

Patient satisfaction in Cyprus’s Primary Care: a pilot study

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Abstract

Background: Patient satisfactions is a widely accepted metric of quality of care. Patient satisfaction is important in understanding the perspectives of the recipients of care and can act as a quality improvement tool. It is of paramount importance to assess patient satisfaction specially after a major healthcare reform. This is the first study to describe the level of patient satisfaction with new Primary Care in Cyprus. **Methods:** An internationally validated tool for patients’ evaluations of general practice care was used in an online survey in one of the largest group practices in Cyprus Primary Care. An online questionnaire was sent to all registered email addresses of the group practice. A total of 5,000 emails were sent measuring patient satisfaction based on the percentages of patients reporting level of satisfaction on a 5-point Likert scale for the items in the questionnaire. **Results:** The overall satisfaction percentage was 80.51% (SD 32.36). The vast majority of the questions asked were rated as excellent. Waiting in the waiting room was the item rated poorest with a mean(SD) 4.05 (1.08). The item rated the highest was the safeguarding of patients records and confidentiality with a mean (SD) of 4.65(0.70). **Conclusions:** The first patient satisfaction survey since the introduction of the new NHS in one of the largest Primary care centres seems to demonstrate very high satisfaction rates comparable with other developed EU NHSs. A larger study needs to be performed with more GP practices in order to obtain a national understanding of the patient satisfaction to supplement quality improvement interventions and foster patient empowerment.

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Declarations

Contributorship

GS and NS conceived the idea for the study. NS and AS have gathered all data. NS analysed all data and wrote the original manuscript with contributions from AS and GS. All authors commented on the manuscript.

Ethics and other permissions

Our study received approval from the Cyprus National Bioethics Committee (EEBK EII 2020 01 156).

Funding

The study was funded by internal resources.

Conflict of interests

GS is a practicing GP and the director of the Medical Centre

Data availability statement

Due to the nature of this research, participants of this study did not agree for their data to be shared publicly, so supporting data is not available. Aggregated numbers can be provided upon reasonable request from the corresponding author.

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Methods: An internationally validated tool for patients' evaluations of general practice care was used in an online survey in one of the largest group practices in Cyprus Primary Care. An online questionnaire was sent to all registered email addresses of the group practice. A total of 5,000 emails were sent measuring patient satisfaction based on the percentages of patients reporting level of satisfaction on a 5-point Likert scale for the items in the questionnaire.

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Keywords: patient satisfaction, quality improvement, primary health care

Introduction

The importance of primary care role on health outcomes of population have been studied and has been proven to be beneficial. Patients who visit their GPs more often, and used them as the main source of information related to their health status, are more likely to be healthier (regardless of their initial health status and socio-demographic characteristics), hospitalized less, and spent less on annual healthcare expenditures. In addition, the existence of primary care in a healthcare system has been proved to increase patient satisfaction.

Patient satisfaction is one of the main drivers of quality in healthcare. It is one of the important measures for the evaluation of healthcare services and also a predictor for health outcomes. A critical setting for most healthcare system is the primary care in which interaction with providers may carry different perceptions of quality of care and satisfaction. Since the 1990 and according to Donabedian declaration of quality, patient perception has been incorporated into quality assessment. In more recent years several approaches have been adopted from other industries, such as the retail market and have adopted patient satisfaction surveys to quality improvement tools.

Historically most European countries have adopted patient satisfaction as a quality improvement tool. Some example are: in 1996, evaluation of patient satisfaction was mandated to all French hospitals, in Germany, measuring satisfaction has been required since 2005 as an element of quality management reports and in England's NHS, since 2002, the Department of Health (DOH) has launched a national survey program in which all NHS trusts have to survey patient satisfaction on an annual basis and report the results to their regulators. Many other countries have adopted the use of patient satisfaction tool as a quality improvement tool indicating that patient satisfaction is a legitimate indicator for improving the services and strategic goals for all healthcare organizations.

The literature shows a wide range of available patient satisfaction instruments i.e., the WHO Primary Care Assessment Tool (PCET); the Primary Care Assessment Survey (PCAS); the Primary Care Assessment Tool (PCAT); the Components of Primary Care Index (CPCI); the EUROPEP; the Interpersonal Processes of Care (IPC) Survey; the General Practice Assessment Questionnaire (GPAQ) for measuring patients' experiences, views, or satisfaction with GPs.

The EUROPEP is an internationally recognized and validated instrument which is widely used for the survey of the patients' opinion. It asks patients to assess their regular GP, taking into account experiences over the previous 12 months. The tool has been studied in several countries of Europe already. More specifically, it has been used in about 20 countries and has been translated into 15 countries. Thus, it is of a high interest to explore the properties of the Greek version of EUROPEP and its several quality indicators, as well as to assess its robustness under by using it electronically in light of the pandemic crisis in Cyprus that it has never been used.

In Cyprus, after the major healthcare reformation of 2019 which saw the implementation of a universal health system and the establishment of primary care, no study to assess patient satisfaction have been performed. Such studies were not performed even before the establishment of the new NHS as primary care was existing mostly on a private basis and there was no way of being able to capture the patients which were visiting GPs. As such Cyprus never took part in the European primary care comparison, therefore there was a gap that needed to be complete.

Considering the current Covid-19 pandemic a special online survey using the Greek version of the EUROPEP tool was conducted to evaluate patient satisfaction with general practice. To our knowledge, this is the first study of patient satisfaction in which the Greek version of the questionnaire was used in Cyprus.

Methods

The research includes data from one of the largest primary care centres in Cyprus serving the urban and semi-rural population of Nicosia, the capital of Cyprus. Apostolos Loukas Medical Centre performed a local quality improvement initiative in 2020 using the Greek version of the EUROPEP. The centre has 5 GPs, 15 specialist physicians, healthcare administrators and nurses. The study was performed only to assess the patient satisfaction of primary care therefore only beneficiaries registered on GPs lists were included. The beneficiaries on the GP lists range from 1,000 to 2,500 which is the maximum allowable according to the Health Insurance Organisation (HIO), the managing body of the new Cyprus universal NHS. The GPs' ages range from 35-47 and their years in practice from 10-20.

In their effort of continuous quality improvement registered beneficiaries were invited to share their opinion about the services provided by GPs, thus primary care, and the Medical Center. Due to the pandemic restrictions the questionnaire was transferred to an online platform. Questionnaires were distributed to the beneficiaries of the centre via emails and through the centre’s newsletter. 5,000 emails were sent to registered beneficiaries of the centre.

EUROPEP tool

EUROPEP is a multidimensional tool that consists of 23 items concerning five aspects of care (i.e., relation and communication; medical care; information and support; continuity and cooperation; facilities, availability, and accessibility). The tool asks the beneficiaries to assess their GP, taking into account experiences over the preceding year. The Greek version of EUROPEP was used for surveying the patient satisfaction in regards to GPs and the primary care centre. The Greek version of the tool has been developed and validated by the Clinic of Social and Family Medicine of the University of Crete. The translated version uses the original five-point Likert scale (1=bad, 5=excellent, which corresponds to very dissatisfied and very satisfied, respectively) for the 23 item describing the patient satisfaction. Additional emphasis on patient satisfaction is provided by two more items; “I strongly recommend the GP to family and friends” and “I have no reason to change my GP” (five-point response scale: 1=strongly disagree to 5=strongly agree). The tool also collects sociodemographic characteristics such as gender, age, educational level, the number of consultations during the last year.

Statistical analyses

Extensive data cleaning was performed before data analyses. If participants responded that they have not seen their doctor at all in the last 12 months then that response was omitted from the analysis as the questionnaires clearly states that they had to had a contact with their doctor in the last 12 months. In addition, responses with more than 12 responses being “not applicable” were excluded from the analysis.

Items were assessed for mean (SD), median (IQR), missing data, floor, and ceiling effects. The internal consistency reliability of the questionnaire was assessed using Cronbach’s alpha. The data were further explored for the potential extraction of underlying factors. A total satisfaction percentage was calculated using the formula below. Potential associations and with overall satisfaction was assessed by demographic characteristics collected through the tool and the appropriate statistical test was used. All analyses were performed using STATA 14.1.

$$\% \text{ of satisfied customers} = 100 \times \frac{\text{Number of satisfied beneficiaries}}{\text{Number of survey responses}}$$

Number of satisfied beneficiaries are those who responded with excellent (5) or very good (4)

Number of survey responses are the sum of all responses excluding the “Not applicable”

Results

A total of 501 questionnaires were completed and successfully submitted online. Of those submitted none had any missing data. Of those 501 responses, 33 answered that they had not contact with their GP in the last 12 months therefore excluded. All 468 responses were fully analysed. This gave a response rate of 9.38%. It needs to be noted that we could not assess how many emails reached the beneficiaries as there is the potential of the email ending up in the spam folders and never been looked at. Despite that at 50% of population proportion our sample gave a 95% chance that the real value is within $\pm 4.31\%$ of the measured satisfaction value.

Participant characteristics

Participant characteristics are shown in Table 1. The age of the participants ranged for 18-84 with a mean (SD) age of the responders 45.14(12.53). The majority of the responders were female 58.97%. As far as the level of education is concerned, the majority of the participants had graduated from tertiary education (79.71%) while the lowest percentage (0.21%) is recorded for those who have not finished the compulsory primary school. Regarding the self-rated health, the vast majority of participants evaluated their state of health as good or very good (77.78%) and as poor or fairly good (4.27%), while 17.95% evaluated their health as excellent. Around one third of the participants (31.82%) stated that they have a chronic condition. Also, the majority of the patients (52.76 %) visited their doctor up to 2 times in the last 12 months.

Patient satisfaction

The mean experience scores of study participants using the mean(SD),median(IQR) floor and ceiling effects for the 23 items are shown in Table 2. All items with the exception of item 22, had a ceiling effect larger than 50% (range: 50.6%-66.3%). For all items, the distribution was skewed to ‘excellent’

The lowest mean(SD) score was for the item “Waiting time in the waiting room?” (4.05(1.08)) while the second lowest was “Being able to speak to the GP on the telephone” with a mean(SD) 4.25 (1.06). The highest mean (SD) satisfaction was for the item “Keeping your records and data confidential?” (4.65 (0.70)). The majority of the mean item scores were heavily skewed towards positive evaluations. The ceiling effects ranged from 43.67%–77.70% while floor effects were all less than 4%.

Exploratory factor analysis did not reveal any underlying sub-dimension in the satisfaction scale. The reliability of the tool was very high (Cronbach’s alpha 0.98).

The overall % satisfaction of all beneficiaries was 80.51% (SD 32.36). Further analysis of the % satisfaction was performed for the sociodemographic measures collected. A Mann Whitney test was performed to assess differences of median % satisfaction between gender. The results indicate no statistically significant difference between the two (p-value=0.1323). The same test was used to assess the differences between satisfaction and whether the beneficiary has a chronic disease. Again, the results indicated no statistical significant difference (p value=0.9612). A Kruskal-Wallis H test was performed to determine of % satisfaction was associated with different age groups (18-29, 30-39, 40-49, 50-59, 60-65, >65). This test showed that there was no statistically significant difference in the satisfaction % between the six groups , χ^2 (5)=1.226 p-value=0.9424. The same was true for education (primary, secondary tertiary) χ^2 (2)=1.955 p-value=0.3763, the number of GP visits (1,2,3-5, 6+) χ^2 (3)=5.400 p-value=0.1448 and the health status (excellent, very good/good, fair/poor) χ^2 (2)=1.494 p-value=0.4738.

Discussion

Principal findings

The results of this study identify a good satisfaction with the care provided by the GPs and the medical centre. In general the patients are very satisfied with all aspects of care provided but particularly satisfied with data confidentiality. The least satisfied patients were with aspects that had to do with managing to contact their GP on the phone and the waiting time when they had an appointment.

Strengths and limitations

The major strength of the study was the fact that it is the first time such as study take place after the major reformation of the healthcare system in Cyprus. We had a representative sample from the largest group practice primary care centre of Cyprus and the results showed a very good satisfaction. The management

of the centre are keen to identify rooms for improvement and the findings have already been taken into consideration and actions have been initiated.

The tool needs to be updated as it is traditionally been filled by patients with the help of a researcher at the GP practice. With the current pandemic, patient visits have been decreased and close interaction between people is strictly prohibited especially in medical centres. We opted for an electronic dissemination and this may have decreased our response rate. Our data are heavily skewed towards beneficiaries with tertiary education background therefore there may be some probability of bias in our findings. But this may also be a true representation of the population as Cyprus has the second highest tertiary education % in Europe. Also the questionnaire asks for patient visits and with the advancement of IT, the current pandemic, the excess demand for service and the limited time resources other forms of consultation have been on the increase such as telephone and video consultations.

The study identified a “methodological problem”, that of the large ceiling effects, which is consistent with previous EUROPEP studies. In agreement with other authors, we found a skewed distribution towards the “excellent” option therefore a large ceiling effect and a very small floor effect. The high ceiling effect is potentially an indication of lower responsiveness of the questionnaire. It is worth to be noted that these ceiling effects were not generally higher for the current study compared to other studies. It is worth to be noted that the criteria used to evaluate ceiling and floor effects vary a lot among different studies.

Another limitation of the study is the generalizability of the findings. Although the sample size was good enough to make accurate estimates, it is a single centre study at the capital of Cyprus, Nicosia. Although the practice serves beneficiaries from both urban and rural areas, the universal electronic health record as it stands does not provide the opportunity to extract data to understand the case mix of the beneficiaries registered with the practice, therefore we cannot be sure of the generalisability of the findings.

Interpretation within the context of the wider literature

Patient satisfaction is not a clearly defined concept, although it is identified as an important quality outcome indicator to measure success of the services delivery system. We used an internationally validated patient satisfaction tool to assess for the first time the satisfaction of patients in primary care in Cyprus after the major healthcare reformation of 2019. Our overall patient satisfaction is generally in line with results from a study that was performed in 2010 in Cyprus looking at diabetic and hypertensive patients. Overall our study findings are in line with all other international findings that have used the EUROPEP tool. We have seen that patients are particularly satisfied with the safeguarding of confidentiality but usually the worst satisfaction item is the waiting time before consultation with the GP.

The original work of the EUROPEP tool categorises primary care in five distinct categories; availability and accessibility, information and support, medical technical care, doctor–patient relationship and organization of services. We have not been able to identify any scales using the data we collected although internal reliability was very high. This inability to identify the five distinct categories may reflect the need for additional indicators based on single items or new refined scales. To add to this this is something that many of the studies looking at the EUROPEPR have identified.

Implications

It is evident that the Greek EUROPEP can be used as a quality assessment and thus an improvement tool in Cyprus. This study has implications for the managers of the medical centre as well as national and international policy health leaders. Nowadays, the participation of the patients and their contribution to the mapping out of health policy is essential. Their engagement of patients in the assessment of the services and the empowerment of patients in the promotion of the acknowledgment of populations’ health needs is recommended. Managers of the medical centre have already been informed of the study findings and they have already addressed some of the issues such as getting more admin and IT support for better contact

between beneficiaries and GPs as well as better appointment management to reduce the waiting times. Since the cancellation of the electronic appointments due to COVID 19 the call centre has been struggling to adequately respond to the pts needs. Alternative solution that were implemented such as emails, live chat and texting seem to work.

The HIO should use the findings of this study as a steppingstone to implement a nationwide study to assess the patient satisfaction in the entirety of Primary Care so that it can be evolved. As in other countries with similar national health systems, Primary Care acts as the gatekeeper of the system. Differences in the satisfaction of the beneficiaries can be a potential concern for differences in the quality of care provided therefore, health inequalities. Such studies should be performed in an annual basis to supplement targeted quality improvement interventions, with the results being publicly to ensure transparency and foster patient empowerment. Besides the quality improvement of the Primary care of the country, the use of the tool in a national study would provide baseline data for international comparisons.

In addition to the quality assessment of the Primary care and on our survey results the HIO should focus their efforts on health literacy for beneficiaries to get a good understanding of the GP’s role in the new NHS. Furthermore, HIO in collaboration with Cyprus Medical and Patients Association need to implement professional development courses in order to improve adherence to clinical guidelines/evidence-based medicine, performance of clinical auditing, empathy, compassion, as well as communication skills which will lead to improved patients satisfaction and NHS healthcare quality with cost-savings at the same time.

Conclusion

Feedback on patients’ evaluations of GPs and their practice is an effective quality improvement tool. The feedback can help identify good practices as well as areas of improvement. In our study the EUROPEP tool was used and we identified aspects of good care as well as room for improvement in terms of organisation and clinical behaviour that need to be addressed to improve further beneficiaries satisfaction. Similar approaches should be undertaken on a universal scale to assess Primary care in the new NHS and address quality issues without creating health inequalities.

References

Tables

Table 1: Sociodemographic characteristics of respondents

Beneficiary Characteristic	Beneficiary Characteristic	
Age	Mean	45.14
	SD	12.53
Gender	No (%) of patients	
	Female	276 (58.97)
	Male	192 (41.03)
Academic education	Primary	1 (0.21)
	Secondary	94 (20.08)
	Tertiary	373 (79.71)
Self-reported health status	Excellent	84 (17.95)
	Very good/good	364 (77.78)
	Fair/poor	20 (4.27)
Chronic disease	Yes	148 (31.82)
	No	320 (68.38)

Beneficiary Characteristic	Beneficiary Characteristic	
Visits to the doctor over the last 12 months	1	106 (22.65)
	2	169 (36.11)
	3-5	170 (36.33)
	6-12	23 (4.91)

Table : Descriptive statistics, ceiling effect for the EUROPEP-instrument

Question	Mean* ¹ (SD)	Median* ¹ (IQR)	“Not relevant” (%)	Floor ² (%)	Ceiling ³ (%)
Making you feel you had time during consultations?	4.40 (1.01)	5 (1)	1.28	2.81	66.45
Interest in your personal situation?	4.48 (0.94)	5 (1)	1.28	2.38	69.48
Making it easy for you to tell him or her about your problems?	4.46 (0.93)	5 (1)	1.07	2.16	68.03
Involving you in decisions about your medical care?	4.44 (0.90)	5 (1)	2.78	1.32	65.27
Listening to you?	4.53 (0.92)	5 (1)	1.50	1.52	71.19
Keeping your records and data confidential?	4.65 (0.70)	5 (0)	8.97	0.23	77.70
Quick relief of your symptoms?	4.47 (0.89)	5 (1)	3.42	1.33	66.59
Helping you feel well so that you can perform your normal daily activities?	4.53 (0.84)	5 (1)	3.85	0.67	70.67
Thoroughness?	4.56 (0.89)	5 (0)	1.28	1.30	75.11
Physical examination of you?	4.44 (0.94)	5 (1)	6.41	1.83	66.44
Offering you services for preventing diseases?	4.51 (0.89)	5 (1)	4.27	1.56	71.21

Question	Mean* ¹ (SD)	Median * ¹ (IQR)	“Not relevant” (%)	Floor ² (%)	Ceiling ³ (%)
Explaining the purpose of tests and treatments?	4.51 (0.92)	5 (1)	2.99	2.20	71.81
Telling you what you wanted to know about your symptoms and/or illness?	4.52 (0.86)	5 (1)	1.50	0.65	70.28
Help in dealing with emotional problems related to your health status?	4.40 (0.98)	5 (1)	12.61	1.71	65.77
Helping you understand the importance of following his or her advice?	4.47 (0.90)	5 (1)	3.21	1.55	68.43
Knowing what she/he had done or told you during previous contacts?	4.42 (1.00)	5 (1)	4.27	3.13	67.86
Preparing you for what to expect from specialist or hospital care?	4.40 (0.97)	5 (1)	13.25	2.46	65.02
The helpfulness of the staff (other than the doctor)?	4.45 (0.85)	5 (1)	3.21	0.66	64.68
Getting an appointment to suit you?	4.36 (0.95)	5 (1)	1.28	1.73	61.47
Getting through to the practice on the phone?	4.37 (0.95)	5 (1)	1.28	1.30	62.77
Being able to speak to the GP on the telephone?	4.25 (1.06)	5 (1)	1.50	3.04	57.92

Question	Mean* ¹ (SD)	Median * ¹ (IQR)	“Not relevant” (%)	Floor ² (%)	Ceiling ³ (%)
Waiting time in the waiting room?	4.05 (1.08)	5 (2)	2.14	3.93	43.67
Providing quick services for urgent health problems?	4.39 (0.92)	5 (1)	7.69	0.93	62.50