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Nurses' communication skills and the quality of inpatient services from patients' viewpoints

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Background and Objective: **Effective communication is an essential part of nursing profession and is one of the important tools of nurses to support patients and their family members. That is one of the effective factors for improving the outcomes of health care services. The purpose of this study was to investigate the communication skills of nurses and their correlation with the quality of hospital services from patients' viewpoints.** ***Materials and Methods:*** **In the cross-sectional study, a total of 402 patients hospitalized in two hospitals in Yazd province (Iran) participated. The quality of inpatient care was measured using the Service Quality (SERVQUAL) scale. SERVQUAL examines dimensions of tangibles, empathy, reliability, assurance, and responsiveness of hospital inpatients services. The communication skills of nurses from patients' viewpoints were assessed by communication part of Quality of care questionnaire. Data were analyzed by Spearman's correlation coefficient and Mann-Whitney U-test using the SPSS.** ***Results:*** **There was a positive, significant correlation between communication skills of nurses and the quality of inpatient care (r = 0.312, P < 0.005). The dimension of responsiveness had the strongest correlation with communication skills (r = 0.314) and the highest gap in quality service was observed in the dimensions of reliability and tangibles.** ***Conclusion:*** **Considering the relationship between communication skills of nurses and service quality dimensions, improving communication skills of hospital staff can lead to an increase in the quality of health care in these centers.**

INTRODUCTION

Hospitals are very complex social systems that provide preventive, diagnostic, therapeutic, and rehabilitation services to patients with the aim of promoting, restoring, and maintaining their health [1]. According to Berry et al, definition, service quality is adjustment of services with costumer's preferences, in which the customer's interpretation of quality is important, not the interpretation of the management [2]. In health care, technical quality basically defined according to accuracy of diagnoses and therapeutic procedures, in turn operational quality aspects is related to how to provide care or non-clinical aspects of care [3, 4]. It should be noted that, as mostly patients are not able to evaluate the technical quality of the medical services so, operational quality is the most important and determinant of the quality of services for them [5,45]. There is much evidence which shows that patient's perceived quality versus expected quality is the only important and effective factor on their willingness to use the services [6].

Øvretveit [7] considers the quality of health care to be aimed at meeting the needs and expectations of the patient and achieving the maximum possible clinical outcomes using available resources. In fact, service quality indicates the difference between expectations and perceptions. Therefore, it can be assumed that service quality is a type of judgment that customers make based on their own perceptions after a process of service reception.

They judge through comparing their expectations with their perceptions of the services they have received [8, 9]. By identifying the gap between expectations and perceptions of service, effective measures can be taken to improve service quality [7]. As the same time, it seems that, in many health care setting, there is a significant gap between expected quality and perceived quality of services [10-13,48]. A lot of tools has been developed for measuring the gap, the tools are different from aspects of identification, content and measuring type. SERVQUAL which is developed by parasuraman et al, is one of the most applied tools for measuring the quality of services[14].This scale evaluates services' quality using expectations/perceptions and is designed based on the gap model [15].

Parasuraman et al. [16] developed the SERVQUAL in 1988 to measure service quality, with five dimensions of tangibles, reliability, assurance, responsiveness, and empathy. The tangibles dimension addresses physical facilities, equipment and appearance of employees, the reliability dimension is concerned with the ability of the organization to provide the right services at the first time. The responsiveness dimension includes the willingness of employees to help the customer, the assurance dimension captures knowledge and humility of employees, and their ability to gain customer confidence, and the empathy dimension examines the individualized attention to all referring persons and individualized observation and consideration during the provision of the services. This questionnaire has been used to measure the quality of

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hospital services in Iran[13, 17-19] and other countries[20-23]. In the tools, patient's satisfaction from communication status of staffs influence on the final score of service quality, as in all dimensions of the tools addressed. As an example in responsiveness domain, the staff willingness to meet patients' problems, in empathy domain staff's attention to individual values and needs is questioned. Also in reliability domain, confidence to staff is associated with their communication status[21, 23, 24]. Given the key role of staff in the methods of delivering services, nurses comprise the largest population of health care providers in the health system. They can affect the quality of healthcare. Satisfaction with the quality of nursing services is one of the most important hospital services that directly affect patient satisfaction.

Effective communication skills are an integral part of the nursing profession and are one of the important tools for nurses to support patients and their family members. The main task of nurses is not only to inform patients of illness and treatment, but also to establish an effective therapeutic relationship with patients through exploring their worries, perceptions, and empathy as well as providing comfort and support for them[25]. In fact, the weakness in establishing relationship with patients can lead to problems such as lack of access to important patient information, misinterpretation of patient information, and creation of a climate of distrust between the patient and the health care providers[26, 27]. Berhane[28] studied the patient's preferred factors for choosing a hospital. The appropriate relationship between physicians and nurses, along with other factors such as waiting time, continuous care, and availability of medication, clearly represents the significance of such relationship. Nasiripour and Saeedzadeh[29] studied the relationship between communication skills and the dimensions of nursing service quality using the SERVQUAL; and the results showed that communication skills had a direct, significant correlation with all aspects of the SERVQUAL.

The study of Chou showed that the dimensions of the SERVQUAL for nursing services predicted 25% of patient satisfaction with the assurance dimension having the strongest correlation with patient satisfaction [21]. As far as we know, the correlation between nurses' communication skills and the quality of the whole services provided by hospitals has not yet been investigated using the SERVQUAL. So, this study was conducted to investigate the communication skills of nurses and their correlation with the quality of hospital services from patients' viewpoints.

MATERIAL AND METHODS

This cross-sectional study was carried out in 2017 in Imam Jafar Sadegh Hospital of Meybod and Ziaee Hospital of Ardakan in Yazd province, central Iran. The study population consisted of hospitalized patients. The required sample size was calculated as 400 with respect to similar studies[29,30] and the 95% confidence level. To be more confidence, 402 patients were included in the study. In discharge location, those patients who were volunteer to participate in the study were asked to answer the questions. At the beginning also some explanations about study was provided. The questionnaires were completed in July 2017.

Instruments

To investigate the viewpoints of patients regarding nurses' communication skills, a part of the nursing care quality questionnaire was used. The reliability and validity of this questionnaire have already been confirmed (Alpha coefficient Cronbach is between 0.67 and 0.90) [31]. This questionnaire consists of 17 items about communication situations and skills (e.g., when a nurse uses a specific word when talking to you, he/she may indicate his/her interest in you, or how the nurse speaks indicates his/her interest in solving your problems and satisfying your needs). The patients answered the items by choosing one of the choices Never: 1, Sometimes: 2, Most often: 3, and Always: 4. Higher scores on this questionnaire indicate a better relationship between patient and nurse. The SERVQUAL was used to evaluate the quality of services. This tool consists of 22 pairs of questions capturing 5 dimensions, i.e., empathy (the staff of the hospital understand the needs of their patients), the tangibles (hospital staff should be decorated, clean, and tidy, hospital equipment and devices should be up-to-date and new), assurance (if the hospital is committed to doing something at a given time, it must do so), responsiveness (hospital staff must be available at the request of patients and to respond to their requests), reliability (patient services should be delivered at the promised time). To complete the SERVQUAL, the patient first assigns a score between 1 (the least important) and 5 (the most important) to the items according to their expectation. Then, the patient scores the same items between 1 and 5 with reference to their perceptions of the service reception process. The reliability and validity of the Persian version of the SERVQUAL have been confirmed previously (Cronbach Alpha coefficient =0/946) [19].

Procedure

The first author of the paper was present at the patients bedside as they were completing the questionnaires. If the patient was illiterate or had low literacy, the items were read for them and their responses were recorded. In each hospital, 205 patients were asked to complete the questionnaires. From them 5 questionnaires from ziaei hospital and 3 questionnaires from Emam jafar sadegh hospital were not answered completely which were put aside from analysis (response rate: 98.5%).

Data analysis

The data were analyzed using the SPSS. As the distribution of the data was non-normal, Spearman's correlation coefficient was used to examine the correlation between the dimensions of service quality and nurses communication skills and the Mann-Whitney U test was used to investigate the difference in the average score of service dimensions between the two hospitals.

Ethical considerations

Before presenting the questionnaire to the patient and asking them to complete it, they were provided explanations regarding the purpose of the study and assured the patients that the results would be kept confidential. If they volunteered to respond to the items, they did so.

RESULTS

The participants in the study had a mean age of 44 ± 22.26 (range: 18-85) years. In addition, most of them had a low education level and 38.8% of them had been hospitalized once in the past (Table 1). The mean scores of communication in the hospitals no. 1 and 2 were 57.67 ± 6.84 of the total score of 68 and 58.65 ± 7.08 of the total score of 68, respectively; and over 85% of the maximum possible score, which indicates the acceptability of the nurses' communication with the patient. The mean difference in communication skills between the two hospitals was not significant (P = 0.16). In these two hospitals, the mean scores of perceptions were significantly lower than the corresponding scores of the expectations in all dimensions. Meanwhile, the mean difference in the dimensions reliability (-1.89) and the tangibles (-0.90) was higher than other dimensions. Table 2 shows the gap in service quality in all dimensions of the SERVQUAL in both hospitals.

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Table 1 Frequency distribution of demographic variables in patients under study

Type of variable		N	Percent
sex	Male	185	46
	Female	217	54
marital status	Single	25	2.62
	Married	377	93.8
Number of previous admissions	None	121	30.1
	One	156	38.8
	Two	76	18.9
	3-6	49	14
Level of Education	Illiterate	61	15.2
	Elementary	120	29.9
	Under the diploma	53	13.2
	Diploma	99	24.6
	Higher than diploma	69	17.3
Employment status	occupied	162	40.3
	Housewife	172	42.8
	Idle	68	9.16

Table 2 Results of the Quality Disconfirmation Scores (N = 402)

Domain		Mean Expectation ±SD	Mean perception±SD	Mean difference	Mean difference (Total)	P-value *	P-value **
Tangibles	Hospital1	4.83±0.35	3.59±0.55	-0.91	-0.90	<0.00	0.37
	Hospital2	4.85±0.45	3.96±0.45	-0.89		<0.00	
Reliability	Hospital1	6.07±0.42	4.08±0.60	-1.92	-1.89	<0.00	0.40
	Hospital2	6.00±0.42	4.14±0.55	-1.86		<0.00	
Responsiveness	Hospital1	4.72±0.37	4.02±0.69	-0.69	-0.67	<0.00	0.85
	Hospital2	4.72±0.29	4.06±0.59	-0.66		<0.00	
Assurance	Hospital1	4.01±0.69	4.67±0.38	-0.65	-0.68	<0.00	0.22
	Hospital2	4.11±0.55	4.67±0.37	-0.56		<0.00	
Empathy	Hospital1	4.09±0.79	3.40±0.75	-0.68	-0.69	<0.00	0.97
	Hospital2	4.53±0.46	3.87±0.68	-0.71		<0.00	

P-value*: Average difference between expectation and perception
P Value **: The difference in mean of expectation and perception in the two hospitals

DISCUSSION

Evaluation of services quality is one of the main strategies adopted to improve systems and also one of the important factors for the quality of effective communication between employees and clients[29]. In hospitals, effective nurse-patient communication plays an important role. In this study, the correlation between communication skills of nurses and service quality was investigated by using the SERVQUAL. The results showed that the level of communication skills was desirable; however, there is yet a long distance to the favorable status. Several studies have examined the relationship between physicians and nurses, with inconsistent results, but the importance of improving the levels of communication in nurses and doctors has been consistently emphasized with in-service training recommended as one of the strategies to achieve this purpose [32-34].In a study conducted by Budiwan and Efendi [33], the level of communication skills was reported low (43%) and the correlation test showed a linear correlation between communication skills and satisfaction. In addition, the study of Rezaei et al[35], on communication skills of medical staff and their attitudes toward it in Shiraz showed that 60% of physicians and nurses had communication skills and 12% lacked communication skills. Therefore, the results of our study in consistent with previous studies have shown that, good communication with patients and intimate conversation with them comprise their expectations from the health care staff, which should be prioritized by hospital managers. The results obtained in this study represent the gap between patients expectations and perceptions of the services received, so that patients' expectations go beyond their perceptions of the current status, observed in all dimensions of the SERVQUAL. In two dimensions, the tangibles and reliability, there was a higher distance between the patients' expectations and their perceptions of services.

Ranjbar Ezzatabadi et al[36], after analyzing this gap in the Shahid Rahnemoon Hospital of Yazd, reported the greatest gap in the tangibles dimensions and responsiveness and the least distance in the dimensions of empathy and assurance, which is consistent with the result of our study. In other studies, similar results were obtained. For example, in the study of Aghamolaei et al. [13], the dimensions of assurance and reliability and in the study of Nekoei-Moghadam and Amiresmaili[37], the dimensions of tangibles and responsiveness, were found to have the highest gap in terms of service quality. It is better for managers to have an operational plan with respect to quality gaps. For example, in the tangibles dimension, further effort to clean the hospital, to update equipment, and to improve communication skills can reduce the quality gap in this dimension[47]. In the dimension reliability, planning for timely delivery of services can reduce the gap created[30, 37-39,46]. The results of this study demonstrated the correlation between communication skills with all dimensions of the SERVQUAL. The study of Nasiripour and Saeedzadeh[29], also showed a direct, significant correlation between nurses' communication skills with all dimensions of nursing care quality. The study of Griffiths et al.[40] to examine the relationship between non-verbal skills of health care providers and patient satisfaction showed that patients' satisfaction was strongly correlated with the rate of use of verbal and non-verbal communication skills. The

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communication skills of the nurses were correlated most strongly with the dimensions of responsiveness and assurance. Responsiveness includes certain factors such as the staff's speed and precision, the staff's willingness to cooperate and help the patient, the availability and education of the patient regarding health care. Lack of understanding of the needs and desires of patients by the nursing staff can be considered the most important factor for the lack of responsiveness among nurses.

By raising the level of communication skills, they can potentially increase nurses' perceptions of patients' needs and desires, and ultimately patients' satisfaction increases. There was a positive, significant correlation between communication skills and service quality, which indicates the importance of the assurance dimension in hospitals. In examining the quality of services in the Texas Cancer Clinic, the assurance dimension was the most important in the opinions of the patients [41]. Service quality as one of the dimensions of the quality of service is knowledge, politeness, employee courtesy and their ability to inspire a sense of trust and confidence to the customer. Considering that *assurance* means ensuring that the patient's requests are fulfilled, communication with the staff, when needed, and the respectful staff-patient relationship lead to the fulfillment of patient satisfaction in the assurance dimension, most often by having the ability to establish relationship. In the study of Mohammadi and Shoghli [42], the ability of physicians and hospital staff to gain confidence and trust of the patients, humility, and enjoying professional skills and competencies was found to be the most urgent issue of hospitals. Communication skills also had a positive, significant correlation with the empathy dimension, which shows the importance of the attention paid by health care staff to the feelings and thoughts of patients. Empathy is one of the principles of the effective communication that can identify patients needs and, by exploring their emotions, thoughts, and attitudes, can lead to gaining their trust and satisfaction, so the results of other studies also confirm the correlation of empathy with patients satisfaction and health [43, 44].

CONCLUSION

There was a positive, significant correlation between the communication skills of the nurses and the quality of hospital services; therefore, the proper training of staff in the field of communication skills has many benefits and one of the main solutions to improve the quality of services. Medical and paramedical education professionals can develop courses on communication and communication skills and incorporate them in the curricula, in order to strengthen the communication skills of paramedical students, especially nursing students; in addition, managers of the human resources department are recommended to improve the quality of care and services by planning and holding workshops with the assistance of communication skill experts.

Strengths and limitations

One of strengths of this study is a high sample size which was applied to study the association of services quality and communication skills among nurses. One of the limitations of the study was that the communication skills of the nurses were examined only from the viewpoints of the patients, necessitating, in future studies, and the use of more objective methods to measure communication skills.

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Authors' contributions
MAM, MAB and MFA designed this study. MFA collected information. HF analyzed information. MFA performed the histological examination of the kidney, and was a major contributor in writing the manuscript. All authors read and approved the final manuscript.

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Conflict of interest
Authors declare no conflict of interest.

Ethical approval
All authors hereby declare that all experiments have been examined and approved by the appropriate ethics committee from Ethics Committee of the Shahid Sadoughi University of Medical Sciences, Yazd, Iran (Code: IRSSU.SPH.REC.1395.76).

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