

ANNA LUDWICZAK

Customer requirements and the quality improvement of health care services

1. Introduction

Quality of life of people and the condition of this quality remain an essential issue discussed in the context of social and economic development, broadly analyzed, among others by W. Mantura (2014, pp. 150-160). Life quality can be translated into the condition and efficiency of the society. Health issues constitute one of the determinants of life quality, that is, among others, the extent to which we feel healthy and have access to high quality health care services. 'Diagnosis of life quality and the living standard of the inhabitants of the Lubuskie Province' conducted in 2015 constituted the starting point for the formulation of the research problem. The report, among others, presents the results of the evaluation of the efficiency of health service in the eyes of the regional community. It highlights significant information concerning the quality of health care services. The respondents of the questionnaire evaluated the work and involvement of the medical staff much higher than the functioning of medical centres. The bureaucratic procedures generating problems connected with long periods of waiting for health care services were particularly

Anna Ludwiczak, Ph.D.
University of Zielona Góra
Faculty of Economics and
Management

negatively assessed (Szaban 2015, p. 247). The presented results, despite their general character, indicate two principle problems which at present affect health service in Poland. The first concerns the inefficiency of system solutions, whereas the second the need for better adjustment of health care services to the needs and expectations of customers, to increase their satisfaction.

The theory of quality management indicates that the determinant of the quality of health care services is the level of patient satisfaction. This topic is touched by A. Maciag and I. Sakowska (2006, pp. 50-62) and J. Fras (2010, pp. 88-90). To ensure that it is necessary to know the needs and expectations of customers. In Poland, research on obtaining information from the customer focused largely on the satisfaction survey (Szpringer M. i in., 2015, pp. 132-137; Kemicer-Chmielewska E. i in., 2013, pp. 143-146; Kauf S., Tłuczak A., 2011, pp. 132-142). However, there are also publications relating to the issue of determining customer requirements (Każmierczak D., Bogusz-Czerniewicz M., 2012, pp. 50-53).

The objective of research presented in the article is the evaluation of activities undertaken by hospitals in Lubuskie in identifying and meeting customer requirements in the design and improvement of health care services and to identify barriers to the integration requirements of the customer in the process of improvement of health care services. The objective of this article is to assess the activities mentioned above in the context of the theory of quality management.

2. Customer oriented approach in the context of health care services

Customer-oriented approach is at present considered one of the most significant principles of quality management in quality oriented concepts directed at process approach. Its significance is stressed, among others, by the ISO 9001 standard, Total Quality Management (TQM) as well as Lean Management. On the basis of the analysis of background literature in respect of the topic discussed, it could be argued the product or service level are directly proportional to the extent at which customer's expectations are met. According to P. Rogala and T. Borys (2011, p. 11) 'quality management consists in actions whose aim is to identify and customer needs and expectations, and subsequently introduce business activity which not only meets such requirements, but goes beyond them, and creates additional impulse for increasing customer satisfaction and the capital of his loyalty'. In view of the above definition, any actions aimed at improving organizations, should be directed at processes which assure better satisfaction of customer needs, requirements and expectations. Polish dictionaries define 'the need'

as something necessary for normal existence or ordinary functioning. Requirements define conditions, or sets of conditions, for which somebody or something is responsible. In turn, 'expectation' is something one desires and awaits for (Słownik Języka Polskiego 2016). Identical interpretation of the term is presented in the ISO 9000 standard, according to which it means 'needs or expectations agreed, accepted by custom or treated as obligatory' (PN-EN ISO 9000:2006, p. 26). While analyzing the three approaches in the context of health care services, such as the process of hospital treatment, it can be argued that needs are satisfied in result of such treatment, the requirements are fulfilled if the service meets the parameters specified in advance: such as following the principles medical practice, observing relevant legal regulations, or avoidance of procedural failures. On the other hand, it could be argued that the expectations are met if the service is provided in the way presumed by the customer (e.g. nice atmosphere, the process of treatment responding to the customer's needs, etc.).

Understanding and application of the customer-oriented concept requires appropriate interpretation of the term 'customer' and its confrontation with the term 'patient'. According to the Law of November 06th, 2008 on the rights of patients and the Spokesman of the Rights of Patients, a patient is 'a person requesting health service or using health service provided by subjects offering health service or persons practicing medical professions' (Journal of Laws 2009, No. 52, point 417, p.2) In turn, in accordance with the definition of the ISO 9000 standard (i.e. the standard related to ISO 9001, and the standard on the basis of which systems of quality management are implemented in Polish health care centres), the customer is 'an organization or a person that receives a product' (PN-EN ISO 9000:2006, p. 31), whereas the standard distinguishes four categories of products treated as the result of the process. i.e. services, intellectual output, material objects or processed materials (PN-EN ISO 9000:2006, p. 33). In both cases, the presented definitions, are rather general in character, which in practice results in numerous conflicts between the managerial and medical staff in respect of whether a person subjected to the process of treatment in a given unit is a 'customer' or a 'patient'. The author suggests that the terms should be combined and supplement each other, in the sense that the patient is a subject who receives health care service, as specified in the Law on provision of health care services understood as 'actions aimed at preserving, rescuing, recovering or improvement of health or other medical actions resulting from the process of treatment or regulations concerning their performance' Journal of Laws 2011, No. 112, point 654, p. 3). In turn, the customers should be provided with

services meeting their needs and expectations in respect of the organization and management, so that the level of their satisfaction is maximized. It is vital to be aware that in the process of provision of health care services it is important to combine both spheres, i.e. the medical and non-medical in the way which guarantees the satisfaction of patients.

Customer oriented approach is listed as one of the eight principles of quality management in the series of ISO 9000 standards, including PN-EN ISO 9000:2006 (2006, p. 7) and PN-EN ISO 2004:2010 (p. 85). The principle specifies that organizations depend on their customers. In order to fulfil their requirements (or even go beyond that), in accordance with ISO 9000, organizations should understand their present and future needs. The provisions of point 5.2 of the PN-EN ISO 9001:2009 (2009, p. 19) standard are particularly important from the point of view of improvement of medical services in the context of satisfying the needs and expectation of customers: (Top management shall ensure that customer requirements are determined and are met with the aim of enhancing customer satisfaction). Furthermore, in accordance with the requirements of the standard (PN-EN ISO 9001:2009, pp. 25-27), in case of processes related to customers, organizations should:

- determine customer requirements concerning the product, including delivery and post-delivery action,
- review product requirements. Prior to product delivery, organizations should review, whether product requirements have been determined, and whether they are able to fulfil them,
- communicate with customers, i.e. determine and implement efficient solutions related to communication with customers and concerning: information about products as well as procedures of managing customers' opinions and feedback information, including complaints.

Furthermore, in accordance with PN-EN ISO 9001:2009 (2009, p. 35), in terms of monitoring and measurement, the results of the analysis of information concerning customers' perception of the extent to which organizations meet their requirements, should constitute one of the measures of the functioning of the system of quality management. Thus there is a need to establish specific methods for obtaining and using such information.

Customer oriented approach is, among others, stressed in Total Quality Management and Lean Management. In accordance with TQM, customer oriented approach should constitute an element of the strategy of organizations already at the stage of formulating their vision. Both TQM and LM highlight the role of both external and internal customers (so called chain of values), in which

employees are treated as internal providers and receivers, who should create some value at all stages of the realization of the process.

According to E. Konarzewska-Gubała (2006, p. 154), the success of organizations based on the satisfaction of external customers, to a large extent depends on the satisfaction of employees, that is internal customers. In case of the provision of health care services this means that their value delivered to customers depends on partial values delivered to external customers in the entire process. Extension of the analysis of customer satisfaction by the satisfaction of the internal customer occurs to be particularly significant in this context.

The guidelines of the Centre of Quality Monitoring (Dudziak-Urbaniak et al., 2009, pp. 109-110) support the development of the customer oriented approach. The guidelines specify that hospitals should analyze the opinions of patients on a regular basis, and the results should define the goals of improvement. The need to evaluate the effects of improvement changes introduced is hence particularly significant in respect of satisfying the needs and expectations of patients.

Self-assessment models constitute another tool supporting the improvement of health care services in the direction of better customer satisfaction. For instance the EFQM model is used for diagnosing the level of management in organizations and its aim is familiarize organizations with good practice and learn from one another. Since the model, just like the concepts mentioned above, stresses the process approach and satisfaction of external customers, it may contribute to the improvement of the process of including the needs and expectations of customers in the process of provision of health care services. Customer oriented approach is included also in the self-assessment guidelines based on the criteria of the M. Baldrige Model, which can be used in the sphere of medical organizations.

3. Results of empirical research

The research covered all hospitals located in the area of the Lubuskie Province, i.e. 25 institutions, in accordance with the data of the Lubuskie Province Office (LUW, 2016). The research procedure consisted of several stages. At first a critical review of the relevant background literature was performed as well as consultations with experts and management of hospitals cooperating within the framework of the Team for Research on the Organization and Management of Hospitals 'Avicenna' (attached to the Faculty of Management and Social Communication of the Jagiellonian University), in respect of the preliminary research problem. At the subsequent stage a questionnaire was developed, whose

accuracy was verified in a pilot study. Next quantitative data was collected and the statistical as well as graphic analysis of the data was performed. During the last stage conclusions were formulated and potential directions for further research were identified. The questionnaires were sent to 25 hospitals in the Lubuskie Province, and appropriately filled in forms were received from 14 institutions, that is the level of feedback totalled at 56%. Table 1 presents the characteristics of the analysed institutions in respect of their legal status, profile of activity and size.

Table 1. The characteristics of the analyzed hospitals

Characteristics	Legal status		Number of hospitals	
Legal status	Sp. z o.o. /Ltd./		9	
	SP ZOZ			
	/independent health care institution/		1	
	N ZOZ /non-public health care institution/		4	
Profile of activity	Profile		Number of hospitals	
	Many specializations		10	
	One specialization		4	
Size	Number of wards	Number of hospitals	Number of beds	Number of hospitals
	up to 10	9	to 100	2
	from 11 to 20	2	from 101 to 500	9
	above 20	3	above 500	3

Source: own study

The first part of the questionnaire aimed at diagnosing the application of the solutions supporting the customer oriented approach in hospitals. The questions were related to three areas: i.e. the application of system solutions, the process approach and communication with customers...

As far the application of system solutions is concerned, 13 hospitals have implements the system of quality management (in accordance with the ISO 9001 standard), on is at the stage of developing the implementation. Significantly fewer hospitals (35.7%) have the accreditation of the Centre for Monitoring Quality. Only one institution (7.1%) declared the use of self-assessment in the process of improvement, and two hospitals have introduced the system of environment management (14.3%). As far as other system solutions are concerned, one institution declared the application of the system food safety management on the basis of the ISO 22000 standard (figure 1).

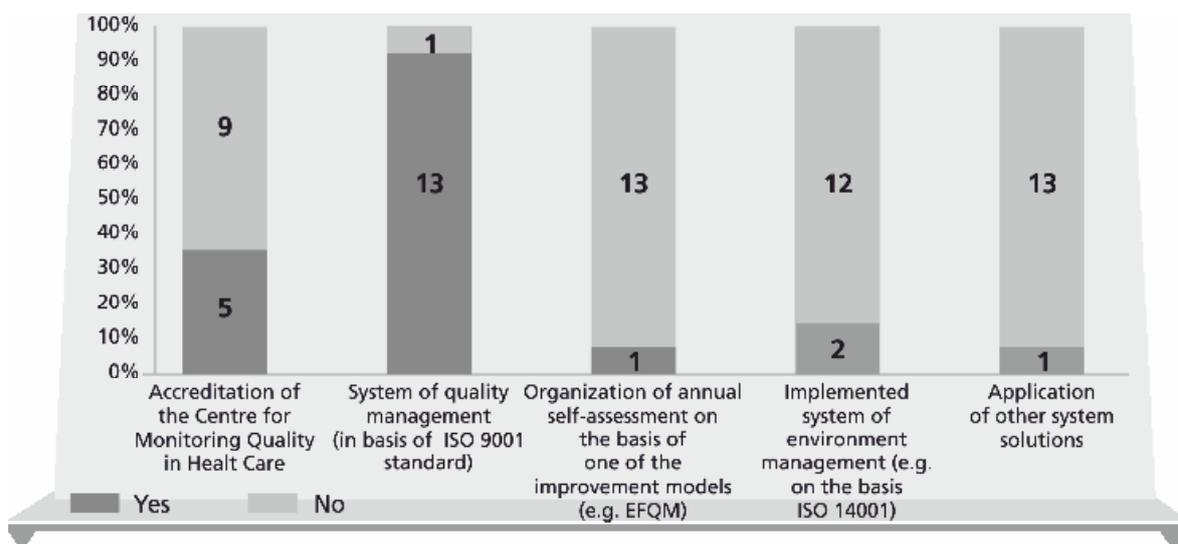


Figure 1. System solution used in the analysed hospitals

Source: own study

The system solutions described above translate into the process approach, whose use constitutes one of the Basic requirements of the ISO 9001 standard since 2001. In the analysed hospitals, the key process of the provision of health care services, that is the processes directly related to patients, were formally identified. More that 70% of hospitals declare that aims, measures and owners of the processes were specified, that it those elements of the process which are relevant for the purposes of systematic and efficient monitoring and measurement. More than 90% of hospitals include the level of customer satisfaction in measuring processes (table 2).

Table 2. The extent of application of the process approach

Process approach	Totally	Partly for select- ed processes	No solu- tions in this respect
	(%)		
Formal identification of key process of the provi- sion of health care services	100,00	0	0
Have the aims for key process in the provision of health care processes been identified?	78,57	21,43	0
Have indexes for monitored and analysed process- es been determined?	71,43	28,57	0
Does the measurement include customer satisfac- tion?	92,86	7,14	0
Do functions of process owners exist in the institu- tion (persons responsible for the entire process of the provision of health care services)?	71,43	28,57	0

Source: own study

In the area of communication with the customer most analyzed institutions (93%) perform regular analysis of customer satisfaction. Significantly fewer, approximately 71%, conduct research on the identification of needs and expectations of customers in respect of the health care services provided. As far as satisfaction of the employees is concerned, that internal clients of the organization, 8 institutions (57%) have implemented appropriate systems. Only 4 hospitals (29%) conduct, other than mentioned above forms of customer analysis, e.g. the level of trust or image of the organization (figure 2).

In the further part of the research the respondents were asked whether the information collected from the customers in respect of their needs and expectations in relation to the health care services provided are taken into account in the process of developing/improving such services. 43% of respondents answered affirmatively, whereas 57% declared that the needs and expectations of customers are taken into account only partly.

The final part of the questionnaire focused on the barriers limiting the inclusion of customer needs and expectations in the process of developing/improving health care services. A few stage scale was used including the

following descriptions: 1 - lack of influence, 2 - limited influence, 3 - medium influence, 4 - strong influence, 5 - very strong influence. Apart from five barriers indicated in the questionnaire, the respondents had an opportunity to specify other types, yet no one took advantage of such option.

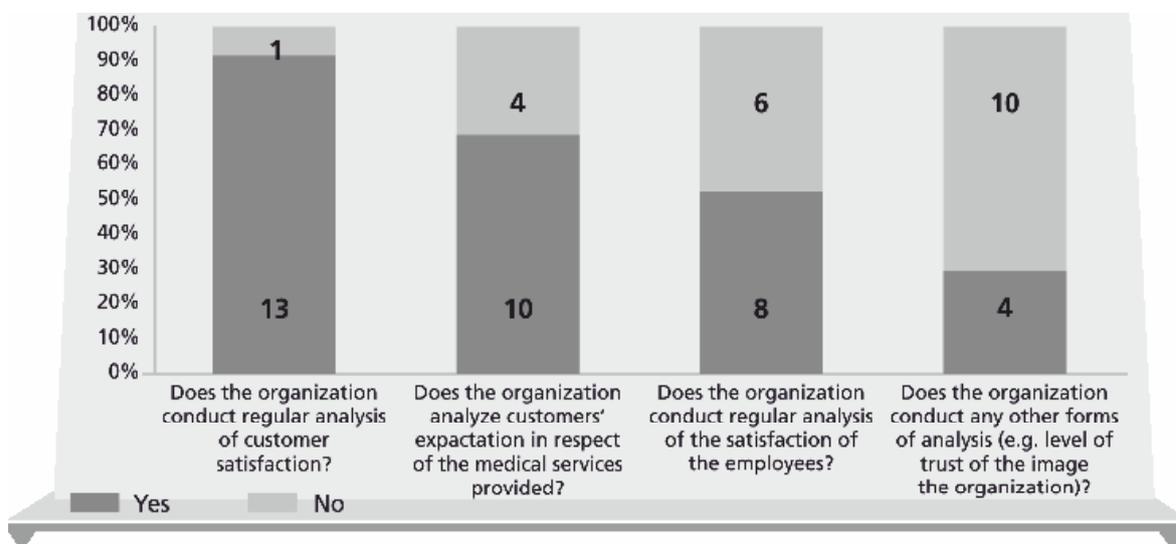


Figure 2. Types of customer data collected

Source: own study

Table 3 presents average results of the impact of particular factors on the process of improvement of health care services. In the evaluation of the respondents, insufficient financial resources constitute the biggest barriers, difficulty in acquiring qualified staff (including medical staff), which could meet customer expectations as well as legal regulation hindering the consideration of some of the customer requirements. The resistance of the staff to changes in respect of adjusting to customer requires was described as medium strong. Yet it has to be noticed that in case of this factor, there occur significant differences in the evaluation in particular institutions. In case of seven hospitals, the respondents observed that this barrier exerts no impact or that the influence is insignificant. Two institutions assessed the influence of the barrier as medium, whereas five as strong or very strong. Such results may mean that the approach to change management varies, as well as systems of motivation which affect the behaviour of the employees in organization, including their commitment.

Table 3. Barriers limiting the inclusion of feedback information from the customer in the process of developing/improving medical services

Types of barriers	Arithmetic mean	Standard deviation
Insufficient financial resources	3,93	1,21
Difficulty in acquiring qualified staff (including medical staff) which could fulfil the expectation of the patients	3,50	1,16
Lack of appropriate material resources (e.g. equipment) or their inadequacy (e.g. old buildings).	2,71	1,14
Lack of competent staff in respect of the analysis of customer needs (whose task is to analyze the activity of customers, collect their opinions, information about their needs, selecting needs which have the strongest influence on customer satisfaction, and determining how particular opinions could be translated into actual parameters of health care services)	2,71	1,20
Legal regulations hindering or preventing the consideration of some of the customer (patient) requirements.	3,21	0,89
Resistance to changes (in respect of adaptation to customer / patient requirements on the part of staff (e.g. reluctance to flexible time of work or lack of commitment to improvement etc.)	2,79	1,25

Source: own study-

4. Conclusions

In order to improve efficiently the processes of the realization of health care services in the direction of their adaptation to customer requirements, hospitals have to be capable of recognizing and interpreting the needs and expectations of patients. Presented research results indicate that institutions use various system solutions contributing to the improvement of services in respect of adjusting them to customer requirements. Furthermore, the process approach implemented in the organization affects better understanding of customer expectation through the analysis of particular services.

The research show, that although the measurement of the level of customer satisfaction is fairly widespread in hospitals, significantly fewer institution analyses the needs and expectation of customers. Even fewer institution perform measurement of other element affecting the knowledge about the customers

(both external and internal), i.e. satisfaction of the employees, level of trust or image of the organization.

Improvement of the processes of health care services requires a holistic approach, taking into account the requirement of external and internal customers. For instance the analysis of the process of a particular service in respect of reducing the time of its realization, all process requirements have to be considered (first of all medical, customer's, organizational legal) and requirements of all external and internal customers must be determined.

The analysis of the data shows that most hospitals do not avoid the consideration of customer needs and requirements in developing/improving health care services. The requirements are not always fully taken into account due to existing barriers. In case of legal, financial barriers or lack of qualified staff, the introduction of changes is limited. Yet the resistance of the employee to adaptation to changes resulting from the need to meet customer requirements, can be overcome by appropriate system of motivation, contributing to the management of changes.

The research presented in the paper is introductory in character. Yet it identifies the possible direction for further analysis. In particular, the diagnosis of quality as well as usefulness of data obtained from customers in the process of improvement of services require further elaboration. Also the causes of differences in the assessment of the resistance to changes among employees in particular institutions as well as the factors which affect the extent of such differences seem to be an interesting issue.

Summary

The role of the customer in improving the quality of health care services

Customer oriented approach is at present the most important principle in quality management. It becomes particularly significant in the context of offering the society high standard health care services. The aim of the research presented in the paper is to diagnose the functioning of customer oriented approach in Polish hospitals, and in particular actions in respect of meeting customer requirements at the stage of developing and improving health care services. Additionally the paper attempts to identify the barriers preventing the inclusion of customer requirements in the process of improvement of health care services. The first part of the paper presents the essence of customer orientation and defines

basic concepts in the context of health care services. Next selected concepts in quality oriented approaches directed at customers are analyzed. The subsequent chapter includes the results of empirical research concerning the application of solutions oriented on the improvement of health care services in the sphere of increasing customer satisfaction in hospital in the Lubuskie Province. In summary, the results of the research are discussed and directions for further research identified.

Keywords: *customer orientation, health care services, quality management system.*

Streszczenie

Rola klienta w doskonaleniu jakości usług medycznych

Orientacja na klienta jest obecnie jedną z najważniejszych zasad zarządzania jakością. Nabiera ona szczególnego znaczenia w kontekście zapewnienia społeczeństwu wysokiej jakości usług medycznych. Celem zaprezentowanego w artykule badania było zdiagnozowanie funkcjonowania w polskich szpitalach orientacji na klienta, w tym zwłaszcza działań w zakresie określania i spełniania wymagań klientów podczas projektowania i doskonalenia usług medycznych. W badaniu podjęto również próbę identyfikacji barier utrudniających włączanie wymagań klienta w proces doskonalenia usług medycznych. W pierwszej części artykułu przedstawiono istotę orientacji na klienta oraz zdefiniowano podstawowe pojęcia z nią związane w kontekście usług medycznych. Następnie zaprezentowano wybrane koncepcje projakościowe, ukierunkowane na klienta. W kolejnym rozdziale zamieszczono wyniki badań empirycznych dotyczące zakresu stosowania przez szpitale w województwie lubuskim rozwiązań zorientowanych na doskonalenie usług medycznych w obszarze zwiększenia satysfakcji klientów. W podsumowaniu odniesiono się do uzyskanych wyników oraz wskazano możliwe kierunki dalszych badań.

Słowa

kluczowe: *Orientacja na klienta, usługi medyczne, system zarządzania jakością.*

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