

Assessment of Nurses' Knowledge and Practices toward Children with Nephrotic Syndrome at Pediatric Teaching Hospitals in Baghdad City

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Abstract- Objectives: To assess nurses' knowledge and practices toward children with nephrotic syndrome (NS) they are working in nephrology units and to find out the relationships between nurses' knowledge and practices and their demographic data such as (nurses' age, nurses' gender, nurses' level of education, years of experiences in nursing field and other variables).

Methodology: A descriptive study was carried out at nephrology units of pediatric teaching hospitals in Baghdad (child's central pediatric teaching hospital, Al-Kadhymia teaching hospital and Welfare children teaching hospital), started from 9th of November 2015 until May 2016.

A purposive sample of (60) nurses who work in nephrology units, the data were collected through a constructed questionnaire, with three parts, the first part is concerned with nurses' demographical characteristics, the second part is concerned with nurses' knowledge about nephrotic syndrome and the third part is concerned with nurses' practices about nephrotic syndrome. An interview method was used to fill the questionnaire format. The validity was determined through a panel of experts. While the reliability was determined through a pilot study. The data were analyzed by using a descriptive and inferential statistical measures by using the statistical package of social science (SPSS) version (22).

Results: The findings of the study showed that nurses have poor knowledge (45%) compared with (35%) of nurses have good knowledge. Also shows that poor practices (46.7%) compared with (20%) of nurses have good practices. The study results revealed that there is a significant association between nurses' knowledge and their age, level of education and years of experiences in nursing field. While no significant association between nurses' knowledge and their gender and share in specialist courses in nephrology. Also the results revealed that a significant association between nurses' practices and nurses' age and years of experiences in nursing field. While no significant association between nurses' practices and their gender, level of education and share in specialist courses in nephrology wards.

Recommendations: The study recommends that continues education programs is important to improve nurses' knowledge and practices, educational programs concerning nursing care for children with nephrotic syndrome (NS) and providing scientific booklet, publication and journal about nephrotic syndrome.

Index Terms- Assessment, Nurses' Knowledge and Practices, Children with Nephrotic Syndrome.

I. INTRODUCTION

Nephrotic Syndrome (NS) is a clinical state that includes massive proteinuria, hypoalbuminemia, hyperlipidemia, and edema. The disorder can occur as first, primary disease known as idiopathic nephrosis, childhood nephrosis or minimal change nephrotic syndrome (MCNS), second, a secondary disorder that occurs as clinical manifestation after or in association with glomerular damage. Third, congenital form inherited as an autosomal recessive disorder. The disorder is characterized by increased glomerular permeability to plasma protein, which results in massive urinary protein loss. The glomerulus is responsible for the initial step in the formation of urine, and the filtration rate depends on an intact glomerular membrane⁽¹⁾. Nephrotic syndrome (Nephrosis), occurs in children in three forms congenital, secondary who are related to systemic diseases such as sickle cell anemia or systemic lupus erythematosus (SLE) and primary form it is also found in three types according to the damage of the membrane, which include minimal change nephrotic syndrome (MCNS) focal glomerular sclerosis (FGS) and membrane proliferative glomerulonephritis (MPGN). The last two types respectively have poor responses to steroid-therapy⁽²⁾. Minimal change nephrotic syndrome (MCNS) the most common type of the NS, it is seen in (80%) of cases, which affects males more than females by 2:1 ratio⁽³⁾. Nephrotic syndrome is present in as many as seven children per 100,000 population younger than 9 years of age. The average age of onset is 2.5 years, with most cases occurring between the ages of 2 and 6 years⁽⁴⁾. Nephrosis can be further classified according to the amount of membrane destruction. Minimal change nephrotic syndrome (MCNS) is the type most often seen in children (80%). As the name implies, with this type, little scarring of glomeruli occurs. Children with this degree of scarring respond well to therapy. Other types are focal glomerulosclerosis (FGS) and membrane proliferative glomerulonephritis (MPGN). Both of these types involve scarring of glomeruli, and these children will have a poorer response to therapy⁽⁵⁾. NS can be classified according to response to steroid therapy, (A) steroid sensitive that responds to steroids, relapses may occur following illness, (B) Steroid unresponsive or steroid resistant does not enter remission after 4 weeks of prednisone therapy⁽⁶⁾. The clinical manifestation related to NS includes child begins to gain weight, which progresses over a period of days or weeks. Puffiness of the face, especially around the eyes, is apparent on arising in the morning but subsides during the day, when swelling of the

abdomen, genitalia, and lower extremities is more prominent. Generalized edema (anasarca) may develop gradually or rapidly. Edema of the intestinal mucosa may cause diarrhea, loss of appetite, and poor intestinal absorption ⁽⁷⁾.The nursing consideration is very important for establishing basic line of care and family education which includes : first, monitoring intake and output but may be difficult in very young children but can be done by mothers such as weighing diapers, examination of urine for albumin, daily weight, and measurement of abdominal girth,

second, assessment of edema through observing swelling around eyes and dependent area, third, diet should be restricted like salt and fluid and high protein during appearance of edema and fourth, protecting the child with NS from infection especially when the child in receiving corticosteroid therapy ⁽⁸⁾.

II. RESULTS AND DISCUSSION

Table (1) Participants' Level of Knowledge.

	Level of knowledge Variables	Good		Acceptable		Poor	
		No.	%	No.	%	No.	%
1	disease definition, physiology, signs and symptoms.	23	38.3	8	13.3	29	48.4
2	disease causes	19	31.7	17	28.3	24	40
3	disease complications	21	35	10	16.6	29	48.4
4	disease diagnosis	28	46.7	18	30	14	23.3
5	Managements	20	33.3	7	11.7	33	55
6	cortisone side effects	35	58.3	13	21.7	12	20

Table (1) demonstrates that participants' general information about nephrotic syndrome at a poor level for most of them (n=29; 48.4%) concerning disease definition, physiology, signs and symptoms, also(n=24; 40%)related to disease causes. While (n=29; 48.4%) related to disease complications respectively . And their knowledge is a poor level for the majority of them (n=33; 55%), regarding disease

managements.While knowledge is at a good level for the majority of them (n=28; 46.7%), relative to disease diagnosis , also the knowledge is at a good level for the majority of them (n=35; 58.3%), related to cortisone side effects .This result may be due to the fact different nurses' knowledge and level of education and general information about nephrotic syndrome.

Table (2) Distribution of Nurses' knowledge about nephritic syndrome.

Level	Frequency	Percent
Poor < 51	27	45%
Acceptable 51-76	12	20%
Good 77-102	21	35%
Total	60	100%

Table (2) Shows that nurses' knowledge have poor level about nephritic syndromeand represents 45% (N= 27).This result may be due to that fact most of study sample 27(45%)were

diploma , nursing course 1(1.7%) , Secondary school of nursing 23(38.3%) and Bachelor 9(15%).

Table(3) Association between participants' Socio-demographic Characteristics and their Level of knowledge toward nephrotic syndrome.

	Knowledge		Acceptable		Good		P value
	Poor NO.	%	NO.	%	NO.	%	
1-Age (years)							
19-24	11	42.3	6	23.1	9	34.6	0.040*
25-30	5	31.2	4	25	7	43.8	
31-36	6	60	2	20	2	20	
37-42	1	33.3	0	0	2	66.7	
43-48	2	66.7	0	0	1	33.3	
49-54	2	100	0	0	0	0	
2-Gender							
Male	13	54.2	3	12.5	8	33.3	0.303
Female	14	38.9	9	25	13	36.1	
4-Level of education							
Nursing course	0	0	0	0	1	100	0.023*
Secondary school of Nursing	12	52.2	4	17.4	7	30.4	
Diploma	10	37.1	7	25.8	10	37.1	
Bachelor	5	55.6	1	11.1	3	33.3	
5- Years of experience in nursing field							
1-10years	19	41.3	11	23.9	16	34.8	0.001*
11 – 20 years	6	60	1	10	3	30	
21-30	2	50	0	0	2	50	
Share in specialist Courses							
Yes	15	37.5	9	22.5	16	40	0.363
No	12	60	3	15	5	25	

*Significant at P < 0.05

The study shows in (table 3) that poor knowledge is within (43-48) years old age, and there is association between nurses' age and their knowledge (P-value = 0.040) related to (definition, physiology, signs and symptoms , causes , complications , diagnosis ,medical managements and side effects of corticosteroids) .These findings are disagrees with the study done by (Al-Sa'idi, 2006) he indicated in his study that there is no significant association between nurses' knowledge and the age⁽⁹⁾ .The study shows that there is no significant association between nurses' knowledge and gender at (P-value = 0.303) related to (definition, physiology, signs and symptoms, causes , complications, diagnosis, medical managements and side effects of corticosteroids) .

These findings agrees with (Al- Sa'idi, 2006) he indicated in his study that there is no significant association between nurses' knowledge and gender also these findings is agrees with (Al-Jaza'iri ,2007) he mentioned in his study that there is no significant association between nurses' knowledge and gender⁽¹⁰⁾ Table (3) Shows thatthere is a significant association between nurses' level of education and their knowledge. This finding agreed with study done by (Al-Jaza'iri, 2007) he mentioned that there is a significant association between nurses' knowledge and their level of education, also agrees with (Shauq, 2008) the findings showed that a statistical significant association between nurses' level of education and their knowledge⁽¹¹⁾ .

But this findings disagreed with study done by (Salih, 2007) he indicated that there was no significant association between

nurses' knowledge and their level of education⁽¹²⁾. Therefore the nurses' knowledge increases when the nurses have highly level of education.

In the present study the results indicated that there is a significant association between nurses' knowledgeand years of experience in nursing field at (P-value =0.001.Also these findings agreed with (Al-Jazai'ri,2007) he mentioned that there is a significant association between nurses' knowledge and years of experience and years of employment . This indicated that the more years of experience and the more years of employment , the more knowledge the nurses may have. This result is disagreed with (Salih, 2007) he stated that in his study there is no significant association between nurses' knowledge and the years of experiences as a nurse.

The study shows in (table 5) more than third of those who have poor knowledge and no share in specialist courses (n=12; 60%) and there is no significant association between nurses' knowledgeand share in specialist courses (P-value=0.363) .This result disagrees with (Sharhan,2015) he mentioned in his study that there is a significant association between nurses' knowledge and their share in specialist courses⁽¹³⁾ .The researcher indicated that need more training of specialist courses to improve the nurses' knowledge toward pediatric nephrotic syndrome. In general, nurses with opportunity of training courses in their field have a positive effect on the care that provided to the patients.

Table(4) Participants' Level of practices .

Level of practice variables	Good		Acceptable		Poor	
	No.	%	No.	%	No.	%
1 Edema nursing care	14	23.3	7	11.7	39	65
2 Nursing management during cortisone treatment	20	33.3	21	35	19	31.7
3 Nursing care to protect the child from infection	18	30	20	33.3	22	36.7

Table (4) demonstrates that participants' nurses practices about edema in patient with nephritic syndrome at a poor level for most of them ($n= 39;65\%$), ($n= 21; 35\%$) concerning Nursing management during cortisone taken is at acceptable level . While the Nursing care to protect the child from infection ($n=22; 36.7\%$) are a poor level for the majority of them.

This result may be due to from the fact different nurses level of education most of the study sample graduated from medical institute (diploma) and decrease in number of college of nursing. This result agrees with (Rosster, R 2012) their result indicate that the level of education effects positively on nurses' practices⁽¹⁴⁾ .

Table (5) Distribution of nurses practices about nephritic syndrome.

Level	Frequency	Percent
Poor ≤ 29	28	46.7
Acceptable 30-45	20	33.3
Good ≥ 46	12	20
Total	60	100%

Table (5) Shows that nurses practices have poor level about nephritic syndrome disease and represents (**46.7%**), ($N= 28$).But nurses have acceptable level ($n=20$), (**33.3%**) and nurses at good level that represents ($n=12$), (**20%**) of the study sample .This result come due to from poor the role of continues nursing education program in pediatric hospitals nephrology units, also training courses are considering the right method for teaching the

nurses and practices based on scientific background which prevent the nurses from performing poor and bad practices and become more competent .This result supported with (mary, Thomas, 2001) their results showed that there is a positive relationship between the nurses' practices and training courses⁽¹⁵⁾ .

Table (9) Association between participants' Socio-demographic Characteristics and their practice's toward nephrotic syndrome .

	Practice's						P value
	Poor		Acceptable		Good		
	NO.	%	NO.	%	NO.	%	
1-Age (years)							0.001*
19-24	14	53.8	11	42.4	1	3.8	
25-30	3	18.8	4	25	9	56.2	
31-36	6	60	2	20	2	20	
37-42	1	33.3	2	66.7	0	0	
43-48	2	66.7	1	33.3	0	0	
49-54	2	100	0	0	0	0	
2-Gender							0.64
Male	14	58.3	6	25	4	16.7	
Female	14	38.9	14	38.9	8	22.2	
4-Level of education							0.98
Nursing course	0	0	1	100	0	0	
Secondary school of Nursing	11	47.8	9	39.1	3	13.1	
Diploma	15	55.5	7	25.9	5	18.6	
Bachelor	2	22.2	3	33.3	4	44.5	

5- Years of experience in nursing field							0.05*
1-10years	26	56.5	15	32.6	5	10.9	
11 – 20 years	2	20	4	40	4	40	
21-30	0	0	1	25	3	75	
Share in specialist Courses							.521
Yes	15	44.2	12	35.2	7	20.6	
No	13	50	8	30.8	5	19.2	

*Significant at P < 0.05

The result of the study shows that nurses who has poor practices is within age (43-48) and (49-54) years old age (66.7% ;100%) and there is association between nurses' practices related to (nursing care during appearance of edema, managements during treating the child with corticosteroids and managements to protect the child from inflammations) and their age (P-value=0.001) , the majority of those who have poor practices is male (53.8%).This study is constant with (Fajer,2000) mentioned that with increasing years of age better performance of practices occurs .This is due to the fact that experiences accumulate through the progression in age .

The study shows that there is no association between nurses' practicesand gender. Also the study disagree with (Al-aboudy, 2002) who has stated that there is an association between the nurses practices and gender⁽¹⁶⁾ . The study shows that there is no association between nurses' practicesand their level of education.This result disagrees with (Al-sultani,2006) mentioned in his study that there is association between the nurses' practices and level of education ⁽¹⁷⁾,also this result disagrees with (Sadiq,2012) he mentioned in his study that there is a relationship between nurses' practices and their level of education ⁽¹⁸⁾.

Table (5) show that there is association between nurses' practices and the years of experience in nursing field (P-value=0.05). Also (Sadiq, 2012) reported in his study that there are highly significant relationship between nurses' practices and the years of experience in general hospital.

Table (5) shows that(50%) of nurses who have poor practices and no share in specialist courses and there is no association between nurses' practicesand their share in specialist courses. This result was supported by (Al-Sai'di, 2006) study which revealed no statistical significant association between nurses' knowledge and practices and number of training session.

Recommendations:

1. Providing scientific booklet , publication and journal about nephrotic syndrome , is highly recommended for the ministry of health.
2. Continues education programs are important to improve nurses' knowledge and practices toward children with nephrotic syndrome.
3. Developed training program for nurses is necessary to improve their quality of nursing care provided to the children toward nephrotic syndrome.

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