

## QUALITY MANAGEMENT IN HEALTHCARE INDUSTRY

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### ABSTRACT

Quality healthcare is the subject of research and controversy for many years. On one side, it is seen as unreal and undefined and on the other it is seen as a term that is measurable and in some respects elusive. In any case, the existence of vast literature in the field of quality in healthcare is primarily related to clinical research. There are relatively few papers that relate to the development of public health programs, particularly primary health care.

The process of improving healthcare is one of the basic elements of well-organized healthcare institutions. Patients, as well as end-users of health services, have a very important role in the implementation of healthcare, particularly in primary healthcare.

How errors in healthcare are, primarily specific, cumbersome or inadequate processes, it is very important to, in time, adapt to different processes and techniques to improve these relationships in order to identify inefficient and inadequate health services and help to avoid the mistakes that have been associated with such the healthcare system defined.

Therefore, patient safety is in the center of the imperative of healthcare quality. To determine their satisfaction or dissatisfaction, we conducted primary research on the experiences of patients to healthcare services on the primary healthcare level.

Results of the survey will serve as a recommendation for the effective management of health care facilities, greater involvement of patients in decision-making, and the development of healthcare quality, with clear responsibilities and mutual reporting.

JEL Classification: H51, H75, I15, I18

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## 1. INTRODUCTION

The improvement of quality in the field of health care, as an integrated part of everyday regular activities of healthcare providers in the healthcare system, represents a continuous process whose primary goal is to accomplish a higher level of effectiveness and success on one hand and on the other greater satisfaction of the consumer of healthcare services (Ljubičić „et al.“, 2006, 5).

In the Declaration of the World health organization (WHO Regional Office for Europe, 1990, 1-4), it is stressed that people have the right and obligation to participate, individually or in groups, in the planning and implementation of their own healthcare. (Kovačić, 2012, 2). That way, from a passive receiver, the patient becomes an active participant – a partner in healthcare and shares the responsibility for his own health with the other sections in healthcare (Leavey, „at al.“, 1997, 53-57).

The satisfaction of the patients with the services on the primary level of healthcare should be a reflection of subjective evaluation of the quality of services rendered. The basic goal of primary research about the satisfaction of patients with the healthcare services on the primary level of healthcare in the Healthcare centre Donji Miholjac, was to first of all comprehend the key facts which effect the improvement of the quality and organization of work in the Healthcare facility Donji Miholjac in the fields of family/general medicine, dental healthcare, health protection of smaller children and infants, as well as health protection of women and expectant mothers (Kovačić, 2012, 2-4). The results that we got after conducting this research will serve as guidelines, for the Healthcare facility Donji Miholjac, for further improvement of the quality of healthcare services rendered in terms of defining priorities, taking certain steps with the goal to improve the providing of healthcare services at the primary level of healthcare (Wensing, 2006, 15).

The evaluation of the satisfaction of the patients with the healthcare services rendered represents one of the basic factors in the improvement of healthcare in terms of the views of the patients about the physicians, nurses, as well as the other sections of the healthcare system (Leavey, „at al.“, 1997, 55-7). The initiative to collect such information came from the Academic council of the healthcare centre (Kovačić, 2012, 3). The satisfaction or the dissatisfaction of patients, is not only reflected in healthcare services rendered, but also in the characteristics of the patients, their expectations, as well as the possibility to give suggestions and criticize, the functioning of the healthcare system. Sometimes, the expectation of the

realization of a healthcare service has an emotional and social category, and very often that kind of satisfaction of a healthcare receiver has a cultural background.

Accordingly, the satisfaction of patients with a certain healthcare service is very often determined by his willingness to follow the prescribed therapy, which is very relevant and has a huge influence on the outcome of the treatment, his health condition and thereby on the effectiveness of healthcare in general. The questioning of the satisfaction of users of healthcare services has the goal to increase the quality of effectiveness of healthcare services and individual medical procedures, information's, the behavior towards a person, as well as reverence of the primary principles of rendering healthcare services (universality, accessibility, continuity and specialized approach in rendering healthcare services).

For conducting this research we used a standardized questionnaire which was created by a EUROPEP work group (European Task Force on Patient Evaluations of General Practice Care) and that has been used in several international researches (Denmark, Italy, Netherlands, Germany, Slovenia, Switzerland) (Wensing, 2006, 5). The structural concept of the questionnaire refers to the evaluation of the satisfaction of users with the healthcare protection through five dimensions of quality evaluation, which should be in focus for the management of healthcare facilities, with the goal to improve the quality of healthcare. The first dimension refers to the socio.-economic characteristics of the examinee, the second to the accessibility to healthcare, the third to the perception and satisfaction of the patient with the expertise and behavior of the healthcare provider, fourth to the organization and equippedness of the healthcare center with the necessary medical instruments and medical equipment, and finally, the fifth dimension refers to the functioning specialist-consultative healthcare (Kovačić, 2012, 4).

## 2. MANAGEMENT OF QUALITY IN HEALTHCARE

The improvement of the quality in many countries has a major role in reforming healthcare and rendering healthcare services. All countries have to face the challenges with the available recourses to ensure access, equity, safety, participation of patients and to develop skills, technologies and healthcare based on proof (Shaw, 2003, 9).

Public, political and professional dissatisfaction with the rendered services in healthcare show an existing consensus on the global level (Kovačić, 2011, 4-5). The problems especially relate to a continuous approach to healthcare, clinical effec-

tiveness, security of patients, values for money, satisfaction of patients and public responsibility. Because of this, the developed world has started to focus on preventive healthcare, primary health protection, inclusion of patients and a clearer role in management of healthcare, and the healthcare system as a whole. (Schweiger, 2003, 3-4).

In many European countries, USA and Australia, tracking satisfaction with healthcare and different levels of healthcare, its common practice (WHO, 1993, 1-2). Researches are usually conducted for following goals related to improvement of healthcare:

- The right of patients to information;
- Increase of the quality of healthcare and providing care;
- Increase of individuality and humane medical treatments;
- Decrease of inequality in using healthcare;
- Getting comparative information which allows certain comparisons and similar

The degree of satisfaction of patients with healthcare can serve as an indicator of the quality of healthcare (Donabedian, 1966, 166-06). The point of development of healthcare should not only be a measurement for clinical and economic efficiency, but a measurement for social acceptability. Social acceptability includes the point of view of the community or public about health and especially the point of view of the public about different aspects of the process of healthcare. (Ljubičić, 2006, 6). For this reason it is important to measure the satisfaction of patients, and their satisfaction has impact on their health and the therapeutic outcome.

The satisfaction changes as time goes by. Not only do people define it in different ways, but the same person can at different times have different opinions. The reason for this is that sources of dissatisfaction vary so much (Carr-Hill, 1992, 236-49). As satisfaction has no basic units, it is not right to consolidate characteristics for satisfaction with different dimensions of healthcare into one indicator of satisfaction (Ljubičić, 2006, 6).

The satisfaction of patients represents a complex relationship between his observed needs, expectations of the provider of health services and the experience with the received services (Lochman, 1983, 2).

A very important element of improvement of healthcare centers is a subjective evaluation of the satisfaction of patients with the health services which are available at the primary level of healthcare.

### 3. METHODOLOGY OF RESEARCH

The satisfaction of patients with a certain health service very often asserts itself with his readiness to follow the prescribed therapy, which is very significant and has huge impact on the results of treatment, his state of health and with that the efficiency of healthcare in the whole. The questioning of the satisfaction of healthcare users has the goal to increase the quality of healthcare services and individual medical procedures, information, attitude towards people as well as reverence of the basic principles in providing healthcare services (comprehensiveness, accessibility, continuity and specialized approach in providing healthcare services).

As an instrument of research for the evaluation of subjective satisfaction with the quality of healthcare services rendered in the region of Eastern Slavonia, an adapted standardized anonymous questionnaire is used that a EUROPEP work group has prepared, which operates at the World health organization (European Task Force on Patient Evaluations of General Practice Care). The modified anonymous questionnaire is composed in a way that it offers answers in five the dimensions of points of interest which should be in focus of the healthcare center management, with the goal to improve the quality of healthcare. The first dimension refers to the socio.-economic characteristics of the examinee, the second to the accessibility to healthcare, the third to the perception and satisfaction of the patient with the expertise and behavior of the healthcare provider, fourth to the organization and equippedness of the healthcare center with the necessary medical instruments and medical equipment, and finally, the fifth dimension refers to the functioning of specialist-consultative healthcare (Kovačić, 2012, 3).

In the research family medicine teams were included, as well as dental medicine teams, health protection teams for children and infants and health protection teams for women and pregnant women regardless of the fact that they are part of the healthcare facility or in concession.

The research was conducted by anonymous questionnaires, which each patient became when visiting an ordination of primary healthcare level. With the mentioned questionnaire, every examinee became a concomitant letter from the research organizer, in which the point, purpose and goal of the research was stated.

The examinees were enabled to put the questionnaires in a specially labeled box, which was placed in the object where the individual ordinations of primary level healthcare are situated.

A total of 2.200 questionnaires were distributed, and the research was conducted throughout the months of September and October 2012. The questionnaire contained 38 questions, which were divided in five entireties, socio-economic characteristics of the examinee, accessibility to healthcare, the professional behavior of the healthcare providers, equippedness of the healthcare center with medical equipment and the accessibility to specialized - consular healthcare.

For the statistical analysis of the collected information descriptive and inferential statistic methods were used. For the statistical processing of information we used standard computer programs: Microsoft excel and SPSS Statistic 17.0., for graphical and tabular display of data.

#### **4. GOAL AND RESEARCH PROBLEM**

This paper shows only part of the extensive research. The primary purpose of the conducted research was to determine the patients' subjective satisfaction with the rendered healthcare services on the primary level of healthcare. Within a wider research, five research components were encompassed that basic determinants in improving the providing of healthcare services on the primary level of healthcare.

The research problem was analyzed considering the existing situation and the perspective of development of researches conducted until now, on a national level as well as on a primary level of healthcare of individual countries of the European Union (Economist Intelligence Unit, 2011). The basic goals of the aforementioned research are:

- To perceive the determinants that effect the improvement of quality of rendering health services on a primary level of healthcare;
- To determine modalities of communication between the provider and receiver of healthcare services ;
- To examine the accessibility to healthcare, and
- To determine the need for individual forms of specialized-consultative healthcare.

With the aforementioned research we enabled patients to express their views of individual forms of primary healthcare that should be in the near future a guide-post, for healthcare center management as well as for the carrier teams of primary healthcare, to which level should they improve their behavior, attitudes and specialized knowledge, with the goal to fulfill the expectation of the level of the patients satisfaction with the healthcare services rendered.

## 5. RESEARCH RESULTS

### 5.1. Socioeconomic characteristic of the examinees

The primary research about the subjective satisfaction of patients with the services on a level of primary healthcare was conducted in the area of five Eastern-croatian counties through the months of August and October 2012. A total of 2.200 questionnaires were distributed and 1.590 returned, with an average rate answers of 72,27%. In the structure of the examinees most of them come from the Osječko-baranjska county 46,98% (747), then Brodsko-posavska 16,04% (255), from Vukovarsko-srijemska 15,85% (252), Požeško-slavonska 8,68% (138), Virovitičko-podravaska 7,74% (123), and from other parts of Croatia 4,72% (75). Females were represented with 60, 57% (963), males with 39, 43% (627). The youngest examinee was 18 years old and the oldest 93. The gross number of examinees were between 18 and 40 years old 35,47% (564), the age group 51-65 years of age 24,15% (384), the age group 41-50 with 21,32% (339), while the group of over 65 was represented by 16,98% (270), as is shown in these charts (1,2).

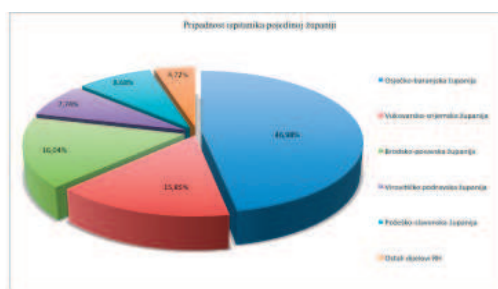


Chart 1: Affiliation of the examinees according to the counties

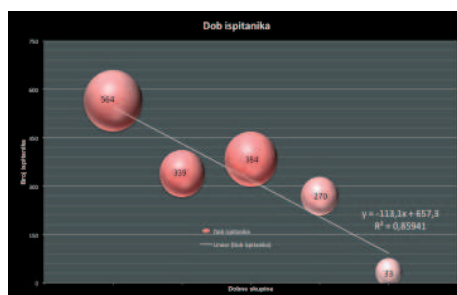


Chart2: Age of the examinees

In the end we also analyzed the status of the insured person within the pension system of the Republic of Croatia. Most of the examinees belonged to the category retired person 29,06% (462), in the category of indefinitely employed 28,87% (459), the category unemployed 17,74% (282), family member 6,98% (111), registered with unemployment office 6,23% (99), employed on a undefined basis 5,09% (81), the category pupil/student 3,96% (63), and other categories 2,08% (33), as is shown in chart 3:

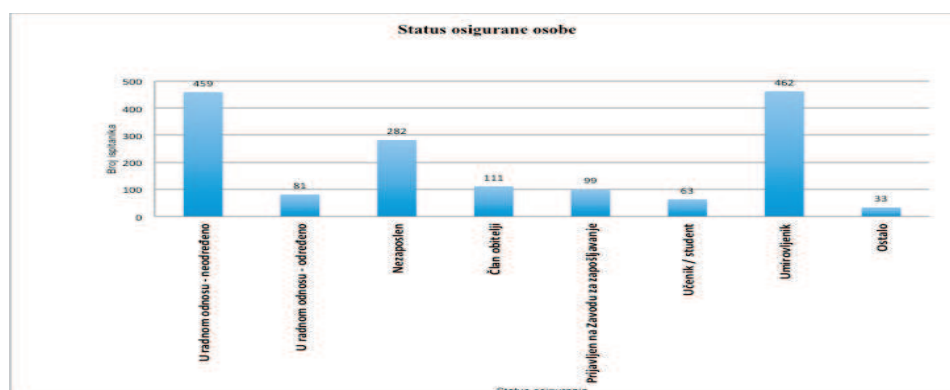


Chart 3: Status of insured examinees

## 5.2. Accessibility of healthcare protection

The accessibility to healthcare protection is a very important aspect of a satisfactorily meeting the needs of the population (Canady, Means & Wazyne, 1997, 443-6). Thus an increase of satisfaction by the patients is expected, recognize problems in providing their healthcare needs, lowering the percentage of hospitalization



and number of laboratory tests, which affects the decrease of cost in implementing health protection (Eriksson & Mattsson, 1983, 858-75). Based on the conducted research an indisputable fact is that most of the examinees 87,74% (1.395), need less than 30 minutes to accomplish their healthcare needs, 10,94% (174) need between 30 and 60 minutes, and only 1,32% (21), needs more than 60 minutes. Most of the examinees 59,62% (948) used the services of general/family medicine, 24,72% (393), the services of polyvalent tooth care protection 10,57% (168), the services of women and pregnant women health protection, 2,45% (39), healthcare services for children and infants, and 3,64% (42) other health services as is shown in chart 4:

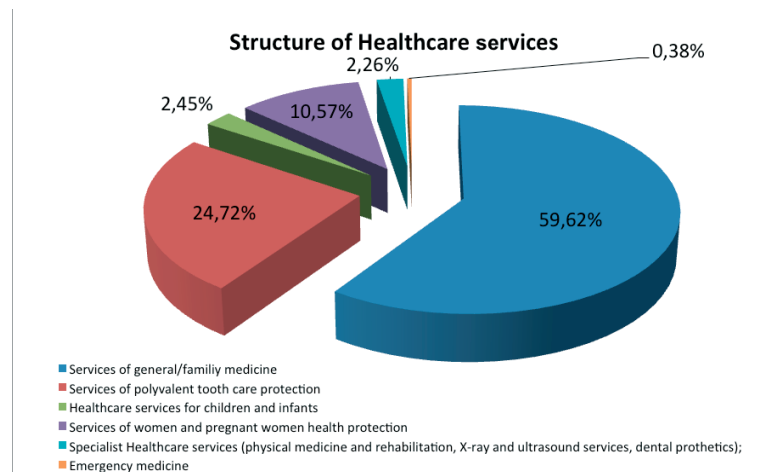


Chart 4: Structure of healthcare services on primary healthcare level

### 5.3 Professionalism and behavior of healthcare providers

Professionalism and behavior of healthcare providers indicates general satisfaction of patients with the rendered healthcare services (Biderman & Carmel, 1994). Examinees who had participated in the questionnaire research rated the professional expertise of doctors and nurses/technicians that implies knowledge and ability to make decisions concerning the patients' health. On arrival at a healthcare facility, most of the examinees were received by a nurse or technician, 8, 87% (141) by a doctor, and 2, 26% (36) by another healthcare employee. The satisfaction of patients with the healthcare services rendered on the primary healthcare level is highly

affected by the waiting time for reception in the ordination; patients that wait less are more satisfied. Most of the examinees 42,64% (678) waited 15 - 30 minutes, 27,55% (438) waited up to 15 minutes, , 23,08% (367) waited 30 - 45 minutes, 6,98% (111) waited from 45-60 minutes, 4,34% (69) waited more than an hour, while 1,70% (27) didn't wait at all for reception into the ordination on primary healthcare level. One of the indicators of the quality of healthcare protection is the time spent in ordinations on the primary healthcare level. Most of the examinees 56,04%(891) spent 5-10 minutes in ordinations while getting healthcare services.

#### ***5.4. Organization and equippedness of healthcare facilities***

An important element when evaluating the quality of healthcare services is the organization and equippedness with medical equipment of the healthcare facilities. 45,66% (726) of the examinees rated the organization of work in facilities of primary healthcare level as excellent, 39,81% (633) as very good, 10,94% (174) as good and 2,83% (45) as satisfactory, while 0,75% (12) is not satisfied with the organization of work in facilities of primary healthcare protection level. Overall, the examinees are satisfied with the work in primary healthcare level with an average evaluation of 4,27. We got similar results on the patients' satisfaction with the equippedness with medical equipment. 35,09% (558) rated it very good, 7,74% (123) as relatively satisfying while 3,40% (54) examinees find that the facility is badly equipped with medical equipment. Overall, an average evaluation note of 3,83, we can be satisfied with the subjective evaluation of the quality of the equippedness healthcare facilities even though there is plenty of room for quality improvement of healthcare.

#### ***5.5. The accessibility of specialized-consultative healthcare protection***

Finally, as a dimension of the quality of healthcare protection on the primary healthcare level, we observed the accessibility of specialized-consultative healthcare. One of the indicators of quality, which we observed in the research, was the time spent waiting for a specialized examination. Most of the examinees 33,58% (534) waited up to 15 days, 28,30% (450) waited 15 -30 days, 19,43%(309) waited more than 30 days, while 18,68 (297), waited less than 15 days for a specialized examination on the primary level of healthcare protection. In the structure of specialized examinations, most of all internist examinations were represented with 19,81% (315), radiology examinations with 19,25% (306), specialized examinations in

physical medicine and rehabilitation with 16,23% (258), ophthalmologic examinations with 10,00% (159), and other examinations with 34,72% (552). An interesting answer of the examinees was, with a total of 62,83% (999), that they would use specialized examinations in the facilities on the primary level of healthcare if these were on the same level as examinations in hospitals, and 29,81% (474) would use services on a lower level. 7,36% (117) of the examinees would only use specialized examination in hospitals.

As an indicator of quality, we also observed the outcome of the health condition of the patients after a specialized examination. Most of the examinees, 77,36% (1.230) felt better after a specialized treatment, 21,89% (348) the same, and 0,75% (12) felt worse after the specialized examination and treatment.

## 6. CONCLUSIVE CONSIDERATIONS AND RECOMMENDATIONS

With the statistical analysis of the five dimensions of the quality of healthcare that were analyzed in this paper, the accessibility and continuous access to healthcare, professionalism of the healthcare providers, the organization of work in the healthcare facilities, equippedness of the healthcare facilities with medical equipment and the accessibility to specialized – consultative healthcare, effect the meeting of patients needs on a primary level of healthcare.

The results of this research show us that a very high level of patients satisfaction with work of healthcare providers, organization of work and equippedness of healthcare facilities on a primary level of healthcare. With an average evaluation of 4,23, the examinees have rated the quality of work in healthcare facilities on a primary level of healthcare.

After processing the results of the research, we can determine that the human potential in healthcare is the most valuable and irreplaceable resource in managing the quality of the primary healthcare level 98,87% (1.572) of the examinees finds that the attitude of doctors is extremely kind and correct while treating patients and 99,43% (1.581) of the examinees find that the attitude of the nurses and technicians is kind and correct when handling patients. The influence that the healthcare providers have on the patients is very big, considering the sensitivity of patients during the treatment process. Because of this, a fundamental accent needs to be the continuous education of healthcare providers, noticing and meeting the healthcare needs of patients. One of the forms is to continually question public opinion of the users of healthcare services on the primary level of healthcare.

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