

# The Phenomenon of Non-Utilization of Medical Services by Persons Suffering from Angina Pectoris

Andrzej Gerstenkorn

Chair of Social Medicine, Medical Academy of Lodz

Ischemic heart disease (IHD) is one of the most important therapeutic and social problems of contemporary medicine. In Poland the increased morbidity and mortality rate caused by this disease is one of the biggest in the world [1,2]. The death rate from IHD was 10.0/10 thousand in 1987, 75% higher than in 1970. IHD is responsible for about 20% of the deaths caused by circulatory system diseases.

Insufficient medical care may be regarded as one factor causing the observed tendencies. Gathering information about the non-utilization of medical services by persons suffering from angina pectoris and determining the reasons for this non-utilization would provide a basis for improving medical care effectiveness and, consequently, improving public health.

The aim of the study is the evaluation of the phenomenon in the city of Lodz, Poland (an industrial center of approximately 1 000 000) and determining people's motives in not utilizing medical services.

## Material and Methods

The data come from the study of a representative population sample, the main aim of which was to establish the health of the Lodz adult population. 5051 persons were drawn from the population registers of Lodz. They did not significantly differ in age and sex structure from the general adult population. They were interviewed by interviewers at their homes. Questionnaire interviews were not obtained from 317 persons for the following reasons: refusal to be interviewed, absence from home, incapacitation, hospitalization. The 4734 responses represent a rate of 93.7% of the sample. Of those responding 2059 were men (43.5%) and 2675 were women (56.5%). The epidemiological diagnosis of angina pectoris, a form of IHD, was made based on the standard interview form according to Rose and Blackburn [3].

The persons with angina pectoris symptoms were divided into two groups: the group that had not sought medical advice within 12 months preceding the study and the group that had sought medical consultation during that period. Those who had not utilized medical services despite suffering discomfort were asked the reasons for such behaviour. The influence of sex, age, marital status, education, occupation, self-estimation of health, number of days during which the illness made it difficult for the respondents to perform their

usual activities, their opinions about the way they were treated by medical staff and trust in a doctor were some of the variables tested.

The evaluation of the statistical relationship between the above mentioned features and the non-utilization of medical services was performed using both one-dimensional and multidimensional analyses.

The one-dimensional analysis was performed with the help of non-parametric Kruskal-Wallis' test accepting the lowest significance level for the rejection of 0-hypothesis [4]. Variables that do not differentiate both the groups were eliminated.

The multidimensional method allows most effective differentiation of the populations utilizing medical services from those not seeking them. Chi square statistics for many variables were used to examine the accordance of data distribution with histogram [5]. All the calculations were made using own programmes.

## Results

In the studied group of respondents the symptoms of angina pectoris were found in 346 persons (7.4%) – 8.7% women and 5.5% men. Although these people were aware of the symptoms not all of them had sought medical advice within 12 months preceding the study. The percentage of persons not seeking medical consultation is considerable; it is about 40% and it is similar in the group of men and women (see Table 1).

Tab. 1. Non-utilization of medical services by sex

	Men		Women		Total	
	n	%	n	%	n	%
Seeking medical advice	69	61.1	144	61.8	233	61.6
Not-seeking medical advice	44	38.9	89	38.2	133	38.4
Total	113	100.0	233	100.0	346	100.0

H = 0.04    p > 0.05

We found that the older the respondents are, the smaller is the percentage of symptomatic people not using medical services. It should be noticed that more than half the people younger than forty do not seek medical advice in spite of their symptoms (see Table 2).

We found that the opinion about one's health is an important factor conditioning behaviour: the percentage of persons not seeking medical advice increases several times with the intensification of positive esti-

Tab. 2. Non-utilization of medical services by age

Age	18-29	30-39	40-49	50-59	over 60	Total
n	35	23	22	23	30	133
%	60.3	60.5	32.8	29.5	28.7	38.4

H = 12.67 p < 0.0003

mation of one's health. It should be noted, that 11.1% of the respondents regarding themselves as «very ill» did not visit their doctor (see Table 3).

Tab. 3. Non-utilization of medical services by self-estimation of health

Self-estimation	n	%
Healthy	22	75.9
Rather healthy	65	54.2
Rather ill	33	31.4
Ill	11	15.3
Very ill	2	11.1

H = 39.33 p < 0.000001

The self-estimation of the respondents' state of health depends on the prevalence of difficulty in performing every day activities. We found that persons having no problems in performing their usual activities were less likely to seek medical consultation (45.7%) than those who have such problems (76.2%). We found that the percentage of persons seeking medical advice grows with an increase in the number of days during which the disease made the performance of their every day activities difficult.

Utilization of medical services is greatly affected by the presence of a doctor whom a patient especially trusts. The presence of such a doctor nearly doubles the percentage of persons who utilize medical services (see Table 4).

Tab. 4. Non-utilization of medical services by the presence of a doctor whom a respondent trusts

Trusted doctor	n	%
Yes	24	24.5
No	109	44.0

H = 6.16 p < 0.013

The utilization of medical services is also affected by sick people's satisfaction with the contact they have had with medical staff members hitherto as well as by the friendliness of these medical personnel. The percentage of persons not seeking medical consultation increases proportional to negative opinions concerning the way the respondents were treated by the medical staff (see Table 5).

28.2% of persons usually satisfied while being treated by the medical staff did not use medical services, while among those usually dissatisfied the percentage was 43.3%.

We found that working persons are less likely to seek

Tab. 5. Non-utilization of medical services by the level of satisfaction at being treated by medical staff

Level of satisfaction	n	%
Usually satisfied	48	28.2
More often satisfied than dissatisfied	28	40.0
More often dissatisfied than satisfied	9	32.1
Usually dissatisfied	13	43.3
Does not know	32	71.1
No answers given	3	-

H = 9.51 p < 0.002

medical advice (about 47%) than those who are not employed (about 29%). The study also showed that among people actively working mainly the managers do not seek medical consultation (55.6%) (see Table 6).

Tab. 6. Non-utilization of medical services by occupation

Occupation	n	%
Unemployed	51	29.5
Workers:	82	46.4
Managers	11	55.6
White-collar workers	38	39.8
Manual workers	21	46.6
Others	12	68.7

H = 4.92 p < 0.03

We found that marital status and education did not significantly influence the utilization of medical services.

The analysis of the motives for non-utilization of medical consultation by people suffering from chest pain indicates that difficulties in reaching medical care - i.e. living far from an outpatient clinic, waiting too long for the visit at a doctor's, or too high a cost of the visit - are not the significant reasons for non-utilization of medical services (see Table 7).

Tab. 7. Motivation for non-utilization of medical services

Motivation	n	%
Was not so ill	45	34
Does not like visiting a doctor	37	28
Had no time	19	15
Too far to the outpatient clinic	16	12
Too long to wait	8	6
A doctor would not help	6	5
It costs too much	-	-
Total	131	100
No answers given	2	-

Main reasons for non-utilization of medical advice reflect the self-estimation of his or her health and their attitude toward visiting the doctor. The most frequent reason for not using medical advice despite symptoms of angina pectoris was the respondents' conviction that they are not very ill (34%), the second most frequently

given reason was the respondents' dislike of visiting a doctor (28%).

The multidimensional analysis showed that three variables among those mentioned in the study most successfully differentiate the symptomatic people using medical services from those not using medical advice. They are occupation, self-estimation of one's health and the opinion about medical staff.

### Discussion

In the hierarchy of health needs of people living in cities the social and health significance of IHD has grown more and more. The frequency of angina pectoris stated in the study is roughly in agreement with the reports of other authors [6,7]. Nevertheless, the fact that many people do not use medical services and thereby do not receive medical treatment is alarming. These are usually middle-aged professionally active people, who do not consider their health problem critical enough, and are unwilling to visit their doctors, perhaps due to negative opinions of medical staff based on previous experiences. It is especially alarming in view of the fact that untreated IHD leads to numerous, serious consequences. A great percentage of people not seeking medical advice may also result from failing to realize the consequences of not reporting for medical treatment and from the natural course of the disease. To our knowledge there are no wider studies concerning the motivation for this fairly common phenomenon.

We can suppose that if doctors made patients aware of the nature of their disease and the necessity for its treatment they would seek medical advice more often. Thus, especially necessary is the formation of positive health behaviour in society as a whole, encouraged by qualified medical staff, and providing an atmosphere throughout the community which supports a more healthy live-style among individuals. Special primary health care teams should undertake to propagate prophylaxis by means of screening examinations directed towards the early detection of people with symptoms of angina pectoris and to ensure them active medical care.

### Conclusions

The patients' self-estimation of their health, their opinion about medical staff, and their occupation are the main factors influencing the utilization of medical advice in cases of angina pectoris. Sex, marital status and education have no influence.

The results of the study point to the great value of individually disseminated information to patients and proper, friendly attitude of medical staff members toward them.

### Summary

The aim of the study was the determination of main motives for non-utilization of medical services by persons with symptoms of angina pectoris. We found that in the representative sample (Lodz, Poland) 38% of them fail to seek medical services. Age, occupation, self-estimation of health, the presence of a trusted doctor and the opin-

ion about medical staff determine the non-utilization of medical advice. However, no connection between sex, education, marital status and the use of medical services has been noticed.

The results of the study point to the great value of the individual counselling by medical staff and the proper, friendly attitude towards patients, especially chronically ill.

### Résumé

#### La non-utilisation des services médicaux par les personnes souffrant d'angine de poitrine

Le but de cette étude a été de déterminer les principaux motifs de non-utilisation des services de soin par les personnes souffrant d'angine de poitrine. Dans un échantillon représentatif de la population de Lodz (Pologne), 38% des patients symptomatiques n'avaient pas recours aux soins médicaux. L'âge, la profession, l'auto-appréciation de son état de santé, l'accessibilité à un médecin digne de confiance, et l'opinion concernant le personnel médical sont les principaux déterminants de l'utilisation des services. En revanche, il n'existe aucune association avec le sexe, le niveau d'éducation, l'état-civil. Les résultats de cette étude montrent la grande valeur du conseil individuel prodigué par le personnel médical et la nécessité d'une attitude adéquate et amicale à l'égard des patients, en particulier ceux souffrant de maladies chroniques.

### Zusammenfassung

#### Zum Problem der Angina pectoris-Patienten, die medizinische Dienstleistungen nicht in Anspruch nehmen

Ziel der Studie war, bei Angina pectoris-Patienten die Hauptgründe zu untersuchen, die dazu führten, dass medizinische Dienstleistungen nicht in Anspruch genommen wurden. In einer repräsentativen Stichprobe (Lodz, Polen) fanden wir 38% Patienten, die keinerlei medizinische Einrichtungen aufsuchten. Dieses Verhalten (von nicht in Anspruch genommener medizinischer Beratung) wurde von folgenden Parametern bestimmt: Alter, Beruf, Stellenwert der Gesundheit, das Vorhandensein eines vertrauten Arztes und die Ansicht über medizinisches Personal. Hingegen wurde kein Zusammenhang beobachtet zwischen dem Aufsuchen medizinischer Einrichtungen einerseits und dem Geschlecht, der Ausbildung und dem Familienstand der Patienten andererseits. Die Untersuchungsergebnisse weisen auf die grosse Bedeutung der individuellen Beratung durch medizinisches Personal hin, ebenso wie auf eine angemessene, freundliche Haltung gegenüber den Patienten, besonders was die chronisch Kranken betrifft.

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Address for correspondence:

Andrzej Gerstenkorn  
Chair of Social Medicine,  
Medical Academy of Lodz, Poland  
Piotrkowska str. 5  
P.O.B. 4A  
PL 90-955 Lodz 8