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Evaluation of Efficacy of Patient-Oriented Measures to Control the Health Care Quality at the Level of Healthcare Facilities

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Abstract.

The article deals with the analysis of efficacy of patient-oriented measures to control the health care quality at the level of healthcare facilities. The set of measures was developed based on the results of scientific research at the hospitals of different levels in Ivano-Frankivsk region during 2010-213. Comparative analysis of patients' survey results based on anonymous questionnaires designed on the basis of a preliminary study results in 2013 (445 individuals) and 2015 (233 individuals) was conducted. Implementation of training in communication skills with patients improved patients' satisfaction with doctors' attitude by 31.0%. Development of local protocols with patients' clinical history, the introduction of continuous quality improvement system according to a series of standards ISO 9001 provided the increase in patients' satisfaction with accuracy, organization, coordination of various departments and staff of health care institution by 2.9-73.3%. Therefore, results of the study proved the efficacy of patient-oriented measures to control the health care quality at the level of healthcare facilities and expediency of their further use and correction, taking into account the obtained results.

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**Problem statement and analysis of the recent research**

The WHO international experts determine quality of medical care as “the level of achievement of significant goals in improving health by health care systems and compliance with fair expectations of the population”. Its main criteria include effective and timely medical care, efficient use of the resources, meeting the patients’ needs and treatment efficiency [9].

Along with the change of paternalistic relationship model between a doctor and a patient to collaborating one during the last decades [1], patients’ involvement into the system of the quality of medical care evaluation has become the dictates of times. The European experience has shown that the viewpoint of healthcare service consumers should be the compulsory component of integral quality criterion of medical care and activities of health care institutions. Survey allows identifying those aspects of medical care that are of greatest value to patients and the population in general that is reflects their basic needs and expectations the most accurately [4,11,13,14].

The objective of the research was to analyze the efficacy of patient-oriented measures to control the health care quality at the level of healthcare facilities in accordance with the study of customer satisfaction.

**Materials and methods of the research**

According to the results of the original scientific research during 2010-2013, a questionnaire about patients’ satisfaction with medical care was developed. Information about patients’ rights and obligations was written on the reverse side for their better awareness. Continuous monitoring of patients’ satisfaction with received medical services was arranged at the Regional Clinical Hospital.

Questionnaires were given to the patients during the admission to the hospital. The patients got the explanations concerning the time of questionnaires completing and the places where to throw questionnaires into specially equipped boxes. The patients were also guaranteed their anonymity. Summarized data of 2013 questionnaire (445 forms) were analyzed in comparison with the results of the same research during 2014-2015 (233 forms).

According to the research results mainly categorical (qualitative) data were obtained, therefore formula for calculating the frequency of each factor by 100 examined patients and a margin of error for representativeness of relative values was used for statistical processing of the data. Assessment of the reliability of the data difference in the comparison groups was performed using chi-square test ($\chi^2$) [2].

**Results of the research and theirs discussion**

According to the results of our scientific research during 2010-2013 at Ivano-Frankivsk health care facilities, the level of satisfaction with medical care was established to depend significantly on factors the improvement of which did not require considerable financial costs and could be implemented at the facility level. Such factors include informational and deontological caused by the inappropriate attitude of the medical staff, patients’ exclusion from the decision-making process concerning the prescribed methods of their medical interventions, insufficient discussion of the possible disease consequences with the patients, inappropriate provision of information to the patients about their rights and obligations, as well as medical and organizational factors caused by inadequate accuracy and organization in the actions of medical staff, not quick enough response to patients’ requests, disorganization and incoordination in the hospital and pre-hospital units, etc [3].

The model of advanced management system of medical care quality was developed and implemented for their correction. It was focused on the priority to meet the patients’ needs and requests. Its major innovative elements included monitoring of patients’ satisfaction with provided services, implementation of trainings in communication skills with patients for medical personnel,
information technology for patients on their rights and obligations with the questionnaire about satisfaction with the health care quality [10].

Concurrently, local protocols with patients’ clinical history were actively developed and implemented at the regional health care facilities in response to Ministry of Health of Ukraine approval of new standards of accreditation (2011) [8], methods of medical and technological documents development (2012) [7].

In addition implementation of certification of the quality management system according to the requirements of State Standards of Ukraine ISO 9001: 2009 “Quality management system. Requirements” has recently become a prerequisite for higher accreditation category for institutions that provide secondary and tertiary health care [5, 6]. The mentioned standards are known to be based on Continuous Quality Management model also oriented at the priority of customers’ need satisfaction [12].

Ivano-Frankivsk Regional Clinical Hospital was chosen as a scientific research base taking into account the fact that the whole mentioned package of measures was implemented there.

According to the survey, overall level of patients’ satisfaction with health care did not change in comparison with 2013 (79.0±2.7% versus 77.8±2.0%, p>0.05), however its individual components differed significantly.

Improvements in individual parameters of information and deontological factors were achieved due to taken measures (Fig.1). The best result was achieved in improvement of doctors’ attitude (87.1±2.2% versus 66.5±2.2%, that is +31.0% in visual aspects indices, p<0.001) while the respondents’ rating of nursing staff (88.0±2.1% versus 84.5±1.7%, p>0.05) and medical attendants (84.6±2.4% versus 79.3±1.9%, p>0.05) remained the same.

Fig.1. The answers allocation regarding the respondents' satisfaction with information and deontological needs (* - data significant difference).
We consider the obtained data to provide clear evidence of efficiency of trainings in communication skills with patients for doctors. Such studies should be continued and junior specialist with medical education and without it should also be involved.

However, analysis of individual components of the relationship between patients and medical staff showed that doctors had improved their communication with patients only in regard to collaborating discussion of diagnostic methods (83.3±2.5% versus 76.0±2.0%, p<0.05). Other aspects such as patients informing about the possible disease consequences (87.1±2.2% versus 82.5±1.8%, p>0.05), methods of treatment (81.1±2.6% versus 80.9±1.9%, p>0.05), recommendations after the discharge (77.7±2.7% versus 79.8±1.9%, p>0.05) still require the correction. Special attention should be drawn to the importance of explanations of the rights and obligations to patients during the further trainings (70.8±3.0% versus 74.2±2.1%, p>0.05).

Introduction of local protocols and continuous quality improvement system according to a series of standards ISO 9001 led to the best possible results in the medical and organizational component of the reasons for patients' dissatisfaction with medical care in comparison with information and deontological group which was not able to be corrected so quickly as it required the formation of attitudes and communication skills.

Patients' satisfaction with accuracy, organization and coordination of activity of health care institution units increased by 2.9-33.2% (in visual aspects indices) (Fig 2). The level of patient satisfaction with medical attendants' accuracy of action significantly increased (79.8±2.6% versus 46.1±2.4%, p<0.001). However, these aspects of work concerning doctors (82.8±2.5% versus 78.2±2.0%, p>0.05) and junior specialists with medical education requires further improvement.

![Fig 2. Dynamics of changes in patients' evaluation of medical and organizational aspects of health care (* - data significant difference).](image-url)

Generally, the results clearly confirm the necessity and effectiveness of local protocols with patients' clinical history. We consider the better organization of health care delivery to influence...
improvement of patients’ satisfaction with the treatment results (81.6±2.5% versus 75.1±2.1%, p<0.05).

However, it is noteworthy that number of complaints about the need to pay for medical services increased (from 16.2±1.7% in 2013 to 29.6±3.0% in 2015, p<0.05). Nearly half of the respondents consistently indicated that they had to pay in a varying degree for different medical services (42.5-57.3%). We consider this to be a systemic problem of inadequate funding of health care institutions which cannot be solved by organizational measures and improvement of staff communication skills.

**Conclusions**

Implementation of training in communication skills with patients improved patients’ satisfaction with doctors’ attitude by 31.0%.

Development of local protocols with patients' clinical history, the introduction of continuous quality improvement system according to a series of standards ISO 9001 provided the increase in patients' satisfaction with accuracy, organization, coordination of various departments and staff of health care institution by 2.9-73.3%.

Results of the research proved the efficacy of patient-oriented measures to control the health care quality at the level of healthcare facilities and expediency of their further use and correction, taking into account the obtained results.

**Prospects for further research**

The identified problem aspects will be taken into account for further improvement of patient-oriented measures to control the health care quality at the level of healthcare facilities.

**References**


