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PATIENT AND WORKER PERCEPTIONS OF SATISFACTION OF QUALITY OF HEALTH SERVICES PROVIDED IN KABIL, AFGHANISTAN

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Abstract: *Background: Many patients prefer treatment abroad in Afghanistan. The quality of treatment services is low and they cover the treatment of themselves. This causes both the loss of the national wealth of Afghanistan and poor satisfaction of the workers and patients. The aim of this study was to evaluate the satisfaction of health service providers and beneficiaries in the capital city of Kabil, Afghanistan on the quality of tertiary health services. Methods: Tertiary health facilities chosen from sixteen in Kabil according to their worker and patient capacity, randomly. Health professionals and service recipients recruited using face-to-face questionnaire method. Findings: The level of hospital services are above average for both employees and inpatients in Kabil whereas more hospital workers thinks that health services are weak (p=0.024). Workers spend more money for treatments made in abroad (p=0.043). Conclusions/Application to Practice: Quality of health services is a shared responsibility between hospital management, staff and patients. New governmental regulations should be found for tertiary hospitals and promotive changes should be made for hospital workers in order to increase total quality management in Kabil.*

Key words: *Satisfaction, Therapeutic Services, Health Services, Tertiary, Total Quality Management.*

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1. Introduction

The increasing importance of individuals attach to health and the demand for quality care in health services brought the necessity of health institutions to provide quality and efficient health services [11], [12]. The transition from product quality to service quality, the concept of "Total Quality Management (TQM)" has been used in the health sector [4], [7]. TQM is a management approach that aims to increase organization efficiency and service quality, improve competition and continuity in earnings through an organization that adapts to the changing demands of patients. Patients look for cheap and effective services in worldwide because they are affected by the continuous changes in the economic and social phase of the health services [13]. The concept of quality in the provision of health services is defined as "meeting the expectations and needs of the patients in all service processes as well as the diagnosis, treatment and care services in accordance with the standards in internationally valid indicators".

Patient satisfaction is one of the basic steps in the quality of health care. It is necessary to ensure the satisfaction of the service users during and after the service delivery. Health services; are processes other than products that provide benefit and satisfaction when marketed by a person or business [11], [12]. For this reason, the term "perceived service quality" is used instead of service quality (Figure 1). Perceived service quality is the result of comparing the expectations of the customer before receiving the service with the real service experience (perceived service), and it is evaluated as the direction and degree of difference between the expectations of the customers and perceived performance.

Hospital care is not well established in Kabil despite its importance in population health. Hospitals in Kabil provides services using quality assurance instead of quality management process [6]. There are global calls for research to support health system strengthening and increasing the quality of health in low/middle income countries (LMICs) [5], [8]. To reinforce health systems in the capital of Afghanistan, understanding public view and satisfaction of the quality of care services will be essential.

1.1. Objectives

We aimed to compare the health service providers and beneficiaries perception of satisfaction of care qualities across the tertiary healthcare facilities in Kabil, Afghanistan.

2. Material and Methods

This was a prospective cross sectional study. Patients, who fulfilled the eligible criteria were admitted between January and March 2016 were questionnaired using the developed forms.

Forms included the data about demographics, work satisfaction (treatment expenditures abroad, coming back or recommending to someone) and TQM.

2.1. Study Population

The research population consisted of health staff and patients admitted to 1of 16 Training and Research Hospitals located in the capital of Afghanistan and which are affiliated to the Ministry of Health between January and March 2027).

2.2. Sample Size Calculations

In the research, the sample was determined by using cluster sampling technique. Two of the 16 hospitals were chosen randomly. Sample size was determined using the formula: Pt = P0 ert. Our sample size was 500 health workers and 500 patients. Within the scope of the research, 411 health workers (82.2%) and a total of 454 patients were reached (88.9 %).

2.3. Ethical Considerations

Ethical approval was taken from Gazi University Ethical commission.

2.4. Data Analysis

Data was analyzed with SPSS (version 15). Frequency distribution and percentage expressions are used as descriptors for data significance was $p < 0.05$ and chi-square, ANOVA and t-tests have been carried out.

2.5. Questionnaire Definitions

1. The health worker survey consists of four parts and 46 questions. In the first part; the socio-demographic characteristics and descriptive information, in the second part, there are questions about the institution and management, in the third part, the health and safety and in the fourth part, the satisfaction of the workers from the general situation and foreign treatment expenditures were asked.
2. The questionnaire of the inpatient treatment consists of 3 parts and 37 questions; in the first part, the socio-demographic characteristics and descriptive information, in the second part, there are questions about the institution and management, and in the third part, the satisfaction of the patients from the general situation and the expenditures for treatment abroad were asked.

3. Results

A prospective study conducted in Kabil with 411 health workers and 454 patients. The demographic features of the health staff (Table 1) and the patients (Table 2) are demonstrated.

Table 1

Descriptive features of hospital staff

	Patients	
Service used	n	%
Internal medicine	188	41.4
General surgery	128	28.2
Orthopedics	98	21.6
Dermatology	3	.7
Cardiology	1	.2
Urology	36	7.9
Gender		
Male	265	58.4
Female	189	41.6
Age		
18-25	132	29.1
26-35	101	22.2
36-45	66	14.5
46-55	63	13.9
56-65	51	11.2
66 and over	41	9.0
Marital status		
Married	367	80.8
Single	87	19.2
Education		
Illiterate	293	64.5
Read & Write	41	9.0
Primary/Secondary/High school	103	22.6
Bachelor's degree/Postgraduate	17	3.7
Previous treatment at the same hospital		
No	289	63.7
Yes, Outpatient	50	11.0
Yes, Inpatient	115	25.3
Any difficulty in hospitalization		
Yes	87	19.2
No	360	79.3
No idea	7	1.5
Problem about patient accompanist		
Yes	51	11.2
No	403	88.8
Number of patients in the room		
Private room	19	4.2
2	42	9.3
3	83	18.3
4 and over	310	68.3

Table 2

Descriptive features of patients

	Patients	
Service used	n	%
Internal medicine	188	41.4
General surgery	128	28.2
Orthopedics	98	21.6
Dermatology	3	.7
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4 and over	310	68.3

In the study, 65.5% of the staff are official workers and 24.1% works more than 21 hours/day. Education level of the patients are low (64.5% illiterate), 36.3% received previous treatment in the same hospital and 68.3% shared their room at least three other patients.

The level of satisfaction from hospital services were above average for both workers and patients; however more staff thinks that hospital services were weak (p=0.024). Workers spend more money for treatments made in abroad than patients (p=0.043) and 12.2% had suggestions about operational procedures (Table 3).

Table 3

Comparison of some TQM parameters about health services

	Patients		**Hospital staff**		
	n	**%**	**n**	**%**	**p**
Opinions about hospital services					**0.024**
Very good	80	17.6	71	17.3	
Good	164	36.1	109	26.5	
Average	145	31.9	138	33.6	
Weak	53	11.7	69	16.8	
Very weak	12	2.6	24	5.8	
The amount of money spend for treatment abroad (USD)					**0.043**
No	367	80,8	283	68.9	
<500	47	10,4	41	10.0	
501-1000	28	6,2	25	6.1	
1001-5000	9	2,0	24	5.8	
5001-10000	-	-	20	4.9	
>10001	3	0,7	18	4.4	
Having suggestions					0.052
Yes	39	8.6	50	12.2	
No	415	91.4	361	87.8	

As seen from Table 4, 74.9% of the staff thinks that they were located in the right place according to their education. From the participants 64.7% was not satisfied with the training they received in-service. The satisfaction of necessary information provided for SQS, QMS were 39.2% and 40.6%. Dissatisfaction rates from food and canteen were 22.4% and 26.8%.

Table 5 indicates the relation between socio-demographics, working conditions and work satisfaction of health staff. Education level of the workers, the type of service unit, their position, the positive opinions about the process in hospital services and having suggestion of operation were statistically significant factors of satisfaction in many variables of TQM.

Distribution of satisfaction status of hospital staff Table 4

Satisfaction parameters	Satisfied		Partly satisfied		Dissatisfied	
	n	%	n	%	n	%
I work in a department suitable for my education.	308	74.9	52	12.7	51	12.4
There are enough staff in my unit.	206	50.1	96	23.4	109	26.5
The employees in my unit support each other.	277	67.4	89	21.7	45	10.9
Employees in my unit treat each other with respect.	287	69.8	76	18.5	48	11.7
My work place is arranged according to my comfort.	162	39.4	114	27.7	135	32.8
I have the necessary tools and equipment.	117	28.5	123	29.9	171	41.6
A good cooperation requires collaboration.	219	53.3	142	34.5	50	12.2
My suggestions /complaints about the functioning of the department are taken into consideration.	145	35.3	130	31.6	136	33.1
I have the opportunity to convey my problems to the managers.	200	48.7	122	29.7	89	21.7
Hospital management deals with our workplace problems, produces solutions with the employee and takes the necessary measures.	162	39.4	107	26.0	142	34.5
The hospital management adequately appreciates employees' achievements.	117	28.5	94	22.9	200	48.7
In promotions and assignments, evaluation is made according to the success of the staff.	139	33.8	107	26.0	165	40.1
I can easily use my legal rights (annual leave) when necessary.	210	51.1	104	25.3	97	23.6
The hospital management organizes social and cultural activities.	131	31.9	92	22.4	188	45.7
I think in-service training is sufficient.	215	52.3	91	22.1	105	25.5
I am satisfied with the food services.	92	22.4	56	13.6	263	64.0
I am satisfied with the parking service.	165	40.1	127	30.9	119	29.0
I am satisfied with the cafeteria-canteen services.	110	26.8	89	21.7	212	51.6
Managers encourages the production of creative and innovative thoughts.	141	34.3	112	27.3	158	38.4
Managers can follow the changes and developments required by the era and bring them to the hospital.	127	30.9	103	25.1	181	44.0
Hospital management informs all employees about "Service Quality Standards (SQS)".	138	33.6	140	34.1	133	32.4
I have sufficient information about the QMS.	161	39.2	119	29.0	131	31.9
I know and adopt the Quality Policy of the Hospitals of the Ministry of Health.	167	40.6	131	31.9	113	27.5
I am peaceful as I fully fulfill my duties and responsibilities.	265	64.5	94	22.9	52	12.7
I contributed to the institution.	304	74.0	75	18.2	32	7.8
I can be more creative and functional if given the opportunity.	307	74.7	74	18.0	30	7.3
I see myself as part of the MoH Hospitals.	337	82.0	42	10.2	32	7.8
I am happy to work in the MoH Hospitals.	270	65.7	95	23.1	46	11.2
In the past 6 months, I have attended in-service training about Patient and Employee Safety.	100	24.3	45	10.9	266	64.7
I was physically attacked in the last 6 months.	135	32.8	72	17.5	204	49.6
I received training about occupational health and safety at the MoH Hospitals..	121	29.4	73	17.8	217	52.8
Periodic health screenings are carried out routinely.	182	44.3	95	23.1	134	32.6
The management provides PPE.	173	42.1	113	27.5	125	30.4
Adequate security measures have been taken.	133	32.4	109	26.5	169	41.1

Table 5

*Significance of demographic and TQM parameters related to work-satisfaction status of health staff *(χ2 distribution)*

Parameters	**Age**	**Gender**	**Marital status**	**Education**	**Service**	**Position**	**Personnel cadre**	**Working time**	**Having opinion**	**Abroad spending**	**Having suggestion**
Employed in a place suitable for his/her education	p=0.395	p=0.058	p=0.550	p=0.442	p=0.504	p=0.340	p=0.003	p=0.915	p=0.381	p=0.553	p=0.009
Adequate personnel	p=0.304	p=0.059	p=0.465	p=0.011	p=0.393	p=0.048	p=0.065	p=0.216	p<0.001	p=0.784	p=0.004
Colleague support	p=0.040	p=0.005	p=0.505	p=0.001	p=0.459	p=0.020	p=0.011	p=0.386	p<0.001	p=0.633	p=0.004
Colleague respect	p=0.279	p=0.224	p=0.106	p=0.033	p=0.023	p=0.226	p=0.088	p=0.196	p<0.001	p=0.259	p=0.028
Working environment	p=0.046	p=0.218	p=0.785	p<0.001	p=0.001	p<0.001	p=0.168	p=0.245	p<0.001	p=0.105	p=0.011
Necessary equipment	p<0.001	p=0.048	p=0.057	p<0.001	p<0.001	p<0.001	p=0.922	p=0.038	p<0.001	p=0.022	p<0.001
Good cooperation	p=0.029	p=0.337	p=0.117	p<0.001	p=0.053	p=0.001	p=0.396	p=0.316	p<0.001	p=0.316	p=0.001
Consideration of recom-mendation	p=0.198	p=0.437	p=0.489	p<0.001	p<0.001	p<0.001	p=0.808	p=0.195	p<0.001	p=0.014	p=0.001
Communicati on problems with managers	p=0.003	p=0.039	p=0.180	p<0.001	p<0.001	p<0.001	p=0.003	p=0.121	p<0.001	p=0.127	p=0.004
Producing solutions	p=0.114	p=0.023	p=0.544	p<0.001	p=0.014	p=0.340	p=0.482	p=0.043	p<0.001	p=0.001	p=0.001
Appreciation	p=0.046	p=0.169	p=0.593	p<0.001	p=0.002	p<0.001	p=0.459	p=0.038	p<0.001	p=0.358	p=0.014
Evaluation by success	p=0.014	p=0.514	p=0.554	p<0.001	p=0.001	p=0.005	p=0.028	p=0.221	p<0.001	p=0.003	p=0.386
Using legal rights	p=0.112	p=0.050	p=0.641	p=0.062	p=0.022	p=0.039	p=0.037	p=0.581	p<0.001	p=0.056	p<0.001
Social & Cultural activities	p=0.002	p=0.003	p=0.103	p<0.001	p<0.001	p<0.001	p=0.696	p=0.068	p<0.001	p=0.534	p=0.007
In-service trainings	p=0.131	p=0.988	p=0.443	p=0.250	p=0.016	p=0.229	p=0.594	p=0.085	p<0.001	p=0.282	p=0.237
Food services	p=0.051	p=0.271	p=0.149	p<0.001	p<0.001	p<0.001	p=0.004	p=0.012	p<0.001	p=0.013	p=0.164
Parking services	p=0.074	p=0.407	p=0.114	p<0.001	p=0.080	p=0.010	p=0.074	p=0.328	p<0.001	p=0.037	p=0.044
Cafeteria services	p=0.016	p=0.703	p=0.081	p<0.001	p<0.001	p<0.001	p=0.455	p=0.042	p<0.001	p=0.024	p=0.054
Promoting innovative thinking	p=0.143	p=0.372	p=0.813	p<0.001	p=0.001	p=0.016	p=0.185	p=0.136	p<0.001	p=0.474	p=0.001
Capturing what the era requires	p=0.048	P=0.104	p=0.817	p<0.001	p=0.003	p<0.001	p=0.402	p=0.231	p<0.001	p=0.201	p=0.001

Informing about SQS	p=0.148	p=0.134	p=0.704	p<0.001	p=0.007	p<0.001	p=0.964	p=0.547	p<0.001	p=0.002	p=0.008
Informing about QMS	p=0.015	p=0.413	p=0.689	p<0.001	p=0.067	p=0.018	p=0.106	p=0.219	p<0.001	p=0.344	p=0.058
Information about quality policy of the MoH.	p=0.029	p=0.063	p=0.195	p<0.001	p=0.080	p=0.001	p=0.248	p=0.040	p<0.001	p=0.004	p=0.007
Being peaceful as fully fulfilling duties and responsibilities	p=0.018	p=0.303	p=0.040	p=0.001	p=0.377	p=0.534	p=0.053	p=0.581	p<0.001	p=0.136	p=0.399
Contribution to the institution	p=0.035	p=0.709	p=0.208	p=0.506	p=0.422	p=0.039	p=0.163	p=0.308	p=0.020	p=0.764	p=0.750
Being more creative and functional if given the opportunity	p=0.066	p=0.620	p=0.773	p=0.182	p=0.063	p=0.039	p=0.156	p=0.539	p=0.892	p=0.820	p=0.732
Being part of the MoH Hospitals	p=0.003	p=0.853	p=0.448	p=0.942	p=0.320	p=0.546	p=0.043	p=0.471	p=0.362	p=0.306	p=0.494
Being happy to work in the MoH Hospitals	p=0.169	p=0.988	p=0.491	p=0.048	p=0.059	p=0.145	p=0.535	p=0.941	p=0.001	p=0.252	p=0.022
Attending in-service training about Patient and Employee Safety	p=0.881	p=0.469	p=0.411	p=0.029	p=0.071	p=0.029	p=0.132	p=0.307	p=0.002	p=0.201	p=0.342
Being physically attacked in the last 6 months	p=0.475	p=0.503	p=0.067	p=0.364	p=0.012	p=0.481	p=0.242	p=0.486	p=0.395	p=0.068	p=0.112
Training of occupational health & safety	p=0.760	p=0.049	p=0.914	p=0.027	p=0.036	p=0.007	p=0.183	p=0.264	p<0.001	p=0.158	p=0.076
Periodic health screenings	p=0.081	p=0.060	p=0.384	p=0.317	p=0.149	p=0.011	p=0.192	p=0.606	p<0.001	p=0.032	p<0.001
Providing PPE	p=0.071	p<0.001	p=0.517	p=0.001	p=0.246	p=0.023	p=0.233	p=0.005	p<0.001	p=0.238	p=0.275
Providing adequate security measure	p<0.001	p=0.019	p=0.936	p<0.001	p=0.095	p=0.004	p=0.446	p=0.172	p<0.001	p=0.006	p<0.001
Having a work accident	p=0.581	p=0.012	p=0.794	p=0.060	p=0.008	p=0.004	p=0.568	p=0.208	p=0.011	p=0.082	p=0.988
Employed in a place suitable for his/her education	p=0.395	p=0.058	p=0.550	p=0.442	p=0.504	p=0.340	p=0.003	p=0.915	p=0.381	p=0.553	p=0.009
Adequate personnel	p=0.304	p=0.059	p=0.465	p=0.011	p=0.393	p=0.048	p=0.065	p=0.216	p<0.001	p=0.784	p=0.004

4. Discussion

In this facility-based cross-sectional study, the quality of management and satisfaction of care in two hospitals in Kabil, Afghanistan was assessed, using structural outcome measures. This is one of the few qualitative studies to explore the quality of health services delivery in tertiary health scare since Improving Quality in Health Care (IQHC) was established in 2011. Limited human and financial resources is a challenge in TQM in LMIC'S. Monitoring process are usually carried out with local studies and progress is measured by comparing results in national level.

In the study; the overall quality and management from tertiary hospitals was rated above average, while satisfaction was poor (Table3). The findings reveals the distinction between quality assurance and the quality improvement parameters according to hospital workers and patients. Opinion about hospital services, the amount of money spends in abroad and having suggestions are good indicators of satisfaction from services. The patient satisfaction is higher in Kabil hospitals however there is a significant difference between the dissatisfaction of hospital staff (22.6%) and patients (14.3%) (p=0.024). The previous findings of patient satisfaction surveys showed the two most important dimensions to patients were availability and accessibility [6]. It has seen that 31.1% of the workers and 19.2% of the patients received health service in abroad the service is either unavailable or inaccessible. On top of that, 15.1% of the hospital staff made healthcare expenses of $1000 or more abroad and 4.4% perform their major surgeries in foreign countries. This may be caused by reasons such as insecurity or dissatisfaction with the hospital system. The quantitative studies might be more goal directed to indicate the reasons of getting health service outside Afghanistan.

The readiness of the health facilities in this study to offer health services was less than optimal due to shortage of necessary tools and equipment, poor availability of promotive activities for health workers, inadequate communication, insufficient in-service training and poor support from management (Table 4). The dissatisfaction of hospital staff gathered under three main reasons. First, it is seen that individual needs such as dining and cafeteria, parking lot, social areas and activities are not met. Secondly, the situations arising from the management. These are the situations where employees experience the most problems under the headings of total quality management and dissatisfaction. Due to the lack of good communication with the management (48.7% and 40.1%), they cannot convey their wishes and suggestions. Failure to deliver these suggestions also hinders the resolution of the problems (34.5%). Moreoever, high workload causes lack of in-service trainings (25.5%), occupational health trainings (52.8%) and TQM (31.9%) trainings. The last reason that creates dissatisfaction is the situations that cause the staff in the hospital to feel unsafe. There seem to be several different reasons for this; the physical and verbal violence (49.6%) related to work-related risks and safety problems (41.1%) caused by not providing adequate tools, equipment (41.6%) and PPE (30.4%). These findings are similar with few cross-

sectional studies, which assessed satisfaction and quality of tertiary health services in Afghanistan [15], Bangladesh [3], Malawi [16] and [9] where health services are affected by shortage of trained health workers and inadequate availability of supplies. Moreover, another study in Uganda, found that the service provided in hospitals is sub-optimal and the process of care is ineffective [9]. Another study in Afghanistan shows that patients of primary care services report relatively high levels of perceived quality than doctors [6]. These factors contribute to low quality management to adequately deliver quality care, unmet health needs among patients, low satisfaction among health workers and delays in receiving quality care.

In addition, the existing satisfaction levels observed in this study is an opportunity that can be leveraged to improve quality in hospital services. Our findings show that the hospitals have insufficient equipment and resources in terms of work satisfaction and poor communication with administrators to provide high quality services, despite trained personal. Some socio demographic characters like education, position in hospital and having an opinion or suggestions were related to most of the TQM parameters ($p<0.05$). Insufficient security was determined in relation to age ($p<0.001$), gender ($p=0.019$), especially being a woman, high educational level ($p<0.001$), academic position at the hospital ($p=0.004$), having an opinion or suggestion about TQM ($p<0.001$) and making health expenditures abroad ($p=0.006$). Physical violence was found in relation to the service ($p=0.012$). Especially physical violence and associated low TQM observed in surgical wards in our study. Explaining the risks of surgery to patients and their relatives and providing security for the staff working in these services can reduce the violence. Having an accident in the hospital was found to be related to gender ($p=0.012$), especially being a male, the service worked ($p=0.008$), position in the hospital ($p=0.004$), and suggestions for change ($p=0.011$) (Table 5). The hospitals also have some capacity of young worker but this needs to be improved with in-service trainings, especially with capacity of the healthcare workers, availability of improved domestic facilities and increased communication with the workers as well as continuing evaluation of services [1], [10]. The hospital managers should support and mindfully explain the resources and the expectations to their workers and listen their reflexes. Trainings in inservice can also be promoted to raise the capacity of quality management.

Evaluation of patient and worker satisfaction is a raised need as the attention on TQM and its application in the health care setting increased [13]. Integrative studies that evaluates primary, secondary and tertiary level health care might be important in TQM analyses in LMIC's.

The study has several limitations. The small sample size of this pilot study limited the interpretability of the analysis. Only 2 facilities could be assessed limiting the power to detect statistically significant differences. The demographic, geographic, and environmental, and security contexts of Afghanistan are highly diverse; as this study was limited to one province, both in country and external generalizability may be limited [14], [15].

5. Conclusion

In our study, it is seen that the satisfaction level of the hospital staff with the services provided in the hospital is lower than the patients. It was determined that the most important reason for this dissatisfaction was due to the TQM parameters examined.

It was determined that the hospital staff had a communication problem with the hospital management and could not share their suggestions. There are problems in the use of legal rights arising from the workload and these communication problems in the hospital. The insufficiency of social spaces and activities offered in the hospital environment also increased dissatisfaction.

Hospital staff thinks that occupational health, TQM, SQS and other in-service trainings are also lacking. It is understood that this lack of trainings and explanations from the management causes work accidents and safety problems.

The main findings of the study offer important insights for future policy considerations in the context of Kabil and comparable regions in Afghanistan at large. Third level facilities and hospitals that currently do not provide TQM should be supported to provide quality services to patients. Quality management strategies can be considered for also primary health care facilities that already provide outpatient health services.

Lastly, allocating resources to the construction of new facilities does not seem to be a good strategy for increasing total quality management. Instead, more effective strategies are: (1) training health staff to be able to perform quality services; (2) establishing a working system of support, accountability, feedback, supervision and incentives at the organizational and district levels to mitigate issues of staff frustrations and lack of motivation; and (3) developing strategies to increase patient satisfaction about receiving services in hospitals in Kabil.

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