

Primary health care system in transition: the patient's experience

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Abstract

Objective. To find out how Estonian people evaluate the changes in primary health care (PHC), how they perceive the acceptability of the new PHC system, and to assess patients' satisfaction with their primary care doctor.

Design. Face-to-face interviews using structured questionnaires.

Setting. Estonia.

Study participants. A random sample of Estonian residents aged 15–74 years ($n=997$).

Main measures. Acceptability of PHC system (accessibility, the patient–practitioner relations, amenities, and patient's preferences) and patients' satisfaction with primary care doctor.

Results. Of the 997 respondents, 46% were sufficiently informed about the transition to the general practitioner (GP)-based PHC system; however, 45% of respondents had not personally experienced any changes. Of the 997 persons interviewed, 68% were registered on the patient list of a GP, and 62% of those who had health problems preferred to consult the primary care doctor first. The waiting time for an outpatient appointment was brief (0–2 days). Of the 997 respondents, 68% were satisfied with their primary care doctor. Satisfaction was dependent on: (i) how patients evaluated the competence of the physician; (ii) comprehensibility of doctor's explanations; and (iii) comfort of the clinic. The right of patients to choose their own primary care doctor and having sufficient information about the changes in PHC system had a positive influence on the level of satisfaction.

Conclusions. Patients' opinions are important in the evaluation of PHC. To increase the level of satisfaction, people need to understand the nature and intent of the primary care reforms. Personal choice of primary care doctor and good patient–doctor relationships are important factors too.

Keywords: acceptability, general practitioner, patient satisfaction, primary health care reform

Estonia had a tradition of general practice during the first period of independence (1918–1940). During the Soviet period (1940–1991) an excessive hospital network was developed, and polyclinics with various specialists were introduced into primary health care (PHC). The emphasis was on the specialization of physicians: district doctors for adults and district paediatricians were the main doctors in primary care. Direct access to polyclinic specialists existed too. District doctors were trained as general internists, whose main task was to diagnose the disease and provide treatment. District doctors were supposed to co-operate closely with sub-specialists of narrower specialities. The nature of the work of district doctor, as well as of the whole health care system, was disease- and specialist-oriented.

Major health care reforms began in the 1990s. Until 1992,

the health care system was financed by the state budget. In 1992, a health insurance scheme was introduced in Estonia and this marked the beginning of a new period in health care. At the same time reorganization of the PHC system was introduced. In 1993, the first doctors with special education in primary care started their work as general practitioners (GPs). In January 1998, the regulation of the Ministry of Social Affairs on the improvement of PHC came into effect, which regulated requirements for primary care doctors and principles of financing the PHC as well as the gate-keeping function of primary care doctors. In addition to the gate-keeping function, the most important change for the population was the introduction of patients' list system for GPs. Every person was expected to choose their GP by registering on a patient list [1]. They could register personally at the doctor's office,

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at the registration desk of the polyclinic or, be registered by a family member. Being included on a GP list is believed to improve patient–doctor communication and continuity of care, which are essential prerequisites for quality assurance [2–4]. By the Estonian health care laws, primary medical care is guaranteed to every person. Therefore, those people who did not choose their primary care doctor by registering on the patient list themselves were included on a list according to their place of residence, or on the lists of those doctors whose patient lists were not completed.

Health care quality is described by attributes such as effectiveness, efficiency, optimality, legitimacy, equity and acceptability [5]. Acceptability describes conformity to the wishes, desires and expectations of patients. It hinges on various properties: accessibility, patient–practitioner relations, amenities, and patient’s preferences regarding effects and costs of care. The concept of quality is closely related to these features. Acceptability is an adequate criterion with which to assess the quality of health care from the patient’s point of view and is an indicator of how people evaluate the changes and present situation in a health care system [2,5].

Understanding patients’ needs and expectations and perceiving their active participation is essential for PHC providers to improve patients’ health [6]. Some studies about ambulatory patient satisfaction demonstrate that courtesy and sensitivity, clinical quality and safety, as well as attentiveness are essential for a patient to be satisfied with the care provided. Having enough information about patient’s health problems, allowing sufficient time during the consultation, making patients feel free to talk about their problems, and assurance that the clinician did everything that should have been done in treating the patient, helps to increase the level of satisfaction [7–9]. The main problems regarding patient satisfaction have been reported to be issues related to communication, lack of interest in patient information, lack of consideration and impoliteness by medical staff [8,10–12].

The level of satisfaction and the reasons for dissatisfaction with PHC vary in different countries [13]. Some studies in European countries with long tradition of GP-based PHC systems have demonstrated that people prefer specialists [14, 15]. On the other hand, there are studies which indicate that people who are satisfied with their primary care doctor, especially older people, prefer to consult the primary care doctor first [16]. At the present time there is no indication that PHC patient satisfaction studies are being carried out in Eastern and Central European countries; there is little research in Estonia that includes patient satisfaction data. To find out opinions on the existing out-patient system of health care and about the future expectations on health care, the first population survey was conducted at the end of 1993 in Tartu [17]. The majority of respondents felt that the existing PHC system in polyclinics should be improved and great expectations were placed on GPs. Long waiting times in polyclinics, absence of appointment systems, unsatisfactory conditions at the polyclinics, the location of the polyclinics, the lack of a doctor who could deal with different problems simultaneously, and not enough attention paid by the medical

personnel were most frequently mentioned reasons for dissatisfaction with the system.

The aim of this study was to find out how Estonian people evaluate the changes in PHC, how they perceive acceptability (accessibility, patient–practitioner relations, amenities, and patient’s preferences) of the PHC system, and to assess people’s satisfaction with PHC doctors.

Subjects and methods

Sample and study design

In October 1998, a random sample of Estonian residents aged 15–74 years ($n=997$) were interviewed personally by using structured questionnaires. The sample was formed by self-weighting: the proportional model of the total population aged 15–74 years, where all the respondents represent the equal number of people in the population, was used. A two-staged stratification was used to form the sample. First, the population was divided by territorial domicile into six strata, the size of the sample in each stratum was based on proportional division of the population. Then, two-staged selection was done in each stratum. The primary sampling units were settlements (towns, small towns, country towns and villages). The sampling points (63 in total) were chosen at random according to the size of the settlement (the number of residents who qualified for the survey’s age group) on proportional probability bases. In each primary sampling unit, the secondary sampling units – individuals – were chosen. The face-to-face interviews were carried out by the interviewers of the marketing and social research company EMOR. To obtain a sample of the required size, 1895 contacts were made with the respondents. The interview was conducted in 997 cases. In 446 cases nobody was home during the two visits, in 166 cases the person who was home did not meet the criteria of the study (he/she was younger or older), and 286 persons refused to answer.

Questionnaire and outcome measures

The questionnaire was devised by the research group at the University of Tartu. It included demographic data (sex, age, nationality, education, income, place of residence), self-assessment of health status and various aspects related to PHC: size of the PHC institution, method of registering on their patient list, preferences of doctors (PHC doctor or specialists), access to care (waiting time), perception of the changes in PHC, and overall satisfaction with GP. Ten questions focused on patient–practitioner relationships and amenities: perceived competence of physician, effectiveness of therapy prescribed, understanding the patient’s problems, comprehensibility of explanations given by the physician, modern equipment, punctuality of the physician, cleanliness and comfort of the clinic, waiting time in the GP centre/clinic, ease of access by appointment, and location of the GP centre/clinic. The reliability of the questionnaire was tested with Cronbach’s alpha (0.80).

For health status, three categories were used: (i) generally

good; (ii) normal (medical aid is sometimes needed); (iii) rather poor (to maintain work fitness, medical aid and medicine are often needed for chronic diseases). The size of the PHC institution was measured by three categories: (i) solo practice; (ii) small group practice (≤ 4 GPs practising together); (iii) bigger health centre (> 4 GPs)/polyclinic. Overall satisfaction with the PHC doctor was measured on a 4-point scale: very satisfied, quite satisfied, quite dissatisfied, very dissatisfied.

To assess patient-practitioner relationships and amenities, respondents were asked to evaluate how relevant these aspects were for them, and how satisfied they were with those aspects. For measuring the relevance of these items and satisfaction with them, a 7-point scale was used (1, not at all relevant/very dissatisfied; 7, very relevant/very satisfied). The dichotomization point of the 7-point scale for the regression analysis was between 5 and 6.

Respondents were grouped by their health status, age, sex, place of residence (capital, urban and rural population), and registration on the patient list. The differences between groups were tested using chi-squared tests. To estimate the relations between variables the Spearman correlation coefficient was used. The role of different factors in level of satisfaction with the PHC doctor was explained by logistic regression analysis. Two separate regression models were tested with different sets of variables (set I 'formal characteristics' and set II 'amenities and patient-doctor relationships'). For the statistical analysis the SPSS (Statistical Package for the Social Sciences) was used.

Results

Sample description, health status

The structure of interviewees by age, sex, nationality and place of residence is presented in Table 1. The sample is representative of the Estonian population.

Of the persons interviewed, 46% evaluated their health as generally good and 33% as normal (medical aid was sometimes needed) and 21% of the respondents evaluated their health status as poor (they needed often medical aid and medicines).

In October 1998 when the survey took place, 68% of the interviewed persons were registered on the patient list of a GP. The methods of registration on the patient list were ($n=675$): (i) registration on the patient list personally (at the GP office), 39%; (ii) registration on the patient list at reception of the polyclinic, 27%; (iii) registered by other persons or by the receptionist of the polyclinic, 34%.

Evaluating the changes in PHC

During the previous 12 months, 25% of respondents had visited the district doctor, 52% had visited the GP and 48% of respondents had visited a specialist. Almost one-third of the persons interviewed did not have a contact with any physician during the previous 12 months.

Of the persons interviewed, 45% did not perceive any changes with the transition to the GP-based PHC system; most of them had not visited the primary care doctor

Table 1 Characteristics of respondents by sex, age, nationality and place of residence in comparison with the total population of Estonia (aged 15–74 years)

	Sample <i>n</i> (%)	Number of total population aged 15–74 years (1 January 1998) ¹ <i>n</i> (%)
Sex		
Male	470 (47)	515 436 (47)
Female	527 (53)	587 350 (53)
Age (years)		
15–24	191 (19)	207 751 (19)
25–34	184 (18)	204 541 (18)
35–49	285 (29)	312 276 (29)
50–64	221 (22)	244 575 (22)
65–74	116 (12)	133 647 (12)
Nationality		
Estonians	649 (65)	700 216 (64)
Non-Estonians	348 (35)	402 570 (36)
Place of residence		
Capital	310 (31)	325 591 (30)
Urban area	411 (41)	452 773 (41)
Rural area	275 (28)	324 422 (29)

¹Source: Statistical Office of Estonia.

Table 2 Variations of respondents' opinions about the changes in PHC according to being registered on the doctor's patient list (%)

Respondents' opinion about the changes in PHC	Registration in patient list	
	Yes (<i>n</i> = 675)	No (<i>n</i> = 321)
Situation in PHC had improved	27	15
No change	48	39
Situation in PHC has become worse	11	7
Do not have personal opinion	13	38
Did not answer	1	1

during the last 12 months. Nearly one-quarter (23%) of the respondents thought the situation in the PHC system had improved, but one-tenth of the respondents found the situation had become worse, and 22% of the respondents did not have a personal opinion. The changes were often perceived by those persons who were registered on the patient lists (Table 2), the differences of opinions were statistically significant ($P < 0.0001$).

The evaluation of changes is related to the age of respondents too ($r = -0.13$, $P < 0.01$): younger people found

more often than the situation in the PHC system had improved.

There was a weak, but statistically significant correlation between evaluation of changes in PHC and size of PHC institution ($r = -0.13$, $P < 0.01$). When the GP/PHC doctor had a solo practice or was working in a small centre, the evaluation of the changes was more positive.

Acceptability (accessibility, patient's preferences, the patient–practitioner relations and amenities) of PHC system

(i) Accessibility

Almost one-half of respondents (46%) reported that they were sufficiently informed about changes that go along with the transition to the GP-based PHC system. The same number of respondents stated that they were informed insufficiently, or that they did not have any information at all about the changes. The female respondents were informed somewhat better. There were significant differences between capital and other areas. More than one-half (57%) of the respondents from rural areas and 50% from urban areas (except the capital) said that they had enough information, but only 34% of respondents from the capital agreed that they were sufficiently informed about the changes in PHC. Respondents who were registered on the patient list were better informed: 56% thought that they had enough information. On the other hand only 26% of those who were not registered on the patient list had sufficient information. Respondents whose GP/PHC doctors had solo practices or practised in small centres were better informed of changes in PHC. There was a significant negative correlation between size of institution and level of information among the population ($r = -0.14$, $P < 0.01$).

According to the respondents, most of GPs/PHC doctors (65%) practised in polyclinics or bigger health centres (with more than four GPs together). GPs/PHC doctors used to practice in polyclinics mainly in the capital and in urban areas (82%); 17% of GPs/PHC doctors had small group practices (up to four GPs working together); 10% of GPs had solo practices, mostly in rural areas (31%); and 8% of the respondents did not know where their GP practices.

The waiting time for an appointment to see the primary care doctor was short for most respondents. The doctor usually admitted 59% of respondents on the same day that patients requested; 14% of respondents were admitted during 1–2 days; 2% of respondents during 3–4 days; and 23% of respondents did not know the length of waiting time. There were no significant differences between the regions.

(ii) Preferences

Almost one-half of respondents (49%) with health problems and complaints prefer to visit the GP or PHC doctor; 38% of respondents would like to consult the specialist first; and 12% of interviewed persons did not have a personal opinion. There were no significant differences in preferences observed between male and female respondents, or between age groups. Statistically significant differences were found by comparing

the respondents' preferences of applying to the doctor by place of residence (Table 3). Rural populations mostly prefer to visit the GP/PHC doctor at first, and approximately one-half of the urban population (excluding the capital) would prefer to visit the GP/PHC doctor first. In the capital, only one-third of respondents would prefer to consult the GP/PHC doctor first. The choice of doctors was influenced by whether the respondent had registered on the patient list or not: of those respondents who had registered on the patient list, 62% preferred to visit the GP/PHC doctor first, whereas 30% of them would like to consult a specialist first. Respondents who had not registered on the patient list more often prefer to go directly to the specialist (56%), and only 22% of them preferred to visit the GP/PHC doctor first. These differences are statistically significant ($P < 0.0001$).

When their child gets ill or has health problems 44% of respondents usually go to the GP; 47% to the district paediatrician; and 3% to the specialist. Statistically significant differences ($P < 0.0001$) were found between urban and rural areas (Table 3) as well as between age groups. Younger people are more likely visit the GP when their child becomes ill, older respondents are more likely take their child to the district paediatrician.

(iii) Patient–practitioner relationships and amenities

Four items described the patient–practitioner relationships and six items described the amenities. Table 4 shows the evaluation of relevance and satisfaction. Both the percentage of respondents who considered these items relevant, as well as were satisfied with them, was rather high. The respondents considered most relevant the aspects that described the relationships between doctor and patient. Amenities were considered less relevant except for location of the health centre/clinic.

Satisfaction with GP/PHC doctor

One-quarter of the respondents (27%) were very satisfied; 41% quite satisfied with his/her GP/PHC doctor; 25% of respondents did not have an opinion; and 7% of respondents were not satisfied. There was no statistically significant difference between male and female and rural or urban respondents' degree of satisfaction, but there was a difference between age groups. Respondents aged 65 years and older were considerably more satisfied than younger people. Respondents who had registered on the patient lists were more satisfied with his/her doctor than respondents who did not register on the list (Table 5).

Respondents who were more informed about the changes in the PHC system were more satisfied with his/her doctor as well ($r = 0.29$, $P < 0.01$). A correlation was found between satisfaction with the GP/PHC doctor and positive evaluation of changes in the PHC system ($r = 0.26$, $P < 0.01$).

To explain the role of different factors in the model of satisfaction with the GP/PHC doctor logistic regression analysis was used. Altogether nine factors were included in the analysis: waiting time, income, age, education, place of residence, health status, type of practice (solo practice, small

Table 3 Respondents preferences for first visit to the doctor for own illness and for their child's illness according to the place of residence (%)

	Preference for consulting in own illness (<i>n</i> =997)		Preference for consulting in child's illness (<i>n</i> =422) ¹	
	GP	Specialist	GP	District paediatrician
Capital ²	32	56	17	73
Urban area (excluding capital)	52	35	49	44
Rural area ²	65	23	64	24

¹Only respondents with a child. ²The differences between groups are statistically significant ($P < 0.0001$).

Table 4 Evaluation of relevance and satisfaction with various factors characterizing amenities and patient-practitioner relationships

	Very relevant (%)	Very satisfied (%)
Patient-doctor relationship		
Perceived competence of physician	86	50
Effectiveness of therapy prescribed	85	49
Understanding the patient problem	82	62
Comprehensibility of explanations given by physician	78	55
Amenities		
Modern equipment	73	29
Punctuality of physician	68	54
Cleanliness and comfort of the clinic	63	57
Waiting time in the GP centre/clinic	61	49
Ease of appointment access	63	59
Location of the GP centre/clinic	46	63

Table 5 Level of overall satisfaction with the GP/PHC doctor among respondents according to registration on the patient list (%)

Level of satisfaction	Registration on the patient list	
	Yes (<i>n</i> =675)	No (<i>n</i> =321)
Very satisfied	32	16
Quite satisfied	45	34
Not satisfied	6	7
Do not have personal opinion	17	43

group practice, or in polyclinic), method of registration on the patient list (in doctor's office, in the registry of the polyclinic, registered by other person), and information about the changes in PHC. Only two factors were found to influence the overall satisfaction with the GP/PHC doctor: the method of registration on the patient list, and information about the changes in PHC system (Table 6). When the respondent had personally registered on the patient list the level of satisfaction was higher. Respondents who were more informed were more satisfied as well.

Statistically significant correlation was found between overall satisfaction with the doctor and satisfaction with all 10 factors which described amenities and patient-doctor relationships. The overall satisfaction correlated strongly with factors that described the patient-doctor relationship ($r = 0.38-0.48$). Satisfaction with amenities had weaker correlation with overall satisfaction ($r = 0.10-0.28$).

Overall satisfaction with the GP was also investigated using logistic regression. Altogether three factors were included in this model: (i) perceived competence of physician; (ii) comprehensibility of explanations given by physician; and (iii) cleanliness and comfort of the clinic (Table 6).

Discussion

This study focused on the population's opinions about the changes which have taken place in the PHC system in Estonia since the beginning of 1998. In the PHC reform process the notable change was related to the introduction of the patient list and the right to choose one's own doctor. Another change was introduction of partial gate-keeping, which limited direct access to specialists.

Our study demonstrated that 10 months after the beginning of the PHC reform and introduction of the patient lists, a lot of people have registered with their GP. However, a lot of people have not yet perceived particular changes in PHC. The first reason may be that the period of the reorganization of PHC in Estonia has been quite short, and the second may be that they had visited a doctor more than 1 year earlier.

Table 6 Factors included in the model of the overall satisfaction with GP/PHC doctor: formal characteristics and amenities/patient–doctor relationship

Variable	B	SE	d.f.	<i>P</i>	<i>R</i>	Exp(B)	95%CI for Exp(B)
Information about the changes in PHC							
Sufficiently informed about the changes (basic level)	1		3	0.0000	0.2149		
Informed to some extent	−1.0953	0.2338	1	0.0000	−0.1508	0.3344	0.2115–0.5288
Informed insufficiently	−1.5481	0.2485	1	0.0000	−0.2048	0.2126	0.1307–0.3461
Not informed	−1.7938	0.3401	1	0.0000	−0.1716	0.1663	0.0854–0.3239
The way of registration on the patient list (the category ‘personally registered’ was chosen as the basic level)							
Registered at the registration desk or by a family member	−0.4536	0.1833	1	0.0133	−0.0685	0.6353	0.4435–0.3239
Perceived competence of physician	1.0872	0.3020	1	0.0003	0.1263	2.9660	1.6410–5.3607
Comprehensibility of explanations	0.8610	0.2881	1	0.0028	0.1005	2.3656	1.3449–4.1607
Cleanliness and comfort of the clinic	0.4835	0.2282	1	0.0341	0.0602	1.6217	1.0369–4.1607

Nevertheless, the present study showed that the evaluation of the changes might depend on: (i) respondent's age; (ii) size of the PHC institution; and (iii) registration on the patient list.

A lot of the GPs still work in the polyclinics or health centres, but when the chosen doctor worked in a smaller centre or had a solo practice, opinions were more positive and patients were better informed about the changes. In rural areas, where most primary care doctors practice individually or in small centres, the people were better informed about the changes than in urban areas. These findings suggest that in smaller institutions the contact, and thus, communication between patient and doctor is better. To be included on the list of a doctor of one's own choice should improve patient–doctor communication, continuity of care, more active participation of the patient in treatment process as well as patient's satisfaction with the care provided [2–4]. Two-thirds of the adult population in Estonia, who had chosen their personal doctor, were more satisfied with their doctor than unregistered respondents. They also had more information about the changes in PHC, and they found that the situation in PHC had improved more often than the unregistered persons did.

Access to PHC, which was measured by the length of waiting time for an outpatient appointment can be considered as good. More than one-half of respondents were admitted on the same day they requested or 1–2 days later. For example, in Finland, the waiting time for 19% of non-acute patients was longer than 2 weeks [18].

The first study about primary care patients' satisfaction in Estonia demonstrated that a lot of people's expectations were placed on GPs [17]. Five years later almost one-half of the respondents confirmed that they would prefer to visit the GP/PHC doctor first with their health problems, whereas 38% of the respondents would prefer the specialist first, mostly in the capital. When their child was ill, the respondents turned equally to the district paediatrician and to the GP.

The paediatrician was particularly preferred among respondents from the capital. Some previous studies about PHC patients' preferences have shown that patients who were living in larger urban areas prefer to consult the specialist first [15,16]. One of the reasons why inhabitants from the capital preferred to visit the specialists might be that the number of trained GPs in the capital is lower than in other regions in Estonia and most primary care doctors have not yet passed the special GP training (they practice as district internists and district paediatricians). This reason for preferring specialists has been reported in the literature as well [16]. Another reason for the preference of a specialist can be the fact that access to specialized medical aid in the capital is easier than in rural areas. For many years, the district paediatrician dealt with children's health problems, and as shown in our study, older people also consulted the paediatrician in case of their child's illness. On the other hand, younger people more often accept the GP as the appropriate doctor to deal with their child's health problems. Younger respondents demonstrated more positive attitudes to the PHC reform: they found often that the situation in PHC had improved; and they were more satisfied with their PHC doctor. The evaluation of PHC changes and level of information obtained depended on whether the respondent had registered on the patient list or not. Persons who had chosen their own doctor were more likely to visit the GP first than the specialist with their health problems.

A survey conducted in Estonia 5 years ago indicated that absence of amenities when visiting the doctor was often reported as a reason for dissatisfaction with PHC [17]. In general, at the present time, most respondents were satisfied with their primary care doctor, and those people agreed that the situation in the PHC system has improved as well. The results of the present study demonstrated that the factors related to patient–doctor communication were considered more important than amenities. Patient's evaluation of the doctor's competence, comprehensibility of explanations given

by the doctor, and cleanliness and comfort of the clinic were factors which significantly influenced degree of satisfaction. Some other patient satisfaction studies have demonstrated similar results [7–11]. In addition to the three factors above, higher levels of information about the changes in PHC and personal registration to the patient list promoted higher satisfaction with the primary care doctor as well.

Patients' opinions are an important tool in evaluation of health care systems. In the first year of the implementation of the PHC reform, this all-Estonian survey has given valuable information about the people's attitudes to the reform and the present situation. Their preferences of consulting the primary care doctor or specialist depend to a great extent on the number of well-trained GPs practising as well as on the availability of specialized medical care. When a person has chosen his/her own primary care doctor, he/she most likely prefers to consult their chosen doctor first. Personal choice of the primary care doctor, sufficient information about the current changes, and good patient–doctor relationships have an important role in developing satisfaction with the primary care doctor system.

On the other hand, the short transition period means that this is a preliminary evaluation of the reform. Many people have not yet perceived notable changes. Almost one-third of the persons interviewed had not had a contact with any physician during the previous 12 months, and their evaluation is based on public opinion, not on their personal experiences.

The results of this study demonstrated that there are a number of activities which should be implemented for successful PHC reform:

- (i) There is a need to continuously offer more information about the PHC reform at the national level. The essence of the GP-based PHC system should be explained, and particularly the importance of choosing one's own GP and registering on their patient list.
- (ii) GPs should know what are the important predictors of their patients' satisfaction. In the training program for GPs more attention should be paid to patient–practitioner communication and relationship.
- (iii) Primary care doctors might themselves pay more attention to their patients' opinions and introduce patient satisfaction studies in their practice group.

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