

## Assessment of Nurses' Knowledge Concerning Peritonitis-Dialysis Association in Baghdad Teaching Hospitals

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### الخلاصة

**الهدف :** تهدف الدراسة الى تقييم معارف الكادر التمريضي المتعلقة بالتهاب الصفاق المصاحب للديليزة الإصفاقية وإيجاد العلاقة بين هذه المعارف وبعض الصفات الشخصية للمرضين.  
**المنهجية:** دراسة وصفية أجريت في وحدات الديليزة الإصفاقية في مستشفيات بغداد التعليمية للفترة من ٢٩ تشرين الثاني ٢٠٠٤ ولغاية ١٥ آب ٢٠٠٥. تم اختيار عينة عمدية من ٥٢ ممرض و ممرضة من مستشفيات بغداد التعليمية يعملون في وحدات الديليزة الإصفاقية لتقديم العناية للمرضى الذين تجرى لهم الديليزة الإصفاقية. جمعت المعلومات من خلال استخدام استبانة مصممة ومكونة من ٩٧ فقرة صممت لجمع المعلومات بطريقة المقابلة. حددت شرعية الاستمارة خلال إجراء الدراسة الاستطلاعية و حددت مصداقيتها بمجموعة من الخبراء. تم تحليل البيانات من خلال استخدام الإحصاء الوصفي الذي تضمن التكرارات والنسب المئوية وكذلك استخدام الإحصاء الاستنباطي الذي شمل الوسط الحسابي ومربع كاي.  
**النتائج:** أظهرت نتائج الدراسة أن معلومات الممرضين في وحدات الديليزة الإصفاقية دون المستوى فيما يتعلق بالمعلومات العامة حول التهاب الصفاق المصاحب للديليزة ولديهم معلومات جيدة فيما يتعلق بالوقاية من الالتهاب.  
**التوصيات:** أوصت الدراسة بضرورة تصميم وأعداد برنامج لتدريب الممرضين في وحدات الديليزة الإصفاقية وإصدار كتيب حول التهاب الصفاق المصاحب للديليزة الإصفاقية.

### Abstract

**Objectives :** The study aims to assessing nurses' knowledge concerning peritonitis- dialysis association at the peritoneal dialysis units, and to identifying the relationship between some nurses' knowledge and some of their demographic characteristic.

**Methodology :** A descriptive study was carried out at the peritoneal dialysis units in Baghdad Teaching Hospitals started from November 29<sup>th</sup> 2004 to August 15<sup>th</sup>, 2005. A purposive sample of (52) nurses was selected from Baghdad Teaching Hospitals. The data were collected through the use of constructed questionnaire, which comprised of (97) items as an interview questionnaire technique as mean of data collection. The reliability of the instrument was determined through a pilot study and the validity through a panel of experts. The data were analyzed through the application of descriptive statistical analysis that includes frequency and percentage, the application of inferential statistics that include the mean of score and Chi-square test.

**Results :** The findings of the study indicated that the peritoneal dialysis nurses have inadequate knowledge about general information concerning peritonitis- dialysis association was, acceptable, knowledge in diagnosis and treatment and adequate knowledge in prevention of peritonitis- dialysis association.

**Recommendations:** it is recommended that special peritoneal dialysis training program and booklets should be designed and presented to these nurses.

**Key words :** peritonitis , dialysis

### Introduction

Peritonitis is a common clinical problem that occurs in-patients with end-stage renal disease treated by peritoneal dialysis (PD) <sup>(1)</sup>. Peritonitis is an inflammation or infection on the peritoneum .The peritoneum is a thin tissue lining that covers the inside of the abdominal cavity .It also covers the out side of the intestine and other abdominal organs<sup>(2)</sup>.Peritonitis is the major complication of peritoneal dialysis (PD) and has acute morbidity and resources implication. Episodes of peritonitis are associated with higher risk of peritoneal membrane failure <sup>(3)</sup>.Peritonitis results from contamination of the dial sate or tubing or from progression of exit site or tunnel infections, less commonly, peritonitis results from bacteria in the intestine crossing over into the peritoneal cavity . Despite improvement in peritoneal dialysis (PD) technique, peritonitis continues to be one of the most frequent complications of

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peritoneal dialysis (PD)<sup>(4)</sup>. Nonresolving peritonitis remains a risk for severe anatomical peritoneal change that may limit the viability of the membranes for dialysis purpose <sup>(5)</sup>.

## Methodology

A non-probability (purposive) sample of (52) nurse (males and females), was selected from (5) teaching hospitals in Baghdad.city AL-Karama, AL-Yarmook, AL-Kadhmiya, Surgical Specialties and Baghdad Teaching Hospital. Data were collected during November 29th, 2004 up to the end of 15 August 2005 A questionnaire format was used for data collection, which consisted of (2) parts. The overall number of the items included in the questionnaire was (97). The items were rated on three level likert scale; know, uncertain, and don't know and scored as 3,2, and 1,respectively.

The instrument was consisted form two parts:-

- 1 - The nurses' demographic characters : included; age, gender, marital status, educational status, number of years of employment, number of years of experience and number of training sessions.
- 2- Interview questionnaire was designed to assess the nurses' knowledge concerning peritonitis - dialysis association which include 4 main sections:
  - a-This section includes (28) items relative to the general information.
  - b-This section includes (21) items relative to the diagnosis
  - c-This section includes (13) items relative to the treatment
  - d-This section includes (28) items relative to the prevention

Validity and reliability were determined and data were analyzed through the application of descriptive data analysis (Frequency, Percentage and mean score) and inferential data analysis (chi square).

## Results

**Table (1): Distribution of nurses' demographic characteristics**

Variables		Frequency	Percentage
Gender	Male	29	55.8
	Female	23	44.2
	Total	52	100
Marital status	Single	20	38.5
	Married	32	61.5
	Total	52	100
Age	18-22	8	15.4
	23-27	10	19.2
	28-32	12	23.1
	33-37	9	17.3
	38-42	5	9.6
	43 & more	8	15.4
	Total	52	100
Level of education	Intermediate nursing school	5	9.6
	Secondary nursing school	16	30.8
	Nursing institute graduates	31	59.6
	total	52	100

Years of experiences	1-5	25	48.1
	6-10	14	26.9
	11-15	7	13.5
	16-20	3	5.8
	21 & more	3	5.8
	Total	52	100
Years of employment	1-5	13	25
	6-10	16	30.8
	11-15	11	21.2
	16-20	5	9.6
	21 & more	7	13.5
	Total	52	100
Training sessions	Yes	0	0
	No	52	100
	total	52	100

This table indicated that ,the majority of the sample were males (55.8%), (28-32) years old (23.1%) , nursing institute graduate (59.6%), married (61.5%), having (1-5) years of experience (48.1%), having (6-10) years of employment (30.8%) and all of them have no training session.

**Table (2): frequency of mean of score for nurses knowledge concerning peritonitis – dialysis associated.**

subjects	know	uncertain	Don't know	Mean score
1- general information	573	250	638	1.46
2- diagnosis	649	166	240	1.92
3- treatment	347	50	280	1.96
4- prevention	1356	30	71	2.63

This table shows that the highest mean of score in domains (4) which was about nurses knowledge concerning prevention of peritonitis – dialysis associated. While the lowest of mean of score in domains (1) which was general information about peritonitis – dialysis associated.

**Table (3) Association between nurses' knowledge and their gender**

1- Nurses knowledge about general information					
Gender		know	uncertain	Don't know	total
male	F	279	210	173	662
	%	42.24%	31.73%	26.03%	100%
Female	F	400	220	174	794
	%	50.37%	27.72%	21.91%	100%
Total	F	679	430	347	1456
	%	46.63%	29.53%	23.84%	100%
$X^2_{obs} = 3.10 \quad df = 2 \quad X^2_{Crit} = 5.991 \quad P > 0.05$					

Nurses' Knowledge Concerning Peritonitis- Dialysis

2- Nurses knowledge about diagnosis					
Gender		know	uncertain	Don't know	total
male	F	316	165	91	572
	%	55.24%	28.84%	15.92%	100%
Female	F	247	151	122	520
	%	47.50%	29.04%	23.46%	100%
Total	F	563	316	213	1092
	%	51.55%	28.94%	19.51%	100%
$X^2_{obs} = 4.42 \quad df = 2 \quad X^2_{Crit} = 5.991 \quad P > 0.05$					
3- Nurses knowledge about treatment					
Gender		know	uncertain	Don't know	total
male	F	216	75	72	363
	%	59.95%	20.96%	18.99%	100%
Female	F	168	56	89	313
	%	53.67%	17.89%	28.44%	100%
total	F	384	131	161	676
	%	56.80%	19.37%	23.83%	100%
$X^2_{obs} = 3.31 \quad df = 2 \quad X^2_{Crit} = 5.991 \quad P > 0.05$					

The finding of this table show that there are no significant associations between nurses' gender and all aspects of their knowledge.

4-Nurses' knowledge about prevention.					
Gender		Know	Uncertain	Don't know	Total
Male	F	591	80	3	674
	%	88.28%	11.88%	0.84%	100
Female	F	705	62	15	782
	%	90.15%	7.92%	1.91%	100
Total	F	1296	142	18	1456
	%	89.02%	9.75%	1.24%	100
$X^2_{obs} = 1.29 \quad df = 2 \quad X^2_{Crit} = 5.991 \quad P > 0.05$					

**Table (4) Association between nurses' knowledge and their educational level.**

1-Nurses' knowledge about general information of peritonitis- dialysis associated					
Level of education		Know	Uncertain	Don't know	Total
1-Intermediate nursing school graduate	F	60	50	30	140
	%	42.86%	35.71%	21.43%	100%
2-Secondary nursing school graduate	F	205	115	128	448
	%	45.79%	25.64%	28.57%	100%
3-Nursing institute graduate	F	456	240	172	868
	%	52.53%	27.66%	19.81%	100%
Total	F	679	430	347	1456
	%	46.63%	29.53%	23.84%	100%
$X^2_{obs} = 32.95$		$df = 4$	$X^2_{Crit} = 9.488$	$P < 0.05$	
2-Nurses' knowledge about diagnosis of peritonitis- dialysis associated					
Level of education		Know	Uncertain	Don't know	Total
1-Intermediate nursing school graduate	F	46	30	38	114
	%	40.35%	26.31%	33.34%	100%
2-Secondary nursing school graduate	F	163	89	76	328
	%	49.69%	27.14%	23.17%	100%
3-Nursing institute graduate	F	354	197	99	650
	%	54.46%	30.31%	15.23%	100%
Total	F	563	316	213	1092
	%	51.55%	28.94%	19.51%	100%
$X^2_{obs} = 31.81$		$df = 4$	$X^2_{Crit} = 9.488$	$P < 0.05$	
3-Nurses' knowledge about treatment of peritonitis- dialysis associated.					
Level of education		Know	Uncertain	Don't know	Total
1-Intermediate nursing school graduate	F	113	50	62	225
	%	50.22%	22.22%	27.56%	100%
2-Secondary nursing school graduate	F	40	9	20	69
	%	57.98%	13.04%	28.98%	100%

3-Nursing institute graduate	F	231	72	79	382
	%	60.48%	18.84%	20.68%	100%
Total	F	384	131	161	676
	%	56.80%	19.37%	23.83%	100%
$X^2_{obs} = 17.55$ $df = 4$ $X^2_{Crit} = 9.488$ $P < 0.05$					
4-Nurses' knowledge about prevention of peritonitis- dialysis associated.					
Level of education		Know	Uncertain	Don't know	Total
1-Intermediate nursing school graduate	F	116	12	15	143
	%	81.13%	8,39%	10,48%	100%
2-Secondary nursing school	F	380	55	3	438
	%	86.75%	12.57%	0.66%	100%
3- Nursing institute graduate	F	800	e75	0	875
	%	91.42%	8.57%	0%	100%
Total	F	1296	142	18	1456
	%	89.01%	9.75%	1.24%	100%
$X^2_{obs} = 108.12$ $df = 4$ $X^2_{Crit} = 9.488$ $P < 0.05$					

The findings of this table show that there are significant associations between the nurses' education and all aspects of their knowledge.

## Discussion

Results of this study revealed that the majority of the study sample were males (55.8%). The highest proportion of them were (28-32) years (57.7%) old. In regard to their marital status, the majority (61.5%) of the sample were married, more than half of the study sample (59.6%) were nursing institute graduates. Most of them had (1-5) years of experience, most of them had (6-10) years of employment who were accounted for (30.8%) and they had no enrolled in any training sessions (table 1).

As to the mean of score, the nurses have inadequate knowledge relative the information concerning peritonitis- dialysis association, acceptable knowledge relative to the diagnosis and treatment of peritonitis -dialysis association and adequate knowledge concerning the prevention of peritonitis –dialysis association ( table 2).

The results illustrated that there were significant relationships between nurses' knowledge and their gender (Table 3). Based on the researcher's point of view, nurses worked in the same circumstances and facilities of the hospital therefore, they have the same level of knowledge concerning peritonitis- dialysis association.

The findings revealed that there was significant relationship between nurses' knowledge and their educational level (Table 4). It has been expected that the higher level of education preparation is the better of knowledge they acquire. These results agree with the finding of AL-Barody who stated that many authorities in education emphasized, that the level of

education has appositive effect on the quality and quantity of knowledge and skills acquired by the recipient of education<sup>(6)</sup>.

### **Recommendations**

- 1) Special peritoneal dialysis training sessions should be prepared and presented to these nurses.
- 2) A booklet should be designed and distributed to all nurses working in the peritoneal dialysis units in order to improve their knowledge.
- 3) Nurses with the highest educational levels should be assigned to work in the peritoneal dialysis units.

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