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Healthcare Professionals' Perception and Related Factors About Total Quality Management

ABSTRACT
Quality defined as extent of features of any product or service to meet expectations of consumers enjoying such product or service. Although it was a concept first emerged in manufacturing industry, today, it has become an important competitive factor for service institutions as well. Total Quality Management approach is drawing more and more interest as international borders start to fade out in parallel with globalization and increasing competition. Total Quality Management is a management style that aims to meet customer expectations fully by adopting the prevention focused approach and placing the human element at the heart of all activities to achieve this goal. This study aims to present a compilation of healthcare professionals (n=150) working in Istanbul, Ankara, Diyarbakır, Erzurum and identify factors associated with opinions on the Total Quality Management. A questionnaire was used for measuring perception about the Total Quality Management. Healthcare professionals working in Istanbul and Ankara have a stronger confidence that the Total Quality Management will be a helpful management tool in raising quality level of services offered by hospitals and regards quality a responsibility shared by all, compared to those working in Erzurum and Diyarbakır. The study is planned to be further extended to different provinces in order to compare perceptions of healthcare professionals by provinces.
Key words: *Quality, Total Quality Management, Health Management, Total Quality Management in Health Services.*

Introduction

Health care consumers are becoming increasingly aware of different requirements a health care organization must meet in order to be considered as a "quality" organization. They are also becoming interested in learning about status of care provided by this organization judged by their peers or professional experts. Therefore, quality processes provide just answers and assurances that health consumers are asking for. Quality provides for mechanism for an objective, unbiased peer review of a health organization. It provides consumers with a set of measures they can evaluate health care organization in comparison with similar organizations. Meeting the needs and expectations of the customer is a requirement for quality and it is a reason why we must have quality in health care whether private or public (Al-Assaf, A. & Akgun, S., 2009). The Regulation on Improvement of Healthcare Quality and Quality Assessment issued on August 6th, 2013 has become a legal basis and catalyst of quality improvement practices across Turkey.

As the barriers between continents start to dissolve with the impact of globalization, people now have easy access to any goods or services they want. This drives the competition among organizations providing goods or services. Efforts to ensure customer satisfaction are almost like their struggle to survive. Continuity of the goods produced and the services offered depends on quality of these goods or services. For the organization to survive, it is crucial to generate and deliver quality products or services. Quality of goods or services produced and offered depends on quality of the organization itself. Commitment of organizations to ensure total quality is the core reason for existence of the Total Quality Management practices. The Total Quality Management regards the organization as single whole system from top to bottom. The approach aims to ensure quality of the entire system, as well as quality of the parts making up the system (Bektaş, 2013).

1.Quality and the Total Quality Management

Although quality was a concept first introduced in manufacturing industry, today it has become an increasingly important issue for service industry as well. Throughout the 19th Century, there has been accelerated transition to the total quality management approach. During this period both structure and system of the quality control concept have been evolved in response to the changing conditions and more powerful techniques have been discovered. Certain human management aspects have been particularly enhanced. The most prominent features of the Total Quality Management are its human-centered approach, strong structure, well-organized and well-regulated system and its focus on technical development (Bektaş, 2013).

The Total Quality Management is a system where customer's satisfaction is prioritized; employees are respected and given the right to voice their concerns and opinions, or in short, it is a people-oriented system (Top, 2013).

The notions, which the Total Quality Management builds upon, can be defined as follows: (Ustasüleyman, 2011: 71)

· Total**:** "Total" in the Total Quality Management refers to integration and engagement of all employees to work towards continuous improvement of the organization.

· Quality**:** Meeting expectations of customers in optimum and most economic manner.

· Management**:** Management is a broader concept which entails both the above. Without effective management and leadership it is impossible to achieve the desired quality goals. Moreover, management is a notion that concerns all of employees because regardless of position, status and role, each employee is a manager responsible for his/her own work domain.

The Total Quality Management is a management philosophy before everything else. This philosophy is predicated on happiness of people. People are employees, customers, partners, dealers and suppliers. In short, the term "people" entails the entire society in the Total Quality Management. Therefore, as long as there is a human, this philosophy will continue to evolve and improve total Quality Management is crucial to improve the competitiveness of enterprises, to open into the global markets and to ensure that resources are utilized in the most rational way (Pirhan, 2014).

In the Total Quality Management environment, quality objectives are pursued on every step of production starting from the beginning of the production process and all employees of the organization are engaged in this process. In this sense, the focus of the Total Quality Management's philosophy is not only ensuring quality of the product, but also continuous improvement of the manufacturing process through which the product is generated. It is responsible for implementation of quality standards at the parts of the organization where services are provided (Yaman, 2013).

Five principles of the Total Quality Management are as follows: (Yaman, 2013)

· Leadership
· Customer and employee focus
· Process orientation
· Continuous innovation, improvement (Kaizen).
· Top to bottom employee engagement

Key steps in the Total Quality Management are as follows: (Yaman, 2013)

· Quality is the first priority (long and short-term profitability)
· The second step is customers (internal and external customers)
· Use of data and information based on statistics (goal management)
· Cross-function / process management (elimination of traditional barriers)
· Customer guidance (in all organizational actions)
· Respect for people (as an organizational attitude)

The Total Quality Management objectives can be listed as follows: (Tengilimoğlu, 2011)

· Identifying customers' needs correctly and steering the processes according to these needs,
· Minimizing complaints by reaching the highest possible level of quality and increasing customer satisfaction,
· Reduction of product development time,
· Reducing costs,
· Inspiration and improving productivity,
· Establishing effective methods of communication,
· Development of a team approach for problem solving,
· Establishing an effective competitive strategy; ensuring continuous improvement and development environment

1. 2. Benefits of the Total Quality Management

The Total Quality Management's key objective is to drive success, market share, productivity, reputation, competitiveness and profitability of the organization by ensuring cost and quality, speed advantages. Thus, higher earnings are achieved along with better customer satisfaction. Implementation of the Total Quality Management philosophy supports motivation, cooperation, engagement and training of all employees, boosts internal and external customers' satisfaction, ensures effective utilization of resources; continuous development and improvement actions, implementation of systematic and holistic approaches, prevents errors and delivers higher efficiency. Furthermore, since everyone becomes responsible for quality of his/her own work, each employee is driven to be more innovative, creative, engaging and productive armed with the ability to detect their own shortcomings and becoming more aware and better trained. All these actions bring the organization to a new level of "High Quality", "Low Cost", and "Competitiveness" (Gürbüz, 2014).

The key improvements to be achieved as a result of implementation of the total quality management in the healthcare industry can be listed as follows: (Gürbüz, 2014)

· To achieve a better level of relations between employees,
· Decline the rate of hospital acquired infections,
· Enabling the hospital to provide better quality services in clinical and administrative sense,
· Ensuring a better quality support to internal customers; i.e. doctors and other healthcare professionals

The success rises in parallel with how effective the role of the Total Quality Management is identified. The Managements have adopted the Total Quality Management philosophy that favors the organizational culture while valuing people and evaluate it. The Total Quality Management pillars on the concept of "do job right the first time and prevent errors before they occur". To ensure the mistakes are eliminated before they occur, the employees need to be motivated, directed and should be given training that will enhance their knowledge and skills. Ant employee with knowledge and skills will enjoy a high self-confidence, has an educated idea on each issue and consistently contributes to the company by using initiative and engaging. Since the Total Quality Management is an approach that upholds human, employees should be continuously supported by management and empowered for development and improvement (Top, 2013).

The Total Quality Management helps businesses to ensure continuity in increasingly competitive environment, increase their market shares and devise more effective and efficient development solutions. "The Total Quality Management ensures consistency in quality of products and services and plays an active role in all areas by controlling activities related to the processes. Increased customers' satisfaction by meeting the needs and expectations of customers helps to control and eliminate complaints and improve the services. Costs will be minimized with increasing efficiency." Relations between upper and lower echelons will be improving. Improved relations allow any institution to focus on the needs of customers (Türküz, 2014).

The benefits the Total Quality Management offers for businesses include: improvement of quality of products and services offered, improvement of design and appearance of the product, continuous improvement of business activities and processes, increased quality of controllability of the institution and continuous improvement of the processes. The benefits the Total Quality Management offers for companies can be assessed in many aspects. The Total Quality Management benefits require a process to be obtained by organizations. The benefits and the results are expected to be obtained in a few years after implementation of the total quality management. As globalization gains momentum, competition also gets more and more intense across the world. The Total Quality Management is a contemporary form of management. A long-term focus on quality helps businesses to increase their profitability and survival skills. Any organization with solid quality awareness is a desirable workplace for employees, a preferred vendor for customers and an outstanding competition which other companies look up to (Türküz, 2014).

Effectiveness of the new product design process appears to be as one of the key requirements for the companies to succeed in competition. Indeed, the Total Quality Management possesses a great potential to benefit organizations by ensuring continuous improvement (Yayla, Altuntaş & Yıldız, 2010).

Reducing a cost of quality in comparison to the competitors ensures faster production and a competitive edge. Quality assurance helps preventing errors and devising solutions. Customers' satisfaction is achieved in parallel with a net increase in production. The Total Quality Management is necessary for a quality production process. "The companies aiming to maintain their existence against competition have adopted and implemented the Total Quality Management philosophy. Appreciating success of the philosophy, the companies have taken steps to improve this system. Businesses should abandon traditional management styles and implement the Total Quality Management system which is open to continuous improvement, in order to capture quality in production." Implementing the Total Quality Management has become an imperative to ensure competitiveness and keeping up with the developments. It is an important philosophy that boosts the competitive strength of companies (Türküz, 2014).

1.3.The Total Quality Management in Health Services

The healthcare industry encompasses services focused on protection and improvement of physical, mental and social health and ensuring continuity in fulfilling healthcare responsibilities for that purpose in order to further welfare and happiness of the society (Çavuş & Gemici, 2013).

In terms of healthcare services, the Total Quality Management relies on cooperation of patients, managers and employees to capture better quality in products / services (Aktürk & Sert, 2010).

The Total Quality Management in healthcare gained particular interest, led by developments in the United States including the cost reduction requirements and increasing prevalence of malpractice litigations since the 1970s. During the 1980's "patients' satisfaction" was regarded as a key aspect of the Total Quality Management practices in the healthcare industry and a measurement of patients' feedback on quality of the healthcare services provided gained importance (Çavuş & Gemici, 2013).

The studies conducted in this point have shown with an almost entire consensus that patients' satisfaction is an important indicator of quality of healthcare services (Munhurrun et al., 2011).

However, customers of healthcare institutions are not only patients but also families and relatives of patients as well as medical suppliers of the organization and visitors. Healthcare institutions should investigate and identify current and future needs of customers and should be aimed to meet customers' needs. Within the framework of the key principles of the total quality approach, the necessary policies to be adopted and implemented by institutions are as follows: (Küçük, 2010)

- Leaders create unity in goals and management across the organization. Healthcare institutions are multitasking organizations. In a hospital, a variety of jobs, such as catering and cleaning and hospitality should be undertaken and state of the art technology must be employed when rendering such services simultaneously. In order to achieve the organizational targets a working environment should be created where the engagement of all employees is assured.
- Through a horizontal management approach the employees should be empowered to use their decision making skills and the system relying on a single individual should be avoided.
- The process management policy should be adopted; employees at all levels should form foundation of the organization. By ensuring full engagement of employees, any organization benefits from their abilities towards the goals of the institution.
- Opening communication paths between the units engaged in different jobs across the hospital assures and joint decision making and allows for solution possibilities.
- Teamwork should be promoted, each employee in the institution should be aware of quality actions taken. A team can easily achieve what individuals cannot on their own. Promoting and creating the team spirit should be one of the key responsibilities of corporate executives and the most important criteria to measure their success.
- The processes related to each other can be defined, interpreted and managed as a system, and this will have a profound effect on

realization the goals and will contribute to efficiency and effectiveness of the organization.

- Continuous improvement of overall performance of the organization should be a goal of the organization.

The Total quality management in the healthcare industry also incorporates a number of strategies aimed to improve quality and to reduce costs (Çavuş & Gemici, 2013):

- To identify and to meet customers' needs,
- To reduce unreasonable costs with a view of standards,
- To strive for zero defects,
- To curb variability of the results,
- To work towards continuous improvement.

The aim of this study was to assess perception of the Total Quality Management in healthcare professionals working in four provinces in Turkey and to examine relationship between demographic variables and perception towards the Total Quality Management.

Materials and Methods

The first and the third parts of a translated (Turkish) version of the questionnaire employed in a similar study in the United States (US) conducted to investigate the senior healthcare managers' perceptions of the Total Quality Management in certain healthcare institutions (Al-Assaf & Gentling 1996). This tool was translated into Turkish by Doğan and Kaya (2004). The first part of the survey incorporates 28 statements on planning, implementation and realization of the Total Quality Management. In this section, the participating healthcare managers are asked whether or not they agree with a certain phrase by indicating their agreement on the scale from 1 to 5, i.e. "Completely agree" (5), "Agree" (4), "Neutral" (3), "Disagree" (2), "Completely Disagree" (1). The third part of the survey is aimed to gather demographic variables of the healthcare professionals including title, educational status, age, gender, marital status, etc.

SPSS was employed for statistical analysis in assessment of the findings in the study. Data were analyzed using frequency, percentage, arithmetic mean, independent samples t test, one-way analysis of variance (ANOVA) and chi-square test. Four provinces (Diyarbakır, Erzurum, Istanbul, and Ankara) in Turkey with populations of above 500,000 were randomly selected to conduct the study. In total 150 health professionals participated in the study. The results are evaluated with a 95% confidence interval and significance level of $p < 0.05$.

Results and Discussion

Table 1: The Frequency Distribution of Healthcare Professionals' Sociodemographic Variables

VARIABLES	n	%
Gender		
Male	83	55,3
Female	67	44,7
Marital Status		
Single	56	37,3
Married	94	62,7
Province that Health Professions Work		
Diyarbakır	22	14,7
Erzurum	27	18
Istanbul	51	34
Ankara	50	33.3
Educational Status		
High School	6	4
Associate's Degree/Bachelor's Degree	79	52,7
Postgraduate/Doctorate	65	43,3
Profession		
Physician	42	28
Healthcare Manager	44	29,3
Nurse	30	20
Other	34	22,7
Type of the Hospital that Health Professions Work in		
Private	52	34,7
Public	98	65,3
Take Total Quality Management Training		
Yes	105	70
No	45	30
Adoption the Total Quality Management		
Yes	101	67,3
No	49	32,7
Is Hospital Has Total Quality Management Certification?		
Yes	80	53,3
No	70	46,7

As seen in the Table 1, 55,3% of the healthcare professionals were male, 62,7% were married, 34% of the healthcare professionals have been working in Istanbul, 52,7% have Associate's Degree/Bachelor's Degree, 29,3% were healthcare managers, 65,3% have been working in public

hospitals, 70% already received TQM training, 67,3% adopted TQM and 53,3% of employed in institutions have quality certification.

Table 2: Comparison of Total Quality Perceptions of Healthcare Professionals Related to Province They Work

VARIABLES	Diyarbakır n(%)	Erzurum n(%)	Istanbul n(%)	Ankara n(%)	p
Take Total Quality Management Training Yes No	 18(17,1) 4(8,9)	 10(9,5) 17(37,8)	 37(35,2) 14(31,1)	 40(38,1) 10(22,2)	0,000*
Adoption the Total Quality Management Yes No	 7(6,9) 15(30,6)	 12(11,9) 15(30,6)	 39(38,6) 12(24,5)	 43(42,6) 7(14,3)	0,000*
Has Hospital Total Quality Management Certification? Yes No	 6(7,5) 16(22,9)	 14(17,5) 13(18,6)	 23(28,8) 28(40)	 37(46,3) 13(18,6)	0,001*

In terms of the Total Quality Management training there was a statistically significant difference by the provinces the healthcare professionals have been working in. The Pearson Chi-square test was used for comparison of the healthcare professionals by the Total Quality Management training they were given and the provinces they are working in, and a statistically significant correlation was found (p<0,05). Most of the healthcare professionals who received the Total Quality Management training have been working in Ankara (38,1%), while Erzurum is the province with the highest rate (37,8%) of the healthcare professionals who weren't given the Total Quality Management training (Table 2).

The Pearson chi-square test revealed a statistically significant difference in comparison of the healthcare professionals to adopted the Total Quality Management by the provinces they work in (p<0,05). The healthcare professionals working in Ankara have the highest rate of the Total Quality Management adoption (42,6%); while the healthcare professionals working in Diyarbakır and Erzurum were found to be a group with the lowest rate (30,6%;30,6%) of the Total Quality Management adoption (Table 2).

The Pearson Chi-square test was also applied to compare the rates of the Total Quality Management certification of the healthcare institutions by provinces the healthcare professionals have been working in and statistically significant relationship was identified (p<0,05). Ankara was found to be the province with the highest rate of the institutional Total Quality Management certification (46.3%) (Table 2).

Table 3: Healthcare Professionals' Perceptions About Total Quality Management Related to Province They Work

	Diyarbakır Mean±sd	Erzurum Mean±sd	Istanbul Mean±sd	Ankara Mean±sd	p
Q1	3,50±1,05	4,03±0,80	4,62±0,59	4,32±0,89	0,000*
Q2	3,59±1,05	4,14±0,71	4,49±0,75	4,38±0,96	0,001*
Q3	3,86±0,88	3,85±0,98	3,88±1,03	3,80± 1,03	0,981
Q4	3,40±0,95	2,33±1,07	4,19±1,05	3,28±1,10	0,000*
Q5	3,54±0,91	2,96±0,85	4,33±0,65	3,78±0,95	0,000*
Q6	3,63±0,72	3,37±0,96	3,94±0,83	3,58±0,81	0,027*
Q7	3,59±0,90	3,44±1,05	3,29±1,11	3,58±0,81	0,460
Q8	3,40±1,05	3,74±1,02	3,72±1,09	4,26±0,77	0,003*
Q9	3,81±0,79	4,40±0,69	4,17±0,59	4,22±1,09	0,105
Q10	2,27±1,26	2,22±1,20	1,94±1,31	1,90±1,05	0,025*
Q11	3,59±1,01	3,85±1,06	3,84±0,75	4,12±1,02	0,156
Q12	3,92±1,17	4,07±0,82	4,26±0,34	4,22±0,70	0,182
Q13	3,77±0,98	3,70±0,95	4,05±1,28	4,10±0,90	0,072
Q14	3,45±1,01	3,51±1,36	3,85±0,59	3,88±0,96	0,065
Q15	4,66±0,96	4±0,78	4,33±0,55	4,16±0,68	0,472
Q16	3,54±1,01	3,70±0,86	4,01±0,90	4,02±0,82	0,004*
Q17	3,40±1,00	3,03±1,05	4,09±0,90	3,76±0,95	0,000*
Q18	3,41±0,90	3,45±0,90	4,01±0,61	3,42±0,88	0,056
Q19	3,63±1,09	3,48±1,18	4,23±0,99	3,92±0,80	0,000*
Q20	3,98±0,99	3,96±0,75	4,01±0,57	4,06±0,71	0,124
Q21	3,95±0,72	4,29±0,66	4,25±0,62	4,20±0,80	0,338
Q22	3,86±0,83	3,88±0,69	4,09±0,61	4,28±0,67	0,038*

Table 3: Healthcare Professionals' Perceptions About Total Quality Management Related to Province They Work

Q23	3,59±1,05	3,85±0,81	4,09±0,67	4,14±0,75	0,030*
Q24	3,04±1,04	2,44±1,15	2,05±1,36	3±1,26	0,001*
Q25	3,22±0,97	3,14±0,66	3,80±0,77	3,82±0,62	0,000*
Q26	4,08±0,89	4,25±0,94	4,25±1,12	4,38±0,77	0,052
Q27	3,22±0,97	2,88±1,08	2,68±1,15	2,82±1,11	0,295
Q28	3,40±0,85	3,66±0,91	3,52±0,54	3,84±0,73	0,074

*p<0,05

In the Table 3, the arithmetic means of Health Professionals' perceptions (totally 28 items) about the Total Quality Management will be seen.

One-way ANOVA test indicates significant difference between the healthcare professionals in different provinces by their responses to Q1, Q2, Q4, Q5, Q6, Q8, Q10, Q16, Q17, Q19, Q22, Q23, Q24 and Q25 items. To identify the differences, the Turkey test was employed to compare the groups (Diagram 1).

Diagram 1: Differences Between Total Quality Management Perceptions of Healthcare Professionals Related to Province They Work

(5) Completely Agree, (1) Completely Disagree

Statistical difference was found between the healthcare professionals according to the province they work in terms of agree with the:

Question 1: "The Total Quality Management program implemented in my hospital will lead to an increase in quality of the services offered in a long term."; Question 2: "The Total Quality Management process in healthcare industry will continue to improve further in next decade"; Question 16: "I would like to take a leading role in implementation of the Total Quality Management in my hospital." (p<0,05). The most of the healthcare professionals working in Istanbul and Ankara have agreed to the Question 1, Question 2 and Question 16 (Diagram 1).

Statistical difference was found between the healthcare professionals according to the province they have been working in terms of agree to the Question 4: "I received adequate training on the key concepts and methods of the Total Quality Management to play a leading role in implementation the Total Quality Management in my hospital."; Question 5: "The management philosophy associated with the Total Quality Management process is in line with my personal management philosophy."; Question 6: "The Total Quality Management philosophy aspects perfectly functioning in manufacturing industry will be implemented in non-clinical and process areas of hospitals."; Question 17: "Implementation of the Total Quality Management requires a cultural change rather than a process change."; and the Question 19. "The Total Quality Management will reduce overall healthcare costs." (p<0,05). Most of the healthcare professionals working in Istanbul agreed to the Question 4, Question 5, Question 6, Question 17 and Question 19 (Diagram 1).

Statistical difference was found between the healthcare professionals according to the province they have been working in terms of agree to the Question 8: "As a part of management, I am willing to provide time and energy required to run the Total Quality Management process."; Question 22: "Because of "team work" nature of nursing, I believe the Total Quality Management will be willingly adopted in nursing."; the Question 23: "Nursing staff will welcome empowerment." (p<0,05). Most of the healthcare professionals working in Ankara agreed to the Question 8, Question 22, Question 23 (Diagram 1).

Statistical difference was found between the healthcare professionals according to the province they have been working in terms of agree to the Question 10: "The Total Quality Management is a temporary trend that will lose its popularity and usage in the healthcare industry the next 5 years to come." and the Question 24: "Employees are responsible for most of the mistakes made." (p<0,05). Most of healthcare professionals working in Diyarbakır have agreed to the Question 10 and Question 24 (Diagram 1).

Statistical difference was found between the healthcare professionals according to the province they have been working in terms of agree to the Question 25: "ISO 9000 quality standards have become aligned with the Total Quality Management approach." (p<0,05). Most of healthcare professionals working in Ankara and Istanbul agreed to the Question 25 (Diagram 1).

Healthcare Professionals' Perceptions About Total Quality Management Related to Their Profession

The One-way ANOVA test indicates significant difference between the healthcare professionals related to their profession by their responses to Q1, Q4, Q5, Q6, Q8, Q12, Q13, Q14, Q16, Q18, Q23 items. (p<0,05) (Diagram 2). For to identify the profession which caused the differences, the Tukey test was used to compare the groups.

Diagram 2. Differences Between Total Quality Management Perceptions of Healthcare Professionals Related to Their Profession

(5) Completely Agree, (1) Completely Disagree

Statistically significant difference was found among the mean scores of the healthcare managers (4,47±0,76), nurses (4,46±0,57), physicians (4,11± 0,96) and other healthcare professionals (3,94±1,07) in their responses to the Question 1: "The Total Quality Management program implemented in my hospital will lead to increase in quality of the services offered in the long term" (p=0,021). Nurses and healthcare managers agreed with the Question 1 more, compared to physicians and other healthcare professionals (p<0,05) (Diagram 2).

Statistically significant difference was found among the mean scores of healthcare managers (4,04±1,05), nurses (3,66±1,06), physicians (3,26± 1,26) and other healthcare professionals (2,67±1,14) in their responses to the Question 4: "I received adequate training on the key concepts and methods of the Total Quality Management for to play a leading role in implementation the Total Quality Management in my hospital." (p=0,000). Nurses and healthcare managers agreed to the Question 4 more, compared to physicians and other healthcare professionals (p<0,05) (Diagram 2).

Statistically significant difference was found among the mean scores of healthcare managers (4,11±1,01), nurses (3,90±0,80), physicians (3,64± 0,90) and other healthcare professionals (3,44±0,95) in their responses to the Question 5: "The management philosophy associated with the Total Quality Management process is in line with my personal management philosophy." (p=0,011). Nurses and healthcare managers agreed to the Question 5 more, compared to physicians and other healthcare professionals (p<0,05) (Diagram 2).

Statistically significant difference was found among the mean scores of healthcare managers (4,11±0,89), nurses (4,03±0,96), physicians (3,45± 1,04) and other healthcare professionals (3,88±1,06) in their responses to the Question 8: "As part of the management, I am willing to provide time and energy required to run the Total Quality Management process." (p=0,014). Nurses and healthcare managers agreed to the Question 8 more, compared to physicians and other healthcare professionals (p<0,05) (Diagram 2).

Statistically significant difference was found among the mean scores of healthcare managers (4,72±0,45), nurses (4,40±0,67), physicians (4,02±1,09) and other healthcare professionals (4,14±0,78) in their responses to their congruence with the Question 12: "The Total Quality Management should be incorporated into daily management activities." (p=0,000). Nurses and healthcare managers agreed to the Question 12 more, compared to physicians and other healthcare professionals (p<0,05) (Diagram 2).

Statistically significant difference was found among the mean scores of healthcare managers (4,36±0,83), nurses (3,96±0,88), physicians (3,64±0,93) and other healthcare professionals (3,61±1,20) in their responses to the Question 14: "Members of management in my hospital work perfectly together as a team." (p=0,002). Nurses and healthcare managers agreed to the Question 14 more, compared to physicians and other healthcare professionals (p<0,05) (Diagram 2).

Statistically significant difference was found among the mean scores of healthcare managers (4,04±0,88), nurses (4,16±0,79), physicians (3,61± 0,96) and other healthcare professionals (3,79±0,84) in their responses to the Question 16: "I would like to take a leading role in implementation of the Total Quality Management in my hospital." (p=0,037). Nurses and healthcare managers agreed to the Question 16 more, compared to physicians and other healthcare professionals (p<0,05) (Diagram 2).

Statistically significant difference was found among the mean scores of healthcare managers (4,11±0,81), nurses (3,63±0,85), physicians (3,50±0,86) and other healthcare professionals (3,29±1,03) in their responses to the Question 18. "Our hospital management is ready for a long-term commitment in the Total Quality Management." (p=0,001). Nurses and healthcare managers agreed to the Question 18 more, compared to physicians and other healthcare professionals (p<0,05) (Diagram 2).

Statistically significant difference was found among the mean scores of healthcare managers (4,47±0,76), nurses (4,46±0,57), physicians (4,11±0,96) and other healthcare professionals (3,94±1,07) in their responses to the Question 23. "Nursing staff will welcome empowerment. " (p=0,001). Nurses and healthcare managers agreed to the Question 23 more, compared to physicians and other healthcare professionals (p<0,05) (Diagram 2).

Statistically significant difference was found among the mean scores of healthcare managers (3,95±0,80), nurses (3,63±0,80), physicians (3,71±0,74) and other healthcare professionals (3,29±0,97) in their responses to the Question 6. "The Total Quality Management philosophy aspects perfectly functioning in manufacturing industry will be implemented in non-clinical and process areas of hospitals." (p=0,008). Physicians and healthcare managers agreed to the Question 6 more, compared to nurses and other healthcare professionals (p<0,05) (Diagram 2).

Statistically significant difference was found among the mean scores of healthcare managers (2,70±1,63), nurses (3,56±1,27), physicians (3,07±1,21) and other healthcare professionals (3,73±0,99) in their responses to the Question 13. "The Total Quality Management is "quick solution" for to respond to quality problems of the hospital." (p=0,003). Nurses and other healthcare professionals agreed to the Question 13 more, compared to physicians and healthcare managers (p<0,05) (Diagram 2).

Healthcare Professionals' Total Quality Management Perceptions Related to Type of the Hospital They are Employed

One-way ANOVA test indicates significant difference between healthcare professionals related to type of the hospital they are employed to their responses to Q1, Q4, Q5, Q12, Q13, Q18, Q24 items (p<0,05) (Diagram 3).

Diagram 3. Differences Between Total Quality Management Perceptions of Healthcare Professionals Related to Type of The Hospital They are Employed

(5) Completely Agree, (1) Completely Disagree

Question 1: "The Total Quality Management program implemented in my hospital will lead to increase in quality of services offered in a long term." The item mean scores of healthcare professionals working in private hospitals (4,63±0,59) were found to be significantly higher than the healthcare professionals working in public hospitals (4,05±0,95) (p=0,000).

Question 4: "I received adequate training on the key concepts and methods of the Total Quality Management for to play a leading role in implementation of the Total Quality Management in my hospital." The item mean scores of healthcare professionals working in private hospitals (4,05±1,22) were found to be significantly higher than the healthcare professionals working in public hospitals (3,11±1,12) (p=0,000).

Question 5: "The management philosophy associated with the Total Quality Management process is in line with my personal management philosophy." The item mean scores of healthcare professionals working in private hospitals (4,34±0,62) were found to be significantly higher than the healthcare professionals working in public hospitals (3,48±0,97) (p=0,000).

Question 12: "The Total Quality Management should be incorporated into daily management activities." The item mean scores of healthcare professionals working in private hospitals (4,90±0,29) were found to be significantly higher than the healthcare professionals working in public hospitals (4,03±0,86) (p=0,000).

Question 13: "The Total Quality Management is "quick solution" for to respond to quality problems of the hospital." The item mean scores of healthcare professionals working in private hospitals (2,09±1,25) were found to be significantly lower than the healthcare professionals working in public hospitals (3,80±1,02) (p=0,000).

Question 18: "Our hospital management is ready for long-term commitment in the Total Quality Management." The item mean scores of healthcare professionals working in private hospitals (4,28±0,63) were found to be significantly higher than the healthcare professionals working in public hospitals (3,32±0,89) (p=0,000).

Question 24: "Employees are responsible for most of the mistakes made." The item mean scores of healthcare professionals working in

private hospitals (1,90±1,31) were found to be significantly lower than the healthcare professionals working in public hospitals (2,94±1,16) (p=0,000).

In our study, Question 4: "I received an adequate training on the key concepts and methods of the Total Quality Management for to play a leading role in implementation of the Total Quality Management in my hospital." The item mean scores of nurses and health managers were found to be significantly higher than physicians and other healthcare professionals. Nurses and health managers agreed to the Question 4 more, compared to physicians and other healthcare professionals (p<0,05) In similar with our results, in the study conducted by Doğan and Kaya (2004) statistically significant difference was found among the mean scores of healthcare managers, nurses and physicians (p<0,05). Healthcare managers agreed to the Question 4 more, compared to physicians and other healthcare professionals (p<0,05).

In our study, physicians and healthcare managers agreed to the Question 6 ("The Total Quality Management philosophy aspects perfectly functioning in manufacturing industry will be implemented in non-clinical and process areas of hospitals.") more, compared to nurses and other healthcare professionals (p<0,05). In similar with our results, in the study conducted by Doğan and Kaya (2004) statistically significant difference was found among the mean scores of physicians and nurses (p<0,05). Physicians agreed to the Question 6 more compared to nurses (p<0,05).

In the study conducted by Doğan and Kaya (2004) statistically significant difference was found among the mean scores of nurses, healthcare managers and physicians in their responses to their congruence with the Question 2: "The Total Quality Management process in healthcare industry will continue improving further in next decade." (p<0,05). Different from these results, in our study there was no significant difference, was found among the mean scores of nurses, physicians, healthcare managers and other health professionals in their responses to the Question 2 (p>0.05).

In the study conducted by Doğan and Kaya (2004) statistically significant difference was found among the mean scores of nurses and physicians in their responses to the Question 10: " The Total Quality Management is a temporary trend that will lose its popularity and usage in healthcare industry in next 5 years to come." (p<0,05). Different from these results, in our study there was no significant difference among the mean scores of nurses, physicians, healthcare managers and other health professionals in their responses to the Question 10 (p>0.05).

In the study conducted by Doğan and Kaya (2004) statistically significant difference was found among the mean scores of healthcare managers and nurses in their responses to the Question 19:" The Total Quality Management will reduce overall healthcare costs."(p<0,05). According to the national hospital quality improvement the research conducted in the USA, 93% of hospitals (n=1928) use the total quality management methods and 7% of these hospitals had cost savings of more than one billion dollar. (Hudson, 1999). Different from these results, in our study there has no significant difference among the mean scores of nurses, physicians, healthcare managers and other health professionals in their responses to the Question 19 (p>0.05).

Conclusion

This study revealed that healthcare professionals working in Istanbul and Ankara have a stronger confidence that the Total Quality Management will be a helpful management tool in raising quality level of services offered by hospitals and regard quality responsibility shared by all, compared to those working in Erzurum and Diyarbakır.

According to the regulation issued on 6 August 2013, implementation of the service quality standards in the all public, private, universities, foundations and municipalities in the Republic of Turkey has become necessary in the framework of regulations. However, Erzurum and Diyarbakir, where education and low levels of adoption of the Total quality Management, training sessions about the Total quality management held in hospital have to be improved. The Total Quality Management practices in healthcare services are aimed to ensure continuous improvement of professional standards associated with treatment and patient care while promoting the continued satisfaction of employees (doctors, nurses, and administrative staff), patients and their families. The Total quality management practices have to be clear and open to all employes in hospitals. Encouraging teamwork, ensuring the top managements more role model, and it is expected to develop applications and actively participate in the Total quality management practices.

It should be aimed that continuous improvement of professional standards related with patient treatment and care processes has to be ensured for the Total Quality Management practices in health services. Also it should be aimed that health professionals' (physician, nurse, administrative staff) and patients and their relatives' satisfaction has to be ensured (Bektaş, 2013).

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