



Social Cohesion and Development

Vol 14, No 1 (2019)



Using patient experience measures to evaluate the quality of medical and nursing care in the newly established PHC units (TOMYs), in Greece

Olympia Konstantakopoulou, Daphne Kaitelidou, Petros Galanis, Olga Siskou, Charalambos Economou

doi: 10.12681/scad.25766

Copyright © 2021, Olympia Konstantakopoulou, Daphne Kaitelidou, Petros Galanis, Olga Siskou, Charalambos Economou



This work is licensed under a <u>Creative Commons Attribution-NonCommercial-ShareAlike 4.0.</u>

To cite this article:

Konstantakopoulou, O., Kaitelidou, D., Galanis, P., Siskou, O., & Economou, C. (2021). Using patient experience measures to evaluate the quality of medical and nursing care in the newly established PHC units (TOMYs), in Greece. *Social Cohesion and Development*, *14*(1), 49–63. https://doi.org/10.12681/scad.25766

Using patient experience measures to evaluate the quality of medical and nursing care in the newly established PHC units (TOMYs), in Greece

Olympia Konstantakopoulou, Daphne Kaitelidou, Petros Galanis, Olga Siskou,
National and Kapodistrian University of Athens
Charalambos Economou, Panteion University of Social and Political Sciences

Αξιολόγηση της ποιότητας της ιατρικής και νοσηλευτικής φροντίδας στις νεοσύστατες μονάδες ΠΦΥ (ΤΟΜΥ) στην Ελλάδα μέσω της αποτύπωσης των εμπειριών των ασθενών

Ολυμπία Κωνσταντακοπούλου, Δάφνη Καϊτελίδου, Πέτροs Γαλάνης, Όλγα Σίσκου, Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθήνας Χαράλαμπος Οικονόμου, Πάντειο Πανεπιστήμιο Κοινωνικών και Πολιτικών Επιστημών

ABSTRACT

Primary Health Care (PHC) is an integral part of both a country's health system and of the overall social and economic development of the community. In Greece, in an effort to improve the provision of the PHC services on a national level, the Ministry of Health established the first Local Health Units (TOMYs) in December 2017. These new PHC units aimed to contribute to the provision of quality primary care services to citizens, while at the same time favoring the health system by improving the health of the population and helping to reduce health costs. Within this context, it is important for patients/PHC services' recipients to be able to evaluate their experiences, as accumulated during their visits at these new health PHC structures. The aim of this paper was to evaluate the quality of medical and nursing care in the newly established PHC units (TOMYs) in Greece, using patient experience measures.

KEY WORDS: Patient experiences, Primary Health Care (PHC), TOMYs, Greece.

ΠΕΡΙΛΗΨΗ

Η Πρωτοβάθμια Φροντίδα Υγείας (ΠΦΥ) αποτελεί αναπόσπαστο μέρος του συστήματος υγείας κάθε χώρας και της συνολικής κοινωνικής και οικονομικής ανάπτυξης της κοινότητας. Στην Ελλάδα, το Υπουργείο Υγείας, σε μια προσπάθεια βελτίωσης της παροχής υπηρεσιών ΠΦΥ σε εθνικό επίπεδο, ίδρυσε το Δεκέμβριο του 2017 τις πρώτες Τοπικές Μονάδες Υγείας (ΤΟΜΥ). Αυτές οι νέες μονάδες ΠΦΥ αποσκοπούσαν στην παροχή ποιοτικών υπηρεσιών ΠΦΥ προς τους πολίτες, βελτιώνοντας την υγεία του πληθυσμού και συμβάλλοντας στη μείωση των δαπανών για την υγεία. Σε αυτό το πλαίσιο, είναι σημαντικό οι ασθενείς/λήπτες των υπηρεσιών ΠΦΥ να μπορούν να αξιολογούν τις εμπειρίες τους, όπως συσσωρεύονται κατά τη διάρκεια των επισκέψεών τους στις νέες αυτές δομές ΠΦΥ. Σκοπός της αυτής της μελέτης ήταν n αξιολόγηση της ποιότητας της ιατρικής και voσηλευτικής φροντίδας στις νεοσύστατες μονάδες ΠΦΥ (TOMY) στην Ελλάδα, μέσω της αποτύπωσης των εμπειριών των ασθενών.

ΛΕΞΕΙΣ-ΚΛΕΙΔΙΑ: Εμπειρίες ασθενών, Πρωτοβάθμια Φροντίδα Υγείας (ΠΦΥ), ΤΟΜΥ, Ελλάδα.

1. Introduction

Primary Health Care (PHC) is an important pillar of any health system as it relies on methods and technologies made accessible to all individuals and their families in the community through effective participation and at a cost that the community and the country can afford at any stage. As such, it is an integral part of both a country's health system and of the overall social and economic development of the community (WHO, 2018).

In Greece, in an effort to improve the provision of the PHC services on a national level, the Ministry of Health established the first Local Health Units (TOMYs) in December 2017 (Law 4486/2017). There are now more than 125 units operating throughout the country. The objective of these units was to provide PHC services of high quality to its assigned targetpopulations, as stated in TOMYs aim i.e. to implement health promotion and disease prevention interventions and actions at a community level (family, workplace, school units, etc), risk assessment and chronic disease management in collaboration with social care services and other health and social care bodies. Even though the legal framework provided the general principles and guidelines needed to carry out this reform, it did not foresee the completion of the reform, on a technical and economic level (insufficient infrastructure and funding). while its full implementation encountered major obstacles such as the resistance of doctors to participate (low level of interest due to the non-satisfactory remuneration provided) and the non-widespread information of the public so as to provide awareness about its existence and provisions. Therefore, the chronic weaknesses (inequalities in access due to costs, inefficiencies and geographical constraints, inadequate funding, fragmentation of service delivery, low efficiency and poor quality control of services, lack of an effective referral mechanism, lack of provisions for chronic disease management, mental health, home care, prevention and health promotion, etc) of the PHC system in Greece still persist.

Based on previous research conducted in various countries, in a PHC-oriented health system, health expenditure is more easily curtailed due to the reduced use of health services as inpatient hospitalization rates are lower. Also, indicators related to population health are positively affected (Garrido, Zentner, Busse 2011, Starfield, Shi & Macinko 2005, Kringos et al. 2015, CORDIS 2015). The development of TOMYs can contribute to the provision of quality primary care services to citizens, while at the same time favoring the health system by improving the health of the population and helping to reduce health costs. However, it is also important for patients/PHC services' recipients to be able to evaluate their experiences, as accumulated during their visits at these new health PHC structures.

In recent decades, users' experiences, and more generally the measures used for the evaluation of the health care recipients' perspective, have been widely employed by health professionals as a new tool for evaluating the services provided. Patient satisfaction has been proven a valuable tool for assessing the different dimensions of health care (Ware et al. 1977, Linder - Pelz, 1982), designing effective health care management strategies (Naidu, 2009) and redesigning the goals of health services management within the framework of improving their quality. In this context, patients' experiences constitute one of the most essential components of the evaluation of the quality of the health care system and health care services (Chow et al., 2009). These are the main reasons for which the vast majority of the studies conducted in order to evaluate quality of services have focused worldwide on measuring patient satisfaction and lately, recording and evaluating patient experiences. According to the Beryl Institute, user experience is defined as

"the sum of all the interactions, shaped by the culture of an organization that influences the perceptions of the user throughout the care provided" (Wolf & Jason 2014). It is common for users' experience measures to be confused with satisfaction measures as they both examine the perspective of the recipients of services, but in fact they constitute two totally separate tools. Satisfaction is subjective and is largely influenced by factors related to the user himself/herself and not related to the quality of the services provided, such as their expectations about the service, their preferences, their health status, gender, age, etc. In contrast, questions about user experiences are often more objective and specific as the corresponding answers reflect users' interactions with the respective health care provider and are not influenced by their perceptions (Coulter, Fitzpatrick & Cornwell 2009, Chen 2015).

The aim of this paper is to evaluate the quality of medical and nursing care in the newly established PHC units (TOMYs) in Greece, using patient experience measures.

2. Methods

2.1 Measurement tool

A n adapted tool for the TOMYs network was based on the questionnaire for the "Evaluation of provided healthcare by General Practitioners (GPs)/family doctors (FMs) and other primary healthcare providers", a tool that has been already developed and tested for its validity and reliability and used to identify and evaluate primary health care services users' experiences at three levels of PHC (GP practices/FM centres, Health Centres and Hospital Outpatient Departments) (Economou et al. 2019; Kaitelidou et al, 2019).

The questionnaire was consisted of four (4) distinct sections. The first section included items on socio-demographic characteristics of the participants and questions regarding their visit to the unit (number of visits to the TOMY, waiting time for the consultation etc). The second section (patient experiences' / patient values' questionnaire) included items regarding several dimensions of care (accessibility, continuity and coordination of care, comprehensiveness of care, quality of medical care, facility amenities evaluation, quality of nursing care and care provided by other health professionals), while patients were asked to indicate the importance of a statement (third section), responding to the patient values' questionnaire, which contained the same questions as the patient experience questionnaire. Finally, the fourth section included three (3) open-ended questions ("What gave you positive impressions during your visit today?", "According to you what could the doctor and/or the other health professionals improve?" and "According to you what could be improved in this ToMY?").

The adapted tool for the TOMYs network was accompanied by an informed consent form and an informational leaflet/cover letter. The healthcare professionals within the TOMYs network were also provided with instructions regarding the collection process, inclusion criteria and contact information with the research team.

2.2 Sample and sampling methodology

The total source population consisted of 96 TOMYs that had been put into full operation up to September 2018, including ToMYs that had been operating for at least four months. The number of questionnaires administered per ToMY was estimated upon the responsibility population per

ToMY. The final study population consisted of 2,620 TOMYs' services' users from 63 TOMYs (systematic random sampling).

2.3 Eligibility/Inclusion criteria

The sample was drawn from adult patients (18 year and older) who had received care from a Local Health Unit (TOMY) and the inclusion criteria were consenting individuals (prior to the completion of the questionnaire, users of ToMYs' services were asked to offer their consent by filling in the Informed Consent Form), adults of 18 years or older having just concluded their consultation with the healthcare professional and exited the examination room. The sample was drawn irrespective of reason and duration of visit. Also, it was ensured that no condition-specific or experience-specific user populations were targeted.

Finally, as far as participants with physical and mental disabilities that might interfere with their ability to understand the questions asked and, therefore, complete the questionnaire is concerned, it was recommended that field researchers delegated to conduct the survey should facilitate this group of users/services' recipients towards the completion of the questionnaire.

2.4 Data collection process

The collection process unfolded as follows:

- Every second consecutive user who had resumed his/her visit was invited to participate in the study, i.e. the second, fourth, sixth, eighth, and so on.
- The health professional responsible to collect the questionnaires provided a pen to the
 participants to complete the questionnaire and was available on-site to answer questions,
 in case participants encountered difficulties in completing the questionnaire.
- The completed questionnaires and informed consent forms were placed in opaque envelopes and sent by post to the research team.

2.5 Statistical analysis

Continuous variables are presented as mean, standard deviation, median, minimum value and maximum value while categorical variables are presented as numbers (percentages). The Kolmogorov-Smirnov test and Figures (histograms and normal Q-Q plots) were used to test the normality of the distribution of the continuous variables. Continuous variables followed normal distribution and parametric methods were used.

Statistical analysis included bivariate and multivariate analyses:

- Firstly, bivariate analyses were conducted and independent samples t-test was applied for the analysis of group differences within continuous variables. Also, correlation between continuous variables that followed normal distribution was assessed with Pearson's correlation coefficient. Correlation between continuous variables that did not follow normal distribution or between ordinal and continuous variables was assessed with Spearman's correlation coefficient.
- Then, multivariate analyses were performed in order to eliminate confounding. Variables that were significantly different (p<0.20) in bivariate analyses were entered into the backward stepwise multivariate linear regression analyses with scores as the dependent variables. Criteria for entry and removal of variables were based on the likelihood ratio test, with enter and remove limits set at p<0.05 and p>0.10. Multivariate linear regression

analysis was applied for the control of each potentially confounding of each statistically significant predictive factor to the others. We estimated adjusted coefficients beta with 95% confidence intervals and p-values.

Missing answers were excluded from the calculations. All tests of statistical significance were two-tailed, and p-values<0.05 were considered significant. Statistical analysis was performed with the Statistical Package for Social Sciences software (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.).

3. Results

3.1 Socio-demographics

S tudy population included 2620 participants (response rate=58.3%) who visited 63 local health units (ToMYs) from January to March 2019 (response rate=65.6%).

Socio-demographic characteristics of the participants are shown in Table 1. Mean age of the participants was 53.1 years (SD=15.1) and 26.2% were of more than 65 years old. Two out of three of the participants were female, while 31.2% had higher education, 22.6% finished high school and 14.6% had after high school education. The majority of the participants was Greeks (94.0%) and insured (91.4%) and self-estimated their health status as moderate to excellent (92.4%). Almost half of the participants had a chronic disease (45.4%) and only 4.7% were disabled.

Table 1: Socio-demographic characteristics of the participants

Characteristic	N	%
Gender		
Male	900	34.7
Female	1696	65.3
Age	53.1ª	15.1 ^b
Nationality		
Greek	2454	94.0
Other	157	6.0
Highest level of education		
I never finished Primary school	99	3.8
Primary school	449	17.3
Secondary school	272	10.5
High School	587	22.6
After High School education	380	14.6
Higher education	814	31.2
I am insured		
No	224	8.6
Yes	2384	91.4

I am disabled more than 67%		
No	2458	95.3
Yes	122	4.7
Self-assessment of health status		
Very bad	92	3.5
Bad	108	4.1
Moderate	690	26.4
Good	1152	44.1
Very good	570	21.8
Chronic disease		
None	1406	54.6
One	683	26.5
Two	269	10.4
More than two	218	8.5
I don't know	0	0.0

^a Mean value, ^b Standard deviation

3.2 Participants' responses regarding their visit

More than two out of three (68.5%) visited this facility at least one time over the last 6 months and 31.5% visited this facility for first time. Most of the participants (86.3%) made an appointment for their visit and among them 58.5% waited less than a week and 31.7% waited from 1 week to 1 month. More than half of the participants waited for <15 minutes for the consultation (67.9%), while 21.4% waited for 15-30 minutes and 9.7% waited for 31-60 minutes (Table 2).

Table 2: Participants' responses regarding their visit

Characteristic	N	%
Number of visits/consultations at this TOMY over the last 6 months		
Once	819	31.5
2-4 times	1393	53.6
≥ 5 times	326	12.5
I don't know/I don't remember	60	12.5
Did you make an appointment for your visit to this facility?		
No	359	13.7
Yes	2261	86.3
How many days did you wait between the appointment and this visit?		
I made the appointment earlier today	463	19.4
I made the appointment yesterday	231	9.7

I waited less than a week	704	29.4
I waited from 1 week to 1 month	758	31.7
I waited more than 1 month	171	7.1
I don't know/I don't remember	65	2.7
How long did you wait today for the consultation?		
Less than 15 minutes	1638	67.9
15-30 minutes	515	21.4
31-60 minutes	157	6.5
More than 60 minutes	102	4.2
I don't know/I don't remember	0	0.0

3.3 Patient experience scores

Regarding patients' experiences, we created six factors (Accessibility, Continuity/coordination of care, Comprehensiveness of care, Quality of medical care, Facility, Quality of nursing care) based on previous research, the literature review and the respective theory. Cronbach's alpha coefficients for the questionnaire in total was 0.92, while Cronbach's alpha for the six factors ranged from 0.61 to 0.88 indicating acceptable to very good reliability.

Descriptive statistics for total experience score and total experience scores on six factors are presented in Table 3. All mean scores were above the mid-point of the scale (=3) indicating positive levels of patient experience.

Positive patient experience score concerning the quality of the medical and nursing care was the highest, followed by the respective scores referred to continuity/coordination of care, facility, comprehensiveness of care and accessibility.

Table 3: Descriptive statistics for total experience score and total experience scores on six factors (descending order)

Score	Mean value	Standard deviation	Median Value	Minimum value	Maximum value
Quality of medical care	4.57	0.61	5.0	1	5
Quality of nursing care	4.52	0.61	5.0	1	5
Continuity/coordination of care	4.37	0.69	4.3	1	5
Facility	4.37	0.72	4.7	1	5
Comprehensiveness of care	4.33	0.77	4.3	1	5
Accessibility	4.25	0.66	4.3	1	5
Total experience	4.41	0.52	4.5	1	5

3.4 Quality of medical and nursing care

Participants' responses about their experiences regarding the quality of medical and nursing care are shown in Table 4. All mean values in items was greater than the mid-point of the scale (=3) indicating positive experience levels.

Table 4: Participants' responses about their experiences regarding the quality of medical and nursing care

T+am	I tot disa	I totally disagree	I dis	I disagree	Neither agree nor disagree	Veither agree nor disagree	I ag	I agree	I totall	I totally agree	Mean	9
	Z	%	Z	%	Z	%	Z	%	N	%	value	3
Quality of medical care											4.57	0.61
The doctor is polite to me	16	9.0	∞	0.3	26	1.0	624	24.5	1873	73.5	4.70	0.57
The doctor listens to me carefully	21	8.0	10	0.4	95	2.0	616	23.5	1830	8.69	4.67	0.62
The doctor takes sufficient time to examine me	28	1.1	24	1.0	141	5.7	681	27.4	1609	64.8	4.54	0.75
The doctor involves me in making decisions about my care and treatment	25	1.0	43	1.8	230	9.4	807	33.0	1339	54.8	4.39	0.81
Quality of nursing care											4.52	0.61
The nurses listen to me carefully	10	0.5	_	0.3	74	3.6	640	31.3	1316	64.3	4.59	0.62
The nurses provides me with advice on how to live healthy	15	0.8	47	2.4	263	13.2	631	31.7	1035	52.0	4.32	0.84
The nurses are polite to me	10	0.5	2	0.1	48	2.4	534	26.2	1442	70.8	4.67	0.58
The other health professionals (except doctors and nurses) listen to me carefully	10	0.5	22	1.1	129	6.4	209	30.2	1242	61.8	4.52	0.71

3.5 Bivariate and Multivariate Analysis

Bivariate analyses between independent variables and quality of medical care score and quality of nursing care score are shown in Table 5.

Table 5: Bivariate analyses between independent variables and quality of medical care score and quality of nursing care score

Tu dan an dan tarawalah la	Quality	of medical o	are score	Quality	of nursing o	are score
Independent variable	Mean	SD	p value	Mean	SD	p value
Gender			0.03a			0.6ª
Male	4.54	0.60		4.54	0.59	
Female	4.59	0.61		4.52	0.61	
Age	0.09 ^b		<0.001 ^b	0.08b		0.001 ^b
Nationality			0.2ª			0.05ª
Greek	4.57	0.60		4.51	0.60	
Other	4.64	0.67		4.63	0.66	
Educational level	-0.04 ^c		0.03°	-0.02c		0.4 ^c
Insured			0.1ª			0.4ª
Yes	4.58	0.59		4.53	0.59	
No	4.52	0.59		4.49	0.63	
Disability			0.8a			0.4ª
No	4.58	0.61		4.52	0.61	
Yes	4.56	0.56		4.47	0.58	
Self-assessment of health status	0.02c		0.4 ^c	0.01c		0.6 ^c
Chronic disease			0.5ª			0.5ª
No	4.56	0.61		4.52	0.60	
Yes	4.58	0.60		4.53	0.62	
Scheduled appointment			0.7a			0.2ª
No	4.56	0.65		4.57	0.63	
Yes	4.57	0.60		4.51	0.60	
Number of visits/consultations at this facility over the last 6 months	0.02°		0.3°	0.00°		0.9 ^c
Days between the appointment and this visit	-0.07°		0.001°	-0.03°		0.3°
Waiting time before the consultation	-0.13°		<0.001°	-0.13°		<0.001°

^a Student's t-test

^b Pearson's correlation coefficient

^cSpearman's correlation coefficient

According to bivariate analyses, 7 independent variables were related with quality of medical care score (p<0.20) and 4 independent variables were related with quality of nursing care score (p<0.20), thus we performed multivariate linear regression analyses (Table 6).

Table 6: Multivariate linear regression analyses with quality of medical care score and quality of nursing care score as the dependent variables

Independent variable	Coefficient beta	95% confidence interval for coefficient beta	P value
Dependent variable: Quality of medical ca	are score		
Days between the appointment and this visit	-0.03	-0.05 to -0.009	0.004
Waiting time before the consultation	-0.10	-0.13 to -0.07	<0.001
Females vs. males	0.08	0.03 to 0.13	0.002
Age	0.005	0.003 to 0.006	<0.001
Dependent variable: Quality of nursing	care score		
Waiting time before the consultation	-0.09	-0.13 to -0.06	<0.001
Age	0.004	0.002 to 0.005	<0.001

According to multivariate linear regression analysis, we found the following:

- Decreased number of days between the appointment and the visit was related with increased quality of medical care score (p=0.004).
- Decreased waiting time before the consultation was related with increased quality of medical care score (p<0.001).
- Increased age was related with increased quality of medical care score (p=0.002).
- Females had higher quality of medical care score than males (p<0.001).
- Decreased waiting time before the consultation was related with increased quality of nursing care score (p<0.001).
- Increased age was related with increased quality of nursing care score (p<0.001).

4. Discussion

The aim of this paper is to evaluate the quality of medical and nursing care in the newly established PHC units (TOMYs) in Greece, using patient experience measures.

Study population included 2620 participants (response rate=58.3%) who visited 63 local health units (ToMYs) from January to March 2019 (response rate=65.6%). More than of the ToMYs' services recipients (26.2%) were more than 65 years old, the majority (65.3%) were women, almost one out of three had higher education, only 6% were foreigners/migrants, the majority (91.4%) was insured and self-estimated their health status as moderate to excellent (92.4%). Almost half of the participants had a chronic disease (45.4%) and only 4.7% were disabled. As far as the characteristics of their visits is concerned, almost one out of three (31.5%) visited this facility for first time and more than two out of three visited this facility at least once

over the last 6 months. Also, most of the participants (86.3%) made an appointment for their visit, 58.5% waited less than a week and 31.7% waited from 1 week to 1 month, and more than half of the participants waited for less than 15 minutes for the consultation (67.9%), while 21.4% waited for 15-30 minutes and 9.7% waited for 31-60 minutes.

In general, the study showed that the users of the TOMYs' services reported positive experiences at all factors evaluated. All mean scores were above the mid-point of the scale (=3) indicating positive levels of patient experience, with a mean total experience score of 4.41 (in a scale from 1 to 5). The quality of medical and nursing care had the highest mean scores (4.57 and 4.52, respectively). Similar studies in PHC units in Greece have revealed that physicians' scientific training, good behavior, patient involvement and good interpersonal relationships are associated with an increased level of positive experiences and users' satisfaction with the quality of care they receive (Lionis et al. 2017, Pierrakos et al. 2013, Adamakidou 2009). In addition, in a study among seven European countries on PHC in 2007 (Schoen et al. 2007), services recipients rated their physicians positively and the majority reported that their doctor listened carefully to them and explained clearly their situation. These increased quality of care scores, attributed to health professionals, may indicate a doctor-patient "dependence" relation status between patients and their physician (Beisecker 1990, Wiles & Higgins 1996, Roter 2000), as it is anticipated to occur due to the strong therapeutic relation that is often developed amongst the patients and their physicians.

In our study, increased age was positively related with both quality of medical and nursing care scores. These results are consistent with the findings of similar studies (Frengidou et al. 2017, Anagnostopoulou, Siskou & Galanis 2012), which strongly correlate age with levels of positive patient experiences and satisfaction. In the literature, several explanations have been given for this association. Older people usually have fewer demands and therefore evaluate the health services provided more positively. It is also a rather expected finding as the elderly are more frequent users of the health care services, therefore their evaluations usually mirror the level of the quality of care provided. In fact, age has a predictive value in patient positive experience and satisfaction levels, as in the majority of the studies on patient reported experiences and satisfaction, the findings suggest that older patients tend to report higher levels of positive experiences and satisfaction; this may be due to the reduced expectations of older patients or their differentiated attitude (compared to that of younger patients) to their daily routine and life values.

Also, increased number of days between the appointment and visiting and increased waiting time before the consultation were related with decreased experience scores (concerning the quality of medical care), and increased waiting time before the consultation was related with decreased quality of nursing care score. From the above it is clear that prolonged waiting times are, as expected, negatively related to overall experience ratings. As primary care waiting times constitute robust and widely-used quality indicators (Kringos et al. 2013, Kringos et al. 2015), such problems have already been identified in the official evaluation of the primary care system internationally, and on a national level as well, signifying core areas for quality improvement. In particular, the lack of a mandatory referral or gatekeeping system tends to lead to a system infraction with long waiting lists. Consequently, patients wait too long for physicians, and health professionals, in general, who do not know their medical history and who are overwhelmed by the number of patients. In order to achieve sustainable accessibility to health services, patients' request for appointments in relation with the physicians ability to make appointments must be revisited; patients' request for appointments cannot be permanently greater than the physicians

ability to make appointments (Murray & Berwick 2003). A key priority is to support GPs to manage problems that can be resolved within the community and the PHC system and not transferred to hospital care (Groenewegen & Jurgutis 2013).

However, there are several study restrictions that must be further taken under consideration. This study took place in the beginning of the TOMYs' operation, therefore accessibility and short waiting times were to be expected, as the public did not have the adequate information about their existence and the provided services, and health professionals could be longer engaged to each patient/user recipient individually, a reason explaining the high ratings regarding the quality of medical and nursing care provided. Nevertheless, these positive findings must be further pursued so as for these units to uphold to their stated objective and mission.

5. Conclusions

ur study highlights the importance of the increased levels of medical and nursing care for the patient and its relation with positive experiences. Given these findings, both policy makers and health professionals, in particular those working in PHC units, should work towards enhancing patient-centered care, both in formulating and implementing corresponding strategic options and recommendations and in the continuous professional education of health professionals, but also in patients' empowerment for active participation, as reflected in their involvement in the evaluation of services provided by investigating their experiences.

Several studies have documented that patients with active participation in their care systematically report more positive experiences and present better health outcomes than patients with less active participation, not even considering the decrease in health spending that can be achieved via this positive interface, since the evaluation of patients experiences seems to be an important tool directly related to the quality, safety and effectiveness for the PHC system.

Bibliographical references

- Adamakidou Th. A., (2009), *Patient satisfaction at morning and afternoon outpatient clinics of Ag. Savvas Hospital*, MSc Thesis, Hellenic Open University, (in greek).
- Anagnostopoulou I., Siskou O. and Galanis P, (2012), "Assessment and Investigation of Factors Affecting Patient Satisfaction at the Atalantis Health Center", *Nosileftiki*, 51(2): 216-226, (in greek).
- Beisecker A. E., (1990), "Patient power in doctor-patient communication: What do we know?", Health Communication, 2(2): 105-122.
- Chen J., (2015), Integrated Care: Patient-Reported Outcome Measures and Patient-Reported Experience Measures: A Rapid Scoping Review, NSW Agency for Clinical Innovation, Sydney.
- Chow A., Mayer E. K., Darzi A. W. and Athanasiou T., (2009), "Patient-reported outcome measures: the importance of patient satisfaction in surgery", *Surgery*, 146(3): 435-443.
- CORDIS, (2015), Final Report Summary QUALICOPC (Quality and costs of primary care in Europe), Retrieved from: https://cordis.europa.eu/project/rcn/103890/reporting/en, (last accessed on 11 November 2019).

- Coulter A., Fitzpatrick R., and Cornwell J., (2009), *The Point of Care. Measures of patients'* experience in hospital: purpose, methods and uses, The King's Fund, London.
- Economou C., Bistaraki A., Galanis P., Konstantakopoulou O., Siskou O. and Kaitelidou D., (2019), "A Qualitative Approach for the Development of a Patient Experiences Questionnaire in Primary Healthcare Settings", *International Journal Of Caring Sciences*, 12 (1): 124-131.
- Frengidou E., Galanis P., Zafeiropoulou M., Diakoumis G., Papadopoulos R., Papagianni A. and Theodorou M., (2017), "User satisfaction with the services provided by the PEDY health unit in Kilkis", *Archives of Hellenic Medicine/Arheia Ellenikes Iatrikes*, 34(2): 236-243 (in greek).
- Garrido M. V., Zentner A. and Busse, R., (2011), "The effects of gatekeeping: a systematic review of the literature", *Scandinavian Journal of Primary Health Care*, 29(1): 28-38.
- Kaitelidou D., Economou C., Galanis P., Konstantakopoulou O., Siskou O., Domente S., de Boer D., Boerma W. and Groenewegen P., (2019), "Development and validation of measurement tools for user experience evaluation surveys in the public primary health care facilities in Greece: a mixed methods study", *BMC Family Practice*, 20(1): 49.
- Kringos D. S., Boerma W. G., Hutchinson A. and Saltman R. B., (2015), *Building primary care in a changing Europe*, WHO Regional Office for Europe, Copenhagen.
- Kringos D. S., Boerma W., van der Zee J. and Groenewegen P., (2013), "Europe's strong primary care systems are linked to better population health but also to higher health spending", *Health Affairs*, 32(4): 686-694.
- Linder-Pelz S., (1982), "Toward a theory of patient satisfaction", *Social Science & Medicine*, 16(5): 577-582.
- Lionis C., Papadakis S., Tatsi C., Bertsias A., Duijker G., Mekouris P. B. and Schäfer W., (2017), "Informing primary care reform in Greece: patient expectations and experiences (the QUALICOPC study)", *BMC Health Services Research*, 17(1): 255.
- Naidu A., (2009), "Factors affecting patient satisfaction and healthcare quality", *International Journal of Health Care Quality Assurance*, 22(4): 366-381.
- Pierrakos G., Sarris M., Soulis S., Goula A., Latsou D., Pateras I., Vourliotou K. and Giannoulatos P., (2013), "Comparative analysis of two studies of outpatient satisfaction in primary medical care", *Archives of Hellenic Medicine/Arheia Ellenikes Iatrikes*, 30(3):316–324, (in greek).
- Roter D., (2000), "The medical visit context of treatment decision making and the therapeutic relationship", *Health Expectations*, 3(1): 17-25.
- Schoen C., Osborn R., Doty M. M., Bishop M., Peugh J. and Murukutla N., (2007), "Toward Higher-Performance Health Systems: Adults' Health Care Experiences In Seven Countries, 2007: Actual experiences with health care systems bring to light, and to life, the systemwide problems in these countries", *Health Affairs*, 26 (Suppl2): 717-734.
- Starfield B., Shi L. and Macinko J., (2005), "Contribution of primary care to health systems and health", *The Milbank Quarterly*, 83(3): 457-502.

- Ware J. E., Davies-Avery A. and Stewart A. L., (1977), *The Measurement and Meaning of Patient Satisfaction: A Review of the Literature*, Rand Corporation, Santa Monica, California.
- WHO, (2018). *Health Systems Strengthening Glossary*, Retrieved from: https://www.who.int/healthsystems/hss_glossary/en/index8.html#12, (last accessed on 11 November 2019).
- Wiles R. and Higgins J., (1996), "Doctor-patient relationships in the private sector: patients' perceptions", *Sociology of Health & Illness*, 18(3): 341-356.
- Wolf J. A., Niederhauser V., Marshburn D. and La Vela S., (2014), "Defining patient experience", *Patient Experience Journal*, 1(1): 7-19.

Biographical notes

Olympia Konstantakopoulou is an Economist, with a MSc in Health Care Services Management (National and Kapodistrian University of Athens) and a doctoral student in Healthcare Management and Health Economics. She is a Research Fellow at the Center for Health Services Management and Evaluation since 2013 and she has participated in projects funded on a National and European level in the fields of health and social care services management, health and social inequalities, economic evaluation and modeling, health policy, public health, health education, etc. She has also extensive professional and research experience as a statistician and researcher in the areas of Statistics/Biostatistics.

Daphne Kaitelidou is an Associate Professor in Health Care Management, School of Health Sciences, Department of Nursing, National and Kapodistrian University of Athens, and Director of the Center for Health Services Management and Evaluation. She has extensive research experience in the fields of Health Management and Economics. Her work has focused, in particular, on the funding of the health care system, health technology assessment, health and social inequalities, health policy and health services management. She has participated in many international and national projects on these areas and has published a significant number of articles in peer reviewed international and national journals and books.

Petros Galanis has a MSc and a PhD degree at Public Health and since 2008 he has worked as a research fellow in the Department of Nursing, National and Kapodistrian University of Athens and in particular in the Center for Health Services Management and Evaluation. During 2002- 2007 he worked as a research fellow in the Laboratory of Clinical Epidemiology, Department of Nursing. He is teaching Epidemiology, Research Methodology, Medical Decisions Theory, Demography and Biostatistics in undergraduate and postgraduate programs. He has written many books and he is co-author in many publications in peer reviewed national and international journals. He has participated in a multitude of National and International research projects as an expert on Research Methodology Design, Evidence-based Nursing and Biostatistics.

Olga Siskou, RN, MSc, PhD is a Senior Research Associate at the Center for Health Services Management and Evaluation, Department of Nursing, National and Kapodistrian University of Athens and has been working as Contractual Academic Staff at the Department of Nursing since 2014. She has participated in many Greek and International Projects and published many papers in national and international journals. During the last years her work has focused on Health

Economics and Health Nursing Economics, Nursing Management, Funding of the health care system and health inequalities, Health Technology Assessment, Barriers to health care access and socio-economic determinants of health, Health Services Management and Human Resources Management in Health Care.

Charalambos Economou is Professor of Health Policy and Sociology of Health in the Department of Sociology of Panteion University. His teaching and research activities concern Social Policy, Supranational Social Policies, European Social Policy, Health Policy, Social Exclusion, and Sociology of Health. Besides, he lectures in graduate courses and in the National School of Public Administration, Athens. He has published on health policy, health sysîtems, European social policy, welfare states comparative analysis, poverty and social exclusion. He has participated in many international and national research projects and he is collaborating with international organizations (OECD, WHO) and research centres (European Observatory on Health Care Systems, LSE Centre for Civil Society etc).

