

Assessment of Patients' Satisfaction toward Nursing Care at Hemodialysis units

تقييم رضا المرضى تجاه الرعاية التمريضية في وحدات الاتفاذ الدموي

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المستخلص:

الهدف: تقييم رضا مرضى الديليزة الدموية تجاه العناية التمريضية وتحديد العلاقة بين الرضا و المعلومات الديموغرافية للمرضى.
المنهجية: دراسة وصفية أجريت في وحدات الديليزة الدموية في مستشفيات بغداد التعليمية للمدة من الرابع من شباط ٢٠١٠ الى الخامس من أيلول ٢٠١٠، اختيرت عينة غير احتمالية (غرضيه) من (١٥٠) مريض في وحدات الديليزة الدموية في مستشفيات بغداد التعليمية. جمعت المعلومات من خلال استخدام استبانته وتقنيه المحاوره مع المرضى تكونت الاستمارة من جزئين : (١)المعلومات الديموغرافية (٢) رضا المرضى للعناية التمريضية، حددت مصداقية استمارة لاستبانته خلال مجموعه من الخبراء و حددت ثباتيتها من خلال الدراسة المصغرة. استخدمت إجراءات التحليل الإحصائي الوصفي (التكرارات، النسبة المئوية، الوسط الحسابي) وإجراءات التحليل الأستنتاجي (معامل الارتباط و اختبار مربع كاي والاختبار التائي) في تحليل البيانات.
النتائج: أظهرت النتائج إن هناك رضا عالي فيما يتعلق بالعناية التمريضية السريرية و الاتصال - العلاقة بين الممرض و المريض و رضا متوسط بما يتعلق بالتنظيف الصحي التمريضي وخاصة بتوفير الملصقات والإعلانات التثقيفية للمرضى داخل ردهات الديليزة الدموية، كما وأظهرت النتائج عدم وجود علاقة معنوية بين رضا المرضى و المعلومات الديموغرافية لهم. كما وأظهرت النتائج وجود علاقة معنوية واحده بين الحالة المهنية و رضا المرضى فيما يتعلق بالاتصال - العلاقة بين الممرض و المريض .
التوصيات: أوصت الدراسة بضرورة تفويه الجوانب التثقيفية في وحدات الديليزة الدموية من خلال الصور التثقيفية، التوجيهات والكتيبات.

Abstract:

Objectives: To assess patients' satisfaction to nursing care at hemodialysis units and determine the relationship between patients' satisfaction and patients' demographic data.

Methodology: A descriptive study was carried out at hemodialysis units of Baghdad teaching hospitals from Feb. 4th, 2010 through Sep. 5th, 2010. A purposive (non-probability) sample of (150) patients at hemodialysis units in Baghdad teaching hospitals was selected. The data were collected through the use of constructing questionnaire and by means of an interview technique with the patients; the questionnaire consists of two parts (1) demographic data (2) patients' satisfaction to nursing care. The validity of the study questionnaire was determined through the panel of experts and the reliability of the study questionnaire was determined through the pilot study. Descriptive statistical analysis procedure (frequency, percentage and mean of score) and inferential analysis procedure (person correlation coefficient, chi-square test and t-test) were used for data analysis.

Results: The findings of the study indicated that there is high satisfaction to clinical nursing care, communication /patient –nurse relationship and moderate satisfaction toward nursing health education. Not statistical significant difference between (gender, age, educational status, marital status, occupational status, frequency of hemodialysis and duration of hemodialysis). While there is a statistical significant difference between patients' occupational status and their satisfaction toward communication /patient –nurse relationship.

Recommendations: Great emphasize should be directed toward the educational aspects of hemodialysis unit by providing educational posters, guidelines, pamphlets and manuals.

Keywords: patient satisfaction, hemodialysis unit

Introduction:

Patients with end-stage renal disease (ESRD) experience high rates of morbidity and mortality. Incidence and prevalence counts of ESRD in the United States are expected to increase by 44% and 85%, respectively², from 2000 to 2015. Reducing the incidence of ESRD is widely recognized as a major public health goal. However, few longitudinal cohort studies have been conducted focusing on identifying risk factors for ESRD.^(1, 2)

Patients' satisfaction with care received is an essential criterion by which patients assess quality of medical care received. Satisfaction is broadly defined as the human experience of being filled and enriched by an experience²⁾.

Patient satisfaction as the client's personal and subjective evaluation of expectation fulfillment⁽³⁾.

The first study of patient satisfaction in nursing occurred in 1956. Assessment of the patient so satisfying is viewed by the authors as vital and necessary in modern health care due to rising costs and the need for resourcefulness and efficiency of health care delivered by health institutions⁽⁴⁾.

Patient satisfaction is viewed as a significant and valid measure of efficiency in health care delivery. Patients are often active and usually capable of forming opinions regarding care received⁽⁵⁾.

In Iraq, this is the first study to investigate the level of satisfaction of Iraqis patients and their experiences of nursing care on the hemodialysis unit. It also identifies satisfying factors that are important for them. The study conducted in governmental hospitals.

Methodology:

A purposive (non-probability) sample of (150) patients was selected from (5) teaching hospitals AL-Karama Teaching Hospital, AL-Yarmook Teaching Hospital, AL-Kadhmiya Teaching Hospital, AL-Kindy Teaching Hospital, Baghdad Teaching Hospital in Baghdad city. The data have been collected from April 4th 2010 until 6th May 2010. A questionnaire format was

used for data collection consist of (40) items rated on a five Likert scale as 1 for very not satisfied, 2 for not satisfied, 3 for neither satisfied nor not satisfied, 4 for satisfied and 5 for very satisfied. The questionnaire consisted of two parts:

1. A demographic data sheet, consisted of (7) items, which included gender, age, educational level, marital status, occupational status, frequency of hemodialysis and duration of hemodialysis.

2. The second part of a questionnaire designed to measure the patient satisfaction consists of (40) items that concerned with hemodialysis patients' satisfaction toward nursing care at hemodialysis units which include three sections as following:

- a. **Section I:** This section is composed of (13) items; they presented the patients' satisfaction to clinical nursing care
- b. **Section II:** This section is composed of (12) items; they presented the patients' satisfaction toward nurse-patient relationship /communication
- c. **Section III:** This section is composed of (15) items; they presented the patients' satisfaction toward nursing health education.

Content validity of the early developed instrument was determined through the panel of experts (who have had more than 5 years' experience in their specialty field) to investigate the clarity, relevance, and adequacy of the questionnaire in the order to achieve the present study's objectives.

A preliminary copy of the questionnaire was designed and presented to (14) experts. They were (10) faculty members from the college of nursing /university of Baghdad,

(1) A faculty member statistician from college of medical and health technology, (3) Nephrology faculty member from the ministry of health (AL-Kindy Teaching Hospital and Ghazy Al-hariry surgical specialist hospital) and the reliability of the study was determined by application of (t-test).

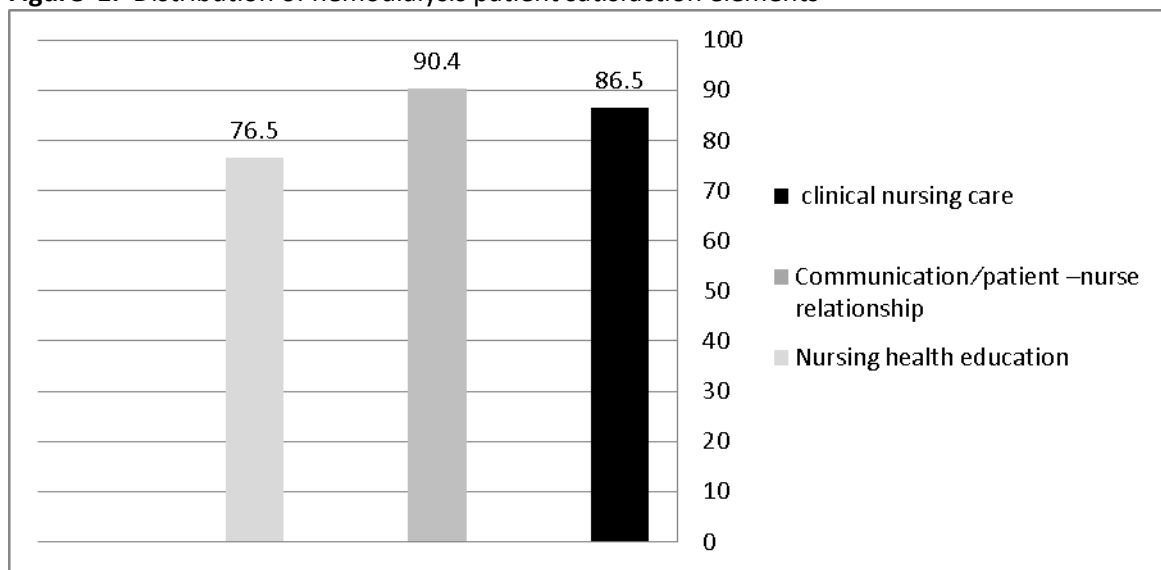
Results:**Table 1.** Distribution of demographic data of hemodialysis patients

Variables		f	%
Gender	Male	82	54.7
	Female	68	45.3
Age	(20-30) years	31	20.66
	(31-40) years	28	18.66
	(51-60) years	37	24.66
	(61 years and more)	24	16
Mean \pm standard deviation 45.3 \pm 14.2			
Educational status	Illiterate	19	12.7
	Read & write	16	10.7
	Primary	37	24.7
	Intermediate	31	20.7
	Secondary	26	17.3
	University	19	12.7
	Postgraduate	2	1.3
Marital status	Single	31	20.7
	Married	101	67.3
	Divorced	8	5.3
	Widow	10	6.7
Occupational status	Retired	30	20.0
	Employed	34	22.7
	Self employed	21	14.0
	Unemployed	39	25.0
	Housewife	25	17.3
Frequency of dialysis per weeks	1 time per week	4	2.7
	2 times per week	143	95.3
	3 times per week	3	2.0
Duration of hemodialysis by years	Less than 1 year	52	34.7
	(1 -2) years	67	44.7
	(2 -3) years	0	0
	(3 - 4) years	21	14
	More than 4 years	10	6.6
Mean \pm standard deviation 1.7 \pm 1.4			

f=frequency, %: percentage

The majority of the study sample (54.7%) were male and the remaining were female, the highest percentage of them were (51-60) years old and accounted for (24.66%), In regards to the subject marital status, the majority of the sample were married and they consist of (67.3%) of the whole of the study sample. Relative of their educational status, the greater percentage of them were primary school graduates and they accounted for (24.7%) of the sample and (1.3%) of them were post graduate. Concerning occupational status (25.0%) of the sample was unemployed. Regarding the frequency of hemodialysis, the majority (95.3%) of the sample were at 2 times per week. Concerning of hemodialysis duration, the (44.7 %) of the study sample were at (1-2) years.

Figure 1. Distribution of hemodialysis patient satisfaction elements



The figure shows that the clinical nursing care and communication /patient –nurse relationship record high satisfaction responses but nursing health education record moderate satisfaction

Table 2. Gender distribution of the hemodialysis patients

Satisfaction Element	Gender	Satisfied		Not satisfied		χ^2	df	P-value
		f	%	f	%			
Clinical Nursing care	Male	65	79.3	17	20.7	0.6	1	0.8
	Female	55	80.9	13	19.1			
	Total	120		30				
	Gender	Satisfied		Not satisfied				
Male	74	90.2	8	9.8				
Female	64	94.1	4	5.9				
Total	138		12					
Nursing health education	Male	37	45.1	45	54.9	0.003	1	0.9
	Female	31	45.6	37	54.4			
	Total	68		82				

Significance p-values ≤ 0.05 , χ^2 = chi squared test, df = degree of freedom, P-value = probability level, f=frequency, %: percentage

This table shows that there has been not statistical significant difference between patients' gender and their satisfaction sections (clinical nursing care, communication /patient-nurse relationship and nursing health education). Also the table shows that the majority of male and female (satisfied) toward the clinical nursing care and communication /patient-nurse relationship but most of them responded (Not satisfied) toward nursing health education.

Table 3. Age distribution of the hemodialysis patients

Satisfaction Element	Variables	Satisfied		Not satisfied		t	df	P-value
		f	M \pm s.d.	f	M \pm s.d.			
Clinical Nursing care	Age	120	44.2 \pm 15.3	30	49.4 \pm 2.7	1.7	148	0.07
	Variables	Satisfied		Not satisfied				
Communication patient-nurse relationship	Age	138	45.1 \pm 14.4	12	47.3 \pm 13.1	0.5	148	0.6
	Variables	Satisfied		Not satisfied				

Nursing health education	Variables	Satisfied		Not satisfied		t	df	P-value
		f	M ± s.d.	f	M ± s.d.			
	Age	68	44.2 ± 13.6	82	46.1 ± 14.7	0.8	148	0.4

Significance p-values ≤ 0.05 , t = t-test, df = degree of freedom, P-value = probability level, f=frequency M= mean, s.d.= standard deviation

This table shows that there has been not statistical significant difference between age and patients' satisfaction sections (clinical nursing care, communication /patient-nurse relationship and nursing health education). Also the table shows that the total number of patients responded (satisfied) toward clinical nursing care was 120 out of 150 patients at mean of age 44.2 ± 15.3 , the total number of patients responded (satisfied) toward communication /patient-nurse relationship was 138 out of 150 patients at mean of age 45.1 ± 14.4 while the total number of patients responded (satisfied) toward nursing health education was 68 out of 150 patients at mean of age 44.2 ± 13.6 .

Table 4. Educational status distribution of the hemodialysis patients

	Educational status	Satisfied		Not satisfied		χ^2	df	P-value
		f	%	f	%			
Clinical Nursing care	Illiterate	15	78.9	4	21.1	12	6	0.06
	Read & write	9	56.3	7	43.8			
	Primary	30	81.1	7	18.9			
	Intermediate	26	83.9	5	16.1			
	Secondary	19	73.1	7	26.9			
	University	19	100.0	0	0.0			
	Postgraduate	2	100.0	0	0.0			
	total	120		30				
Communication /patient-nurse relationship	Illiterate	18	94.7	1	5.3	2.1	6	0.6
	Read & write	14	87.5	2	12.5			
	Primary	33	89.2	4	10.8			
	Intermediate	28	90.3	3	9.7			
	University	18	94.7	1	5.3			
	Postgraduate	2	100.0	0	0.0			
	Total	138		12				
	Nursing health education	Illiterate	8	42.1	11			
Read & write		3	18.8	13	81.3			
Primary		19	51.4	18	48.6			
Intermediate		13	41.9	18	58.1			
Secondary		14	53.8	12	46.2			
University		9	47.4	10	52.6			
Postgraduate		2	100.0	0	0.0			
Total		68		82				

Significance p-values ≤ 0.05 , χ^2 = chi squared test, df = degree of freedom, P-value = probability level, f=frequency, %: percentage

This table shows that there has been no a statistical significant difference between patients' educational status and their satisfaction sections (clinical nursing care, communication /patient-nurse relationship and nursing health education). Also the table shows that there is a high percentage of hemodialysis patients responded (satisfied) toward the clinical nursing care and communication /patient-nurse relationship, while most of the patients responded (Not satisfied) toward nursing health education.

Table 5. Marital status distribution of the hemodialysis patients

Clinical Nursing care	Marital status	Satisfied		Not satisfied		χ^2	df	P-value	
		f	%	f	%				
	Single	25	80.6	6	19.4	2.9	3	0.4	
	Married	83	82.2	18	17.4				
	Divorced	6	75.0	2	25.0				
	Widow	6	60.6	4	40.0				
	Total	120		30					
Communication/patient-nurse relationship	Marital status	Satisfied		Not satisfied		χ^2	df	P-value	
		f	%	f	%				
		Single	28	90.3	3	9.7	0.8	3	0.9
		Married	93	92.1	8	7.9			
		Divorced	8	100.0	0	0.0			
		Widow	9	90.1	1	10.0			
	Total	138		12					
Nursing health education	Marital status	Satisfied		Not satisfied		χ^2	df	P-value	
		f	%	f	%				
		Single	15	48.4	16	51.6	1.6	3	0.6
		Married	47	46.5	54	53.5			
		Divorced	2	25.0	6	75.0			
		Widow	4	40.0	6	60.0			
	Total	68		82					

Significance p-values ≤ 0.05 , χ^2 = chi squared test, df = degree of freedom, P-value = probability level f=frequency, %: percentage

This table shows that there has been no a statistical significant difference between patients' marital status and their satisfaction sections (clinical nursing care, communication /patient-nurse relationship and nursing health education). Also the table shows the high percentage of hemodialysis patients responded (satisfied) toward the clinical nursing care and communication /patient-nurse relationship, while most of the hemodialysis patients responded (Not satisfied) toward nursing health education.

Table 6. Occupational status distribution of the hemodialysis patients

Clinical Nursing care	Occupational status	Satisfied		Not satisfied		χ^2	df	P-value	
		f	%	f	%				
	Retired	23	76.7	7	23.3	0.9	4	0.9	
	Employed	27	79.4	7	20.6				
	Self employed	17	81.0	4	19.0				
	Unemployed	33	84.6	6	15.4				
	Housewife	20	76.9	6	23.1				
	Total	120		30					
Communication /patient-nurse relationship	Occupational status	Satisfied		Not satisfied		χ^2	df	P-value	
		f	%	f	%				
		Retired	28	93.3	2	6.7	9.8	4	0.04
		Employed	27	79.4	7	20.6			
		Self employed	20	95.2	1	4.8			
		Unemployed	38	97.4	1	2.6			
		housewife	25	96.2	1	3.8			
	Total	138		12					

Table 6. Continues

Nursing health education	Occupational status	Satisfied		Not satisfied		χ^2	df	P-value
		f	%	f	%			
	Retired	12	40.0	18	60.0	4.5	4	0.3
	Employed	13	38.2	21	61.8			
	Self employed	10	47.6	11	52.4			
	Unemployed	2	59.0	16	41.0			
	housewife	10	38.5	16	61.5			
	Total	47		103				

Significance p-values ≤ 0.05 , χ^2 = chi squared test, df = degree of freedom, p = probability level f=frequency, %: percentage

This table shows that there has been not statistical significant difference between patients' occupational status and their satisfaction toward the clinical nursing care and nursing health education, but there has been a statistical significant difference between patients' occupational status and their satisfaction toward communication /patient –nurse relationship (p value 0.04). Also the table shows that the high percentage of patients responded (satisfied) toward the clinical nursing care and communication /patient –nurse relationship, while the majority of them responded (Not satisfied) toward nursing health education.

Table 7. Frequency of hemodialysis distribution of the hemodialysis patients

Clinical Nursing care	Frequency of haemodialysis	Satisfied		Not satisfied		χ^2	df	P-value
		f	%	f	%			
	1 time per week	3	75.0	1	25.0	0.4	2	0.8
	2 times per week	115	80.4	28	19.6			
	3 times per week	2	66.7	1	33.3			
	Total	120		30				
	Frequency of haemodialysis							
munication /patient-nurse relationship	Frequency of haemodialysis	Satisfied		Not satisfied		χ^2	df	P-value
		f	%	f	%			
	1 time per week	4	100.0	0	0.0	6.4	2	0.7
	2 times per week	131	91.6	12	8.4			
	3 times per week	3	100.0	0	0.0			
	Total	138		12				
	Frequency of haemodialysis							
Nursing health education	Frequency of haemodialysis	Satisfied		Not satisfied		χ^2	df	P-value
		f	%	f	%			
	1 time per week	2	50.0	2	50.0	0.2	2	0.9
	2 times per week	65	45.5	78	54.5			
	3 times per week	1	33.3	2	66.7			
	Total	68		82				
	Frequency of haemodialysis							

Significance p-values ≤ 0.05 , χ^2 chi squared test, df = degree of freedom, P-value = probability level f=frequency, %: percentage

This table shows that there has been not statistical significant difference between the frequency of hemodialysis and patients' satisfaction sections (clinical nursing care, communication /patient-nurse relationship and nursing health education). Also the table shows that the high percentage of patients responded (satisfied) toward the clinical nursing care and communication /patient-nurse relationship, while most of them responded (Not satisfied) toward nursing health education.

Table 8. Duration of hemodialysis distribution of the hemodialysis patients

Clinical Nursing care	Variables	Satisfied		Not satisfied		t	df	P-value
		f	M \pm s.d.	f	M \pm s.d.			
	Duration of hemodialysis	120	18.7 \pm 17	30	20.7 \pm 15.3	1.7	148	0.07

Table 8. Continues

Variables	Satisfied		Not satisfied		t	df	P-value
	f	M ± s.d.	f	M ± s.d.			
Communication patient-nurse relationship	138	19.1 ± 16.6	12	20.0 ± 18.5	0.18	148	0.8
	Duration of hemodialysis						
Variables	Satisfied		Not satisfied		t	df	P-value
	f	M ± s.d.	f	M ± s.d.			
Nursing health education	68	20.0 ± 18.1	82	18.2 ± 15.4	0.7	148	0.4
	Duration of hemodialysis						

Significance p-values ≤ 0.05 , t = t-test, df = degree of freedom, P-value = probability level, f=frequency M=mean, s.d.= standard deviation

This table shows that there has been not statistical significant difference between the duration of hemodialysis and patients' satisfaction sections (clinical nursing care, communication /patient-nurse relationship and nursing health education). Also the table shows that the total number of patients who responded (satisfied) was 120 out of 150 patients, 138 out of 150 patient toward the clinical nursing care and communication /patient-nurse relationship and the total number of patients who respond (Not satisfied) was 82 out of 150 patient toward nursing health education.

Discussion:

The data analysis was conducted on 13 items of the questionnaire that assessed patients' satisfaction toward clinical nursing care the result indicated that there was a high satisfaction grade toward these sections (figure 1).

The nursing care is a very important factor in patients' satisfaction or dissatisfaction with their experiences in hospital, and nurses' attitudes towards and communication with patients are the essential determinants of the patient satisfaction⁽⁶⁾.

The data analysis was conducted on 12 items of the questionnaire that assessed patients' satisfaction toward communication /patient-nurse relationship the result indicated that there was a moderate satisfaction grade toward these sections (figure 1).

The nurse-patient-communication, by creating good interpersonal relationships, allowing the exchange of information and facilitating treatment-related decisions, is fundamental to optimal medical care. Effective communication correlates with improved outcomes, including physiological criteria such as levels of blood pressure and blood sugar. Conversely, professional, language and cultural barriers can impede communication⁽⁷⁾.

There is consistent evidence across settings that the most important health service factor affecting satisfaction is the patient-nurse relationship, including information and technical competence⁽⁸⁾.

The data analysis was conducted on 15 items of the questionnaire that assessed patients' satisfaction toward nursing health education the result indicated that there was a moderate satisfaction grade toward these sections (figure 1).

The patients and their families should receive sufficient information and education regarding the nature of end stage kidney disease and the options for the treatment to allow them to make an informed decision about the management of their end stage kidney disease. There is some evidence that structured pre-dialysis education programs are effective in facilitating a planned approach to commencement of dialysis and influencing the quality of life and outcomes on dialysis. Early education for the hemodialysis procedure patient has the potential to improve the quality of patient satisfaction and increase care-effectiveness⁽⁹⁾.

Association between patients' satisfaction sections: clinical nursing care, communication /patient-nurse relationship and nursing health education and their gender. The findings indicated that there was not statistical significant difference between patients' satisfaction sections and their gender ($p > 0.05$) (table 2).

Association between patients' satisfaction sections: clinical nursing care, communication /patient-nurse relationship and nursing health education and their age. The findings indicated that there was not statistical significant difference between patients'

satisfaction sections and their age ($p > 0.05$) (table 3).

Association between patients' satisfaction sections: clinical nursing care, communication /patient–nurse relationship and nursing health education and their educational status. The findings indicated that there was not statistical significant difference between patients' satisfaction sections and their educational status ($p > 0.05$) (table 4).

Association between patients' satisfaction sections: clinical nursing care, communication /patient–nurse relationship and nursing health education and their marital status. The findings indicated that there was not statistical significant difference between patients' satisfaction sections and their marital status ($p > 0.05$) (table 5).

Association between patients' satisfaction sections: clinical nursing care, communication /patient–nurse relationship and nursing health education and their occupational status. The findings indicated that there was not statistical significant difference between patients' satisfaction section: clinical nursing care and nursing health education and their occupational status ($p > 0.05$). While there was a statistical significant difference between patients' satisfaction section communication /patient–nurse relationship and their occupational status ($p \leq 0.05$) (table 6).

Association between patients' satisfaction sections: clinical nursing, care communication /patient–nurse relationship and nursing health education and frequency of hemodialysis. It shows that there was not statistical significant difference between patients' satisfaction sections and frequency of hemodialysis ($p > 0.05$) (table 7).

Association between patients' satisfaction sections: clinical nursing care, communication /patient–nurse relationship and nursing health education and duration of hemodialysis. The findings indicated that there was not statistical significant difference between patients' satisfaction sections and duration of hemodialysis ($p\text{-value} > 0.05$) (table 8).

Recommendations:

1. Great emphasize should be directed toward the educational aspects at hemodialysis unit

by providing educational posters, guidelines, pamphlets and manuals.

2. Policy should be initiated to provide a special educational session for hemodialysis patients about their illness and therapy.
3. It is provided modern educational nursing team at hemodialysis enhance health education.

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