# MEASURING THE PERCEPTION OF QUALITY MANAGEMENT PRIMARY HEALTHCARE SERVICES THROUGH SERVQUAL MODEL

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### **Abstract**

The quality of healthcare is more difficult to identify than other services because it is the clients themselves and their quality of life that gets evaluated (Eiriz & Figueiredu, 2005). The main aim of this study is to investigate people's perceptions and expectations regarding the quality of services in primary health care (PHC) in Kosovo. A national level survey provides baseline findings intuitively understandable to policymakers on the expectations perceptions of the quality of services at the PHC level and identifying the quality gap between the expectations and perceptions in all dimensions of different facilities. This comparative test will show the differences between the level of quality services provided by each PHC provider in Kosovo. This research seeks to improve the access and the quality of the priority services at PHC, including maternal and child health (MCH) and non-communicable disease (NCD). This research showed that at the national level the patients have higher expectations toward PHC services. Whereas, in specific, this study showed that there is a significant gap in expected and perceived services of the PHC system between different ethnic patients and different levels of citizen education. Therefore, the result of this study will contribute to enhancing the sustainability of the mandatory health insurance reform and raise the alarm of relevant institutions to reshape the policymaking in order to improve the population health outcome.

**Keywords:** Service Quality, Expectations, Perceptions, Primary Health Care, SERVQUAL, Kosovo

**Authors' individual contribution:** Conceptualization — I.R. and N.I.; Methodology — I.R. and G.S.; Software — I.R.; Formal Analysis — I.R.; Investigation — I.R.; Data Curation — I.R., N.I., and G.S.; Writing — Original Draft — I.R.; Writing — Review & Editing — I.R., N.I., and G.S.

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# 1. INTRODUCTION

As for patients, "perception of quality" means how well the service is provided. It can be considered one of the desired outcomes of care and therefore information on patient satisfaction is required to assess the quality and planning of healthcare management (Turner & Louis, 1995; Naidoo & Wills,

2009; Alrubaiee & Alkaa'ida, 2011). Ultimately, Gulas et al. (2014, as cited in Georgiadou & Maditinos, 2017) conclude that, in healthcare units, the aim must be a culture of quality and continuous improvement with a reference point for the citizen. This is also supported by a conducted study by Aiken et al. (2012) about patient safety, satisfaction, and quality of hospital care: cross-sectional surveys



of nurses and patients in 12 countries in Europe and the United States, are linked to the quality provision of healthcare services and work environment and consequently suggests that improvement of healthcare quality service and work environment might lead to the improved citizen's perception of the healthcare service quality.

Such studies on measuring perceptions on quality in the health sector in Kosovo affect the establishment of health care and the efficiency of providing quality services, developing a range of services for vulnerable groups facing various barriers to access to services. In particular, research on perceptions and expectations regarding PHC of Kosovo aims to establish access to and quality of primary health care (PHC) services, contributing to improving the sustainability of mandatory health insurance reforms and improving the health outcomes of the population. The purpose of this study is to provide baseline data intuitively understandable to policymakers on the perception and expectation of the population regarding the quality of services in PHC in Kosovo. Additional objectives were to evaluate the gap of each dimension, determine whether the socio-demographic factors influence it, and highlight which dimension is the most important for patients. The recent previous reports were to measure the quality of care related to structural and procedural aspects of PHC in all 38 municipalities in Kosovo as the report of the World Health Organization (WHO, 2019) on primary health care in Kosovo, or studies on patients' evaluation of PHC services was focused in one region of Kosovo (Tahiri et al., 2014). Therefore, our study, in order to be more comprehensive, aims to present the results on the expectations and perceptions of the quality of services at the PHC level and identify the quality gap of the expectationsperceptions in all dimensions of different facilities.

In general, this paper processes the research based on the gaps model methodology of service quality and SERVQUAL instrument (Parasuraman, Zeithaml, & Berry, 1988).

The remainder of this paper is structured as follows. Section 2 reviews the relevant literature. Section 3 analyses the methodology that has been used to conduct empirical research for measuring the perception of quality management of primary healthcare services in Kosovo through the SERVQUAL model. Section 4 contains summarized and analyzed results of this study and discusses the overall and specific findings of different variables of this study. Whereas Section 5 generates relevant conclusions, study limitations, and the importance of this study paper for future research.

# 2. LITERATURE REVIEW

Service quality has drawn the attention of researchers as well as practitioners in various disciplines including health care services. Therefore, studies and research on PHC services have demonstrated major opportunities for improvement of the performance of health care processes in at least four areas: health status outcomes, service characteristics (measures of satisfaction), breadth of access, and levels of waste (Juran & Godfrey, 1988). Service quality is the result of the quality expected and obtained. Quality takes precedence over other elements of service provided and is thus given

a priority. The SERVQUAL gap model enables the identification of five gaps/discrepancies and the factors that relate to them, making it possible to determine the service quality provided (Jonkisz, Karniej, & Krasowska, 2021).

In addition, it is very important to establish a relevant and sustainable motivation system for healthcare providers to optimize their work quality (Ivanov et al., 2022).

The concept of quality is directly related to the manifestation of service, considering that the product is obtained as a result of a process; it includes both goods and services (Juran & Godfrey, 1988). It becomes complex when the item being judged in terms of quality is a service (intangible) and not a product (tangible) (Hill, 1999). According to Parasuraman, Zeithaml, and Berry (1985), service quality can be defined as "the degree and direction of a discrepancy between consumer's perceptions and expectations in terms of different but relatively important dimensions of service quality which can affect their future purchasing behavior" (pp. 41-45). Whereas the dimensions of service quality are interconnected with customer perceptions of quality are influenced by the manner in which the service is delivered (e.g., functional quality) as well as by the outcomes (e.g., technical) and the physical aspects of the service (equipment) (Kenyon & Sen, 2015).

Furthermore, according to Itumalla, Acharyulu, and Shekhar (2014) and Georgiadou and Maditinos (2017), recognition of the importance of quality of service is imperative, not only to provide better services to patients but also to ensure the initial viability of the hospital and then its sustainable competitive advantage. Concerning health service quality, the main difference between health services and other services is that they are based on patients' needs and not on customers' desires (Sarris, 2001). Therefore, the health care customer is the patient, who is the focus of its implementation system. Eiriz and Figueiredo (2005) commented that the quality of healthcare is more difficult to identify than other services because it is the clients themselves and their quality of life that gets evaluated. For patients, "quality" means how well the service is provided and not if the actual service is technically superior (Georgiadou & Maditinos, 2017).

In Kosovo, fewer people than in other European countries are satisfied with their visits to PHC (Tahiri et al., 2014) and studies indicate that patients' expectations for PHC services in Kosovo have not been met (WHO, 2019). PHC capacity, in terms of team composition, competencies, and available equipment, does not match the health needs and expectations of the population, which leads to decreasing prestige and bypassing of PHC services (WHO, 2019).

In Kosovo, health reform programs were lauded as a success given the evidence-based, organized, and orderly nature of the policy generation process (Shuey, Qosaj, Schouten, & Zwi, 2003, pp. 299–310). However, the implementation of these reforms is more problematic than their creation, more research studies are necessary before concrete policy recommendations can be developed in the context of a difficult process of transforming and strengthening the health system. To provide an analytical background for drafting this secondary research related to the survey on perceptions of a population of quality services in PHC, this study has conducted

the following analysis: 1) analysis of the healthcare system in Kosovo, and 2) analysis of the quality of the public healthcare system in Kosovo with the focus on the quality of services in PHC. In this context, analyzing national survey results of service quality, a gap that may exist between people's expectations and perceptions of service quality in PHC of Kosovo will be predicted.

## 2.1. The healthcare system in Kosovo

The healthcare system in Kosovo had been undergoing difficult challenges for two periods: before and after the conflict of 1999 in Kosovo. Before the conflict of 1999, Kosovo had inherited a Semashko healthcare system with centralized decision-making and emphasized specialization of services. After revoking the autonomous status within the Republic of Serbia in 1989, the health sector in Kosovo became a natural battleground for the conflict between Kosovo's majority Albanian population and the federal government in Belgrade (Percival & Sondorp, 2010). Between 1989 and 1999, the Serbs fired most Albanian health workers (Buwa & Vuori, 2007). Furthermore, during the 1990s, more than 50% of Albanians lacked a social insurance card needed to access the public health system. To respond to this need, Albanians organized a parallel primary healthcare system that was established in the early 1990s, known as the "Mother Theresa Society", which operated 96 clinics throughout Kosovo, many in remote areas. Many Albanian health professionals also established private healthcare facilities, including clinics and laboratories, during this period.

After the conflict of 1999, the parallel Mother Theresa Network was virtually abandoned, and Albanian health professionals moved back into state health facilities. But the healthcare system seriously deteriorated after years of economic and political turbulence. The collapse of the public-service infrastructure, particularly water and electricity. deeply affected the health sector (Buwa & Vuori, 2007). Health clinics in rural areas suffered from an acute lack of personnel and equipment. It was revealed that the current health system was inequitable and inefficient. The health sector reforms initiated by the international community were desperately needed. It was purported that onein-three Kosovars could not afford to access health care when ill (Campbell, Percival, & Zwi, 2003).

#### 2.2. The quality of the public healthcare system

According to Percival and Sondorp (2010), the quality of the public healthcare system in Kosovo was compromised by several factors. Access primary care was inconsistent across regions and socioeconomic groups. Shortages of health personnel in rural areas, the specialized nature of healthcare in Kosovo, and the lack of a functioning referral system undermined the quality of care. Moreover, the efficiency of services was minimal. While the shortage of physicians and the poor state of health facilities contributed to variable access to healthcare, economic factors also impacted the ability of individuals to access health services. The World Bank (2001) found that the main barrier to healthcare was cost, even though healthcare was supposed to be free; 28% of those surveyed reported that they could not access health services due to expense. Co-payments and under-the-table payments placed an even heavier burden on the poor. Over 95% of them reported buying healthcare services. The average household spent 35 euros annually on drugs.

Quality indicators have been prepared and implemented through the contracting system which began in 2013 (Osmani, Marušic, Halimi, Muharremi, & Prevolnik Rupel, 2017). The quality of health care services comprises two main elements: clinical and patient satisfaction. Quality issues include lack of basic supplies, essential medical equipment, staff absence during working hours resulting in long waiting times, poor staff attitudes, friends of medical staff being given priority over others who have waited longer, poor complaints handling, poor hygiene conditions, lack of information from staff either verbally or through information materials; and "no tolerance" for patients who have special needs.

Concerns about the quality of service do not leave the public sector intact. Some researchers suggested that when it comes to the assessment of quality, the understanding of people's expectations is a key element (Parasuraman, Zeithaml, & Berry, 1991). The gaps model of service quality and its SERVQUAL instrument are among the best-known and most commonly used multidimensional models for measuring service quality (Ozretić Došen, Škare, Čerfalvi, Benceković, & Komarac, 2020). Understanding and measuring service quality from a patient's point of view is important because it is integral to the provision of better services to the patients. Consequently, quality is defined as the difference between predicted or expected service and perceived service. A gap between the two does not necessarily mean low-quality service but rather that the expectations of the patients have not been met and this is a source of dissatisfaction. A truly patient-centred approach should take this gap into consideration. This means that unless both perceptions and expectations are measured, it is difficult to identify and prioritize improvements that are required in service to ensure that patient's needs and expectations are met. If a health service is to be perceived as satisfactory, it needs to take into consideration such expectations. By paying respect to people's expectations, health care services are able to maintain the public's trust in them and play a vital role in the course of the patient's treatment.

# 3. RESEARCH METHODOLOGY

The methodology used for this study is relied upon the gaps model methodology of service quality and the SERVQUAL instrument, as a multiple-item tool scale for measuring consumer perceptions of service quality.

In general, in the whole territory of Kosovo, there are around 430 primary healthcare service providers, out of which around 20 to 22 are located in 3 Kosovo north municipalities and 408 in the rest of Kosovo. In specific, out of 408 health care providers in the rest of Kosovo, 28 of them are the main centres of family medical health care, 153 are centres of family medical health care, and 227 are ambulances of family medical health care. Quantitative and qualitative data were gathered through a national survey with 1,731 patients throughout Kosovo.

A cross-sectional study was carried out at PHC (at 30% of primary health facilities) in urban and rural locations across 29 municipalities. Quantitative and qualitative data were gathered through a national survey with 1,731 patients throughout Kosovo. The sample was chosen randomly at each of the municipalities. The participants were approached by a trained interviewer as soon as they arrived at the PHC, and they were asked to participate in the study. They were assured of the anonymity and confidentiality of their responses.

#### 3.1. The instrument

basic models were used for drafting the questionnaire: the SERVOUAL model and some modules from the one of AQH (Accessible Quality Healthcare project in Kosovo, https://aqhproject.org/). The SERVQUAL model, presented by Parasuraman et al. (1985), gives attention to "perceived service quality" which is the difference between people's expectations and perceptions. SERVQUAL a valuable tool for assessing the quality of health care services (Asubonteng, McCleary, & Swan, 1996) in different countries (Anderson, 1995; Sargeant & Kaehler, 1998). SERVEQUAL instrument is a useful measurement instrument tool in assessing and monitoring service quality in hospitals (Isik, Tengilimoglu, & Akbolat, 2011). SERVQUAL model gives the opportunity to health services to identify a number of areas for potential improvement in service quality (Gholami, Kavosi, & Khojastefar, 2016). It measures the gap between customer expectations and experience. The model was refined to the useful acronym RATER: reliability, assurance, tangibles, empathy, and responsiveness, as it allows one not only to estimate the overall level of satisfaction but also to identify dimensions where experience transcends expectations (an excellent service) and dimensions where experience falls short of the expectations.

The questionnaire is divided into 5 sections and a socio-demographic data section. It contains 78 questions, mainly structured ones. The answers were evaluated by a Likert scale from 1 to 7 for the questions of sections A, B, and E of the questionnaire. If the respondents strongly agree with the declaration, they should circle the number 7. If they strongly disagree with the declaration, they should circle 1. Otherwise, they should circle one of the numbers in the middle.

The questionnaires were prepared in two languages: Albanian and Serbian. Questions in the Albanian language questionnaire were adapted to the local and linguistic context of Kosovo, taking into account the national norms of the statistical process control (SPC) as well as WHO norms.

#### 3.2. Sample

A cross-sectional study was carried out at 30% of primary health facilities in urban and rural locations across the 29 municipalities. Quantitative and qualitative data were gathered through a national survey with 1,731 patients throughout Kosovo. The sample was defined as all individuals of all ethnic groups, aged more than 18 years old that visited a particular public PHC centre located in the populated urban and rural area of Kosovo at

time the interviews were conducted. As the proposed sample of this study was aimed to best represent the specific targeted population groups and subgroups, we proposed a sample of 30% of the actual total number of around 430 primary health care providers and is accounted for 1700-1800 individuals. The sample was proposed to be chosen randomly in each municipality, all around Kosovo. They were assured of the anonymity and confidentiality of their responses. At this point, participants were given the expected version of the SERVQUAL questionnaire. The survey was piloted in advance and tested the instrument in 7 health settings: Main Family Medical Centre (Qendra Kryesore e Mjekësisë Familjare -Prizren, QKMF Prishtinë, QKMF Ferizaj, QKMF Gjilan, QKMF Peje, QKMF Gjakove, and QKMF Mitrovice, on the period of December 28, 2018, to December 30, 2018. The outcomes were analysed and it was medicated and improved the instrument and then it was finalized.

#### 3.3. Data collection

The data were gathered by well-pre-trained interviewers, some of them could also handle the interviews in other ethnic languages. The group that interviewed relevant respondents consisted of 15 persons, and they were spread out into different geographic areas at the national level. Most of them had previous experience with surveys. Data collection was realised in the period of January 5–20, 2018. The data was collected and then they were structured in excel format to make them ready for processing electronically, with SPSS Statistics software, model 20.00.

Before the interviews, participants were given an information leaflet and asked for their consent. For this, participants were informed that a) their participation is voluntary, b) they can withdraw from participation at any time without any consequences, and c) non-participation will not have any negative effects. Participants were informed how the data will be used and that confidentiality is ensured as no names or other identifying aspects will be collected. Ethical clearance will be required from the Board for Ethical-Professional Supervision.

#### 3.4. Data analysis

The data analyses were structured, we processed all received data in a computerized system/application such as SPSS Statistics software and analyzed them in detail. In this context, data analysis will consist of examining, categorizing, tabulating, and recombining the evidence obtained from the research in order to discover any important underlying patterns and trends. The relevant gathered data will be analyzed through the following methodologies:

Descriptive analysis: In the framework of this research analysis, consideration is given to the primary information collected from targeted groups by building a descriptive logical framework based on the above-mentioned gathered information for the perception of the level of quality services provided by each PHC provider.

Comparative analysis and comparison tests (test of differences): To see the differences between the level of quality services provided by each PHC provider and the citizens' desired level of health care services.

Factorial analysis: Factorial analysis is a common technique used to reduce the number of variables, and to provide evidence of the validity of the construct of the questionnaire. An important aspect of this analysis goes to the Kaiser-Meyer-Olkin (KMO) test and the Bartlett test, playing an important role in accepting the sample accuracy. Also, the Bartlett test relates to the importance of the study and shows the validity and appropriateness of the responses collected from the instrument used in the study.

#### 4. RESULTS AND DISCUSSION

In general, patients have high expectations of the services of PHC in Kosovo. Female patients had higher expectations than men, the same was with perceptions too. Young patients (18–24 years old) had also higher expectations toward the healthcare services in PHC in Kosovo, while the patients more than 65 years old had higher perceptions. Albanian patients had higher scores on both, expectations and perceptions too. While the patients who had completed the university had a higher level of expectations, those who completed high school had the highest perception. Both expectations and

perceptions were scored low in urban areas. The quality gap or the expectation-perception gap is not significantly different in male and female patients. The same was in different locations or different age groups of patients. But this gap was statistically significant in patients of different ethnicity and in patients with different levels of education.

It is important to note that all data in this section are self-reported by the patients and not observed by interviewers. In the socio and demographic characteristics of the sample, there were interviewed 1,731 patients in primary health care institutions (Main Family Medical Centre (MFMC) and Family Medical Centre (FMC)) of 29 municipalities out of 38 ones in Kosovo. There was an average of 60 interviews per municipality, with the highest number of respondents in Pristina and Prizren (n = 200 in each of them) and with the lowest number of interviews in Noveberd (n = 15) (Table 13). Figure 1 shows the distribution of the interviews by municipalities, where 11.55% of respondents belong to the primary health care centers in Pristina and Prizren; 8.78% of those in Ferizaj; 8.66% in Gjakova, 8.08% in Peja, and 5.78% in Peja and Mitrovica.

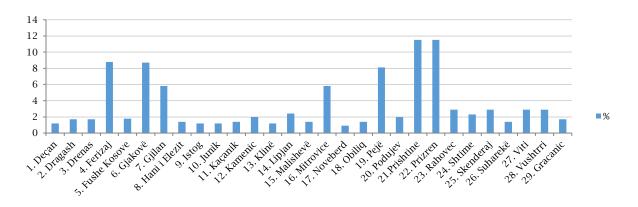


Figure 1. Distribution of the sample for each municipality

The socio-demographic analysis of the data showed that the respondents were mostly males (58.1%), living in urban areas (80.4%), aged 25–44 years old (38%); they were married (67.2%), and of Albanian ethnicity (95.6%). They were mostly employed in the private sector (20.2%); have

completed high school education (39%) and university (39.1%). Only 10.3% of them declared that they were receiving some social or economic aid. Half of the interviews were conducted in MFMC (50.1%), 38.5% of them were conducted in FMC, and the other 11.3% in ambulance services (AS).

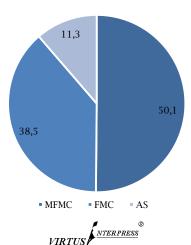


Figure 2. Distribution of the sample for each type of facility

#### 4.1. Assessment of expectations

After the assessment of the five dimensions of expectations, it resulted that the Empathy dimension scored high (5.97), while the Reliability (5.86) and the Tangible (5.87) scored low. Women scored higher than men in all dimensions of expectations. Also,

the patients aged 18–24 years old, the Albanian ones who had completed university scored high. The lowest scores in all five dimensions of expectations were rated by male patients, other ethnicities-non Serb, and who had another level of education (Tables 6, 7, 8, 9, and 10).

**Table 1.** Descriptive analysis of expectation dimensions of the sample and for each facility

Dimensions	Expectations (Mean, SD)	Expectations MFMC	Expectations FMC	Expectations AS
Tangible	5.87 (1.31)	5.90	5.85	5.85
Reliability	5.86 (1.25)	5.88	5.86	5.82
Responsiveness	5.89 (1.23)	5.90	5.87	5.89
Assurance	5.90 (1.22)	5.90	5.90	5.92
Empathy	5.97 (1.21)	5.97	5.96	6.01

Analysed by each facility, the Tangible, Reliability, and Responsiveness dimensions of the expectations scored higher in MFMC, while the Assurance and Empathy dimensions scored higher in AS (Table 1).

In regard to the patients' expectations, Table 2 shows that the most rated declarations from the Tangible dimension of the expectations were "The personnel should be well dressed and appear neat" (49.2%) and "They should have available essentials drugs and medical products" (48.4%). In the Tangible dimension, the expectations were rated higher by women (5.97), located in urban areas (5.88), aged 18-24 years old (5.99), of Albanian ethnicity (5.91), and who had completed the university (5.95). While the lowest levels were rated by male patients (5.81), located in rural areas (5.83), aged 45-64 years old (5.83), of another non-Serb ethnicity (4.99), and who had another level of education (5.22) (Tables 6, 7, 8, 9, and 10). While, the most rated declarations from the Reliability dimension of the expectations were "They should provide their services at the time they promise to do so and a level of service same at all times of day and for all members of staff" (49%) and "The personnel and PHC should have a good reputation" (45.1%). In Reliability, the expectations were rated higher by women (5.96), located in rural areas (5.87), aged 18-24 years old (5.98), of Albanian ethnicity (5.90), and who had completed the university (5.91). While the lowest levels were rated by male patients (5.82), located in urban areas (5.85), aged 45-64 years old (5.8), of another non-Serb ethnicity (4.9), and who had another level of education (5.14) (Tables 6, 7, 8, 9, and 10).

In terms of patients' expectations, the most rated declarations from the Responsiveness dimension of the expectations were "This PHC is expected to be conveniently located" (51.1%), and "This PHC should treat patients' situations with

care and seriousness" (47.5%). In Responsiveness, the expectations were rated higher by women (6.03), located in rural areas (5.92), aged 18–24 years old (5.97), of Albanian ethnicity (5.93), and who had completed the university (5.93). While the lowest levels were rated by male patients (5.92), located in urban areas (5.87), aged 45–64 years old (5.84), of another non-Serb ethnicity (4.76), and who had another level of education (5.09) (Tables 4, 5, 6, 7, and 8).

Based on results (Table 2), the most rated declarations from the Assurance dimension of the expectations were "They should keep patient records accurately" (52.7%), and "They should use the equipment quickly and skilfully" (48.7%). In Assurance, the expectations were rated higher by women (4.75), located in rural areas (5.94), aged 18-24 years old (6.04), of Albanian ethnicity (5.95), and who had completed the university (5.99). While the lowest levels were rated by male patients (4.69), located in urban areas (5.89), aged more than 65 years old (5.81), of another non-Serb ethnicity (4.58), and who had another level of education (5.03) (Tables 6, 7, 8, 9, and 10). From Table 2, it is shown that the most rated declarations of the Empathy dimension of the expectations were "It is expected they will listen to patient problems and demonstrate understanding and concern" (53.8%), and "They should be expected to avoid using medical jargon when speaking with the patients" (51.8%). In this dimension, the expectations were rated higher by women (4.68), located in rural areas (6.01), aged 18-24 years old (6.07), of Albanian ethnicity (6.01), and who had completed the university (6.04). While the lowest levels were rated by male patients (4.58), located in urban areas (5.95), aged more than 65 years old (5.86), of another non-Serb ethnicity (4.8), and who had another level of education (5.38) (Tables 6, 7, 8, 9, and 10).

**Table 2.** Results for expectations by quality dimension

Tangible dimension	1	2	3	4	5	6	7
1. They should have up-to-date and	2.0		0.5	154	200	401	705
functional essential medical equipment	36	52	85	154	208	431	765
and supplies.	2.1%	3%	4.9%	8.9%	12%	24.9%	44.2%
2. They should have available essentials	38	64	65	112	216	398	838
drugs and medical products.	2.2%	3.7%	3.8%	6.5%	12.5%	23%	48.4%
3. Their physical facilities should be	24	60	62	120	236	397	828
visually appealing and clean.	1.4%	3.5%	3.6%	6.9%	13.6%	22.9%	47.8%
4. The personnel should be well dressed	11.470	46	70	107	223	417	853
and appear neat.	0.6%	2.7%	4%	6.2%	12.9%	24.1%	49.2%
Reliability dimension	1	2	3	4	5	6	7
5. They should be dependable.	19	41	71	141	314	426	715
,	1.1%	2.4%	4.1%	8.1%	18.1%	24.6%	41.3%
6. The personnel and PHC should have	13	52	69	130	303	380	781
a good reputation.	0.8%	3.0%	4.0%	7.5%	17.5%	21.9%	45.1%
7. They should provide their services at							
the time they promise to do so and a level of	20	50	66	119	224	400	849
service same at all times of day and for all	1.2%	2.9%	3.8%	6.9%	13.6%	23.1%	49%
members of staff.							
8. They should provide accurate and	22	0.7		1.41	204	4.40	700
visible information on the services they offer	22	37	59	141	264	442	762
in this PHC.	1.3%	2.1%	4%	8.1%	15.2%	25.5%	44%
Responsiveness dimension	1	2	3	4	5	6	7
9. They should respond to patient requests	40	56	54	104	297	520	657
promptly.	2.3%	3.2%	3.1%	6%	17.1%	30%	37.9%
,	32		48	122			800
10. They should always be willing to help	_	55	_		238	433	
patients.	1.8%	3.2%	2.8%	7%	13.7%	25%	46.2%
11. This PHC should treat patients'	13	52	62	111	268	399	823
situations with care and seriousness.	0.8%	3%	3.6%	6.4%	15.5%	23%	47.5%
12. This PHC should be expected to have	22	46	77	100	248	432	802
operating hours convenient to all patients.	1.3%	2.7%	4.4%	5.8%	14.3%	24.9%	46.3%
13. This PHC is expected to be conveniently	15	25	74	141	235	350	885
located.	0.9%	1.4%	4.3%	8.1%	13.6%	20.2%	51.1%
Assurance dimension	1	2	3	4	5	6	7
14. Patients should be able to trust	21	43	56	129	346	452	679
personnel of this PHC.	1.2%	2.5%	3.2%	7.4%	20%	26.1%	39.2%
15. All provided materials in this PHC	25	43	63	124	288	390	792
should be appropriate and up to date.	1.4%	2.5%	3.6%	7.2%	16.6%	22.5%	45.8%
16. They should use the equipment quickly	21	38	72	116	245	391	844
and skillfully.	1.2%	2.2%	4.2%	6.7%	14.1%	22.6%	48.7%
17. They should keep patient records	19	44	60	101	227	362	913
accurately.	1.1%	2.5%	3.5%	5.8%	13.1%	20.9%	52.7%
Empathy dimension	1.170	2.370	3.370	4	5	6	7
18. This PHC should be expected to give	22	37	46	111	263	440	807
	1.3%	2.1%	2.7%	6.4%	15.2%		46.6%
patients individual attention.	1.3/0	2.170	4.170	0.470	13.470	25.4%	40.0%
19. It is expected they will listen to patient	23	31	56	101	232	353	931
problems and demonstrate understanding	1.3%	1.8%	3.2%	5.8%	13.4%	20.4%	53.8%
and concern.							
20. 20. They should show politeness,	21	49	73	117	270	400	798
respect, consideration and friendliness.	1.2%	2.8%	4.2%	6.8%	15.6%	23.1%	46.1%
21. They should explain clearly the various	15	54	54	104	219	505	775
options available to a particular patient	0.9%	3.1%	3.1%	6%	12.7%	29.3%	44.9%
problem.	0.9%	3.170	3.170	070	12.770	29.3%	44.9%
22. They should be expected to avoid using	17	2.0	C.F	0.0	224	400	000
medical jargon when speaking with	17	36	65	88	224	402	893
the patients.	1%	2.1%	3.8%	5.1%	13%	23.3%	51.8%
Note: 1 = "Stronaly disagree": 2 = "Disagree": 3	_ "Cliabthy di	caaroo": 1 = '	Noutral": 5 -	"Cliabtly gar	00": 6 - "Aav	00" 7 - "Stro	nah aaraa"

Note: 1 = "Strongly disagree"; 2 = "Disagree"; 3 = "Slightly disagree"; 4 = "Neutral"; 5 = "Slightly agree"; 6 = "Agree"; 7 = "Strongly agree".

# 4.2. Assessment of perceptions

After the assessment of the five dimensions of perceptions, it resulted that the Empathy dimension scored high (4.9), while the Tangible dimension (4.36) scored low (Table 3). Women scored higher

than men in all dimensions of expectations. The patients located in rural areas scored high too. The lowest scores in all five dimensions of expectations were rated by male patients, located in urban areas and who had another level of education (Tables 6, 7, 8, 9, and 10).

Table 3. Descriptive perceptions' dimensions of the sample and for each facility

Dimensions	Perceptions (Mean, SD)	Perceptions MFMC	Perceptions FMC	Perceptions AS
Tanglibles	4.36 (1.36)	4.35	4.41	4.26
Reliability	4.72 (1.47)	4.72	4.71	4.77
Responsiveness	4.77 (1.47)	4.76	4.77	4.78
Assurance	4.63 (1.44)	4.62	4.66	4.55
Empathy	4.90 (1.55)	4.92	4.88	4.91

Analysed by each facility, the Tangible and the Assurance dimensions of the perceptions scored higher in FMC, while the Reliability and the Responsiveness dimensions scored higher in AS. The Empathy dimension of perceptions scored higher in MFMC.

**Table 4.** Results for perceptions by quality dimension

Tangible dimension	1	2	3	4	5	6	7
1. They have up-to-date and functional essential	75	297	261	312	326	280	176
medical equipment and supplies.	4.3%	17.2%	15.1%	18%	18.8%	16.2%	10.2%
2. They have available essentials drugs and	171	292	333	389	245	152	146
medical products.	9.9%	16.9%	19.3%	22.5%	14.2%	8.8%	8.4%
3. Their physical facilities are visually appealing	59	116	301	370	377	255	252
and clean.	3.4%	6.7%	17.4%	21.4%	21.8%	14.7%	14.5%
4. The personnel is well dressed and appear	43	135	208	244	350	290	455
neat.	2.5%	7.8%	12%	14.1%	20.3%	16.8%	26.4%
Reliability dimension	1	2	3	4	5	6	7
5. This PHC is dependable.	65	135	189	315	487	283	255
	3.8%	7.8%	10.9%	18.2%	28.2%	16.4%	14.7%
6. The personnel and this PHC have a good	65	125	230	318	386	315	290
reputation.	3.8%	7.2%	13.3%	18.4%	22.3%	18.2%	16.8%
7. They provide their services at the time they	52	142	216	320	426	290	283
promise to do so and a level of service same at	3%	8.2%	12.5%	18.5%	24.6%	16.8%	16.4%
all times of day and for all members of staff.							
8. This PHC provides accurate and visible	55	133	195	279	425	311	330
information on the services they offer.	3.2%	7.7%	11.3%	16.1%	24.5%	18%	19.1%
Responsiveness dimension	1	2	3	4	5	6	7
9. They respond to patient requests promptly.	81	152	192	331	441	309	223
5. They respond to patient requests promptly.	4.7%	8.8%	11.1%	19.1%	25.5%	17.8%	12.9%
10. They are always willing to help patients.	58	138	222	289	377	305	341
, , , , , , , , , , , , , , , , , , , ,	3.3%	8%	12.8%	16.7%	21.8%	17.6%	19.7%
11. This PHC treats patients' situations with care	30	169	215	280	437	330	270
and seriousness.	1.7%	9.8%	12.4%	16.2%	25.2%	19.1%	15.6%
12. This PHC has operating hours convenient to	80	168	190	297	411	317	263
all patients.	4.6%	9.7%	11%	17.1%	23.7%	18.3%	15.2%
13. This PHC is conveniently located.	82	92	165	219	311	299	559
Assurance dimension	4.7% 1	5.3% 2	9.5% <b>3</b>	12.6% <b>4</b>	18% 5	17.3% <b>6</b>	32.3% <b>7</b>
Assurance aimension	52	150	197	303	411	349	268
14. Patients trust personnel of this PHC.	3%	8.7%	11.4%		23.7%	20.2%	268 15.5%
15. All provided materials in this PHC are	90	212	356	17.5% 305	341	248	178
appropriate and up to date.	5.2%	1.2%	20.6%	17.6%	19.7%	14.3%	10.3%
16. They use the equipment quickly and	62	166	253	284	376	273	312
skillfully.	3.6%	9.6%	14.6%	16.4%	21.7%	15.8%	18%
Skiii juliy.	54	133	190	261	339	324	429
17. They keep patient records accurately.	3.1%	7.7%	11%	15.1%	19.6%	18.7%	24.8%
Empathy dimension	1	2	3	4	5	6	7
, ,	56	139	183	271	417	328	333
18. This PHC gives patients individual attention.	3.2%	8%	10.6%	15.6%	24.1%	19%	19.3%
19. They listen to patient problems and	63	137	190	293	372	346	326
demonstrate understanding and concern.	3.6%	7.9%	11%	16.9%	21.5%	20%	18.9%
20. They show politeness, respect, consideration	68	122	181	296	357	299	405
and friendliness.	3.9%	7%	10.5%	17.1%	20.6%	17.3%	23.4%
21. They explain clearly the various options	55	115	193	235	407	289	435
available to a particular patient problem.	3.2%	6.7%	11.1%	13.6%	23.5%	16.7%	25.2%
22. They avoid using medical jargon when	71	111	157	251	400	318	421
speaking with the patients.	4.1%	6.4%	9.1%	14.5%	23.1%	18.4%	24.3%

Note: 1 = "Strongly disagree"; 2 = "Disagree"; 3 = "Slightly disagree"; 4 = "Neutral"; 5 = "Slightly agree"; 6 = "Agree"; 7 = "Strongly agree".

In regard to the patients' perceptions (Table 4), the most rated declaration from the Empathy dimension of the perception was "The personnel is well dressed and appear neat" (26.4%). In this dimension, the perceptions were rated higher by women (4.44), located in rural areas (4.4), aged more than 65 years old (4.48), of Serb ethnicity (4.52), and who had completed high school (4.51). While the lowest levels were rated by male patients (4.35), located in urban areas (4.35), aged 45-64 years old (4.29), of another non-Serb ethnicity (4.12), and who had another level of education (3.92) (Tables 6, 7, 8, 9, and 10). The most rated declaration of the Reliability dimension of the perception was "This PHC is dependable" (28.2%), at a moderate value of 5 on the Likert scale. Also, in the Reliability dimension, the perceptions were rated higher by women (4.76), located in rural areas (4.93), aged more than 65 years old (4.75), of Albanian ethnicity

(4.72), and who had completed the university (4.61). While the lowest levels were rated by male patients (4.69), located in urban areas (4.67), aged 45–64 years old (4.69), of another non-Serb ethnicity (4.51), and who had another level of education (4.09) (Tables 6, 7, 8, 9, and 10).

The most rated declaration from the Responsiveness dimension of the perception was "This PHC is conveniently located" (32.3%). In this dimension, the perceptions were rated higher by women (4.84), located in rural areas (4.95), aged 18-24 years old (4.84), of Albanian ethnicity (4.52), and who had completed primary school (4.91). While the lowest levels were rated by male patients (4.74), located in urban areas (4.72), aged 45-64 years old (4.7), of another non-Serb ethnicity (4.48), and who had another level of education (3.93) (Tables 6, 7, 8, 9, and 10). In terms of patients' perceptions, the most rated declaration from (Table 4),

the Assurance dimension of the perception was "They keep patient records accurately" (24.8%). In the Assurance dimension, the perceptions were rated higher by women (4.68), located in rural areas (4.73), aged more than 65 years old (4.74), of Albanian ethnicity (4.63), and who had completed high school (4.74). While the lowest levels were rated by male patients (4.59), located in urban areas (4.6), aged 45-64 years old (4.52), of another non-Serb ethnicity (4.47), and who had another level of education (3.86) (Tables 6, 7, 8, 9, and 10). Regarding the Empathy dimension, the most rated declaration of the perception was "They explain clearly the various options available to a particular patient problem" (25.2%). In this dimension, the perceptions were rated higher by women (4.97), located in rural areas (5.05), aged more than 65 years old (4.94), of Albanian ethnicity (4.9), and who had completed high school (5.06). While the lowest levels were rated by male patients (4.85), located in urban areas (4.86), aged 45–64 years old (4.8), of Serb ethnicity (4.7), and who had another level of education (4.36) (Tables 6, 7, 8, 9, and 10).

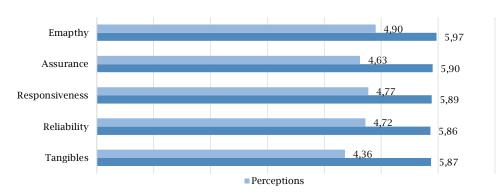
#### 4.3. Discussion

Based on the above results of measuring the perception of quality management of primary healthcare services through the SERVQUAL model, the overall assessment of expectations and perceptions of the relevant services in primary healthcare centres in Kosovo are as follows. Expectations scored higher than perceptions and this gap is important across all dimensions. The Tangible dimension presented the higher gap, followed by the Responsiveness dimension. The Empathy dimension produced the lowest gap (Table 5).

Table 5. Means of expectation and perception dimensions and the quality gap

Dimensions	Expectations (Mean, SD)	Perceptions (Mean, SD)	Quality gap (Mean, SD)
Tangible	5.87 (1.31)	4.36 (1.36)	-1.52 (1.74)
Reliability	5.86 (1.25)	4.72 (1.47)	-1.14 (1.58)
Responsiveness	5.89 (1.23)	4.77 (1.47)	-1.12 (1.53)
Assurance	5.90 (1.22)	4.63 (1.44)	-1.27 (1.55)
Empathy	5.97 (1.21)	4.90 (1.55)	-1.07 (1.59)

Figure 3. Comparing means dimensions of expectations and perceptions



Assessment of expectations and perceptions pertaining to gender

The expectations were rated higher by women patients (mean = 5.97, SD = 1.17), as well as

the perceptions (mean = 4.73, SD = 1.33). There were not significant differences between participants of different genders in terms of the perceptions of the quality of the primary healthcare centres (Table 6).

Table 6. Differences between males and females

	Gender	N	Mean (SD)	P-value
Expectations	Male	1006	5.84 (1.16)	0.017*
	Female	721	5.97 (1.17)	0.017"
	Total		5.89 (1.16)	
Perceptions	Male	1006	4.63 (1.35)	0.144
	Female	721	4.73 (1.29)	0.144
	Total		4.68 (1.33)	

Note: \* flags the level of significance.

Assessment of expectations and perceptions pertaining to age groups

The expectations scored higher by young patients, aged 18-24 years old (mean = 5.97, SD = 1.17), while the highest level of perception was produced by

patients aged more than 65 years old (mean = 4.73, SD = 1.33). There were no significant differences between participants of different age groups in terms of both, the expectations and the perceptions of the quality of the primary healthcare centres (Table 7).

**Table 7.** Differences between age groups

	Age group	N	Mean (SD)	P-value
	18-24 years old	361	6.01 (1.05)	
	25-44 years old	659	5.87 (1.23)	0.225
Expectations	45-64 years old	487	5.86 (1.16)	0.223
•	More than 65 years old	221	5.84 (1.12)	
	Total		5.89 (1.16)	
	18-24 years old	361	4.71 (1.37)	
	25-44 years old	659	4.67 (1.34)	0.541
Perceptions	45-64 years old	487	4.61 (1.31)	0.341
•	More than 65 years old	221	4.73 (1.20)	
	Total	_	4.67 (1.32)	

Assessment of expectations and perceptions pertaining to ethnicity

The expectations scored higher by Albanian patients, as well as their perceptions. In terms of all five dimensions, the comparison based on ethnicity resulted in higher scores from the Albanian patients in all five dimensions of expectations, while the perception dimensions scored differently (Table 8).

There were significant differences between participants of different ethnicities in terms of the expectations of the quality of the primary healthcare centres (Table 8), but there were no significant differences between participants of different ethnicities in terms of perceptions.

Assessment of expectations and perceptions pertaining to the education level

The expectations scored higher in patients who had completed the university, while the perceptions scored higher in patients who had completed high school. There were significant differences between participants of different education levels in terms of the expectations of the quality of the primary healthcare centres (Table 9), as well as in terms of their perception.

Assessment of expectations and perceptions pertaining to the location

The expectations scored lower by patients who lived in urban areas, as well as their perceptions. There were significant differences between participants of different education levels in terms of the expectations of the quality of the primary healthcare centres (Table 10), as well as in terms of their perception. There were no significant differences between participants of different locations in terms of the expectations of the quality of the primary healthcare centres (Table 10), as well as in terms of their perception.

**Table 8.** Differences between ethnic groups

	Ethnicity	N	Mean (SD)	P-value
Expectations	Albanian	1655	5.93 (1.12)	
	Serb	16	5.17 (1.54)	0.000*
	Other — non-Serb	50	4.80 (1.85)	
	Total		5.89 (1.16)	
	Albanian	1655	4.68 (1.32)	
Dovacations	Serb	16	4.56 (1.21)	0.567
Perceptions	Other — non-Serb	50	4.47 (1.53)	
	Total		4.67 (1.32)	

*Note: \* flags the level of significance.* 

Table 9. Differences between education levels

	Education	N	Mean (SD)	P-value
	Completed primary school	329	5.82 (1.20)	
Expectations	Completed high school	678	5.90 (1.16)	0.000*
	Completed college/University	675	5.96 (1.07)	0.000"
	Other	40	5.17 (1.71)	
	Total		5.89 (1.16)	
	Completed primary school	329	4.76 (1.17)	
	Completed high school	678	4.78 (1.23)	0.000*
Perceptions	Completed college/University	675	4.56 (1.47)	0.000^
	Other	40	4.03 (1.18)	
	Total	1731	4.67 (1.32)	

*Note: \* flags the level of significance.* 

Table 10. Differences between locations

	Location	N	Mean (SD)	P-value
Expectations	Urban	1391	5.89 (1.17)	0.65
	Rural	339	5.91 (1.11)	0.05
	Total		5.89 (1.16)	
Perceptions	Urban	1391	4.64 (1.37)	0.087
	Rural	339	4.81 (1.11)	0.087
	Total		4.67 (1.32)	

Assessment of expectations and perceptions pertaining to types of facilities

Higher expectations were presented by the interviewees in MFMC, while higher perceptions although there were no big differences were presented in FMC. There were no significant differences between participants of different facilities in terms of the expectations of the quality of the primary healthcare centres, as well as in terms of their perception (Table 11).

Expectations and perceptions' gap in the quality of the healthcare services

ANOVA analysis showed that the expectation-perception gap is statistically significant. So, there is a quality gap in all five dimensions (Table 12).

Table 11. Differences between facilities

	Facility	N	Mean (SD)	P-value
	MFMC	868	5.91 (1.16)	
Ermostations	FMC	667	5.88 (1.15)	0.919
Expectations	AS	196	5.90 (1.26)	
	Total		5.90 (1.17)	
Perceptions	MFMC	868	4.67 (1.32)	
	FMC	667	4.69 (1.39)	0.947
	AS	196	4.65 (1.16)	
	Total		4.68 (1.33)	

Table 12. Comparing gap means of expectations and perceptions' dimensions

	Paired differences							
Expectations-Perceptions	Mean Std.	Std. error	95% confidence interval of the difference		t	df	Sig. (2-tailed)	
		aeviation	mean	Lower	Upper			
Tangibles	1.51	1.73	0.041	1.42	1.59	36.1	1729	0.000
Reliability	1.14	1.57	0.037	1.06	1.21	30.1	1730	0.000
Responsiveness	1.11	1.52	0.036	1.04	1.18	30.8	1728	0.000
Assurance	1.27	1.54	0.037	1.2	1.34	34.2	1726	0.000
Empathy	1.068	1.58	0.038	0.99	1.14	28	1728	0.000

*Note:* \* Confidence interval: mean value  $\pm$  quoted value for a confidence level of 95%.

The analysis showed that there were no significant differences between expectations and perceptions of the patients in terms of gender. The quality gap was not statistically different between male and female patients. The same resulted also with patients from different locations or different age groups. The quality gap is not statistically different in terms of ethnicity and education level.

#### Quality gap assessment pertaining to municipalities

Table 13 represents the average values of expectations and perceptions of patients in different municipalities, as well as the quality gap for each of them.

**Table 13.** Quality gap in different municipalities (Part 1)

Municipality	N	Mean	Patients' reflection	Quality gap
Deçan	20	5.52	Expect	1.716
		3.81	Percept	-1.716
Dragach	30	5.97	Expect	-0.013
Dragash		5.96	Percept	-0.015
Drenas	30	6.86	Expect	-1.969
Drenas	30	4.90	Percept	-1.969
Ferizaj	152	6.51	Expect	-0.952
renzaj	132	5.55	Percept	-0.932
FusheKosove	21	6.04	Expect	-1.126
rusiiekosove	31	4.92	Percept	-1.120
Cialrovä	150	4.77	Expect	-0.880
Gjakovë		3.89	Percept	-0.660
Ciilaa	100	5.02	Expect	0.551
Gjilan		4.47	Percept	-0.551
Hani I Elezit	25	6.65	Expect	-0.523
		6.12	Percept	-0.525
Istog	20	5.55	Expect	-1.807
		3.74	Percept	-1.607
Junik	20	5.48	Expect	-0.959
		4.52	Percept	-0.959
Kaçanik	24	6.81	Expect	-2.124
		4.68	Percept	-2.124
Kamenic	35	5.45	Expect	-0.810
		4.64	Percept	-0.610
Klinë	20	5.83	Expect	-2.738
Killie		3.09	Percept	-2.738

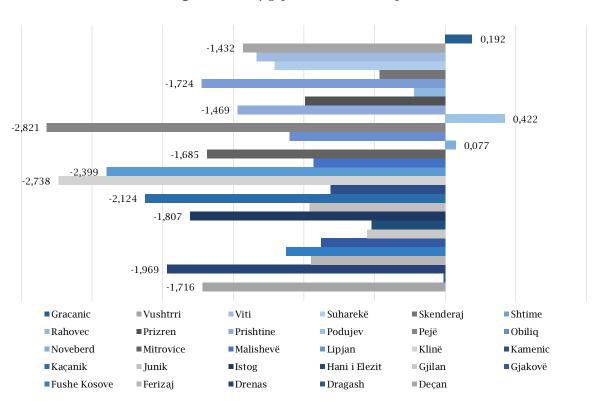
Table 13. Quality gap in different municipalities (Part 2)

Municipality	N	Mean	Patients' reflection	Quality gap	
Lipjan	41	6.69	Expect	-2.399	
		4.30	Percept	-2.399	
Maliahavä	25	6.01	Expect	-0.934	
Malishevë		5.08	Percept	-0.954	
Mitmorriso	100	6.57	Expect	-1.685	
Mitrovice		4.88	Percept	-1.005	
Noveberd	15	5.12	Expect	0.077	
Noveberu	15	5.20	Percept	0.077	
Obili -	25	5.71	Expect	1 100	
Obiliq	25	4.61	Percept	-1.100	
Deir	1.40	5.95	Expect	2.021	
Pejë	140	3.13	Percept	-2.821	
n. d. d. d.	35	3.39	Expect	0.422	
Podujev		3.82	Percept	0.422	
D. C. L. C.	200	6.79	Expect	1.460	
Prishtine		5.32	Percept	-1.469	
D	200	5.98	Expect	0.000	
Prizren		4.99	Percept	-0.992	
P. L.	50	4.58	Expect	0.001	
Rahovec		4.36	Percept	-0.221	
Clarica	39	6.66	Expect	1.704	
Shtime		4.94	Percept	-1.724	
	50	6.05	Expect	0.400	
Skenderaj		5.59	Percept	-0.463	
	25	5.91	Expect	1.000	
Suharekë		4.70	Percept	-1.208	
Viti	50	6.81	Expect	1.007	
		5.48	Percept	-1.337	
V. alakari	50	5.63	Expect	1.422	
Vushtrri		4.20	Percept	-1.432	
0	29	3.39	Expect	0.100	
Gracanice		3.59	Percept	0.192	

The quality gap is larger in the municipalities of Peje (-2.82), Klinë (-2.74), Lipjan (-2.39), Kacanik (-2.13). A positive value of this quality gap means that perception of the healthcare service exceeded

that expectations for this service (Table 13). There are also statistical differences in the quality gap between municipalities.

Figure 4. Quality gap in different municipalities



Quality gap assessment pertaining to types of facilities

The quality gap resulted in larger in ambulance of family medicine (AFM) (-1.25) and smaller in centre for family medicine (CFM) (-1.20). When analyzing

every dimension, the lower quality gap resulted in the Empathy dimension in MFMC and FMC and in the Reliability dimension in AC. While the higher gap resulted in all three facilities in the Tangible dimension (Table 14).

Table 14. Quality gap in five dimensions of different facilities

Facilities	MFMC		FMC			AS			
Dimensions	Expectations	Perceptions	Quality gap	Expectations	Perceptions	Quality gap	Expectations	Perceptions	Quality gap
Tangibles	5.90	4.35	-1.55	5.85	4.41	-1.44	5.85	4.26	-1.60
Reliability	5.88	4.72	-1.16	5.86	4.71	-1.15	5.82	4.77	-1.05
Responsiveness	5.90	4.76	-1.14	5.87	4.77	-1.09	5.89	4.78	-1.11
Assurance	5.90	4.62	-1.28	5.90	4.66	-1.24	5.92	4.55	-1.38
Empathy	5.97	4.92	-1.05	5.96	4.88	-1.08	6.01	4.91	-1.10

**Table 15.** Quality gap in different facilities

Facility	N	Mean	Patients' reflection	Quality gap
MFMC	868	5.91	Expect	-1.24
MFMC	000	4.67	Percept	-1.24
FMC	667	5.88	Expect	-1.20
FMC		4.69	Percept	-1.20
AS	196	5.90	Expect	-1.25
AS	190	4.65	Percept	-1.25

#### 5. CONCLUSION

A patient-centered approach in PHC in Kosovo should consider the expectations and perceptions of patients, as it is difficult to identify and prioritize improvements required in healthcare service and to ensure that patient needs, and expectations are met. By respecting people's expectations, health care services are able to preserve public trust in them and play a vital role in treating the patient.

The national survey provided important findings on the perception of the quality of services at the PHC level. The perception of the quality of services at the PHC level showed that patients have high expectations toward the healthcare services PHC in Kosovo. Expectations serve as standards with which perceptions are compared, and the difference between them produces a gap. Our analysis showed that the Tangible dimension produced the greatest gap, while the Empathy dimension produced the smallest gap. The findings from this analysis will help to improve the service quality in primary health care institutions in Kosovo. Female patients had higher expectations than men, the same was with perceptions too. Young patients (18-24 years old) had also higher expectations toward the healthcare services in PHC in Kosovo, while the patients of more than 65 years old had higher perceptions. Albanian patients had higher scores on both, expectations and perceptions too. While the patients who had completed the university had a higher level of expectations, those who completed high school had the highest perception. Both expectations and perceptions were scored low in urban areas.

The quality gap or the expectation-perception gap is not significantly different in male and female patients. The same as in different locations or different age groups of patients. But this gap was statistically significant in patients of different ethnicity and in patients with different levels of education.

A patient-centered approach in PHC in Kosovo should consider the expectations and perceptions of patients. There is always a difference between them or a gap. The negative gap indicates that patient expectations for the service were not met and the patient is not satisfied with the service. positive gap, the service exceeded the expectations and the patient was satisfied. Therefore, it is very important to evaluate both perceptions and expectations, as it is difficult to identify and prioritize improvements required in healthcare service to ensure that patient needs and expectations are met. By respecting people's expectations, health care services are able to preserve public trust in them and play a vital role in treating the patient. It is also recommended that in order to improve the quality of health care, the important focus should be addressed to: a) the education of the population, through information and awareness; b) the quality standards in PHC in Kosovo, and c) the establishment of a mechanism to raise public awareness in case of complaints with the service.

There is an imperative need to begin the process of accreditation of the PHC, and to implement it, in order the patients' rights will be provided. There is a continuous need in educating and training the operative and management staff of PHC in order to improve the quality of services; there is also needed a close cooperation between PHC, health care professionals and other professionals of social services in order to improve the quality of services in PHC in Kosovo.

This study, in terms of research methodology and scientific research results, besides serving young researchers who want to study or compare the level of quality of primary healthcare services at the national, regional, or global level, the same one can be used also by relevant local and international institutions in the context of comparability or development policy-making, with the sole purpose

of improving the quality of primary healthcare services

As concerning limitations, like all other studies, this study had its own limitations in the context of actual situation analysis due to the lack of previous studies conducted in the field of measuring the perception of the quality of primary healthcare services at the local, national or regional level. Then the logistical issues, the issue of translation of all study instruments, and other related data in all languages, by adapting to each community living in Kosovo, etc.

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