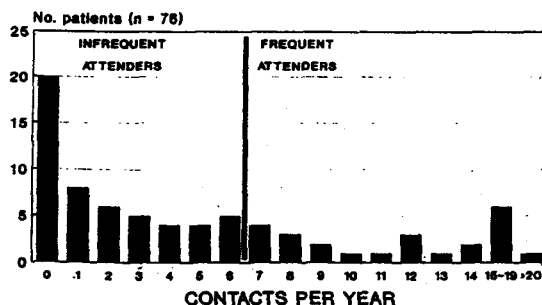


Fig. 6.

### DISTRIBUTION OF CONTACTS AGE GROUP 51 - 65 YEARS

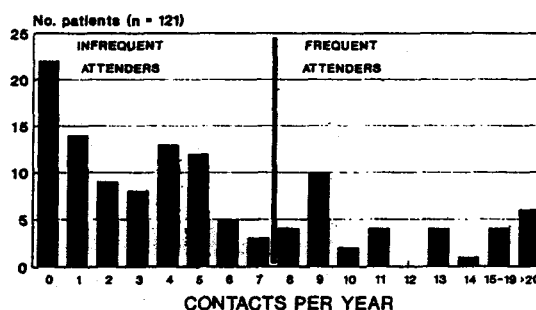


Fig. 7.

- referral index: (referrals/contacts)  $\times 100$
- prescription index: (all prescriptions/contacts)  $\times 100$
- "antibiotic" and "psychotropic" index: (prescriptions for antibiotics or psychotropic drugs/contacts)  $\times 100$
- index of "other drugs": prescription index - ("antibiotic" index + "psychotropic" index).

For obvious reasons there were no data for the 115 people who never appeared in the office during one year. Therefore the control group consisted of 320 patients.

Because of the fact that the distribution of the contacts and indexes was not normal, non-parametric tests were used for the analysis of the data: the chi-square and Mann-Whitney tests. This is also the reason why median was used instead of mean as a measure of central location.

### DISTRIBUTION OF CONTACTS AGE GROUP OVER 65 YEARS

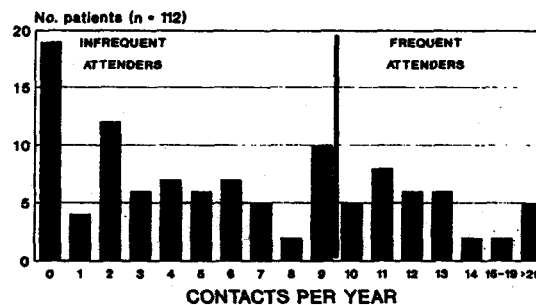


Fig. 8.

Table I. Diagnoses by ICD groups in frequent (F) and infrequent (IF) attenders in one year

ICD group	Main reason			All reasons		
	F	IF	total	F	IF	total
Infectious diseases	5	14	19	81	55	136
Malignant diseases	2	1	3	25	2	27
Endocrine diseases	1	4	5	15	40	55
Blood diseases	1	0	1	6	1	7
Mental disorders	10	5	15	117	16	133
Diseases of the nerves	9	16	25	134	56	190
Cardiovascular disorders	35	48	83	421	182	603
Respiratory diseases	45	87	132	470	267	737
Digestive diseases	11	16	27	137	44	181
Genitourinary diseases	8	12	20	100	35	135
Complications of pregnancy	2	1	3	18	6	24
Skin disorders	7	20	27	79	65	144
Musculoskeletal disorders	19	37	56	277	134	411
Symptoms and signs	4	12	16	75	40	115
Trauma	29	47	76	268	150	418
Total	188	320	508	2223	1093	3316

## Results

The 188 frequent attenders made 2223 contacts with the doctor in a year's period (mean = 11.82). The remaining 320 patients made 1093 contacts (mean = 3.42).

Table I shows the distribution of the main problems and all the reasons for contact, by ICD-9 groups.

When main health problem was used as a measure for morbidity, significant differences were found only with the mental disorders. Frequent attenders had

a significantly higher proportion of these disorders ( $p < 0.05$ ).

When diagnoses in every contact were recorded, the frequent attenders had a significantly larger proportion of contacts for malignant diseases ( $p < 0.01$ ), mental disorders ( $p < 0.001$ ), and gastrointestinal diseases ( $p < 0.05$ ), and a smaller proportion for endocrine ( $p < 0.001$ ), respiratory ( $p < 0.01$ ), and diseases of the skin ( $p < 0.01$ ).

The analysis of different diagnoses in individual patients showed that frequent attenders had a higher number of different diagnoses per year than the infrequent attenders ( $p < 0.01$ ). However, the comparison of the number of contacts per diagnosis in

Table II. Median values of index of superficial contacts of frequent and infrequent attenders in 7 age groups.

Age group (years)	Type of attender		
	Frequent	Infrequent	P value
1-7	0.2	0.8	NS
8-14	0.6	0.0	0.005
15-25	0.8	1.0	NS
26-40	5.7	1.3	0.05
41-50	13.1	0.5	0.005
51-65	10.0	1.1	0.005
over 65	27.1	0.5	0.05
All groups	7.5	0.3	0.0001

Table III. Median values of index of frequent and infrequent attenders in 7 age groups.

Age group (years)	Type of attender		
	Frequent	Infrequent	P value
1-7	0.2	0.8	NS
8-14	13.1	0.7	0.05
15-25	14.5	0.8	0.0005
26-40	8.7	1.0	NS
41-50	15.6	1.1	NS
51-65	12.7	0.7	0.0005
over 65	8.0	0.4	NS
All groups	10.1	0.3	0.0001

Table IV. Differences in median values of prescription indexes between frequent and infrequent attenders.

Index	Type of attender		P value
	Frequent	Infrequent	
"Antibiotic"	7.8	0.3	0.001
"Psychotropic"	0.0	0.1	0.001
"Other drugs"	62.6	74.3	NS
All drugs	85.7	100.0	NS

the two groups showed that the mean number of contacts per diagnosis was 2.5 in the frequent attenders group and 2.0 in the infrequent attenders. The difference was statistically significant ( $p < 0.0001$ ).

The analysis of the superficial contacts showed that there was a larger probability for superficial contact for frequent attenders in every age group from the age of 26 (Table II).

The probability of being referred to a specialist was significantly larger for the frequent attenders in the majority of age groups (Table III).

Differences in the prescribing of all drugs were not statistically significant. Frequent attenders had a larger possibility of getting a prescription for an antibiotic. The differences were statistically significant for the age groups 8–14 years and 15–25 years. Although the statistics showed that they are less likely to be given a psychotropic drug (the differences were statistically significant for age groups 26–40, 41–50, and 51–65 years), this difference is probably clinically irrelevant (Table IV).

## Discussion

The issue in this research was to find out whether the diagnoses in the groups of frequent and infrequent attenders were different. This was found to be the case. It was especially true for the mental disorders, which were found in higher proportion among the frequent attenders, using both methods of diagnostic classification. The fact that the mental disorders represent an important reason for the consultation is not new. Various authors using different approaches have stressed this fact (4, 6, 7, 9, 10).

The meaning of a diagnosis of a mental disorder is an important issue in general practice. In the process of a long relationship between the doctor and the patient, the patient receives a stigma which is not merely the result of his own personality (5). A psychiatric diagnosis can be a label for a bad relation-

ship between the doctor and the patient. This was shown by Schrire (1) and by Bass (11), in whose papers the term "frequent attender" is used as a synonym for "chronic neurotic" or for patients with somatization disorders. In the present paper, the number of psychiatric diagnoses was relatively low and we have no explanation for this finding.

The more detailed classification based on individual contacts points out other diseases as well: malignant and gastrointestinal. This gives the impression that the more detailed recording is more suitable for this kind of research.

The assumption that the frequent attenders show a greater variability of symptoms can be abandoned. Even the reverse has shown to be true: the diseases of frequent attenders are more often chronic ones. This was also shown in other studies (3, 6, 7).

By analysing the superficial contacts, one can see that frequent attenders have a greater proportion of superficial contacts. In other words: the general practitioner spends more time on administration with frequent attenders than with infrequent attenders.

The fact that frequent attenders are more likely to be sent to specialists can be explained by their suffering more often than infrequent attenders from illnesses requiring management by specialists. This was only partly confirmed by the analysis of the diagnoses. Other explanations are also possible: frequent attenders tend to put more pressure on their GP, they do not trust the GP, or perhaps the GP is insecure with these patients. All these assumptions would require further studies.

The data concerning prescriptions showed that frequent and infrequent attenders had the same probability of getting a prescription when visiting their doctor. It was in the type of medicine they got that the differences emerged. It is surprising that they were less likely to get a prescription for a psychotropic drug. Our expectations were quite the opposite, because we have found more mental disorders in this group, although the total number was low. An explanation could be that the frequent attenders' psychiatric diseases are often treated with a referral note by a general practitioner.

The results concerning the prescription of antibiotics are even more puzzling. We could not find any explanation for them.

The data indicate that frequent attenders suffer from chronic diseases and from diseases which are difficult for the doctor to cope with. They are in fact

receiving their health services at two levels: at the primary care level with the GP functioning merely as an administrator, and at the specialist level. The purpose of the study was not to register their attendance at the specialist services as well, so we can not speculate whether the specialist provides real care or whether the frequent attenders remain unsatisfied with his services as well, which makes them attend over and over again.

Yet these data could have another explanation. The differences in the referral rates could result from the lack of GP's interest for this patient. It is often tempting to send a difficult patient of a specialist and to be merely a provider of prescriptions and referral notes. Further studies in this field are necessary to clarify this dilemma.

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