QUALITY OF MEDICAL SERVICES AND ITS IMPACT ON CUSTOMER SATISFACTION.
DIAGNOSING THE ZONE OF TOLERANCE

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Abstract: *The purpose of the present research consists in diagnosing the zone of tolerance for the medical services provided by an organic health center (OHC) of Brasov, in order to improve the quality of its services and customer satisfaction. Thus, SERVQUAL was employed as an instrument of service quality assessment, as well as the zone of tolerance, through the assessment of desired and adequate expectations, and their comparison with the customer perceptions. The results revealed that respondents' perceptions related to the quality of services provided by OHC exceeded the desired expectations. Moreover, the level of upgrade and enhancement in terms of center's medical equipment represented the single variable which failed to exceed the top level of expectations. Consequently, the organic health center considered for this research should use its best efforts in order to enhance its medical equipment to increase the customer satisfaction.*

JEL classification: M3, D22, I11

Key words: zone of tolerance, adequate expectations, desired expectations, SERVQUAL, health

1. LITERATURE REVIEW

The literature review on Romanian medical services includes very few articles on quality. Until two decades ago, the stress was set on the service delivery, and less on the implementation of certain quality standards, not to mention the analysis of customer satisfaction related to such services. Moreover, the medical services from the alternative

medicine come in contrast with those from the allopathic medicine, the first being preferred by part of the population for certain reasons that are related to the type of therapies and results. Consequently, we find important and useful to analyze the quality of medical services from the alternative medicine sector and also to determine the potential differences in terms of quality between the alternative medicine and the allopathic one. Additionally, the topic of this paper was chosen based on the fact that a large number of alternative medicine practices occurred on the Romanian market over the past few years.

The quality of services became an important research object, as the share of services field represents the majority within the economical structure of developed countries. Beside this macroeconomic aspect, the quality of services represents an important item of analysis from a microeconomic perspective as well. Thus, the quality of services has a significant impact on profit, cost and market share for any service provider (Devlin and Dong, 1994).

The concept of service quality represents a valuable attitude or judgement (Olshavsky, 1985). Also, understanding the service quality as opposed to satisfaction carries a psychological load as well. While satisfaction is strictly related to a single transaction (purchase and consumption for a service), the quality represents the link between this transient event and the already existing expectations related to the quality of a service (Oliver, 1981).

The quality of services involves consumers' expectations and perceptions in respect of the satisfaction provided by the consumption of a service. Thus, a large number of papers point out the idea that service quality, as perceived by consumers, originates in the comparison between what they believe that service providers should offer them (i.e. their expectations) and their perceptions related to the performance of such service providers (Parasuraman et al., 1994).

1.1 SERVQUAL as a measuring instrument for medical services

During the last decades, services marketing researchers developed 19 service quality instruments (Ramez, 2012). Among these instruments, the one that lasted over time and it is used the most in practice is "SERVQUAL". Thus, the SERVQUAL instrument was developed and improved in several successive phases (1985, 1988, 1991, 1993, 1994) through the efforts of a group of three researchers: Parasuraman, Zeithaml and Berry. The instrument that has been developed by the three researchers (Parasuraman et al., 1985) was based on the

interpretation of data following an extensive research, carried out with methods such as in-depth interviews and focus groups. These methods were further applied in four fields of activity which were significant for the service industry on the American market at that time. This instrument identifies four gaps (Mauri et al., 2013) related to the service delivery, that may affect the way the consumer perceives such service (Kulašin and Fortuny-Santos, 2005). These gaps are: (1) the difference between consumer's expectations and the perception of service provider management of such expectations; (2) the difference between service design and standards from consumers' perspective and provider's perceptions of consumer expectations; (3) the difference between service delivery and service design and standards from consumers' perspective; (4) the difference between service delivery and external communications. The SERVQUAL instrument, which was developed by Parasuraman, Zeithaml and Berry (1985), postulates that such gaps may determine the occurrence of a fifth gap, respectively between customer expectations related to a service and the quality perceived by that customer (Mauri et al., 2013). In fact, this fifth gap represents the service quality.

Parasuraman et al. (1985) have identified 10 dimensions that contribute to the formation of consumer expectations and perceptions in respect of a certain service. Further, the ten dimensions were reduced to five in the improved version of the study published in 1988 (Parasuraman et al., 1988). The five dimensions are the tangibles, reliability, responsiveness, assurance and empathy. The tangibles refer to the sum of factors representing the physical evidence used to prove the service's physical existence (Bădulescu, 2008, p. 59), respectively physical facilities, equipment and personnel. Reliability involves company's ability to perform the service accurately as compared to the promised performance. Responsiveness describes service provider's willingness to help customers and promptly provide the service. Assurance refers to the competence and respect of service provider's employees, as well as to the ability to convey confidence to customers. Empathy means the company's capacity to provide individualized care to each and every customer.

The instrument described by Parasuraman et al. (1988) was subsequently improved (Parasuraman et al., 1993) through the clarification of elements related to consumer expectations. The authors developed two levels of expectations, namely desired services and adequate services.

The SERVQUAL instrument may contribute to the improvement of a service provider's activity because the continuous evaluation of its services' quality provides an overview of performance over time and also valuable information that would improve its services' quality (Wisniewski, 2001). Moreover, the SERVQUAL instrument enjoys high popularity among both researchers and practitioners.

1.2. The Zone of Tolerance

The SERVQUAL instrument improvement (Parasuraman et al., 1993) was determined by the conceptual critics related to the definition of service quality considering the difference between expectations and perception (Mauri et al., 2013). Therefore, Parasuraman et al. (1994) developed an improved version of the SERVQUAL instrument, when they clarified this issue by redefining a concept that was used in the version of 1993 (Parasuraman et al., 1993) of their research, namely the zone of tolerance (ZOT).

The zone of tolerance is defined as the difference between desired service quality and the level of service quality considered adequate (Parasuraman et al., 1993). The desired quality refers to the level of service quality that a consumer hopes to receive, while the adequate level refers to the service quality that a consumer is willing to accept. The consumer is satisfied with the service as long as his/her perception of service quality falls within the zone of tolerance (Parasuraman et al., 1993).

The main utility of the concept of zone of tolerance is given by its capacity to diagnose accurately the insufficient performance of a service. A level of perception falling under the zone of tolerance leads to consumer's lack of satisfaction. Moreover, from the perspective of a service provider, the fall within the zone of tolerance represents just the preservation of its competitive position. Ensuring a quality level above the zone of tolerance (leading to delighted consumers) allows the company to develop a long-term competitive advantage on that market.

Other research (Zeithaml şi Bitner, 2003) showed that the extension of the zone of tolerance was directly proportional to the likeliness of customer satisfaction. In addition, the zone of tolerance is narrower in case of those attributes of the service that consumer considers more important.

1.3 Quality in the Field of Health Care Services

The health care turned from a public good into a service sector, as the productivity in the pharmaceutical industry raised and the competition in the medical research field intensified. Today, health care services, either in the in-hospital environment, or in that of medical clinics, face an important offer increase. Consequently, the companies providing such services will be constantly preoccupied to measure the quality of services provided to the consumers.

From the perspective of companies providing health care services, the buyer is not a "patient" anymore, but he/she turns into a service consumer. Thus, the patient chooses a health care services provider based on the same values he/she uses in case of other services, such as effectiveness, comfort, responsiveness, respect, communication etc. (Chakraborty and Majumdar, 2011).

The measurement of the medical service quality is of recent date. Thus, considerably research in this field has employed the SERVQUAL instrument. These papers can be divided in two categories. The first category includes the expansion of SERVQUAL instrument by countries, depending on their level of development, while the second one considers the type of health care service which the instrument is used for. Also, the main novelty brought by the application of SERVQUAL instrument in case of medical services is the change of the number of dimensions.

One of the very first studies related to the application of SERVQUAL instrument in case of medical services is the one published by Babakus and Mangold (1992). It is important to underline the fact that the main conclusions of this study were not changed by subsequent research works. The first conclusion of the study is that the method is applicable for the medical field, although certain changes of the questionnaire were necessary in order to clarify the content of questions. Secondly, the application of SERVQUAL instrument provided the hospital with a method of measuring the functional quality of the medical service. Nevertheless, the study highlights that, for a company which provides medical services, there is no functional quality without technical quality (the functional quality refers to employees' appearance, attitude and behavior in their relationship with consumers; technical quality refers to systems and infrastructure necessary to provide services). Thirdly, applying the SERVQUAL instrument to measure services quality allows medical personnel to better understand the way in which the patient forms his/her satisfaction (Babakus and Mangold,

1992). Patient satisfaction is important in order to keep him/her loyal, it affects the way he/she adheres to the prescribed medical treatment and, finally, the patient's healing process (Peprah and Atarah, 2014).

The SERVQUAL instrument was used for the first time in the developed countries in order to measure the quality of the medical services. For example, a research (Ramez, 2012) for a very narrow niche of the medical services was carried out within a medical clinic from Scotland which was providing colonoscopy services. The results revealed that there was a service quality deficiency in terms of reliability. Also, the SERVQUAL instrument was employed in case of developing countries with a fast economic growth. For instance, in case of patients of South Korea, whose perception about medical services was under study in 2005, the most important dimension was the medical personnel's attitude (Ramez, 2012).

In Romania, although the SERVQUAL instrument was applied to measure the service quality in other fields, so far there is not yet any study on patients' satisfaction in the case of medical services.

1.4 The Medical Assistance Services Worldwide and in Romania. Performance Indicators

"The primary care is the central element of a public health system." (Mărginean, 2014). The primary care consists of family physicians that perform their activities within public, private or alternative medicine practices.

The assessment of medical system is based on certain performance indicators that consider three main directions: medical service quality, assuring the access of the population to the medical system services, and effectiveness in using financial, material and human resources (Stanciu, 2013).

In Europe, as the annual reports of Health Consumer Powerhouse (www.healthpowerhouse.com) show, as the differences between the health systems from one country to another are noticeably high, the quality levels of medical services are, consequently, various. Thus, Health Consumer Powerhouse used 42 indicators related to five domains: patient rights and their information, medical services' accessibility, outcomes, system's preventive orientation and access to medication. These 42 indicators are assessed every year for 35 states (i.e. the states of the European Union and seven states that are not

members of the European Union). According to figure 1, in the classification for 2015, Romania was ranked 32th out of 35 in terms of European health consumer index (EHCI).
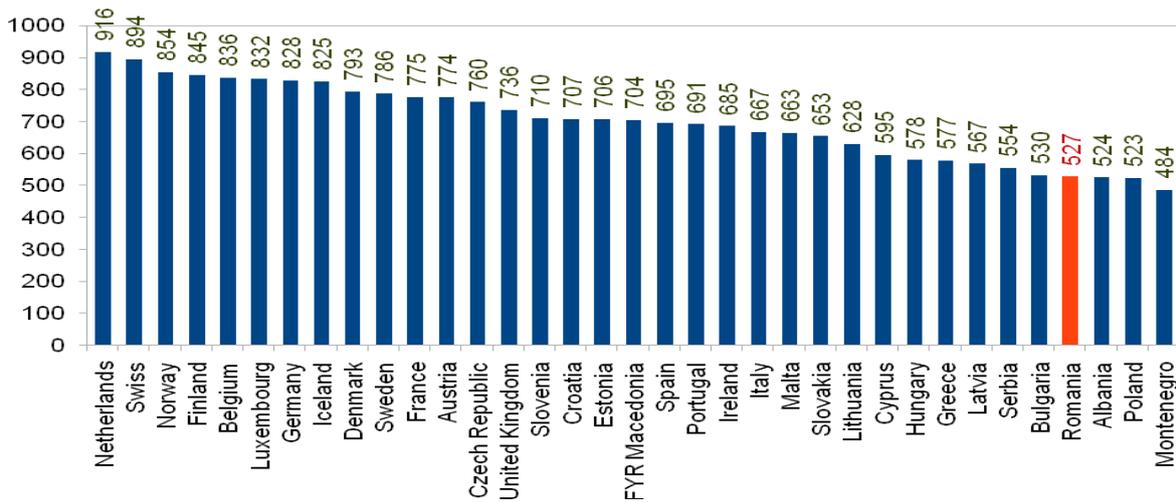
Figure 1. European Health Consumer Index for 2015

(Source: adaptation after Health Consumer Powerhouse - Euro Health Consumer Index - Report 2015, Stockholm, 2016, page 24)

The performance is measured not only at the level of the public health system, but also at the basic level, respectively the primary care. The primary care targets a wide public, with different needs. Therefore, the measurement indicators differ from those that are used for hospitals, where specific indicators for each medical specialty are taken into consideration. In Europe, the tool that is used to measure the primary care performance is the European Practice Assessment (EPA), which is created by the European Society for Quality and Safety in Family Practice (EquIP) (www.equip.dudal.com).

EPA represents a system of internal assessment of quality and consists of a set of five self-administered questionnaires intended for both medical staff and patients. After self-assessment, an external assessor appointed by the accreditation bodies performs an interview with the practice manager in order to check the self-assessment conformity. So far, in Romania there are more than 80 family medical practices that are accredited according to EPA (Mărginean, 2012).

Considering its continuous development, the medical service performance needs to be measured within the private medical system as well. EPA tool can be easily extrapolated to the primary care in the private sector, both for allopathic medicine practices and for those of alternative medicine. Under these circumstances, we consider that the same performance criteria should be also applied in the case of OHC, by using the 5 EPA dimensions.

2. RESEARCH METHODOLOGY

The aim of the present research is to measure the quality of the services that are provided by OHC of Brasov, as well as to diagnose the zone of tolerance. Thus, the research objectives were:

- To identify the variables that are relevant for the assessment of the quality of medical services provided by the OHC;
- To determine the level of customer satisfaction with the medical services provided by the OHC;
- To create a measurement tool that can be applied for the assessment of the quality of medical services.

The population took into consideration in this research represents the OHC customers of Brasov. We used the database of OHC of Brasov which includes o total of 5,386 individuals. In order to form the sample, the consumers were identified with an email account so that they can be contacted. 2,800 consumers identified in this way were sent an email and asked to answer the questions in an online questionnaire by accessing a link. Only 164 of them responded to the invitation to fill in the questionnaire. Among them, only 108 questionnaires were complete, representing a response rate of 2%, which were afterwards used for data analysis. The questionnaires were filled in during March 2016.

The questionnaire was developed using the model of Nadiri and Hussain (2005) for diagnosing the zone of tolerance for the services of a hotel. Regarding respondents' expectations, the two scales of measurement for each attribute allow both the assessment of the minimum level accepted by the customer for the service under study and the measurement of the optimum level of the service expected by the customer. Considering respondents' perceptions, a single measure scale was used for every attribute, respectively the one that measures the respondent's perception about the experience he/she had with the OHC services.

We shall mention that, within the research, it was used the five-point Likert scale (from 1 for "entirely agree" to 5 for "entirely disagree").

The questionnaire was tested on a pilot sample of 10 patients of the OHC during the last week of the month of January 2016. Following this test, all respondent remarks were related to the unpleasant repetitiveness of the 22 questions. Hence, the questionnaire was reorganized on a single page, using the Chiu's model (2013). Thus, the questionnaire was divided in three columns, one for each series of assertions. Also, the questionnaire was drawn up based on the SERVQUAL instrument, including the items related to the customer expectations and perceptions about the medical services of OHC. The questionnaire included 22 items related to the quality of the medical services provided by OHC, a question for measuring the general customer satisfaction and 6 identification questions. The SERVQUAL items were grouped in the five categories: tangibility, reliability, responsiveness, assurance and empathy, according to the model developed by Parasuraman et al. (1988):

1. Tangibility
   - The staff has an appropriate appearance
   - The staff is highly trained
   - The materials provided for information are easy to understand
   - The medical equipment is modern

2. Reliability
   - The customer is informed in advance by the nurse about the date of the appointment
   - The physician abide by the appointments
   - There is confidence that the physician solves the customers' problems
   - The physician offers clear and accurate information about the services
   - The cost for the visit is the one included in the price list

3. Responsiveness
   - The staff proves willingness to help the customers
   - The staff gives answers to all customers' questions
   - The staff responds promptly to the customers' requests
   - The staff settles customers' problems promptly

4. Assurance
   - The staff inspires confidence to customers
   - All customers' personal data and files are confidential
   - The customers trust in the accuracy of the medical consultation
   - The staff proves competence in using the technology

5. Empathy
   - The staff provides customers with individualized care
   - The staff provides customers with various options in solving the problems
   - The communication with the physician is easy to understand by customers

- The physician understands the customers' specific problems
- The physician treats the patient's problems adequately

Data were analyzed using the SPSS 20 software package. First, the adequate and desired expectations for each attribute and also perceptions were measured. Second, the means of respondents' expectations and perceptions were calculated. The differences between the mean values of perceptions and desired expectations were calculated, resulting in a measure of service superiority (MSS). Further, the differences between the mean values of perceptions and adequate expectations were calculated, resulting in a measure of service adequacy (MSA) (Nadiri and Hussain, 2005). The differences between the mean values of desired and adequate expectations were further calculated, resulting in the zone of tolerance (ZOT). Finally, the gaps between the mean value of perceptions and adequate expectations, on one hand, and those between the mean value of perceptions and desired expectations, on the other hand were measured (Table 2). The method used by Nadiri and Hussain (2005) was adapted to this research, resulting in the "MEDICALZOT" instrument, which includes specific attributes that assess medical service quality.

2.1 Profile of Respondents

The socio-demographical structure of the respondents who were included in the sample is presented in detail in Table 1:

Table 1. Sample's demographical structure (N=108)

		Frequency (F)	Percentage (%)
Gender			
	Male	48	44.4
	Female	60	55.6
	Total	108	100.0
Age			
	18 - 25	16	14.8
	26 - 35	20	18.5
	36 - 45	27	25.0
	46 - 55	24	22.2
	56 - 65	9	8.3
	Over 65	12	11.1
	Total	108	100.0
Income			
	Less than 1,000 RON	18	16.7
	1,001 - 1,500 RON	36	33.3
	1,501 - 2,000 RON	27	25.0

	2,001 - 2,500 RON	21	19.4
	Over 2,501 RON	6	5.6
	Total	108	100.0
Employment			
	Student	20	18.5
	Employee	48	44.4
	Freelancer	18	16.7
	Retiree	22	20.4
	Total	108	100.0
Education	High School/Vocational School/Post-Secondary School	42	38.9
	Higher Education	66	61.1
	Total	108	100.0

According to Table 1, 61% out of the respondents are highly educated and over 77% out of the respondents earned an income between 1001 and 2500 RON. The most common age is between 36 and 55 years old (over 47% of the respondents), and more than 55% of the respondents are women.

3. RESULTS

The analysis of adequate expectations towards the medical services provided by the OHC shows that respondents give a similar importance to the five dimensions. The means of dimensions being considered vary between 3.34 and 3.63, on a scale of 1 to 5 (Figure 2). In the same time, the analysis of each attribute revealed that the highest expectation mean (4.05/5) was related to the accuracy of medical consultations, and the lowest expectation mean (2.88/5) was related to the materials being provided for information (Figure 7, Appendix).

Considering the desired expectations, Figure 3 shows a similar phenomenon. Thus, one may note that all five dimensions are assessed with very close scores, falling between 4.12 and 4.37 (representing the high importance given to them). The analysis of each attribute revealed that the clarity and accuracy of information provided by the physician, and also the adequate treatment prescribed by the physician have higher expectation mean (4.61). The lowest scores (3.88) are recorded for the expectations related to the materials provided for information and the various options given by the staff in order to solve a problem (Figure 8, Appendix).
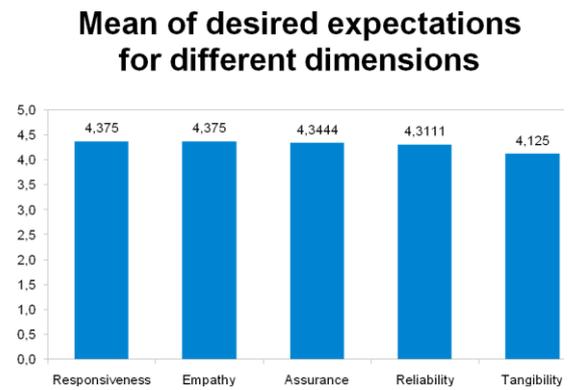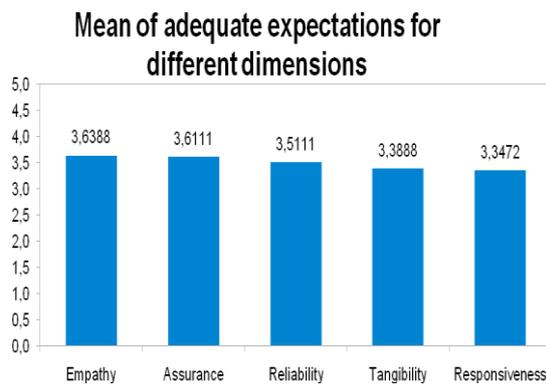
Figure 2 - Mean of adequate expectations for different dimensions

Figure 3 - Mean of desired expectations for different dimensions

Regarding the respondents' perceptions, Figure 4 shows a distribution slightly different from the one in case of expectations. Respondents assessed the responsiveness with high scores (the mean value being of 4.75), while tangibility was assessed with the lowest score (a mean value of 4.22). The individual assessment of attributes reveals that customer's information in advance about appointment and staff's willingness to help customers represent the attributes with the highest scores (with a mean value of 4.88). In the same time, the respondents assessed the perception related to the modernity of equipment being used with the lowest scores, the mean value being of 4.0 (Figure 9, Appendix).
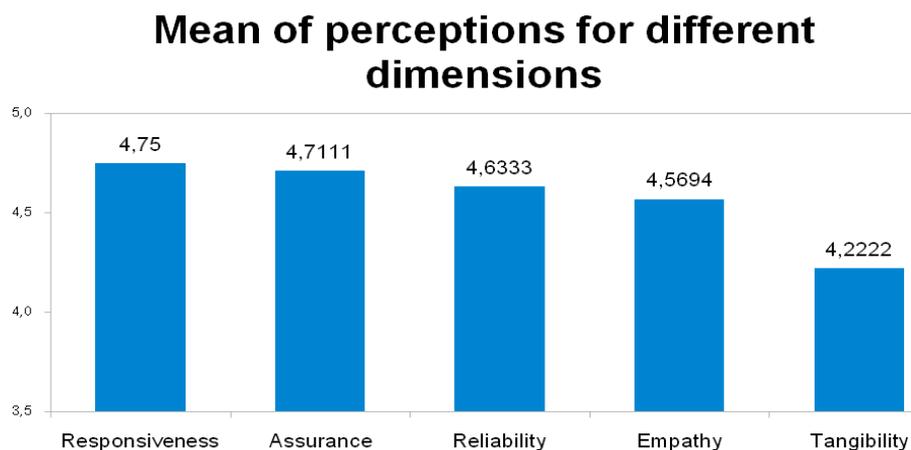
Figure 4 - Mean of perceptions for different dimensions

Consequently, one may assert that the level of perceptions is higher than the one of expectations. The quality of services provided by the OHC exceeds the level of expectations desired by the customers, as shown in Figure 5.
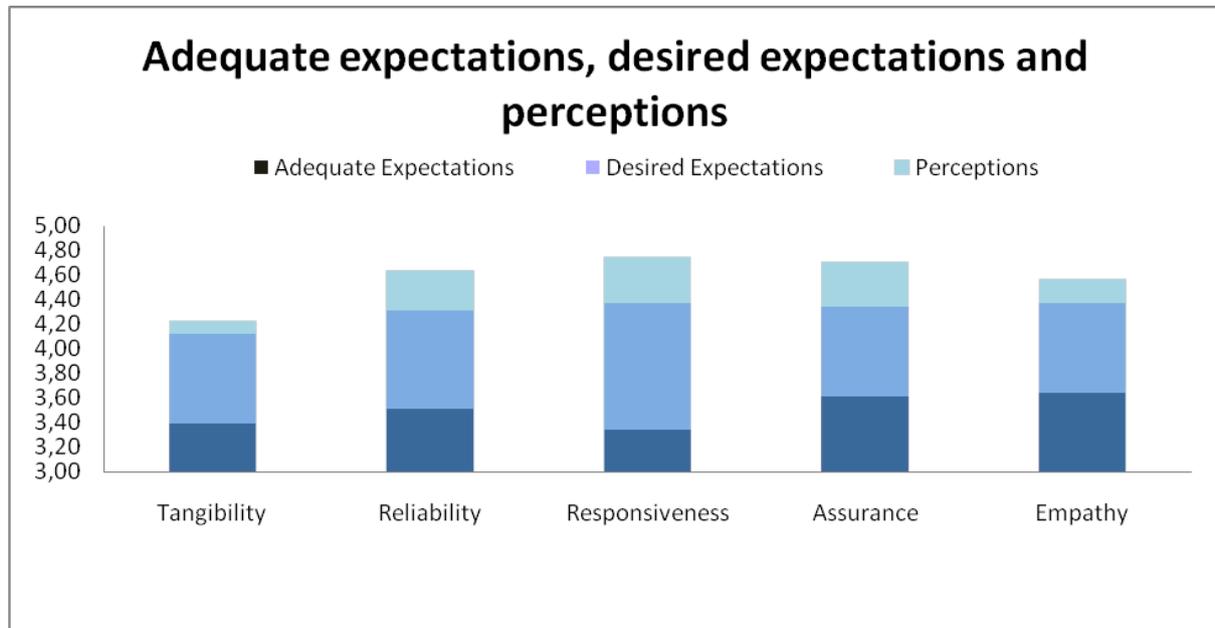

Figure 5 - Adequate, desired expectations and perceptions

3.1 The Zone of Tolerance

The results in Table 2 show that the mean value of desired expectations is higher than the mean value of adequate expectations for all attributes. Moreover, one may note that, in case of all attributes, the mean value of perceived level of service quality was higher than the one of service adequacy (MSA). This means that the organic health center provides medical services that meet the respondents' expectations. Therefore, we may assert that respondents are satisfied with the center's services.

Subsequently, in order to assess respondents' level of satisfaction with the quality of services provided by the OHC, two indicators were calculated, respectively the measure of service superiority (MSS) and the measure of service adequacy (MSA). The MSA was computed as the difference between the mean of perceptions and the mean of adequate expectations of respondents. Table 2 shows that, in case of all attributes, the MSA scores were positive. This means that respondents' perceptions are higher than the adequate expectations, exceeding the minimum level of ZOT. Further, the MSS was computed as the difference between the mean

of perceptions and the mean of desired expectations of respondents. Table 2 shows that, in case of most of attributes, the MSS scores were positive. This means that respondents' perceptions of the quality attributes are higher than the desired expectations. Respondents are, consequently, delighted with the quality of services provided by the OHC. The only attributes that fail to satisfy this condition relate to the fact that *"the medical equipment is modern"* (which has a negative mean score of -0.22), and to the fact that *"the physician treats patient's problems appropriately"* (the mean score being equal to 0). Although the mean values of the two attributes do not exceed the desired expectations, they fall either within the level of desired expectations (in case of "*the physician treats patient's problems appropriately*" attribute) or below the level of desired expectations, but within the zone of tolerance. Hence, we may assert that, in case of all attributes defining the quality of services provided by the organic health center of the city of Brasov, respondents' perceptions fall above the minimum, adequate level of expectations. This means that, overall, respondents are satisfied, even delighted with the quality of services provided by the OHC.

The zone of tolerance provides additional information related to the level of service quality perceived by the respondents as compared to the adequate level, respectively the level desired for the services provided by the OHC. Thus, the results presented in Figure 6 show that the zone of tolerance is narrow, being less than 25% (Nadiri and Hussain, 2005). This means that the attributes defining the quality of services provided by the OHC are considered by respondents as being important. However, Figure 6 reveals the fact that respondents are delighted with the services provided by the OHC of Brasov, and this fact results from the very high values registered by the respondents' perceptions about most attributes (except for the item related to the fact that equipment should be upgraded), that are above the desired level.

Table 2. Calculation of means of adequate, desired expectations, perceptions, scores of ZOT, MSA and MSS

Attributes	Desired expectations	Adequate expectations	Perceptions	ZOT	MSA	MSS
1. The staff has an appropriate appearance	4.17	3.22	4.33	0.95	1.11	0.16
2. The staff is highly trained	4.22	3.78	4.44	0.44	0.66	0.22
3. The materials provided for information are easy to understand	3.89	2.89	4.11	1	1.22	0.22
4. The medical equipment is modern	4.22	3.67	4.00	0.55	0.33	-0.22
5. The customer is informed in advance by the nurse about the date of the appointment	4.33	3.28	4.89	1.05	1.61	0.56
6. The physician abide by the appointments	4.28	3.56	4.50	0.72	0.94	0.22
7. There is confidence that the physician solves the customer's problem	4.28	3.72	4.44	0.56	0.72	0.16
8. The physician offers clear and accurate information about services	4.61	3.89	4.78	0.72	0.89	0.17
9. The cost for the visit is the one included in the price list	4.06	3.11	4.56	0.95	1.45	0.5
10. The staff proves willingness to help the customers	4.39	3.56	4.89	0.83	1.33	0.5
11. The staff gives answers to all customers' questions	4.28	3.28	4.72	1	1.44	0.44
12. The staff responds promptly to the customer requests	4.39	3.28	4.78	1.11	1.5	0.39
13. The staff settles the problems promptly	4.44	3.28	4.61	1.16	1.33	0.17
14. The staff inspires confidence to customers	4.22	3.28	4.72	0.94	1.44	0.5
15. All customers' data and files are confidential	4.44	3.78	4.83	0.66	1.05	0.39
16. The customers trust in the accuracy of the medical consultation being provided	4.44	4.06	4.72	0.38	0.66	0.28
17. The staff proves competence in using the technology	4.44	3.78	4.50	0.66	0.72	0.06
18. The staff provides customers with individualized care.	4.17	3.17	4.78	1	1.61	0.61
19. The staff provides customers with several options in solving their problem	3.89	3.22	4.56	0.67	1.34	0.67
20. The communication with the physician is easy to understand for customers	4.50	3.78	4.56	0.72	0.78	0.06
21. The physician understands customers' specific problems	4.50	3.72	4.56	0.78	0.84	0.06
22. The physician treats the patient's problems adequately	4.61	3.83	4.61	0.78	0.78	0
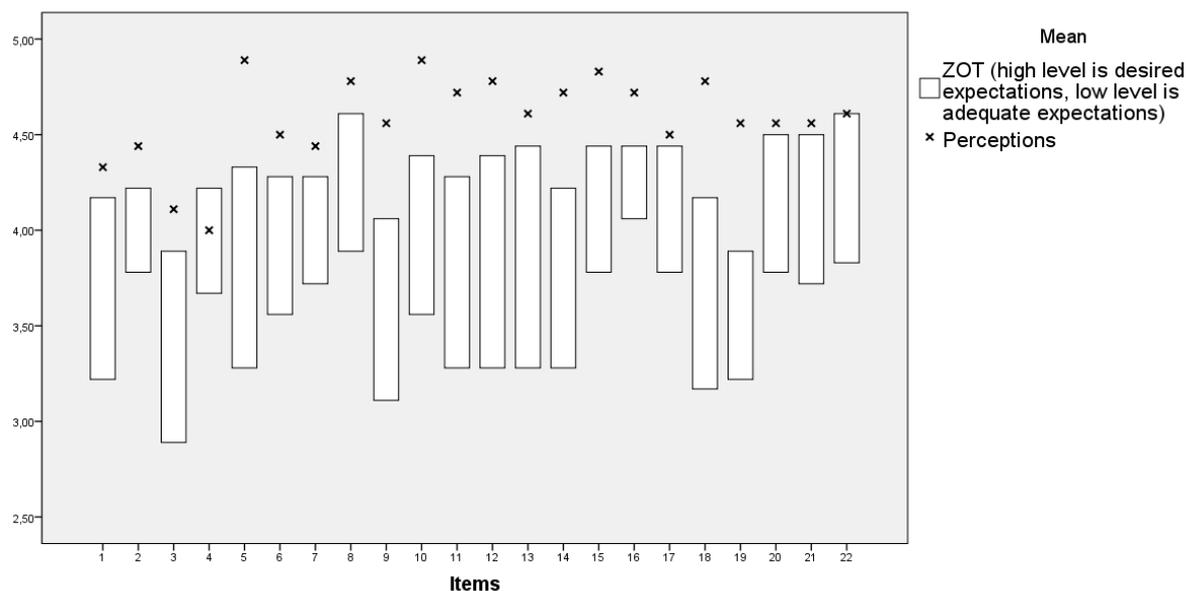
Figure 6 – The Zone of Tolerance

4. CONCLUSIONS

The purpose of this research was to identify the zone of tolerance and measure the quality of services provided by an organic health center of Brasov, starting from the SERVQUAL instrument, by assessing the desired and adequate expectations, and also the perceptions of its customers. Moreover, the research was carried out in a less studied medical field, which is the alternative medicine. This research led to the development of a specific instrument called "MEDICALZOT".

The main purpose of this paper was to verify the level of adequate and desired expectations, and also the level of customer satisfaction with center's services. The indicators MSA, MSS and ZOT were measured in order to verify if services the center provides its clients with achieve an adequate or desired level. This observation is useful in order to determine the level of services quality received by the customers of the center. The results show that the center provides services that meet or even exceed both the level of adequate expectations, and the level of desired expectations. This result is somehow unexpected, as in other similar studies the perceptions fail to exceed the level of desired expectations. This may allow us to conclude that respondents are more than satisfied, simply delighted with the quality of services that are provided by the Center.

The gap analysis highlighted the fact that the level of perceptions is superior to the one of the desired expectations. This information is useful for the OHC's management, who can get the most out of the results of this study in order to identify a significant competitive advantage on

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the market (to occupy a strong market position) based on the superior quality of the provided services. The center could use in its marketing policy the fact that its customers are delighted with the quality of medical services they are provided with in order to attract other segments of consumers as well, who currently opt for classic medical services. The gap analysis also pointed out the existence of a single negative score, related to the attribute concerning the medical equipment and it was noted that customers did not consider it modern. Therefore, fitting the Center with upgraded analysis and diagnosis equipment becomes mandatory.

Although the results may be useful to the Organic Health Center's management for the purpose of improving the quality of services and increasing its customer satisfaction, the research includes several limitations, especially related to the sample's lack of representativeness, to the fact that it was carried out among the active patients of the Center of Brasov only, respectively to the refuse or partial or inappropriate filling in of the questionnaires by the respondents. Consequently, future research should consider expanding the research to the level of all Center's national practices in order to get a clearer image of customer satisfaction and service quality perceived by its customers, and also the possibility to use the "MEDICALZOT" instrument in case of other types of medical units as well, that perform either in the allopathic medicine, or in the alternative one. Also, we propose the introduction into the questionnaire of several questions to extensively assess the satisfaction (for instance, by using the Kano method) and the intention to use again the Center's services and/or recommend them to the acquaintances (family, friends, colleagues etc.).

CONFLICTS OF INTEREST AND PLAGIARISM: The authors declare no conflict of interest and plagiarism.

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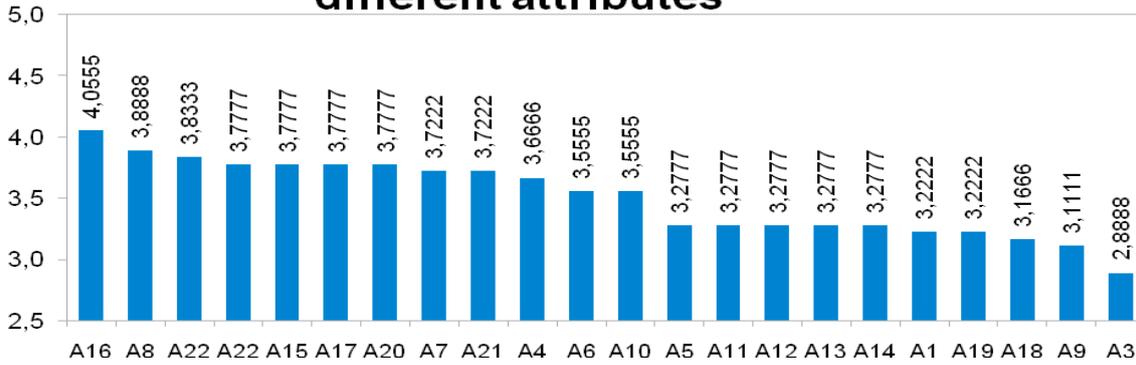
APPENDIX

Figure 7. Mean of adequate expectations for different attributes

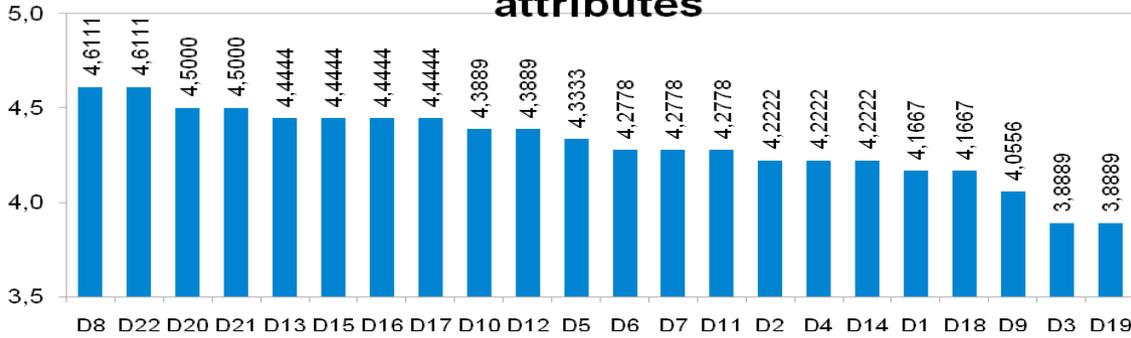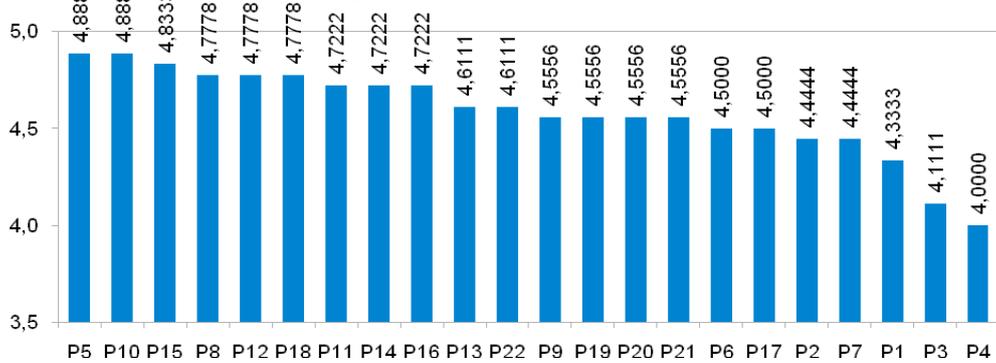**Figure 8. Mean of desired expectations for different attributes**

Figure 9. Mean of perceptions for different attributes