Improvement in the accessibility and organization of services of family physicians in a small town in Poland: a comparison of patient opinions between 1998 and 2002

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Abstract

Purpose: The institution of a family physician was introduced in Poland to improve organization and quality of primary health care. Thus, it seems important to find out how the time factor (4 years) and the organizational changes that took place during that time have affected patients' views on primary health service accessibility.

The aim of the study was to compare patients' opinions on selected aspects of the access and organization of health care provided by family physicians between the years 1998 and 2002.

Material and methods: Two independent surveys conducted in 1998 and 2002 using face-to-face interviews with structured questionnaires. The study was carried out in a small town in Poland. The study group consisted of two samples of patients randomly selected. Altogether 1000 interviews were obtained in survey I (1998) and 1000 from another sample in survey II (2002).

Results: The surveys carried out at a 4-year interval showed that the accessibility of family physician services improved between 1998 and 2002. This was reflected by: more common use of registration by phone and better overall evaluation of the registration system, shorter time spent in the waiting room to see a family physician, making an appointment for a definite hour, better opinion of the visit duration, more frequent use of phone consultations and higher number of home visits.

Conclusions: The results our study show that primary health care reform in Poland has a positive impact on the patients' opinions about access and organization of services of family physicians.

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Introduction

The Polish health care system, similar to other Central and East European countries, has been transforming from the state run system to less centralized model [1-5]. Since 1990, the government of Poland has introduced a number of reforms in the finance, management and organization of the health sector; a dynamic development of the private sector started, mainly in dental care, ambulatory services, and diagnostic testing. Since 1993, private surgeries and other medical organizations have been able to sign contracts for the provision of services to the persons entitled to care financed from public resources [1]. Important changes have been taking place in the primary health care system. The aim of the reform was to change the system, which used to be centrally governed and based on specialists providing services in primary health care, into a more effective, cheaper one that offers better services. Before the reform, primary health care was provided by multispecialist teams of physicians trained in internal medicine, paediatrics, and gynaecology, and by dentists, nurses, midwives and ancillary support staff. The model was disease and specialists oriented. All health care personnel were state employees and paid on salary-basis. Despite the large number of specialists, access to care in the public sector was often difficult.

Changes in the financing of health care, from a budget-financed system to mandatory health insurance (National Health Found) have promoted the development of a private sector, including primary health care.

The main features of primary health care reform were: (1) implementation of family physicians in 1995 and recognition of family medicine as a specialty with its own under- and post-graduate training programs; (2) introduction of the contracting and remuneration system of primary care doctors together with a list system for family physician; (3) privatization of primary health care facilities with family physicians becoming the owners and employers to other staff.

According to the reform assumptions, the work of family physicians involves a number of prerequisites treated as a whole, namely continuity of care, coordination, health promotion, and care within the family and community setting.

The way in which health care is organized and financed appears to be related to patient satisfaction, especially in outpatient settings [6-7]. International studies show, that patients in different cultures and health care systems may have different views on some aspects of care, but most of them share opinions relating to doctor – patient communication and accessibility of services [8]. Access to care includes being able to make an appointment to see one's physicians in a timely fashion, not having to wait a long time in the physician's office, and being able to speak to him/her on the telephone [9]. Donabedian [10] states that accessibility is "the ease with which person can obtain care". According to Campbell et al. [11] access is one of the principal dimensions of quality of care for individual patients and organizational access is a sub-component of availability. If people are physically able to access a health facility they may still face barriers to accessing care in terms, for example, of the length and availability of appointments.

Patients can assess various accessibility elements, such as doctor – patient relationship, receptionists, appointment system, waiting time, consultation length, telephone services, home visits, distance to cover and others [3,4,7,9,12].

In the current study, we focus on these aspects of access and organization of services which had been frequently criticised by Polish patients in the previous system of primary health care. The most common problem was registration for the visit and long queues in the waiting room [13-15]. Moreover, patients complained that they could not choose their physician [16].

The institution of the family physician in Poland based on the model operating in many Western European countries was an attempt to improve primary health care accessibility and effectiveness. There is little evidence available in the literature of the subject about the impact of the reform of primary health care in former European communist countries on the improvement of the access and organization of services. Furthermore health care reform projects are rarely evaluated systematically [17]. Thus, it seems important to find out how the time factor (4 years) and organizational changes affected patients' opinions in the aspect of medical service accessibility.

The aim of the study was to compare patients' opinions on selected aspects of the access and organization of health care provided by Polish family physicians between the years 1998 and 2002.

The following topics were studied: the system of registration, length of time spent in the waiting room to see a doctor, the appointment system, length of consultation, telephone advice, home visits, problems associated with the use of health care services and overall satisfaction with family physician care.

Material and methods

Setting

The study was carried out in a small town (Giżycko) in Poland, where physicians with specialist training in family medicine were introduced in 1995. Giżycko was choosen to be the study setting for it was one of the first towns in Poland to have a new family physician – based primary health care model instituted. Moreover, the study gained approval of both family physicians and local health care authorities, who wanted to know the patients' opinions about primary health care reform. Giżycko is a small town in the north-eastern region of Poland, with approximately 40 000 inhabitants. In 1998 (survey I), the total number of patients of family physicians amounted to 36 281 and 15 family physicians worked in the studied area, each having the list of patients. They signed contracts with the local government and were financed from the provincial budget.

In 2002 (survey II), in the same area, the total number of patients of family physicians amounted to 35 525 and there were 16 family physicians, each with a list of patients. They signed contracts with the Regional Sickness Fund following the introduction of the universal health insurance administered by Health Insurance Funds.

Both in investigation I and II, the capitation system was used as the basis for service compensation and the amount of financial means depended on the number of registered patients (capitation-based physician payment). Within the capitation fee, family physicians provided health services according to their professional competence.

Sample

The study group included patients randomly chosen from those registered on the patient lists of a doctor and (or) nurse, who visited the doctor's or nurse's centre or were visited at home by them in the preceding week.

In 1998 (survey I), every fourth person (1 023 subjects) was selected from the list of 4 092 eligible patients. Altogether 1 000 interviews were obtained. In 2002 (survey II), every fourth person (1 016 names) was chosen from the list of 4065 eligible patients. As only 988 interviews were obtained, an additional 12 subjects were randomly selected from the list so as to achieve a similar sample size as in survey I.

Questionnaire

A structured questionnaire was devised for the survey. The questionnaire contained questions on the use of health care services, patient demographic and health characteristics, as well as opinion and experiences with family physicians' and family nurses' care.

The study was preceded by a pilot investigation to elucidate whether questions were properly understood and answered. The questionnaire was slightly modified in survey II – certain questions were deleted, but its form was maintained to facilitate comparison.

The information was collected by means of face-to-face interviews. The respondents were interviewed in their homes by trained interviewers.

In this paper we analysed only the results related to access and organization of services of family physician care.

Ethics

The Ethics Committee of Medical University of Białystok approved the study.

Table 1. **Comparison of respondents' characteristics in the two surveys**

	Survey I	Survey II
Characteristics	n=1000 (100%)	n=1000 (100%)
Age (years)		
Under 24	118 (11.8)	100 (10.0)
25-44	391 (39.1)	369 (36.9)
45-64	274 (27.4)	278 (27.8)
65-74	142 (14.2)	155 (15.5)
+75 years	75 (7.5)	98 (9.8)
Sex		
Women	689 (68.9)	689 (68.9)
Men	311 (31.1)	311 (31.1)
Education		
Elementary and lower	325 (32.5)	306 (30.6)
Technical	220 (22.0)	223 (22.3)
Secondary and post-secondary	362 (36.2)	383 (38.3)
University	93 (9.3)	88 (8.8)
Frequency of visits to family physicians in previous 12 months*		
none	24 (2.4)	5 (0.5)
once	51 (5.1)	36 (3.6)
two-three times	198 (19.8)	175 (17.5)
four-five times	232 (23.2)	206 (20.6)
six and more	495 (49.5)	578 (57.8)

* P<0.0001

Analysis

Data were encoded and analysed using a packet Statistica PL v.7.1. Chi-square test was used to assess the correlation between non measurable features and $p<0.05$ was considered statistically significant.

Results

Tab. 1 gives details of the characteristics of patients in survey I and survey II. The sample characteristics in the two surveys were similar. There was no significant difference between the two groups in relation to age, sex and education. Statistically significant differences referred to frequency of visits to family physicians in the previous 12 months (P<0.0001). In survey II, there were less patients who had no visit at the doctor's or visited him/her once, twice, three, four or five times. Those coming to the doctor six or more times were more.

Registration

A comparison of distribution of replies to the question concerning registration mode, between survey I and II, revealed statistically significant differences. In survey I, 8.8% of patients registered by phone, while 4 years later – 41.7%. However, making an appointment for the visit personally is still more common. In survey I, 84.7% made an appointment in this way, while in survey II – 54.2% (*Tab. 2*).

The overall assessment of registration for the visit was based on the choice of 5 categories, from very good (5) to very bad (1). The mean assessment of registration in survey II was higher – 4.25 than in the previous one – 4.16 (P=0.0003).

Table 2. **Registration**

Registration	Survey I	Survey II
	n=1000 (100%)	n=1000 (100%)
By phone*	88 (8.8)	417 (41.7)
Personally*	847 (84.7)	542 (54.2)
By other persons	36 (3.6)	35 (3.5)
Scheduled by physician	2 (0.2)	6 (0.6)
Lack of answer	27 (2.7)	0 (0.0)

*P<0.00001

Table 3. **Length of time waited to see the physicians (time in the waiting room) and appointment**

The waiting time and appointment	Survey I	Survey II
	n=1000 (100%)	n=1000 (100%)
The waiting time		
less than 15 minutes*	323 (32.3)	586 (58.6)
more than 15 minutes, less than 1/2 hour	335 (33.5)	329 (32.9)
more than 1/2 hour, less than an hour*	222 (22.2)	61 (6.1)
more than an hour*	93 (9.3)	21 (2.1)
lack of answer	27 (2.7)	3 (0.3)
*P<0.00001		
Appointment		
Yes	78 (7.8)	503 (50.3)
No	894 (89.4)	495 (49.5)
Lack of answers	27 (2.7)	2 (0.2)

P<0.00001

Waiting time and possibility of making an appointment for the visit, consultation time

It was found that the waiting time for the visit shortened significantly between the surveys. This means that the percentage of subjects waiting longer than half an hour decreased, while the percentage of those waiting shorter than 15 minutes increased (*Tab. 3*).

This may be due to the fact that during survey II more patients visited their physician by appointment. In survey I, only 7.8% of the respondents made an appointment for a definite hour, while an increase to 50.3% was noted in survey II (*Tab. 3*).

Between survey I and II, patients' opinions on the length of their last visit changed significantly. In survey II, patients more frequently considered the last visit duration to be sufficient and fewer patients complained that the visit was too short (*Tab. 4*).

Telephone advice

It was established that in survey II, the number of patients aware of the possibility of telephone consultation increased. The possibility of medical consultation within the working hours was known by 68.1% of the respondents in survey I and by 76% in survey II. The percentage of subjects who had no idea of this form of advice decreased. The difference is statistically significant – P=0.0001 (*Tab. 5*). However, a small percentage of the respondents used this mode of contact with their family physicians in the last month; in survey I – 133 subjects (13.3%), in survey II – 143 (14.3%).

Table 4. **Length of consultation (duration of the last visit at the family doctor's)**

Length of consultation	Survey I	Survey II
	n=1000 (100%)	n=1000 (100%)
Definitely too long and rather too long	9 (0.9)	6 (0.6)
Sufficient	829 (82.9)	911 (91.1)
Rather too short	113 (11.3)	77 (7.7)
Definitely too short	22 (2.2)	5 (0.5)
Lack of answers	27 (2.7)	1 (0.1)

P<0.0001

Table 6. **Is it easier nowadays to get advice at the family doctor's?**

Is it easier to get advice?	Survey I	Survey II
	n=1000 (100%)	n=1000 (100%)
Definitely easier*	322 (32.2)	444 (44.4)
Rather easier	399 (39.9)	392 (39.2)
No change	173 (17.3)	105 (10.5)
Rather more difficult	90 (9.0)	50 (5.0)
Definitely more difficult	16 (1.6)	9 (0.9)

*P<0.00001

Overall satisfaction with telephone advice within the range from very much satisfied to very much dissatisfied was higher in survey II – the percentage of respondents very satisfied increased from 33.1 (survey I) to 64.3 (survey II) (*Tab. 5*).

Distance

In survey II, fewer patients lived in the close vicinity of the family physician practice compared to survey I. In 1998 there were 907 patients (90.7%) living up to 5 kilometres from the practice while in 2002 – 868 such patients (86,8%). In survey II, patients more frequently claimed that the practice location was inconvenient compared to survey I of inconvenient localization of the physician's surgery (28.5% and 21.5% respectively).

Home visits

Over twice as many patients asked for the home visit – within the last month – in survey II – 111 subjects (11.1%) compared to I – 45 (4.5%). Home visit refusal (once) was reported by 14 subjects in survey I and 17 patients in survey II, several times – 9 subjects in survey I and 5 in survey II.

Barriers

The patients were presented a list of nine possible difficulties in the use of services provided by a family physician and were asked to point at one to three of them as the most strenuous. Moreover, the patients could supplement the list with their own statements.

The most commonly reported difficulties referred to:

1. obtaining a referral to a specialist (30.8% – I and 25% – II),
2. having diagnostic tests (30.2% – I and 17.7% – II),
3. too long distance to the family physician practice (23% – I and 31.3% – II),
4. queuing in the waiting room (19.5% – I and 5.7% – II).

Table 5. **Telephone advice**

Telephone advice	Survey I	Survey II
	n=1000 (100%)	n=1000 (100%)
Is there a possibility of telephone consultation?		
Yes	681 (68.1)	760 (76.0)
No	41 (4.1)	43 (4.3)
Do not know	278 (27.8)	197 (19.7)
P=0.0001		
Have you phoned your family doctor for advice? (within the last month)		
Yes	133 (13.3)	143 (14.3)
No	867 (86.7)	857 (85.7)
Not significant		
Satisfaction with telephone advice	133 (100%)	143 (100%)
Very satisfied*	44 (33.1)	92 (64.3)
Rather satisfied	76 (57.1)	38 (26.6)
Difficult to say	6 (4.5)	8 (5.6)
Rather dissatisfied	4 (3.0)	4 (2.8)
Very dissatisfied	3 (2.3)	1 (0.7)

*P<0.00001

Table 7. **Satisfaction with family doctor**

Satisfaction	Survey I	Survey II
	n=1000 (100%)	n=1000 (100%)
Very satisfied	377 (37.7)	350 (35.0)
Rather satisfied*	435 (43.5)	501 (50.1)
Difficult to say	110 (11.0)	98 (9.8)
Rather dissatisfied	59 (5.9)	45 (4.5)
Very dissatisfied	19 (1.9)	6 (0.6)

*P=0.003

As revealed by the above data, the lower percentage of subjects reported difficulties with obtaining a referral to a specialist, having diagnostic tests and queuing in the waiting room. However, more patients complained of a too long distance to the surgery.

The patients' replies to the question "Is it easier nowadays to obtain medical consultation at the primary health care physician's than before?" confirm that the changes in the primary health care are becoming increasingly popular with patients (*Tab. 6*).

Overall satisfaction with the family doctor care was measured on a five-point scale (very satisfied, rather satisfied, difficult to say, rather dissatisfied, very dissatisfied). Comparative analysis show that in survey II, the percentage of respondents rather satisfied with family doctor care increased from 43.5 to 50.1 (P=0.003) (*Tab. 7*).

Discussion

Surveys of patients' opinions concerning primary health care are not new in Poland, e.g. studies by other authors were undertaken in the 60s-70s [16] and 80s [13-15] of the previous century. However, there have been many changes in primary

health care and the views of patients have changed as well. Our findings show that the primary health care reform in Poland has exerted a positive impact on the patients' views on the access and organization of services of family physicians in a small town in Poland. Studies of other authors – using different methodology – also indicate that significant improvement was noticed in consultation availability in the primary health care [18].

In our study, the accessibility of family physician services improved between 1998 and 2002. This was reflected by: more common use of registration by phone and better overall evaluation of the registration system, shorter time spent in the waiting room to see a family physician, making an appointment for a definite hour, better opinion of the visit duration, more frequent use of phone consultations, and higher number of home visits. The appointment system comprising visits at a definite hour and telephone consultations is a new element that builds up the family physician profile in Poland, not earlier encountered in the system of primary health care. In the socialistic system of health care, queuing in the waiting room at the doctor's was the most common objection raised by patients against health service. Over 56.3% of patients reported waiting for the visit as long as over one hour [16]. The appointment system is a major factor determining patient satisfaction with a family physician [4].

In our study, a significant increase in the number of patients who see their physicians by appointment suggests that this form of service provision is highly acceptable.

Telephone consultations are very common in many countries and their accessibility is felt to be a positive aspect of the service [12]. In Poland, this mode of service provision is new and as shown by our study not very popular with patients. In the area involved in the present study, patients seldom call their family physicians to receive medical advice, although for the majority of the interviewes telephone consultations are a well known and accepted form of medical service. There seems to be a need for detailed recommendations and guidelines on telephone organization in practice of family physicians.

The fact that in 2002 (survey II) a smaller percentage of subjects reported problems with obtaining a referral to a specialist or accessory investigations may result from the contract contents. In 2002, referrals to a specialist did not encumber the family physician budget and part of the capitation-based payment was designed for diagnostics. In 1998, the financial means for diagnostics and specialist consultations were included and thus burdened the family physician budget.

It should be noticed that patients' satisfaction with family physicians was high both in study I and II (see *Tab. 7*). This seems to confirm that in quantitative studies, the question concerning patients' satisfaction usually provides approximately 80% of positive responses [19].

The results our study show that primary health care reform in Poland has a positive impact on the patients' opinions about access and organization of services of family physicians.

The improvement in service accessibility revealed in the study may have at least two reasons. Firstly, family physicians have improved organization of services to make their work easier and more effective. This is particularly important in the situation determined by private medical services and competition for the patient. Secondly, patients' habits and expectations of service organization may have been altered throughout the 4-year period.

The primary health care reform in Poland is a continuous process exhibiting certain tendencies, which on one hand result from patients' expectations and are due to legal regulations on the other. Therefore, the changes that occur should be monitored with the involvement of patients. As claimed by experts, patients have become increasingly engaged in the evaluation of care [20]. Therefore, patients' views may be taken into account in service contracts between purchasers and providers. It is particularly important in the situation of market competition among providers, with patient as the main goal.

This study had certain limitations, which should be noted. Firstly, as the research was conducted in a small town, it does not necessarily reflect patients' opinions in other regions of Poland, especially in big cities. Secondly, this study provides only quantitative data on some of the service accessibility components. In depth qualitative methods may be necessary to obtain more valid evidence.

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References

1. Tymowska K. Health care under transformation in Poland. Health Policy, 2001; 56: 5-98.
2. Chawla M, Tomasik T, Kulis M, Windak A, Rogers D. Enrolment procedures and self-selection by patients: evidence from a Polish family practice. Health Policy and Planning, 1999; 14(3): 285-90.
3. Polluste K, Kalda R, Lember M. Primary health care system in transition: the patient's experience. International Journal for Quality in Health Care, 2000; 12: 503-9.
4. Kersnik J. Determinants of customer satisfaction with the health care system, with the possibility to choose a personal physician and with a family doctor in a transition country. Health Policy, 2001; 57: 155-64.
5. Hebrang A, Henigsberg N, Erdeljic V, Foro S, Vidjak V, Grga A, Maček T. Privatization in the health care system of Croatia: effects on general practice accessibility. Health Policy and Planning, 2003; 18(4): 421-8.
6. Cleary PD, McNeil BJ. Patient satisfaction as an indicator of quality care. Inquiry, 1988; 25: 25-36.
7. Baker R, Streatfield J. What type of general practice do patients prefer? Exploration of practice characteristics influencing patient satisfaction. British Journal of General Practice, 1995; 45: 654-9.
8. Grol R, Wensing M, Mainz J, Ferreira P, Hearnshaw H, Hjortdahl P, Olesen F, Ribacke M, Spenser T, Szécsényi J. Patients' priorities with respect to general practice care: an international comparison. Family Practice, 1999; 16: 4-11.
9. Barr DA. The Effects of Organizational Structure on Primary Care Outcomes under Managed Care. Annals of Internal Medicine, 1995; 122: 353-9.
10. Donabedian A. An introduction to quality assurance in health care. Oxford: Oxford University Press; 2003, p. 18.
11. Campbell SM, Roland MO, Buetow SA. Defining quality of care. Social Science and Medicine, 2000; 51: 1611-25.
12. Buetow SA. What do general practitioners and their patients want from general practice and are they receiving it? A framework. Social Science and Medicine, 1995; 40: 213-21.
13. Wdowiak L, Kaniewska J, Kurzeja S. Analysis of selected elements of basic health care units activities in the city of Lublin. Part II. Analysis of the time from patient's registration to his leaving of the consulting room. Zdrowie Publiczne, 1981; 92: 149-56.
14. Sygit M. Study of population opinion on health service functioning. Part II. Results of introduction study. 5. Opinions of interviewed

individuals on the medical personel and health service institutions where they were treated. Zdrowie Publiczne, 1990; 101: 64-70.

15. Grębowski R, Korfel Z, Kryszpiniuk A, Roszkowska-Pachman M, Ruczaj J, Wojciechowicz D. Basic health care in the opinion of patients. Roczniki Akademii Medycznej w Białymstoku, 1990-1991; 35-36: 109-18.

16. Ostrowska A. Problemy zdrowia i opieki lekarskiej w opiniach społeczeństwa polskiego. Wrocław: Wydawnictwo Polskiej Akademii Nauk; 1975, p. 83-107.

17. Grielen SJ, Boerma WGW, Groenewegen PP. Science in practice: can health care reform projects in central and eastern Europe be evaluated systematically? Health Policy, 2000; 53: 73-89.

18. Szydłowski JW. Health care reform in progress. Noticeable improvement of consultation availability in the primary health care. Wiadomości Lekarskie, 2002; 55: 526-30.

19. Fitzpatrick R. Scope and measurement of patient satisfaction. In: Fitzpatrick R, Hopkins A, editors. Measurement of patients' satisfaction with their care. London: Royal College of Physicians; 1993, p. 1-17.

20. Cleary PD. The increasing importance of patient surveys. British Medical Journal, 1999; 319: 720-1.