

Public Health Service

Analysis of the Impact of Doctors' and Health Care System Credibility on Patients' Satisfaction with Health Care

Andriy Yavorskyy*

Abstract

Forming a patient-oriented health care system, patients' participation in health care quality assessment has become the imperative of our time.

The objective of the research was to analyze the impact of doctors' and health care system credibility on satisfaction with health care.

Materials and methods. Sociological survey of 530 patients was conducted. The patients completed their treatment in the surgical departments of inpatient facilities in Ivano-Frankivsk region. According to its results the patients were divided into two groups: satisfied (372 people) and not satisfied (158 people) with the level of health care services in the department and the hospital as a whole.

Results of the research. Nearly 60% of the surveyed patients were determined not to trust their doctors and one third of respondents did not know their primary care physician. This significantly increased the chances of dissatisfaction with health care (OR=4.11; 95% CI: 1.67–10.14, $p < 0.001$ and OR=1.96; 95% CI: 1.33–2.90 respectively; $p < 0.001$) and promoted inefficient use of the health care system resources as a result of unreasonable hospitalization (in 18.8% cases).

Conclusions. Patients who do not trust doctors in general and do not know their general practitioner remain dissatisfied with inpatient care by 1.5-10 times more often.

Keywords

doctors' credibility; satisfaction with health care; quality management system

Ivano-Frankivsk National Medical University, Ukraine

*Corresponding author: burg555[[@](mailto:burg555@mail.ru)]mail.ru

Problem statement and analysis of the recent research

Quality of health care and provision of health care services at the highest level is one of the major tasks of any health care system [3, 6]. According to the WHO definition, modern health care should ensure access to health care services for those who need it, be characterized by high quality and safety of health care and provide the best possible results at the population level [7, 13].

This task is especially important for Ukrainian society as there is an urgent need to reform the field of health care. Its rational management will promote social tensions relief, the revival of public confidence in the domestic medicine and creating economically advantageous model of health care [8, 9, 11, 14].

The above mentioned WHO definition implies that health care quality improvement is one of the most powerful mechanisms of resource efficiency reforming and improving [7, 20]. This objective is possible to be achieved only in case of implementation of economically feasible strategy of health care system development adapted to the state needs and ca-

pabilities with the obligatory patients' involvement into the system of health care quality evaluation [1-3, 8, 10, 12, 18].

European experience of patient-oriented health care system formation indicates that patients should be necessarily involved into the system of health care quality evaluation. Nowadays the opinion of health care services consumers in developed countries has become a compulsory component of integral criterion of health care quality and health care facilities activity [13, 15-19]. The survey provides an opportunity to identify those aspects of health care that are of greatest value to the patients and the population in general, that is it reflects their basic needs and expectations the most accurately and therefore corresponds to the philosophy of quality concept [4, 11, 21].

The objective of the research was to study the impact of different aspects of doctors' and health care system credibility on satisfaction with patients' health care.

1. Materials and methods of the research

The results of medical and social research conducted at adult surgical inpatient departments of all city, district, central district and regional clinical hospitals in Ivano-Frankivsk region

were used in the research. 530 patients who had completed their treatment by the time of the study were surveyed. Respondents were divided into two groups according to their level of satisfaction with health care. Group I (372 individuals) included patients completely satisfied with the level of health care services in the department and the hospital as a whole. Group II (158 individuals) consisted of dissatisfied patients. Comparison groups (satisfied and dissatisfied with the provided health care) did not differ in the main demographic parameters, namely distribution by age, sex and place of residence, that is the factors that could significantly affect access to and satisfaction with the health care quality ($p > 0.05$).

Such parameters of health care system credibility as the level of doctors' credibility in general, patients' awareness on their primary care physician, a desire to be treated and served by doctors at various levels, etc. were studied.

Since only categorical (qualitative) data were obtained according to the results of the research, formula for calculating the frequency of each factor per 100 examined patients and representativeness error for the relative values was used. Assessment of the data difference reliability in the comparison group was performed using chi-squared test (χ^2) [5]. The method of odds ratio (OR) and its 95% confidential interval (95% CI) calculating was used to study the effect of specific factors on satisfaction with health care. If 95% CI constituted one, the effect of the studied factor was regarded as insignificant [17].

2. Results of the research and their discussion

Most patients of surgical departments (65.85%) were determined to be the residents of villages. This corresponds in general to the peculiarities of Ivano-Frankivsk region where rural population dominates over the city one.

The percent of women under the research prevailed over men (61.70% versus 38.30%) both among urban and rural residents. According to the age structure of respondents separate age groups (under 30, 30-39, 40-49, 50-59 and 60 and older) were presented on an even basis.

The proportion of respondents in all these categories (age, sex and place of residence) who were dissatisfied constituted for about one third of respondents ($29.81 \pm 1.99\%$).

An important factor that could affect this is the doctors' credibility. Only 40% ($41.3 \pm 2.2\%$) of respondents, both men and women ($p > 0.05$), in our research noted that they fully trusted doctors. Among the rest, the vast majority ($54.8 \pm 2.2\%$) of respondents trusted them partially, and a very small part ($4.0 \pm 0.9\%$) of respondents did not trust them at all.

With age (Fig. 1) doctor's credibility increased from $34.8 \pm 5.1\%$ at a young age to $57.6 \pm 5.2\%$ in the elderly ($p < 0.05$).

Older people are probably more tolerant than young people who are often maximalists by their judgments about other people. On the other hand, prevalence of chronic diseases and need for health care increases with age. Long-term experience

of communication with doctors may probably also contribute to some increased their confidence. Rural residents are charac-

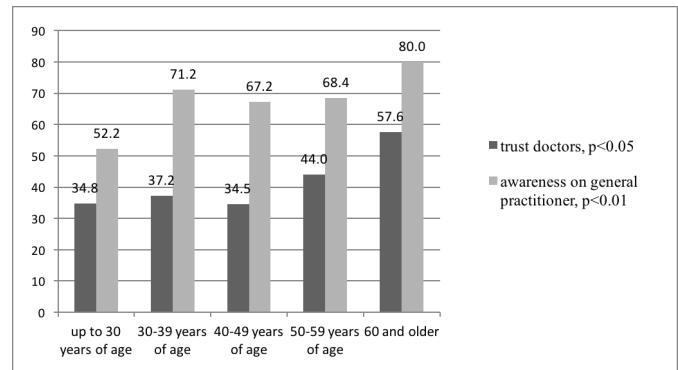


Figure 1. Age levels of doctors' credibility and awareness on general practitioner.

terized by higher levels of aging according to age composition and are more level-headed and kind due to the patriarchal way of life. Therefore, it is not surprising that they trusted doctors more than urban residents in general ($p < 0.05$).

However, attention is drawn to distinct correlation between the level of doctors' credibility and satisfaction with provided health care. Respondents of the main group (dissatisfied with health care) generally trusted the doctors less than the respondents in the control group (Fig. 2). The percentage of those who completely trusted the doctors among them was almost twice lower and constituted $28.2 \pm 3.6\%$ compared to $46.8 \pm 2.6\%$ in the control group ($p < 0.001$). Calculation of odds ratio showed that lack of doctors' credibility significantly increased the chances of dissatisfaction with health care (OR= 4.11; 95% CI: 1.67–10.14, $p < 0.001$). On the other hand, such

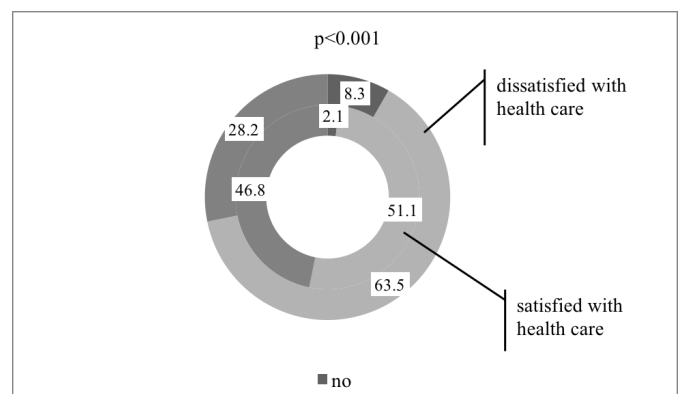


Figure 2. The level of doctors' credibility among the respondents satisfied and dissatisfied with health care services.

level of distrust of doctors probably affects the relationships within the health care system and inefficient use of its limited resources. Thus, according to interviews, almost one fifth of patients in surgical departments of hospitals considered their

health to be good ($18.8 \pm 1.7\%$) and even excellent ($1.3 \pm 0.5\%$). This may indicate unjustified hospitalization of quite significant proportion of patients who could be treated in a day patient facility or on an outpatient basis in case of compliance with distinct criteria for hospitalization at a pre-hospital stage.

However, one third of respondents ($32.1 \pm 2.0\%$), both men and women ($p > 0.05$) did not know their general practitioner and therefore did not consult him leading to the violation of stage-by-stage approach and continuity of health care provision.

This phenomenon was particularly common among young people (Fig. 1). Half of the patients at the age of up to 30 ($47.8 \pm 5.3\%$) did not know their general practitioner. Understandably the indicator slightly decreased ($p < 0.01$) with age, namely up to $20.0 \pm 4.2\%$ at the age over 60, when the need for health care increased. However, the fact that every fifth elderly person is not familiar with his primary care doctor can hardly be explained by only low levels of doctors' credibility. This indicates inefficient work of primary care in all areas of activity and lack of institutional mechanisms to regulate patient stream at different levels of health care. Legally defined free choice of doctor often leads to unjustified patients' visit straight to specialty care provider or inpatient facilities. This can be especially observed in urban areas where better public access to secondary and tertiary health care is provided. This could be confirmed by the fact that urban residents twice as often indicated that they were not familiar with their general practitioner or district doctor in comparison with the rural residents (39.4 ± 3.6 versus $28.2 \pm 2.4\%$, $p < 0.01$).

Respondents dissatisfied with health care (Fig. 3) were established to have even higher chances not to know their general practitioner or district doctor constituting $42.7 \pm 4.0\%$ versus $27.5 \pm 2.3\%$ in the control group (OR=1.96; 95% CI: 1.33–2.90; $p < 0.001$). Based on the foregoing the desire to be

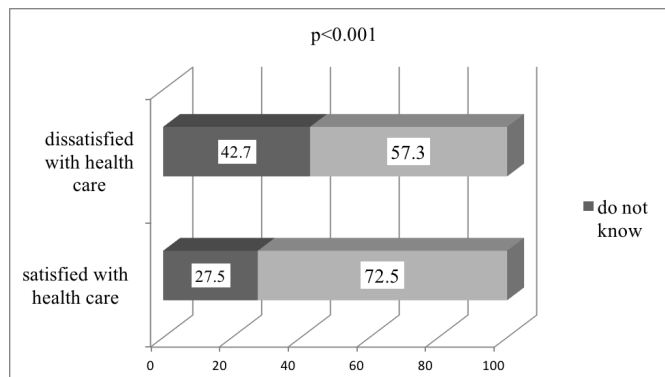


Figure 3. Awareness on the primary care doctor among the respondents satisfied and dissatisfied with health care.

treated by a general practitioner expressed only one third of respondents ($28.4 \pm 2.0\%$) was not surprising. On the other hand, the largest proportion of respondents ($37.4 \pm 2.1\%$) would like to be treated by a subspecialist, and one in four

($25.6 \pm 1.9\%$) respondents would like to be treated by associate professor or professor, and $8.6 \pm 1.2\%$ of respondents would like to visit another doctor. Moreover, such responses distribution was demonstrated by all compared groups of patients, namely by sex, age and place of residence ($p > 0.05$). Differences in patients' preferences regarding the choice of physician and groups of satisfied and dissatisfied with health care were not established (OR = 0.67; 95% CI: 0.30–1.50; $p > 0.05$).

3. Conclusions

Nearly 60% of the surveyed patients were determined not to trust their doctors and one third of respondents did not know their primary care physician. This significantly increased the chances of dissatisfaction with health care (OR= 4.11; 95% CI: 1.67–10.14, $p < 0.001$ and OR=1.96; 95% CI: 1.33–2.90 respectively; $p < 0.001$) and promoted inefficient use of the health care system resources as a result of unreasonable hospitalization (in 18.8% cases).

4. Prospects for further research

The identified areas of concern will be considered for further improvement of patient-oriented system of measures for quality control of health care services at health care facilities level.

References

- [1] Voronenko YuV, Horachuk VV. Upravlinnia iakistiu medychnoi dopomohy: svitovi i vitchyzniani modeli. Skhidnoievropejskyi zhurnal hromadskoho zdorovia. 2012;2-3 (18-19):64–67
- [2] Hoida NH, Murzina EO. Pidvyshchennia iakosti medychnoi dopomohy – odyz iz osnovnykh napriamkiv roboty. Vashe zdorovia. 2009;20:13
- [3] Horachuk VV. Upravlinnia iakistiu medychnoi dopomohy v zakladi okhorony zdorovia [monograph]. Vinnytsia: 2012. 212 p.
- [4] Hrevtsova RYu. Aktualni pravovi pytannia informatsiinoho obminu mizh likarem i patsientom. Upravlinnia zakladom okhorony zdorovia. 2007;6:16–20
- [5] Detsyk OZ. [Methodological approach to summation of scientific research results]. Galic'kij likars'kij visnik. 2011;18 (2):5–8
- [6] Dziak HV, Lekhan VM, Kriachkova LV. Pidkhody do vyznachennia stratehii pidvyshchennia iakosti medychnoho obsluhovuvannia v Ukraini, harmonizovani in zahalnoievropejskymy metodamy. Medychni perspektyvy. 2010;XV(1):6–9

- [7] World Health Organization, Regional Office for Europe. Health 2020: the European policy for health and well-being. 2013. 225 p.
- [8] Zyukov OL. Substantiation of structural and processing approach of inpatient health care quality management to oncologic patients in Ukraine [dissertation]. Kyiv: 2009. 331 p.
- [9] Lekhan VM, Zyukov OL. Zastosuvannia pryntsyypiv dokazovoho menedzmentu dlia pryiniattia upravlinskykh rishen shchodo pidvyshchennia iakosti medychnoi dopomohy. Naukovyi visnyk Natsionalnoho medychnoho universytetu imeni OO Bohomoltsia. 2008;2-3 (18-19):66–69
- [10] Lekhan VM, Slabkyi GO, Shevchenko MV. Health care system strategy development: Ukrainian measuring. Kyiv: 2009. 50 p
- [11] Voronenko YuV, Hoida NH, Mintser OP, Mitchel M. Novi tekhnolohii navchannia menedzmentu v medytsyni. Study guide. Kyiv: Knuha plus; 2009. 416 p.
- [12] Horachuk VV, Voronenko YuV, Hoida NH, et al. Orhanizatsiia sotsiolohichnykh opytuvan patsientiv, iikh predstavnykiv i medychnoho personaluv zakladakh okhorony zdorovia. Guidelines. Kyiv: 2012. 22 p.
- [13] World Health Organization, Regional Office for Europe. Rukovodstvo po razrobotke strategiy obespecheniya kachestva i bezopasnosti s pozitsii sistem zdravokraneniya. 2008. 86 p.
- [14] Evans B, Elovainio R, Humphreys G, et al. Health systems financing: the path to universal coverage. World health report 2010. World Health Organization. [Internet]. 2010. 129 p.
- [15] Legido-Quigley H, McKee M, Nolte E, et al. Assuring the quality of health care in the European Union. A case for action. World Health Organization (European Observatory on Health Systems and Policies). 2008. 215 p.
- [16] World Health Organization Regional Office for Europe. Exploring patient participation in reducing health-care-related safety risks. 2013. 175 p.
- [17] Forthofer RN, Lee ES, Hernandez M. Biostatistics: A Guide to Design, Analysis, and Discovery. Amsterdam: Elsevier Academic Press; 2007. 502 p
- [18] Van de Bovenkamp HM, Trappenburg MJ. Government Influence on Patient Organizations. Heal Care Anal. 2011 Dec 28;19(4):329–351. DOI: <http://doi.org/10.1007/s10728-010-0155-7>
- [19] Friesner D, Neufelder D, Raisor J, Bozman CS. How to improve patient satisfaction when patients are already satisfied: a continuous process-improvement approach. Hospital Topics. 2009;87 (1):24–40
- [20] Jakubowski E, Saltman RB , editors. The Changing National Role in Health System Governance. A case-based study of 11 European countries and Australia. WHO European Observatory on Health Systems and Policies. 2013. 91 p. Available from: http://www.euro.who.int/__data/assets/pdf_file/0006/187206/e96845.pdf?ua=1.
- [21] Tanenbaum SJ. What is Patient-Centered Care? A Typology of Models and Missions. Heal Care Anal. 2015 Sep 27;23(3):272–287. DOI: <http://doi.org/10.1007/s10728-013-0257-0>

Received: 11 October 2016

Revised: 24 October 2016

Accepted: 24 October 2016