Evaluation of Customer Relationship Management in a Teaching Hospital

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ABSTRACT

Communication between individuals has a vital role in human being's life, specially their professional. In medical practice it is a certain and economical way recognize the patient's problems and identify them. It is necessary to communicate with patients suffering mental or physical problems to be able to look after them. An analytical-descriptive cross-sectional study was conducted. The population under study consisted of the patients being discharged from a teaching hospital during a 15-day period. The patients were interviewed at discharge time. A sample of 100 patients was included in the study. The samples were selected through simple random method. The data were gathered using a valid questionnaire which was approved by the experts in this field. The reliability of the questionnaire was determined to be 82% using the method test- retest and Cronbach's alpha test. Fisher test and T test analyses were carried out to determine the association between each variable and satisfaction status. patients' satisfaction with hospital services concerning medical, nursing, paraclinical and discharge services, section and Patients' general satisfaction with hospital services were in general, 13.2, 45, 20.1, 7.6 and 2.8% were quiet satisfied, satisfied, rather satisfied and quiet dissatisfied respectively. The statistical-analytical test showed that there was a significant statistical relation between the age of the patients and the degree of their satisfaction with the nursing staff treatment (p = 0.012) and that of service staff (p = 0.009).

Keywords: Teaching Hospital, Analytical-Descriptive, Cross-Sectional, Cronbach's Alpha Test

1. INTRODUCTION

Communication is a dynamic process between humans which is used to produce effects, gain mutual support and what is necessary in order to be healthy and continue living (Farzianpour and Godarzi, 2010). In fact, life without communication would be deadly and impossible to continue (Schoenfelder *et al.*, 2010). Communication between individuals has a vital role in human beings, life, specially their professional life (Mpinga and Chastonay, 2011). In medical practice it is a certain and economical way recognize the patient's problems and identify them. It is necessary to communicate with patients suffering mental or physical

problems to be able to look after them. Through communication patients' problems can be identified and so suitable care plans can be made to remove those (Saila *et al.*, 2008). It is through communication that patients can express their feeling of pain and illness and nurses can become aware of the patients feelings, needs and problems and so can make a plan to look after them. In fact communication is part of treatment plan (Anastasios *et al.*, 2004). The ability to communicate with the patients is one of the necessities of nursing and medical practice (Farzianpour *et al.*, 2012).

Through communication with patients, nurses can recognize their needs and problems and design a treatment plan. Through communication, patients can

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feel secure and trust the treatment team (Stevens *et al.*, 2006). It is true that all professions and practices need communication skills, but none of them needs it as much as nursing does because nursing is a practice in which implementing duties depends on communication. Nurses who have the ability to communicate with individual patients are better able to promote the patient's health (Hung *et al.*, 2010). To communicate with patients satisfactorily, physicians need to know what effect the patient's body has on their mind and behavior. Therefore, they should pay attention to the patients considering both their physical and mental status in order to achieve a comprehensive treatment (Jangland *et al.*, 2009). Research on patient's expectation of his/her physician makes it possible to use a more fundamental approach to understand the relationship between the patient and the physician and causes the decisions made regarding the patients not to be absolutely dependent on the physician but the patient's expectation to be considered as well. On the other hand, the physician's time limitation and external pressure to visit more patients in a more limited time make it difficult for the doctor to meet the patient's expectation (Farzianpour *et al.*, 2011a).

It should be pointed out that the patients' needs and expectations and their experiences with receiving health and treatment services affect their general satisfaction (Farzianpour *et al.*, 2011b). Satisfaction means the feeling of patients about quality and quantity of treatment services offered to them in health and treatment centers and this feeling is created through the process of treatment and relationship between the patients and the medical team, especially the physicians (Boyer *et al.*, 2009; Farzianpour *et al.*, 2011c).

Studies indicate that listening to the client's complaint, removing the cause of the complaint and following up to see if the client is satisfied (the feedback) constitute 90, 7 and 3% of the medical team's responsibility respectively (Hekkert *et al.*, 2009).

The studies conducted regarding the relationship between the patient and the physicians indicate the fact that this relationship is the basic indicator of the medical performance: Only 23% of the patients had the opportunity to complete their words while talking to their physician. Out of 51% of cases considering physician-patient relationship only in one case the patient can express his or her whole complaint. In 94% of cases the patient is interrupted by the physician or other members of the medical team.

Out of 50 visits 34 patients are interrupted by the physician before the patient expresses his/her primary worries (Sherlaw-Johnson *et al.*, 2008). Patient relationship management can be defined as a patient-centered way to create a better relationship in order to have a good understanding of patients' needs and cause them to have the highest degree of satisfaction with the course of treatment (Sherlaw-Johnson *et al.*, 2008). Through a strategic method the clients and the target market can be identified and through planning the services of health and treatment centers patient can be helped to meet their needs and so to feel satisfied (Sherlaw-Johnson *et al.*, 2008). Patient relationship management is an attitude associated with technical and organizational strategic changes through which a health organization tries to manage its business in a better way considering patients' satisfaction (Sherlaw-Johnson *et al.*, 2008). The aim of the present study is to evaluate the state of patient's relationship management and its different aspects in a teaching hospital affiliated with Tehran University of medical sciences.

2. MATERIALS AND METHODS

An analytical-descriptive cross-sectional study was conducted. The population under study consisted of the patients being discharged from a teaching hospital during a 15-day period. The patients were interviewed at discharge time. The questionnaires were filled out by the researcher. Using the formula for determining the sample size, a sample of 100 patients was included in the study. The samples were selected through simple random method. The data were gathered using a valid questionnaire which was approved by the experts in this field. The reliability of the questionnaire was determined to be 82% using the method test-retest and Cronbach's alpha test. Questionnaire consisted of 57 questions: 11 questions on demographic characteristics and 46 on patient's satisfaction considering medical nursing and nutrition services, environment, facilities, admit ion, discharge and service staff's treatment.

The questions were considered to adequately explore the true state of patient satisfaction. An expert committee approved these questions as relevant to measure satisfaction, confirming their validity. At the end a descriptive analysis of all variables was conducted, calculating frequency distributions and means, standard

deviations and percentiles as appropriate. Fisher test and T test analyses were carried out to determine the association between each variable and satisfaction status. SPSS and Excel software were used for the data analysis.

3. RESULTS

Findings of the study, considering patient's demographic characteristics.

Out of 100 patients selected 48 (48%) were male and 52 (52%) were female. 2423 18, 16 and 13% were in age groups 30 to 40, 60 and beyond, 20 to 30, 40 to 50 and 50 to 60 respectively.

Concerning education 16% were illiterate, 36, 30, 7 and 11% held primary or secondary school certificate, a high school diploma, upper diploma, B.A. degree respectively. Regarding employment 26% were jobless, 39% had a job and 35% house wives.

Concertinaing marital status 73% were married and 26% single. 80% of the patients had insurance coverage of a kind of medical insurance company (39% by social security, 32.1% by treatment services, 8.6% by armed forces, 6.2% by Emdad committee (a charity organization which offers financial aid to the poor) and the rest by other companies.

Most of the patients (41%) were hospitalized 5-10 days. Concerning hospitalization background 38% had previously been hospitalized at this hospital and the others didn't have any hospitalization background. 96% lived in urban areas and 4% in rural ones.

Findings related to absolute and relative frequency of patients' satisfaction with the way the hospital personnel treat them.

Concerning patients' satisfaction with the way the doorkeeper and receptionist treat them, 9, 63, 15 and 12% were completely satisfied, satisfied, rather satisfied and dissatisfied respectively. Regarding guiding the patients when they enter the hospital 14, 57, 21 and 6% were completely satisfied, satisfied, rather satisfied and dissatisfied respectively. With respect to the way the receptionist personnel treat them 6, 69, 22 and 1% were completely satisfied, satisfied, rather satisfied and dissatisfied respectively. Concerning patients' satisfaction with the interval between file formation and hospitalization 9, 64, 22 and 2% were completely satisfied, satisfied, rather satisfied and dissatisfied respectively. With regard to the length of the time they

wait until they are visited by the doctor 21, 55, 19 and 5% were completely satisfied, satisfied, rather satisfied and dissatisfied respectively. Concerning the way doctors behaves towards them 35, 45, 15, 3s and 2% were completely satisfied, satisfied, rather satisfied and dissatisfied respectively. Regarding the way nonmedical personnel treat them 10, 59, 25, 4, 2% were completely satisfied, satisfied, rather satisfied and dissatisfied respectively (**Table 1-5**).

Based on **Table 1-5** the average of the degree of patients' satisfaction with any section is as follows: 18.1% were completely satisfied, 57.7% satisfied, 19.6% rather satisfied 3.5% dissatisfied and 1.5% completely dissatisfied considering. Medical staff services. 10.2% completely satisfied, 56.8% satisfied, 26.3% rather satisfied, 5.9% dissatisfied and 2% completely dissatisfied. Considering medical nursing services. As to par clinic services including clinical laboratory and imaging 4.2% completely satisfied, 46.2% satisfied, 8.6% rather satisfied and 2% dissatisfied considering hospital services staff 10.7% completely satisfied, 47% satisfied, 17.3% rather satisfied 14.7% dissatisfied and 5% completely dissatisfied. Considering discharge unit services23, 26.2, 29, 12 and 3%were quiet satisfied, satisfied, rather satisfied, dissatisfied and quiet dissatisfied respectively. In general, the degree of patients' satisfaction with medical and nursing services more than that with other services (**Fig. 1**).

Patients' general satisfaction with hospital services is shown in **Fig. 2**. In general, 13.2, 45, 20.1, 7.6 and 28% were quiet satisfied, satisfied, rather satisfied and quiet dissatisfied respectively.

In the present study the patients were asked if they liked to choose the hospital in the future, if needed. The answers indicated 57%would choose the hospital and 14%another one.

The findings of the study also showed that considering different wards of the hospital, the highest degree of patients' satisfaction was with transplant ward (90%) and the lowest (20%) with women internal ward (**Table 6**).

The statistical-analytical test showed that there is a significant statistical relation between the age of the patients and the degree of their satisfaction with the nursing staff treatment ($p = 0.012$) and that of service staff ($p = 0.009$).

Table 1. Absolute and relative frequency distribution concerning the degree of patient's satisfaction based on different hospital services

Status satisfaction hospital services A-medical staff	Completely dissatisfied	Dissatisfied	Fairly satisfied	Satisfied	Completely satisfied
The way medical staff (except	2	4	25	59	10
the physician) treat towards	2	4	25	59	10
the patients					
The length of the time	-	5	19	55	21
needed for the physician	-	5	19	55	21
to visit the patient					
The way the physician	2	3	15	45	35
behaves the patient	2	3	15	45	35
The physician's mastery	1	2	14	51	32
and experience	1	2	14	51	32
The physician's giving	-	4	22	59	15
information to the patient	-	4	22	59	15
The physician's recommendations	-	6	25	62	7
before discharge	-	6	25	62	7
Listening to the patient talking	-	2	13	71	13
about his/her illness	-	2	13	71	13
General behavior of the	-	2	17	58	22
hospital's physicians	-	2	17	58	22
The physician's availability	-	4	27	60	8
when there is a need	-	4	27	60	8
Total means	1/5	3/5	19/6	57/7	18/1

Table 2. Absolute and relative frequency distribution concerning the degree of patient's satisfaction based on different hospital services (Nursing staff)

Satisfaction status hospital services B-Nursing staff	Completely dissatisfied	Dissatisfied	Fairly satisfied	Satisfied	Completely satisfied
The ways nursing	-	5.0	22.0	52	21
staff behaves the patient	-	5.0	22.0	52	21
The nursing staff's mastery	-	4.0	11.0	65	20
and experience	-	4.0	11.0	65	20
Nurses constant monitoring	-	5.0	6.0	70	19
of the patients	-	5.0	6.0	70	19
The nurse assistant's services concerning	3	11.0	40.0	39	7
the patient's individual needs	3	11.0	40.0	39	7
Medicine's availability	-	1.0	30.0	64	4
when need	-	1.0	30.0	64	4
Educating the patient	1	7.0	31.0	54	7
	1	7.0	31.0	54	7
Quick response to patients alarm	2	5.0	35.0	54	4
	2	5.0	35.0	54	4
Giving necessary explanations before	-	7.0	35.0	53	5
offering the services	-	7.0	35.0	53	5
Observing the patient's privacy	1	11.0	36.0	49	3
	1	11.0	36.0	49	3
Nurses general treatment	-	3.0	17.0	68	12
towards the patient	-	3.0	17.0	68	12
Total means	2	5.9	26.3	56/8	10/2

Table 3. Absolute and relative frequency distribution concerning the degree of patient's satisfaction based on different hospital services (Laboratory and imaging staff)

Satisfaction status hospital services C- Laboratory and imaging staff	Completely satisfied	Dissatisfied	Fairly satisfied	Satisfied	Completely dissatisfied
The way laboratory	-	-	9	30	2.0
personnel behave the patients	-	-	9	30	2.0
The way imaging personnel	-	3	6	26	7.0
behave the patients	-	3	6	26	7.0
Doing medical tests without delay	-	1	10	27	2.0
	-	1	10	27	2.0
Doing imaging services without delay	-	2	9	25	3.0
	-	2	9	25	3.0
Sampling skills in the lab	-	-	9	28	3.0
	-	-	9	28	3.0
Total mean	-	2	8/6	27/2	4.2

Table 4. Absolute and relative frequency distribution concerning the degree of patient's satisfaction based on different hospital services (Services staff)

Satisfaction status hospital services D-Services staff	Completely dissatisfied	Dissatisfied	Fairly satisfied	Satisfied	Completely satisfied
The way services personnel	1	2	6.0	46	44.0
behave the patients	1	2	6.0	46	44.0
The patient's	1	9	17.0	51	22.0
room cleanliness	1	9	17.0	51	22.0
The cleanliness	1	20	26.0	49	4.0
of the toilets	1	20	26.0	49	4.0
Cleaning the clothes,	6	16	21.0	49	8.0
sheets and blankets	6	16	21.0	49	8.0
Peace and silence	2	12	29.0	50	7.0
in the ward	2	12	29.0	50	7.0
Patients facilities	11	30	38.0	20	1.0
	11	30	38.0	20	1.0
Heating and cooling	5	22	29.0	44	-.0
status of the patient's room	5	22	29.0	44	-.0
The way and quality of food	11	15	28.0	43	3.0
	11	15	28.0	43	3.0
Facilities for the	7	19	33.0	40	1.0
patient's attendant	7	19	33.0	40	1.0
Time of patients visit	-	2	13.0	78	7.0
	-	2	13.0	78	7.0
11 Total mean	5	14/7	17.3	47	10.7

Table 5. Absolute and relative frequency distribution concerning the degree of patient's satisfaction based on different hospital services (discharge staff)

Satisfaction status Hospital services E-discharge staff	Completely satisfied	Satisfied	Fairly satisfied	Dissatisfied	Completely dissatisfied
The way discharge	45	30	17	3	-
personnel behave the patient	45	30	17	3	-
The length of the time the	1	38	37	16	3
patient should wait to be discharged observing	1	38	37	16	3
The patient's turn for discharge	-	42	33	17	3
	-	42	33	17	3
4Total mean	23	36/6	29	12	3

Table 6. Patients' satisfaction concerning the hospital wards

Ward	High	Moderate	Low
Women internal ward (10 people)	20	80	0
Men internal ward (10 people)	40	60	0
Women neurology ward (10 people)	50	50	0
Men neurology ward (10 people)	40	60	0
women orthopedics (10 people)	50	50	0
Men orthopedics (10 people)	50	50	0
Women surgical (10 people)	60	40	0
Men surgical (10 people)	50	50	0
Urology (10 people)	60	40	0
Transplant (10 people)	90	10	0
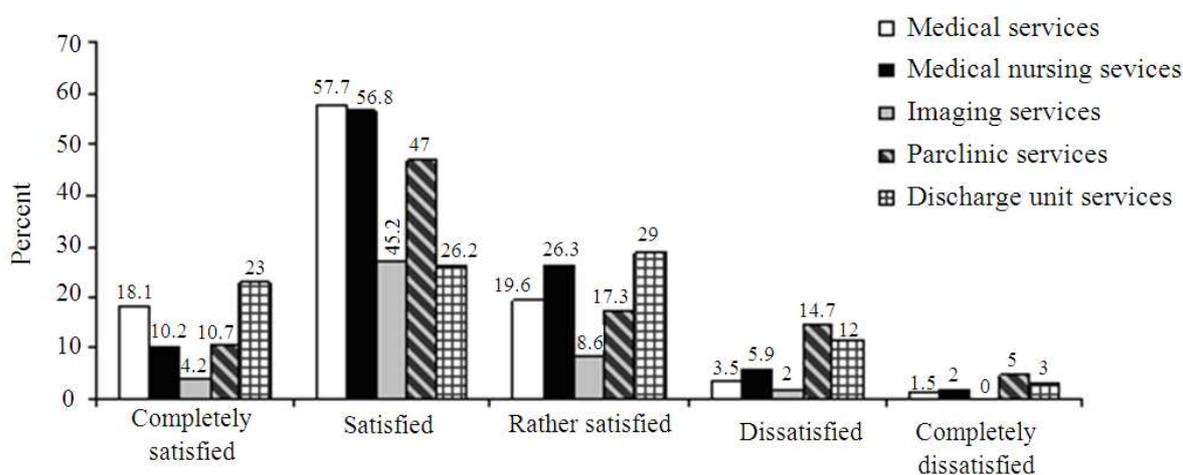
Fig. 1. The degree of patients' satisfaction with hospital services concerning medical, nursing and par clinical services
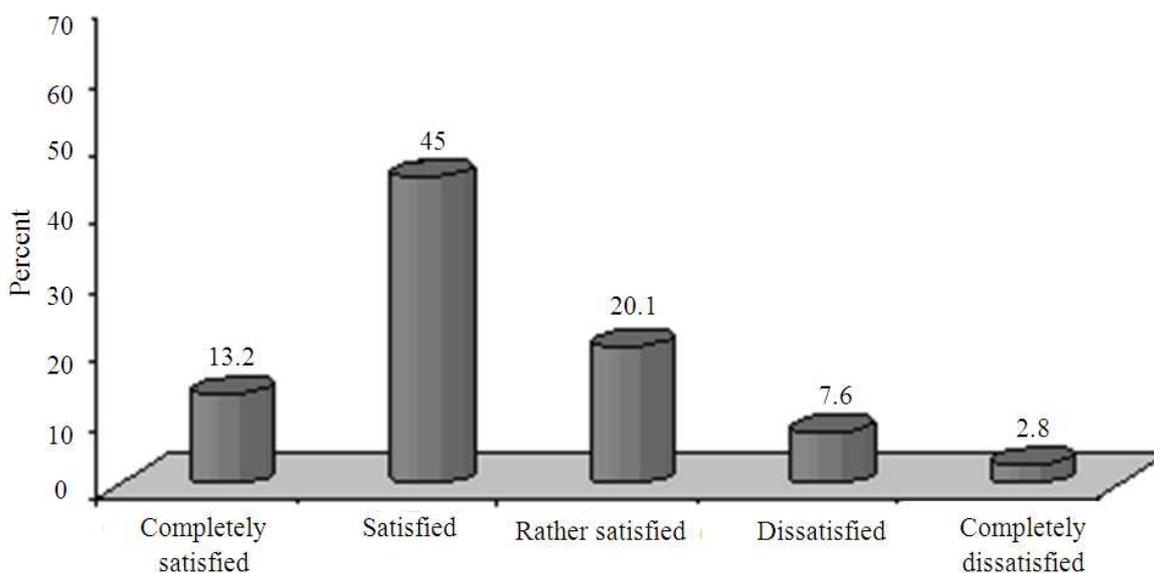
Fig. 2. The degree of Patients' general satisfaction with hospital services

Concerning satisfaction with nursing staff treatment, the patients under twenty had the highest degree of satisfaction and the lowest degree was related to that between 20-30. Regarding satisfaction with service staff treatment, the patients aged between 40-50 and that between 20-30 had the highest and lowest degree of satisfaction respectively.

4. DISCUSSION

In the present study we investigated the difference in the various aspects of patient's relationship management based on patients' satisfaction in a teaching hospital. In this study a response rate of 75% was seen. In epidemiological studies a response rate of 80% has been proposed as a minimum. In studies on patients' satisfaction response rates reported range from 66 to 77% depending on the way data are collected. Awareness of the non-response rate is important, especially when some evidence suggests that satisfied patients are more likely to answer the questions than the dissatisfied ones (Stevens *et al.*, 2006).

It should be mentioned that if getting information from the patients is done after they are dismissed from hospital; it might affect the rate at which they answer the questions. The study conducted by Kelefian in 1997 and the study by Rosenheck and Lam (1997) suggested 39.7 and 37% of the patients answered the questions respectively (Boyer *et al.*, 2009).

Since medical and nursing care play a pivotal role in patients' recovery, they have attracted most of the patients attention and so play a significant part in their satisfaction. In the present study most of the patients were satisfied with hospital services (13.2% quiet satisfied and 45% rather satisfied). This result indicates correct patient relationship management and meeting their care needs. The highest degree of patients' satisfaction was with clinical services (medical and nursing). In the study conducted by Farzianpour *et al.* (2011a). The percentage of patients' satisfaction with nursing services, medical care reception, discharge were 79.5, 83.881 and 70.8% respectively. Patients' general satisfaction with hospital services showed a high percentage (87%) (Farzianpour *et al.*, 2011b).

Another study suggested that the degree of patients' satisfaction with reception unit nursing care and medical care was higher than that with other units. In addition the correlation coefficient between hospital sectors in patient wards was a little more than outpatient ones (Hekkert *et al.*, 2009).

Eytan *et al.* (2004) showed that the patients' degree of satisfaction, in Geneva University-affiliated hospitals with the clinic, medical care, environment and hospital facilities, nutrition and Laundry were 53.3, 53.7, 56.6 and 50% respectively. The results of these studies are in line with the findings of the present study. Farzianpour *et al.* (2011d) in a study showed 72% of the patients hospitalized in public hospitals were satisfied with hospital general services. The hospital's defects negative points from their point of view were: Beds' wear, wards' crowdedness, unsuitable welfare facilities, unsuitable W.C.S, doctors' delay, shortage of technical and diagnostic equipment (Farzianpour *et al.*, 2012). The results of a study conducted by Joulaei and Azam (2008) showed the rate of satisfaction with nursing services and that of general satisfaction with hospital's services were 39.7 and 36% respectively. This result is different from those of other studies. Considering nursing services the accessibility of nurses when needed, the way nursing staff treat the patients, delivering on-time services and skillfully providing enjoyed the highest rate of patient's satisfaction (Joulaei and Azam, 2008).

In this study the patient were asked if they intended to choose the hospital again. The results showed that 57% would choose the hospital and 14% another medical center. Considering history of hospitalization the results showed 62% didn't have history of hospitalization 38% had history of hospitalization (Rad, 2007) Since having frequent clients and losing them is financially important for hospitals, through careful planning and improving the quality of services they can maintain their clients and so their share in the market. The results of another study showed that rate of patient's general satisfaction, desire for choosing the hospital again and recommending it to others was 85, 92 and 89% respectively (Farzianpour *et al.*, 2011d).

The results of still another study indicated that only 45.3% of the patients recommended the hospital to others (Rabie and Shahid, 2007). In the present study there was a significant relationship between patient's satisfaction with the way nursing and services staff treat them and the patient's age. There was also a significant relationship between the way paraclinic and this charge staff treats them and the kind of patient's medical insurance. There was no significant relation between patient's satisfactions and the other factors. Another study showed that there is a significant statistical relation between patient's satisfactions and the level of their education income and accessibility of the hospital, but there was no significant relationship between patient's satisfactions and their age, sex, marital status, the place

where they live and their job (Rabie and Shahid, 2007). Another study showed that in public hospitals there was a significant statistical relationship between the level of patient's education and the degree of their satisfaction with nursing services in that the higher the level of education, the more satisfied the patients (Joulaei and Azam, 2008). The results of study conducted by Rad (2007) showed that there was a significant relationship between the degree of patient's satisfactions and their age, sex level of education, marital status and hospitalization length (Rad, 2007). It should be noted that different factors affect patient's satisfactions, including diagnostic, treatment and care services, the length of the time they wait to receive services, the need for receiving enough information and explanation, the doctors' characteristics, patient's individual characteristics such as age and sex. Another study suggested that the degree of satisfaction with hospital services is more considerable in women and younger people (Rahmqvist, 2001). The results of other studies unlike the above mentioned studies indicate that the degree of satisfaction in older people is higher (Rahmqvist, 2001). Therefore, concerning factors such as age, marital status and sex, the results are not the same in studies on client relationship management, senior managers' innovation, the size of the organization and the staff's ability also affect the way they communicate the patients and so their satisfaction with the organization (Hung *et al.*, 2010).

5. CONCLUSION

Considering the results of the study different factors including personal characteristics of patients such as age, sex and marital status, characteristics of services providers, conditions and environment in which the services are provided can affect patient's satisfaction. Therefore, to increase the degree of patient's satisfaction with the hospital's services, it is necessary to improve all hospital's services including clinical, service, diagnostic and management. It is also necessary to provide a model to improve patient's satisfaction based on the process of patient relationship management in teaching hospitals. To improve the process of patient relationship management in hospitals, the following are suggested:

- Accurate and suitable planning to use patient's opinion
- Using the experiences of the hospitals which have been successful in patient relationship management determining the reasons for patient's dissatisfaction,

esp. considering the way they are treated (behaved towards) and trying to meet their dissatisfaction
- Praising the staff based on the degree of patient's satisfaction with ways they behave towards them
- Reflecting patient's satisfaction or dissatisfaction with the way the personnel of each unit treat them to different medical, paramedical group and also financial and administrative personnel
- Making the patients aware of patient's rights charter to have a better understanding of their rights
- Improving the level of awareness, attitude and communication skills of the hospital personnel, esp. medical and nursing staff in order to observe the patient's rights
- Encouraging managements to do continuous monitoring through rounds and to visit other hospitals, the ones in the country and those which are abroad, to acquire experience to improve the quality of patient communication and the degree of their satisfaction
- Continues monitoring of the personnel of hospital units including service, nutrition, laundry concerning the way the personnel behave towards the patients in order to make a plan to correct and improve processes and quality of patient communication
- Designing the system of patient suggestions
- Educating the personnel, including medical and paramedical, concerning the chart of the organization
- Educating, including personal regarding improving communication skills and humanities

6. ACKNOWLEDGEMENT

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