ORIGINAL PAPERS

The Gatekeeper Model: patient's view on the role of the family physician

TENGIZ VERULAVA[1, 2, A–F], BEKA DANGADZE[3, B–E], REVAZ JORBENADZE[4, D–F],
ORCID ID: 0000-0001-8110-5485   ORCID ID: 0000-0001-9522-4792   ORCID ID: 0000-0001-8228-5342

ANA LORDKIPANIDZE[2, A–D], LEILA KARIMI[5, B–D], EKATERINE ELIAVA[6, B, E], TAMAR MAGLAKELIDZE[1, B–E]

[1] Public Health and Insurance Institute, School of Business, Ilia State University, Tbilisi, Georgia
[2] Faculty of Social and Political Sciences, Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia
[3] Health Policy Institute, Tbilisi, Georgia
[4] G. Chapidze Emergency Cardiology Centre, Tbilisi, Georgia
[5] La Trobe University, School of Psychology and Public Health, Melbourne, Australia
[6] Senamedi Hospital, Senaki, Georgia

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Summary **Background.** An adequate primary healthcare system substantially determines the quality of health of the population and effective spending of healthcare resources. The family physician, serving as a 'gatekeeper', can make judicious decisions about the appropriate use of medical services.
Objectives. The goal of this study was to find out patients' characteristics, preferences and behaviour in regard to the role of the family physician as a gatekeeper in the Republic of Georgia.
Material and methods. As part of a cross-sectional quantitative study, respondents were interviewed using a structured questionnaire.
Results. A majority of the respondents (53.7%, $n = 245$) had a permanent family physician, but were not satisfied with the level of the family physician's professionalism (56.6%, $n = 258$) and preferred self-referral to specialists (55%, $n = 253$). Only 19.5% ($n = 89$) referred to specialists upon the family physician's advice, who would coordinate all services, and 23% ($n = 103$) have used both family physicians and self-referral. Private health insurance companies were more interested in implementing cost reducing mechanisms rather than the Social Service Agency (which is responsible for the Universal Health Care Programme).
Conclusions. It is appropriate to share private health insurance experiences for developing the model of a gatekeeper in the UHCP. In order to improve a family physician institute and increase confidence in it, it is recommended to raise the level of family physicians' skills in their relations with patients, as this has a significant effect on patient preferences. It is advisable to develop a flexible and voluntary gatekeeper model which will better suit the needs of both patients and physicians.
Key words: primary health care, physicians, family, referral and consultation, Georgia (Republic).

Background

In the organisational construction of the healthcare system, primary healthcare plays a special role. A well-organised primary healthcare system is an important determinant of the high quality of a population's health, service accessibility and effective spending of the slender amount of resources that are allocated to healthcare. A family physician, who is a gatekeeper of the healthcare system, makes a primary disease assessment, provides management and is responsible for the patient's coordination and referral to specialists when required [1]. On the one hand, a family physician is also a patient's advisor. He/she is able to make reasonable decisions in regard to both the required and appropriate medical services leading to the improvement of medical service quality [2, 3].

In the healthcare system, when a family physician coordinates medical services and controls a patient's referral to specialists as required, costs of healthcare are reduced [4–6]. Studies demonstrate that continuous medical supervision with family physicians reduces usage of expensive medical services, and, particularly, the need for in-patient treatment is reduced by 35%, and the need for emergency services is reduced by 50%

[7]. An effective primary healthcare system is associated with better medical service quality and a higher population health index [8–12].

In Georgia, reforms in the primary healthcare system started in 2000 [13]. With the support of donor organisations, a process of construction/rehabilitation of both new and existing outpatient clinics was initiated, and at the same time, family physicians and nurses were re-trained [14]. As a result, the technical resources of the primary healthcare system were improved [15]. Many primary healthcare organisations were rehabilitated and equipped with appropriate devices. Rural outpatient clinics were transformed to entrepreneurial entities, and agreements were signed with physicians and nurses to implement state healthcare programmes [16].

On a regional level, primary healthcare, outpatient and emergency medical services and infrastructures were integrated with newly established medical centres, while in the cities, a process of privatisation of polyclinic medical institutions took place. The reforms implemented in the primary healthcare system in Georgia had no significant effect on outpatient service provision. A low level of development of the primary healthcare system is demonstrated by the fact that according to data from 2013, the total number of outpatient contacts (which includes

both GP care and outpatient hospital care) per person per year in Georgia (2.7 in 2013) is much lower than the EU15 average (6.9 in 2013) and the EU27 average (7.5 in 2013) [17, 18].

Given this value, Georgia finds itself at the bottom of the list of the WHO's European countries by the number of referrals to outpatient medical institutions per capita. Among those individuals who applied to medical institutions due to health problems, only 50.9% chose primary healthcare institutions as the first contact with the healthcare system [19, 20].

Since 2013, the Universal Health Care Programme (UHCP) has been enacted. The UHCP aimed to increase geographic and financial accessibility to primary healthcare, to rationalise expensive and high-tech hospital services by increasing PHC utilisation and to increase financial access to urgent hospital and outpatient services [21]. The UHCP covers: ambulatory consultations of a family physician, primary healthcare services, planned and urgent outpatient assistance, extended urgent hospitalisation, planned surgeries (including inpatient day care), treatment of oncological diseases and child delivery.

Georgia has made significant progress in improving access to health services under the UHCP [22]. Financial protection was also improved, and fewer households face financial hardship from having to pay for health services, but out of pocket payments still dominate health expenditures despite the rapid increase in public expenditures [23].

Due to the operation of the programme, by the year 2014, the overall index of outpatient referrals was increased by 25%, and this demonstrated a raise in financial accessibility to healthcare services [24]. However, only 22% of the programme's beneficiaries preferred to apply to outpatient clinics to receive scheduled medical services.

According to studies conducted in Georgia, 40.1% of respondents expressed either partial (38.6.8%) or absolute (1.5%) dissatisfaction towards family physicians [25]. Over half of respondents (75%) stated that physicians do not call them to have periodic medical check-ups, showing that preventive medicine is still poorly developed, and this fact significantly increases medical service costs due to late disease detection [26].

In Georgia, private medical insurance companies try to implement a system of family physicians, i.e. the gatekeepers, as they want effective disease management that will lead to a reduction in healthcare costs. Studies demonstrate that patients prefer applying directly to specialists, evading family physicians, or, worse, buying medicines, without physicians' prescriptions, for self-treatment [27–29]. Therefore, patients are less motivated to refer to a family physician for preventive measures due to low confidence in the system of family physicians, as well as absence of the primary health care culture in a country, which has an impact on the health of the population, as well as healthcare system costs.

Studies demonstrate that the share of costs of medicine is high in the total amount of healthcare costs and reaches about 40%, while in European countries, the share is only 10–15%. The reason behind this is the low patient confidence level in the family physician system. The primary healthcare system fails to function as a system gatekeeper.

Objectives

The research aims to study patients' characteristics, preferences and behaviour in regard to the role of the system of family physicians, i.e. the gatekeepers. We hypothesised that patients are not satisfied with the level of the family physician's professionalism and prefer self-referral to specialists, and as a result, family physicians do not play an important role in functioning as gatekeepers in Georgia. By knowing patient preferences, healthcare organisations will develop a model of a gatekeeper that takes into account patient requirements. By identifying the demographic groups that stand up against this model, educa-

tional programmes would be developed to strengthen cooperation with these groups.

Material and methods

Study design

A cross-sectional quantitative study was conducted.

Participants

500 respondents over 18 years of age, from seven big cities of Georgia, where the population is above 40 thousand (Tbilisi, Rustavi, Gori, Batumi, Zugdidi, Poti, Kutaisi), were chosen at primary healthcare organisations on the survey day. The number of respondents were determined by the most acceptable combination of budget allocated for the research and number of healthcare organisations in the respective cities. The enrolment was voluntary. Interviews were conducted by an employed interviewer who did not have any connection with the primary healthcare organisation, in order to avoid any interviewer bias. Every 3rd person exiting from a family physician's clinic was asked to participate in the survey to ensure that interviews were spread among different times of day.

All interviews were conducted face to face, using PAPI (Pencil and Paper Interview). Out of the 500 respondents, a questionnaire was filled out by 456 (91.2%), while 44 (8.8%) of them refused to participate in the survey (Table 1). The population surveyed in the cities was proportional to the number of large healthcare institutions in the respective cities.

Study instruments

The study tool was a structured questionnaire that had been modified from relevant studies. Fifteen pilot interviews were conducted to assess the validity of the modified questionnaire. The study was conducted from February–June 2019. On average, the interviews lasted for about 30–45 minutes.

Ethical approval

Research was carried out in accordance with the ethical principles of scientific research and the Declaration of Helsinki and was approved by the Research Ethics Board of Ilia State University. Prior to being involved in the survey, the selected individuals were given informed consent forms and also provided verbal consent to participate in the survey. The participants of the survey could leave the survey if they wished at any time.

Results

Out of the 456 respondents, 240 (52.6%) were female, and 216 (47.4%) were male. 59.8% (n = 273) of the interviews were conducted Tbilisi and 40.1% (n = 183) in other big cities. Ages ranged from 18 to 71, with an average age of 56 (SD = 5.1). A majority of respondents were 55–65 years old (36.6%, n = 167). A majority of respondents had higher education (50.4%, n = 230). Monthly income was ≤ 600 GEL (SD = 100), and average monthly income varied from 500 to 1,000 GEL (30%, n = 137). Most were unemployed for the last 6 months (59%, n = 269) (Table 1).

Beneficiaries of the Universal Health Care Programme (UHCP) represented 69.1% (n = 315), and beneficiaries of private health insurance – 30.9% (n = 141). 37.3% (n = 170) of the respondents had serious health problems. More than half of the respondents (53.7%, n = 245) had permanent family physicians, 56.6% (n = 258) were dissatisfied with their family physician's professionalism, and 55.5% (n = 253) were dissatisfied with their family physician's attitude (Table 1).

Table 1. The gatekeeper model: patient's view of the role of the family physician					
	Total n (%)	Patient prefers self--referral n (%)	Refers to specialist as advised by a family physician n (%)	Uses both: family physicians and self--referral n (%)	Finds it difficult to give answers n (%)
Residential address					
Tbilisi	273 (59.8)	145 (57.3)	61 (18,4)	60 (58.3)	7 (2.1)
regions	183 (40.1)	108 (42.7)	28 (31,5)	43 (41.7)	4 (36.4)
Sex					
female	240 (52.6)	138 (57.5)	40 (16.7)	54 (22.5)	8 (3.3)
male	216 (47.4)	115 (53.2)	49 (22.7)	49 (22.7)	3 (1.4)
Age					
18–34	42 (9.2)	26 (61.9)	4 (9.5)	12 (28.6)	0 (0)
35–54	156 (34.2)	67 (42.9)	44 (28.2)	41 (26.3)	4 (2.6)
55–65	167 (36.6)	86 (51.5)	39 (23.4)	39 (23.4)	3 (1.8)
65+	91 (20)	74 (81.3)	2 (2.2)	11 (12.1)	4 (4.4)
Education					
secondary	226 (49.6)	152 (67.3)	22 (9.7)	53 (23.5)	5 (2.2)
higher	230 (50.4)	101 (43.9)	67 (29.1)	50 (21.7)	6 (2.6)
Income per month					
< 500 GEL	134 (29.4)	91 (67.9)	13 (9.7)	25 (18.7)	5 (3.7)
500–999	137 (30)	73 (53.3)	27 (19.7)	33 (24.1)	4 (2.9)
1,000–1,499	102 (22.4)	53 (52)	24 (23.5)	23 (22.5)	2 (2.0)
1,500–1,999	52 (11.4)	30 (57.7)	6 (11.5)	16 (30.8)	0
> 2,000 GEL	31 (6.8)	6 (19.4)	19 (61.3)	6 (19.4)	0
Employed for the last 6 months					
yes	187 (41)	65 (34.8)	84 (45)	38 (20.3)	0 (0)
no	269 (59)	188 (69.9)	5 (1.9)	65 (24)	11 (4.1)
Beneficiary of the general state healthcare programme;	315 (69.1)	217 (68.9)	15 (4.8)	72 (22.9)	11 (3.5)
Beneficiary of a private insurance programme	141 (30.9)	36 (25.3)	74 (52.5)	31 (22)	0 (0)
Have serious health problems:					
yes	170 (37.3)	91 (53.5)	52 (30.6)	26 (15.3)	1 (0.6)
no	286 (62.7)	162 (56.6)	37 (12.9)	77 (26.9)	10 (3.5)
Have a permanent family physician					
yes	245 (53.7)	70 (28.6)	88 (35.9)	78 (31.8)	8 (3.2)
no	211 (46.3)	183 (86.7)	1 (0.5)	25 (11.8)	3 (1.4)
Satisfied with the level of professionalism of the family physician					
yes	198 (43.4)	25 (12.6)	74 (37.4)	97 (49)	2 (1)
no	258 (56.6)	228 (88.4)	15 (5.8)	6 (2.3)	9 (3.5)
Satisfied with family physician's attitude					
yes	203 (44.5)	22 (10.8)	78 (38.4)	98 (48.3)	3 (1.5)
no	253 (55.5)	231 (91.3)	11 (4.3)	5 (2)	8 (3.2)
Total	456 (100)	253 (55)	89 (19.5)	103 (23)	11 (2.5)

To clarify patients' standpoints with regard to the role of family physicians as gatekeepers, we put forth the following questions: "Would you like your family physician to be your personal physician to coordinate all your services and to be solely responsible for referring you to specialists?" We then asked respondents to choose between the following answers: (1) "I'd rather refer to specialists in my own"; (2) The family physician coordinates all my services, and I refer to specialists only as advised by my family physician"; (3) "I use both: a family physician, who coordinates my services, and refer to specialists on my own". Table 1 shows a breakdown of the answers by variables.

A majority of the respondents (55%, *n* = 253) preferred to refer to specialists on their own. Only 19.5% (*n* = 89) referred to specialists upon the family physician's advice, who would co-

ordinate all services, and 23% (*n* = 103) used both family physicians and self-referral.

When referring to specialists, residents of the capital city (Tbilisi) relied on both family physicians and self-referral (58.3%, *n* = 60), while in other cities, respondents preferred self-referral.

As for gender, both women (57.5%, *n* = 138) and men (53.2%, *n* = 115) preferred self-referral to specialists. As for age groups, patients over 65 preferred self-referrals (81.3%, *n* = 74), and respondents aged 35–54 mostly referred to specialists upon the family physician's advice (28.2%, *n* = 44). By level of education, patients with secondary education mostly preferred self-referral (67.3%, *n* = 152). When referring to specialists, respondents with higher incomes preferred to get advice from family physicians (61.3%, *n* = 19), and low-income respondents

preferred self-referral (67.9%, *n* = 91). Unemployed persons preferred self-referral (69.9%, *n* = 188), and employed respondents preferred using the family physician's services (45%, *n* = 84). Beneficiaries of the UHCP mostly preferred self-referral (68.9%, *n* = 217), while beneficiaries of private medical health insurance preferred referral to specialists upon the family physician's advice. Those respondents with no serious health problems (56.6%, *n* = 162) mostly preferred self-referral. Patients with health problems mostly preferred specialists upon the family physician's advice (30.6%, n = 52). Respondents with no permanent family physician (86.7%, *n* = 183) mostly preferred self-referral. Those who have permanent family physicians mostly referred to specialists through their family physician (35.9%, *n* = 88). Those respondents who were dissatisfied with their family physician's level of professionalism (88.4%, *n* = 228) mostly preferred self-referral, and those who were satisfied with such a level of professionalism (49%, *n* = 97) preferred referring to specialists both through family physicians and on their own. The respondents who were dissatisfied with their family physician's attitude (91.3%, *n* = 231) preferred self-referral, and those who were satisfied with the level of professionalism of their family physician used both family physicians and self-referral (48.3%, *n* = 98).

Discussion

The study results demonstrated that the attitudes of different demographic groups of the population towards the ways of referral to specialists differ from each other. A certain part of patient preferred referring to family physicians who would coordinate all required medical services and be the sole agent protecting their interests. The study demonstrated that beneficiaries of private health insurance prefer referring to specialists through their family physicians. This is due to the fact that private health insurance companies were more concerned with establishing cost reduction mechanisms more than the beneficiaries of UHCP. Such a mechanism implies increasing the role of family physicians, i.e. the gatekeepers of the healthcare system. The gatekeeper model has more benefits in regard to the response to patients' needs, improvement of medical service coordination and cost reduction. Such an approach fits the key primary health values more, and it accentuates the key role of family physicians in the process of treatment and the importance of confidence in the patient-physician relationship, as well as the responsiveness to individual patient needs [30].

In order to widely implement the gatekeeper model within the UHCP, each beneficiary should have a permanent family physician who would ensure continuous and comprehensive medical service provision. It is advisable to raise the level of skills of family physicians and to develop continuous medical education, as highly-skilled physicians will enjoy more confidence among patients, which, in turn, will increase the rate of referral to them.

According to our study, some beneficiaries preferred their family physician to co-ordinate their care and referral to specialists when needed, while others preferred self-referral. Therefore, implementing a flexible voluntary model of gatekeepers may be a recommended policy. The flexible voluntary model of gatekeepers means that the UHCP should explicitly offer all options and encourage their members to choose the option which fits their preferences: self-referral, gatekeeping or coordinated care with self-referral.

The voluntary choice of the gatekeeper model is acceptable both for physicians and for patients, since it has no negative effect on the relations between physicians and patients, plus it is responsive to patients' needs [31]. It can be assumed that implementing gatekeeping voluntarily will be acceptable to physicians, because any possible detrimental effect on patient relations will not exist in a voluntary model [32, 33]. Furthermore, a voluntary choice increases the responsibility of the family physician even more, as he/she ensures provision of comprehensive medical services, including having control over the course of treatment.

Limitations of the study

The main limitation of the study was the fact that it was conducted only in urban areas of the country due to insufficient time.

Conclusions

It is appropriate to share private health insurance experiences for developing the model of a gatekeeper in the UHCP. In order to improve a family physician institute and increase confidence in it, it is recommended to raise the level of family physicians' skills in their relations with patients, as this has a significant effect on patient preferences. It is advisable to develop a flexible and voluntary gatekeeper model which will better suit the needs of both patients and physicians.

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Address for correspondence:
Prof. Tengiz Verulava
Jandacvis Politikis Instituti
Kazbegi 24a
Tbilisi
Georgia
Tel.: +995 77284849
E-mail: tengiz.verulava@gmail.com