Preventive Care in Nursing and Midwifery Journal
2018; 8(3): 1-8

The Effect of Education-Based Empowerment Program on Nursing Care Quality in the Dialysis Ward

Bakhteari Z[1], Jafari Varjoshani N[2*], Hanifi N[3], Amini K[4]

[1]Department of Critical Care Nursing, School of Nursing and Midwifery, Zanjan University of Medical Sciences, Zanjan, Iran
[2]Department of Community Health Nursing, Associate Professor, School of Nursing and Midwifery, Zanjan University of Medical Sciences, Zanjan, Iran
[3]Department of Critical Care Nursing, Associate Professor, School of Nursing and Midwifery, Zanjan University of Medical Sciences, Zanjan, Iran
[4]Department of Mental Health Nursing, Associate Professor, School of Nursing and Midwifery, Zanjan University of Medical Sciences, Zanjan, Iran

Corresponding Author: Department of Community Health Nursing, School of Nursing and Midwifery, Zanjan University of Medical Sciences, Zanjan, Iran

Email: jafari_ns@yahoo.com

Received: 1 Dec 2019 **Accepted**: 24 Dec 2019

Abstract

Background: Although nurses are legally and morally responsible for the quality of patient care, patients also have the right to receive high-quality and decent nursing care.
Objectives: The purpose of this study is to determine the effect of education-based empowerment program on the nursing care quality in the dialysis ward.
Methods: The present semi-experimental clinical trial study was performed as pre-test and post-test, before and after the intervention, in two stages. All hospitalized patients (150 subjects) in the dialysis center of Valiasr Hospital in Zanjan were enrolled by the census method. At the end of the study, the number of subjects was 125. Before the intervention, the SERVQUAL questionnaire was completed by the patients. Afterwards, nurse empowerment sessions were held. Finally, after the intervention, the SERVQUAL questionnaire was filled by the patients. To analyze the collected data, paired t-test, independent t-test, and variance analysis were performed using SPSS V22 software.
***Results*:** The findings of the study showed significant differences between the patients' expectations and perceptions of services, before and after intervention, in terms of tangibility, reliability, responsiveness, and overall dimensions ($P<0.0001$).
Conclusion: The results of the present research indicated that education-based empowerment program affected nursing care quality in different dimensions. Hence, it is recommended paying more attention to education-based empowerment program to improve nursing care quality.

Keywords: empowerment, nursing care, quality of health care, dialysis

Introduction

Since there is no consensus on definition and measurement of service quality, this term has enlarged significantly in the literature review. The most common definition of service quality is "meeting the expectations or needs of service receivers". Accordingly, service quality states the difference between the expectation of service receivers and received services [1]. A major problem of service quality, which has been one of the main issues of organizations, is lack of attention to the needs and expectations of service receivers [2]. Among different services, health service is costly and complicated. Health service affects significantly the life quality and economy of individuals. World Health Organization (WHO) emphasizes the importance of quality in health services which is determined by effectiveness, cost, and social acceptability [1]. Change in the health care environment, increasing

competition in the health system, growing knowledge of patients on service quality, no reform in the physical environment of the hospital, non-use of appropriate equipment, lack of in-service training courses, and other existing challenges result in dissatisfaction in patients' side of service quality [3].

In nursing science, the term "service quality" has grown a controversial subject since 1980 [4]. Patients' perceptions of hospital care are strongly associated with missed nursing care [5]. In fact, the satisfaction level of patients from received care is one of the indices in evaluation of nursing care [6]. Nurses are responsible for several parts of patient care, so nursing care is believed to be an important aspect of patient satisfaction [7]. In intensive care units, especially dialysis unit, where quality of care is of vital significance, nurses play a crucial role in service care provision. Due to the chronic nature of the disease and consequently long-term nurse-patient interaction in dialysis unit, the patients can easily identify the weak and strong points of received care and spread their both positive and negative viewpoints toward the hospital in society, which can affect the society's perspective on health care services. Hence, in these units, the provision of better services is highly important.

The literature review indicates that various factors affect the quality of service and consequently patient satisfaction. Rapid changes in the health care environment, dramatically increased competition in the field of treatment, growing awareness of patients about quality of service, lack of improvement in the physical environment of the hospital, absence of proper equipment, lack of in-service training courses and other challenges exist that overall drop patients' satisfaction of service quality [3]. In fact, deficiency of quality care delivered to clients, lack of virtue and potency, low output, and poor competence are the reasons for poor quality of care in hospitals. Then, quality of hospital services and patient satisfaction cope with numerous challenges.

The literature review shows that the service quality of hospitals and the satisfaction of patients meet several challenges. A study performed in Shiraz hospitals (Iran) showed low service quality as 4379 errors were recorded within a year through which the maximum error was related to big hospitals [8]. The results also indicated the low satisfaction level of patients from hospital service [9,10]. Toushmal et al. and Esteki et al. reported a gap between the expected and perceived service quality by patients [11,12]. Other studies also showed similar results [13,14].

One of the most important tasks of managers is to provide the best condition for manpower in order to offer the best services with high efficiency [15]. Nurse empowerment seems essential for delivering high-quality patient care. Understanding the relationship between empowerment and quality outcomes would enable nurse managers to provide informed choices on improving the quality of care. [16]. Empowerment is an important subject in several fields of nursing, including training, clinic, and nursing management [17]. In this regard, the empowerment of nursing staff by training is of central importance. Goedhart et al and Aminnezhad et al used empowerment as a method for training [16,18]. Taie, and Chan et al reported an increase in the satisfaction level of patients after educational interventions [14,19].

To the best of our knowledge, in Iran, no studies have evaluated the effect of nurse empowerment on the satisfaction of patients using SERVQUAL questionnaire. Therefore, a comprehensive work is required to empower staff for improving the service quality. The present study aims to evaluate the effect of education-based empowerment program on the quality of nursing services in the dialysis ward.

Methods

In the present semi-experimental clinical trial study, data were collected in two stages, before and after the intervention. The statistical population of the present study was all 150 patients who referred to a dialysis center of Zanjan City three times a week. They were enrolled to study by census method. The inclusion criteria included a tendency to participate in study, awareness, the ability to answer the question, and at least one-month dialysis history (3d/wk.). The exclusion criteria were discharge, death, and transfer for the kidney transplantation. Hence, the number of subject was 125. Moreover, the number of participated nurses was 16, including all nurses of the dialysis center. In the end, only one nurse left the study reluctant to remain in the study. Inclusion criteria for nurses

included at least 6-month experience on working in dialysis ward and tendency to participate in the study. The exclusion criterion was lack of enthusiasm to carry on. This study is registered in Clinical Trial Center of Iran (IRCT20170806035532N2).

In order to collect information, demographic information and SERVQUAL questionnaires were applied. SERVQUAL questionnaire is one of the most comprehensive tools to measure the quality of nursing services [20]. It is known as the Gap Analysis Model for it is used to evaluate the gap between the existing condition and the desired one. SERVQUAL questionnaire includes five dimensions including tangibility, reliability, responsiveness, assurance, and empathy. In this questionnaire, the questions of five dimensions are divided into two sections. The first section concerns an inquiry into perception and the second section contains questions about the expectation for the quality of service. It is of note that the number of questions in both sections was the same. Accordingly, the subjects answer the questions in two sections of perceptions and expectations by 5-degree Likert scale. The gap score shows the service quality, which is calculated by the difference between perceptions and expectations scores. When expectation score is greater than perceptions of received delivery, service quality is low. When perceptions exceed expectation, then service quality is high. This instrument was localized by Heidarnia [21] and its reliability coefficient was reported to be 0.96. In the present study, the content and face validity was applied to confirm the validity of the questionnaires. Besides, to approve the reliability, Cronbach's alpha coefficients were used and the reliability of the questionnaire was obtained to be 0.706 and 0.921 for perceptions and expectations sections, respectively.

Data collection of patients was conducted in two stages. Before performing empowerment program, both demographic and SERVQUAL questionnaires were filled based on patients' answers by the researcher (during the dialysis process, patients' arm should be fixed and they cannot move their hands). Then, data was analyzed relying on the results; empowerment sessions were designed and held for nurses. Accordingly, educational strategies were adjusted in the empowerment session.

The sessions were held in small groups with the active participation of subjects. In these two hour-long sessions, a free group discussion was held. Due to disparity in nurses' working shifts, the sessions were held in the morning and afternoon. Considering the nurses' willingness, they were divided into two groups. It is of note that, except one person, all nurses participated.

To improve the service quality in tangibility dimension, the organized arrangement of the ward, accessibility of patients to equipment and facilities of the ward, cleanliness of the ward, and clean and elegant appearance of nurses were emphasized. To enhance the reliability dimension, the discussions were about different subjects such as various methods through which nurses can attain competence and improve skills in terms of inducing a sense of trust and confidence to patients and keeping their promises. The definition, way of achievement, and importance of responding to these skills were also discussed. To enhance the skills of nurses in assurance dimension, the skill attainment methods such as inducing a sense of security in patients and acquiring knowledge were highlighted. Finally, to empower nurses, nurses were taught to make a dynamic relationship with patients and beware of their beliefs and emotions.

Then, in the second stage of the research, the SERVQUAL questionnaire was refilled after a month and the results of both stages, first and second, were compared. The study was launched after obtaining permission from the Ethics Committee of Zanjan University of Medical Sciences (ZUMS.REC.1395.198) and presenting an introduction letter of research council to the authorities of the hospital and dialysis center. In the present research, justified by the aim of the study, patients and nurses approved the written consent. The participants had a right to leave the study at each stage. Besides, the patients were ensured about the privacy of the data.

In the present study, the collected data was analyzed using SPSS V22 software. Before analyzing the data, the Kolmogorov–Smirnov test was applied to evaluate the data distribution. The results showed that data distribution is normal and parametric tests were employed. In inferential statistics, the paired t-test was applied to compare groups in pre-test and post-test. Besides, to evaluate the relationship between demographic

variables and main variables, independent t-test, and ANOVA analysis were employed.

Results

The demographic findings of the present study indicated that most of the patients were male (55.2%), illiterate (60%), and unemployed or retired (53.6%), and had low-income (84%). The correlation between demographic information and dimensions of the questionnaire showed a significant relationship of job and education with perceptions ($P<0.05$) so that an increase in education can decrease the perceptions of patients from service quality and satisfaction (Table 1).

Table 1: The demographic characteristics of studied units and comparison test results of perception and expectation in the background variables of patients

The variables of patients		Number (%)	SD± mean of total perception	SD± mean of total expectation	Test statistic total perception	Test statistic total expectation
Gender	Male	(55.2)69	111.87±4.64	131.30±1.82	t=0.911	t=0.107
	Female	(44.8)56	110.83±4.62	131.30±1.73	P=0.928	P = 0.760
Education	Illiterate	(60)75	111.13±4.70	131.55±1.79	F=3.172 P=0.027	F=1.555 P=0.204
	Lower than a high school diploma	(28.8)36	112.12±3.48	131.08±61.4		
	High-School Diploma	(8.8)11	112.09±3.60	108.65±4.52		
	Higher Than High School Diploma	(2.4)3	105.00±5.56	132.00±2.00		
Income	Enough	(16)20	109.70±4.59	131.50±2.03	-t=2.037 P=0.617	t=0.299 P=0.902
	Inadequate	(84)105	111.70±4.61	131.27±1.73		
Job	Labor	(6.4)8	111.80±4.26	131.60±1.95	F=4.380 P=0.002	F=0.507 P=0.731
	Self-employed	(5.6)7	111.14±3.28	130.28±1.60		
	Housewife	(34.4)43	110.79±4.80	131.44±1.72		
	Unemployed	(9.6)12	112.25±2.70	131.25±1.35		
	Retired	(44)55	111.89±4.90	131.26±1.93		

The demographic findings of the present study indicated that most of the nurses were female (84.6%) with Bachelor of Science (84.6%), inadequate income (61.5%), contractual- official (61.5%), rotational work shift (84.6%) and had work experience less than 20 years (77%) (Table 2).

Table 2: The demographic characteristics of studied units and comparison test results of perception and expectation in the background variables of nurses

The variables of nurses		Number (%)	SD± mean of total perception	SD± mean of total expectation	Test statistic total perception	Test statistic total expectation (T test)
Gender	Male	(15.4)2	93.00± 1.41	105.50± 2.12	t = 2.090	t = 1.547
	Female	(84.6)11	87.77± 0.07	106.69± 7.25	P = 0.176	P = 0.239
Education	Bachelor of science	(84.6)11	6.47±89.61	6.27±105.23	F = 1.182 P = 0.346	F = 2.552 P = 0.127
	Master of science	(7.7)1	0±84.00	0±115.0		
	Diploma	(7.7)1	0±78.00	0±115.0		
Income	Enough	(38.5)5	7.83±88.40	4.33±107.60	t = 0.146	t = 2.334
	Inadequate	(61.5)8	6.70±88.50	7.84±106.00	P = 0.709	P = 0.155
Recruitment status	Draft	(30.8)4	3.93±90.00	4.32±103.20	F = 0.396 P = 0.683	F = 0.547 P = 0.595
	Hiring	(7.7)1	0±92.00	0±107.00		
	Contractual-official	(61.5)8	8.28±87.22	7.72±108.33		
Work shift	Fixed shift	(15.4)2	1.41±93.00	2.12±105.50	T = 2.090	T = 1.547
	Rotational	(84.6)11	7.07±87.76	7.25±106.69	P = 0.176	P = 0.239
Work experience	10	(38.5)5	3.20±87.25	7.67±105.25	F = 0.048 P = 0.953	F = 0.479 P = 0.633
	11-20	(38.5)5	8.34±88.42	7.83±106.00		
	21-30	(23)3	8.71±88.00	5.68±108.66		

Besides, the results showed that, in regard to assurance and reliability dimensions, there was a significant difference between the perceptions of patients before and after intervention (P<0.0001). It means that in these dimensions, intervention affected the perceptions of patients (Table 3).

Table 3: Comparing the mean dimensions of the the patients' perceptions before and after intervention

Perception dimensions	SD± mean of perception before intervention	SD± mean of perception after intervention	SD difference ± Mean difference	95% confidence level		Degree of freedom	P value (T test)
				Maximum	Minimum		
Tangibility	22.66±1.71	22.63±1.68	0.03±0.25	0.07	-0.01	124	0.158
Reliability	22.84±2.04	26.60±1.91	-3.76±2.81	-3.27	-4.26	124	<0.0001
Responsiveness	24.30±1.95	24.35±1.95	-0.04±0.47	0.03	-0.13	124	0.258
Assurance	19.34±1.25	26.94±0.51	-7.60±1.37	-7.35	-7.84	124	<0.0001
Empathy	26.44±2.02	17.88±0.34	8.56±2.05	8.92	8.19	124	<0.0001
Total	115.58±8.97	118.40±6.39	-2.82±2.58	0.04	-0.40	124	0.124

Moreover, in the tangibility, reliability, and responsiveness dimensions, a significant difference between the expectations of patients was observed before and after intervention (P<0.0001) and the expectations of patients reduced in these dimensions (Table 4).

Table 4: Comparing the mean dimensions of the patients' expectations before and after intervention

Expectation dimensions	SD± mean of expectation before intervention	SD± mean of expectation after intervention	SD difference ± Mean difference	95% confidence level		Degree of freedom	P value (T test)
				Maximum	Minimum		
Tangibility	27.36±1.11	22.83±2.04	4.53±2.27	4.93	4.13	124	<0.0001
Reliability	26.95±0.50	15.35±1.27	11.60±0.12	11.84	11.35	124	<0.0001
Responsiveness	27.73±0.52	27.36±1.11	0.36±1.36	0.61	0.12	124	0.003
Assurance	17.88±0.34	27.73±0.52	-9.84±0.53	-9.75	-9.94	124	<0.0001
Empathy	31.45±0.60	31.52±0.65	-0.07±0.25	-0.026	-0.11	124	0.002
Total	131.37±3.07	124.79±5.59	-6.58±2.52	0.035	-0.019	124	0.566

Furthermore, in the tangibility, reliability, and responsiveness dimensions, and total scores of dimensions, there was a significant difference between the gap of services quality before and after intervention (P<0.0001). In fact, education-based empowerment affected the quality of nursing services in mentioned dimensions (Table 5).

Table 5: Comparing the quality gap of nursing services before and after intervention
ng the quality gap of nursing services before and after intervention

Dimensions	Gap before intervention	Gap after intervention	Paired t-test P value
Tangibility	-4.70	-0.2	<0.0001
Reliability	-4.11	11.25	<0.0001
Responsiveness	-3.43	-3.01	<0.0001
Assurance	1.46	-0.79	<0.0001
Empathy	-5.01	-13.64	<0.0001
Total	-15.79	-6.39	<0.0001

Discussion

The aim of the present study was to determine the effect of education-based empowerment program on the quality of nursing services in the dialysis ward. The results showed that in the tangibility, reliability, responsiveness dimensions, and total scores of dimensions, there was a significant difference between the gap of services quality before and after the intervention. In fact, education-based empowerment affected the quality of nursing services in mentioned dimensions.

Taie evaluated the effect of educational programs on the satisfaction of international patients from the quality of nursing services in Medical Tourism Hospitals in Egypt. The results showed an increase in the satisfaction level of patients after intervention [14], which are consistent with those of the present study. Besides, Goedhart et al. reported positive relationship between the structural empowerment of nurses, nurse assessed quality of care and patient safety climate, and work and unit effectiveness [16]. In the study of Salehi et al., nurses' educational program had an impact on the quality of nursing care in neonatal ward and caused an increase in the quality of nursing care [22]. In addition, Taie, and Chan et al. reported an increase in the satisfaction level of patients after educational interventions [14,19]. This research, in line with other previous studies, confirmed the effect of educational interventions on the enhancement of the quality of nursing services and emphasized on the importance of holding empowerment workshop for nurses using new educational methods such as free group discussion as well as the effect of the quality of nursing cares.

Moreover, the results of the present research indicated the relationship of expectations and perceptions with educations in a way an increase in education level resulted in a decrease in the mean of total perception, the tangibility

dimension of perceptions, and patients' satisfaction level. In agreement with the results of the present study, Khaki et al. [23], Esteki and Attafar [12], Rouhafza et al. [24] showed a significant relationship between the educations of the patients and dimensions of SERVQUAL questionnaire. It means that by increasing patients' education levels, an increase in their awareness and expectations from received services and consequently a decrease in their satisfaction are observed. In contrast to the results of the present study, Jenaabadi et al. [10], Toushmal et al. [11] found no significant relationship between the dimensions of SERVQUAL questionnaire and education level. The possible reason for obtaining such a result can be due to the homogeneity of the subjects in terms of education.

Besides, in the present study, there was no significant relationship between gender and perceptions and expectations of patients. Similar to this study, Toshmal el al. [11] and Esteki, Atafar [12] found no significant relationship of gender with perceptions and expectations of patients. In the present study, also a significant relationship was observed between job and total perception in assurance and reliability dimensions of perceptions and expectations. However, in contrast to the results of the present research, Gorji et al. [25] reported no significant relationship of a job with dimensions of perceptions and expectations. The difference between the results of these two studies can be due to the type of sampling. Gorji et al. used simple random sampling. One of the main limitations of this method in heterogeneous societies is that the selected samples might not be reprehensive. On the other hand, in the present study, census method was used and all patients had a chance to participate in the study.

Acknowledgments

This article is the result of a Master's Degree in Critical Care and Research Project at the Faculty of Nursing and Midwifery of Zanjan University of Medical Sciences and Vice Chancellor for Research with Code A-11-984-3. The clinical trial registration code is IRCT20170806035532N2. The authors gratefully acknowledge the research support of Zanjan University of Medical Sciences for their support, as well as the leadership of Zanjan Valiasr Hospital and all the nurses and dialysis patients who assisted us in this study.

Conflict of interest

The authors of this article declare that there is no conflict of interest in writing this article.

References

1. Ghanbari S, Ramezankhani A, Mehrabi Y. The quality of family planning services in health care centers of Shahid Beheshti University of Medical Sciences: comparison of clients, providers and program managers viewpoints. J Health in the Field. 2013; 1(1): 20-29. [In Persian]

2. Gholami A, Noori A, Khojastepoor M, Asgari M, Sajadi H. Gaps in the quality of primary health care services provided by health centers-Care Nishapur city. Sci J shahed university. 2011; 18(92): 5-14. [In Persian]

3. Ranjbar Ezatabadi M, Zare Ahmadabadi H, Arab M, Nasiri S, Hataminasab SH, Bahrami MA. Analysis of SERVQUAL in Shahid Sadoghi hospital, Yazd, Iran. Hormozgan Med J. 2012; 16(4): 333-40. [In Persian]

4. GHamari ZA, Anousheh M, Vanaki Z, Hajizadeh E. Quality of nurse's performance and patients' satisfaction in cardiac care units. Zahedan J Res Med Sci. 2008; 10(1): 27-36.

5. Aiken LH, Sloane DM, Ball J, Bruyneel L, Rafferty AM, Griffiths P. Patient satisfaction with hospital care and nurses in England: an observational study. BMJ open. 2018; 8(1).

6. Ghamari-Zareh Z, Anoosheh M, Vanaki Z, Hagi Zadeh E. The effect of peer review evaluation on quality of nurse's performance and patient's satisfaction. Iran J Nurs. 2010;22(62):8-21.

7. Samina M, Qadri G, Tabish S, Samiya M, Riyaz R. Patient's perception of nursing care at a large teaching hospital in India. Int J Health Sci. 2008; 2(2): 90-100.

8. Khammarnia M, Ravangard R, Jahromi M, Moradi A. Survey of the medical errors in public hospitals of Shiraz, 2013. Hosp. 2014; 13(3): 17-24. [In Persian]

9. Naqavi MR, Refaiee R, Baneshi MR, Nakhaee N. Analysis of gap in service quality in drug addiction treatment centers of kerman, iran, using SERVQUAL model. Addict Health. 2014; 6(3-4): 85-92.

10. Jenaabadi H, Abili K, Nastiezaie N, Yaghubi NM. The gap between perception and expectations of patients of quality of treatment centers in Zahedan by using the Servqual model. Payesh. 2011;10(4):449-57. [In Persian]
11. Toushmal g, Hakak m, Heidary h. A survey of quality gap of Khoramabad medical emergency services using SERVQUAL model. Yafteh. 2015; 17(1): 78-86. [In Persian]
12. Esteki R, Attafar A. Quality of nursing services (contemporary level of reality and level of expectation) from nurses' viewpoint on the basis of SERVQUAL Model in Al-Zahra Hospital in Isfahan (2010). Modern Care J. 2012;9(2):72-9.
13. Bahadori M, Raadabadi M, Jamebozorgi MH, Salesi M, Ravangard R. Measuring the quality of provided services for patients with chronic kidney disease. Nephrourol Mon. 2014; 6(5): 1- 7.
14. Taie ES. Emerging of medical tourism in Egyptian hospitals: International patient satisfaction towards nurses services quality. Global Adv Res J Manag Bus Stud. 2013; 2: 93-104.
15. Mousavi S.S, Zaeemi pour M, Zali M. Evaluate nurses' capability based on accreditation standards by nursing administrators at AJA-military hospitals during 2011. Nurse and Physician Within War. 2012;19:14-19.
16. Goedhart NS, van Oostveen CJ, Vermeulen H. The effect of structural empowerment of nurses on quality outcomes in hospitals: a scoping review. J Nurs Manag. 2017; 25(3): 194-206.
17. Moosavi SS, Zaeemipour M, Zali M. Evaluate nurses' capability based on accreditation standards by nursing administrators at AJA-military hospitals. Quarterly Nurs Physician in Combat. 2011: 140- 50. [In Persian]
18. Amin Nezhad KH, Memarzadeh Gh, Mobini M. Investigating the impact of educational courses on employee empowerment under article 58 of the civil service management act (case study: road research center, housing and urban planning). Quarterly Manag Develop. 2015;(21): 23-33.
19. Chan H-S, Chu H-Y, Yen H, Chou L-N. Effects of a care workshop on caring behaviors as measured by patients and patient satisfaction. Open J Nurs. 2015; 5(2). 89-95.
20. Parasuraman A, Zeithaml VA, Berry LL. Servqual: A multiple-item scale for measuring consumer perc. J retailing. 1988; 64(1): 12.
21. Heidarnia M-A, Riazi-Isfahani S, Abadi A, Mohseni M. Cross cultural adaptation and assessing validity and reliability of SERVQUAL questionnaire in hospital service quality. Pejouhesh. 2014; 38(2): 98-105. [In Persian]
22. Salehi z, Mokhtari Nouri J, Khademolhoseyni3 SM, Ebadi A. Effect of education of evidence-based nursing guidelines on the nurses' knowledge in the Neonatal Intensive Care Unit. Iran J Pedi Nurs. 2015; 1(2): 20-28. [In Persian]
23. Khaki M, Kargar M, Parham M, Mohebi S. Survey the quality of provided services in out-patient's clinics of Shiraz training hospitals based on the model of SERVQUAL in 2014.Iran J Nurs Res. 2015; 10(3): 81-88. [In Persian]
24. Rouhafza M, Adhami Moghadam F, Sahebalzamani M. Assessment the relationship between patient satisfaction and quality of hospital services based on SERVQUAL Model in the hospitals related to Islamic Azad University, Tehran Medical Sciences Branch in 2015. Med Sci J. 2016; 26(3): 173-79.
25. Abolghasem Gorji H, Tabatabaei SM, Akbari A, Sarkhosh S, Khorasani S. Using the service quality gap's model (SERVQUAL) in Imam Khomeini teaching hospital: 2012. J Health Admin. 2013; 16(51):7-18.