Results

The results of this study are presented in parts as shown in tables from 1 to 21 and five figure.

Part (1): General characteristics of the study sample (Table 1 to 4 and fig. 1).

Part (2): Needs of children undergoing hemodialysis for knowledge about renal failur and hemodialysis (Table 5 to 6 and fig. 2&3).

Part (3): Needs of children undergoing hemodialysis for knowledge about daily physical activities (Table 7 to 10).

Part (4): Psychological and social needs of children under going hemodialysis (Table 11 to 15 and fig. 4).

Part (5): Needs of children to deal with problems (Table 16 to 18).

Part (6): Factors that obstacles the child for daily living activities (Table 13to 19 and fig.21and fig. 5).

Part I: General Characteristics of the Study Sample

Table (1): Number and percentage distribution of children undergoing haemodialysis.

Children's characteristics	Total no. 80 (100%)	
	No.	%
Age in years:		
< 10 yrs	3	3.75
10 < 13 yrs	14	17.50
13-16 yrs	63	78.75
Mean ± SD	**13.75 ± 1.4**	
Sex:		
Male	31	38.75
Female	49	61.25
Education:		
Secondary	5	6.25
Preparatory	24	30.0
Illiterate	51	63.75

Table (1) showed that the mean age of children under going hemodialysis was 13.75 ± 1.4, years. This table also illustrated that 61.25% and 63.75% of children were female & illiterates respectively

Table (2): Number and percentage distribution of children undergoing haemodialysis as regards source of information.

Items	Total no. 80 (100%)	
	No.	**%**
• Family	1	1.25
• Nurses	0	0.0
• Physicians	17	21.25
• All	62	77.5

Table (2) shows that more than three quarters (77.5%) of children acquire their knowledge from their family, physicians and nurses.

Table (3): Number and percentage distribution of children according to history of haemodialysis.

Items	Total no. 80 (100%)	
	No.	**%**
Onset of haemodialysis		
< 5 yrs	13	16.25
5 < 10 yrs	50	62.5
10-15 yrs	17	21.25
Mean ± SD	**7.7 ± 3.0**	
No of dialysis / week:		
Three/weak	80	100.0
Diseases associated with dialysis:		
Hypertension	51	63.75
Hepatitis	24	30.0
Heart disease	5	6.25

Table (3) revealed that the mean years of starting hemodialysis for children was 7.7 ± 3.0. years Regarding the number of dialysis/week, it was found that all children (100.0%) was under dialysis three time/week. Regarding the disease associated with dialysis, it was found that the highest percentage (63.75%) of children had heart disease followed by hepatitis (30%), while the lowest percentage (6.25%) of them had hypertension.

Fig. (1): Number and percentage distribution of children as regards family history of renal failure.

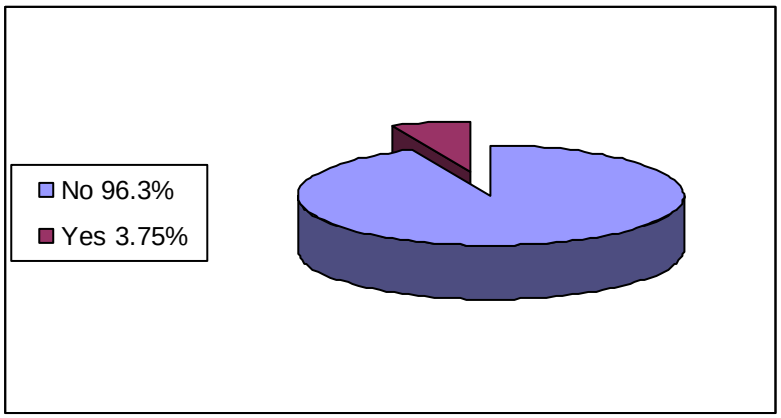

Fig. (1): revealed that the majority of children (96.3%)didn't have family history of renal failure, only 3.75% of them had a family history.

Table (4): Number and percentage distribution of children according to problems of haemodialysis.

Items	Total no. 80 (100%)	
	No.	%
General problems		
Bleeding	14	17.5
Shivering	22	27.5
H tension	39	48.75
Nausea & vomiting	20	25.0
Allergy	13	16.25
Mild edema	16	20.0
Severe edema	4	5.0
Pallor	79	98.75
No problems	26	32.5
Problems before dialysis		
Headache	11	13.75
Hypotension	3	3.75
Exhausted	24	30.0
No problems	42	51.25
Problems during dialysis		
Headache	19	23.75
Hypotension	14	17.5
Vomiting	21	26.25
No problems	26	32.5
Problems after dialysis		
Tired and exhausted	8	10.0
Like before dialysis	13	16.25
No problems	59	73.75
Problems after 4 hrs from dialysis		
Exhausted	8	10.0
No problems	72	90.0

Table (4) showed that the general problems regarding hemodialysis that represents the highest percentage (98.75%) by children was pallor. While severe edema has the lowest percentage (5.0%). This table also found that 51.25%, 32.5% and 73.7% of children hadn't any problems before during and after dialysis respectively.

Part II: Needs of children undergoing haemodialysis for knowledge about renal failure.

Table (5): Number and percentage distribution of children's need as regard knowledge about renal failure.

Items	Total no. 80 (100%)	
	No.	%
Concept of Renal Failure:		
Correct	49	61.25
Incorrect	31	38.75
Causes of Renal Failure:		
Hypertension	17	21.25
Genetic diseases	0	0.0
All of them	21	26.25
Don't know	42	52.5
Clinical manifestations of Renal Failure:		
Headache, tired, pale skin	22	27.5
Anorexia & vomiting	13	16.25
All of them	22	27.5
Don't know	20	25.0
Complications of Renal Failure:		
Coma & Convulsions	7	8.75
Muscle cramps	23	28.75
All of them	12	15.0
Don't know	38	47.5
Management of Renal Failure:		
Haemodialysis	52	65.0
Kidney transplantation	21	26.25
Medication	3	3.75
Don't know	4	5.0

Table (5) showed that the highest percentage (61.25%) of children under going haemodialysis had correct knowledge about concept of renal failure. While more than half (52.5%) of them don't know causes of renal failure further more 47.5% of children them don't know complications of renal failure, but more than half of the them have knowledge about Haemodialyis.

Part III: Needs of children for knowledge about haemodialysis.

Table (6): Number and percentage distribution of children's as regards needs for knowledge about concepts and importance of haemodialysis.

Items	Total no. 80 (100%)	
	No.	%
Concept of hemodialysis:		
Remove of waste products	25	31.25
Don't know	55	68.75
Importance of hemodialysis:		
Relieve of symptoms	8	10.0
Let child to live normal	25	31.25
Don't know	47	58.75

Table (6) this table shows that 68.75% and (58.75%) of children don't know the concept of haemodialysis and its importance respectively.

Fig. (2): Number and percentage distribution of children's according to the operation done for starting haemodialysis

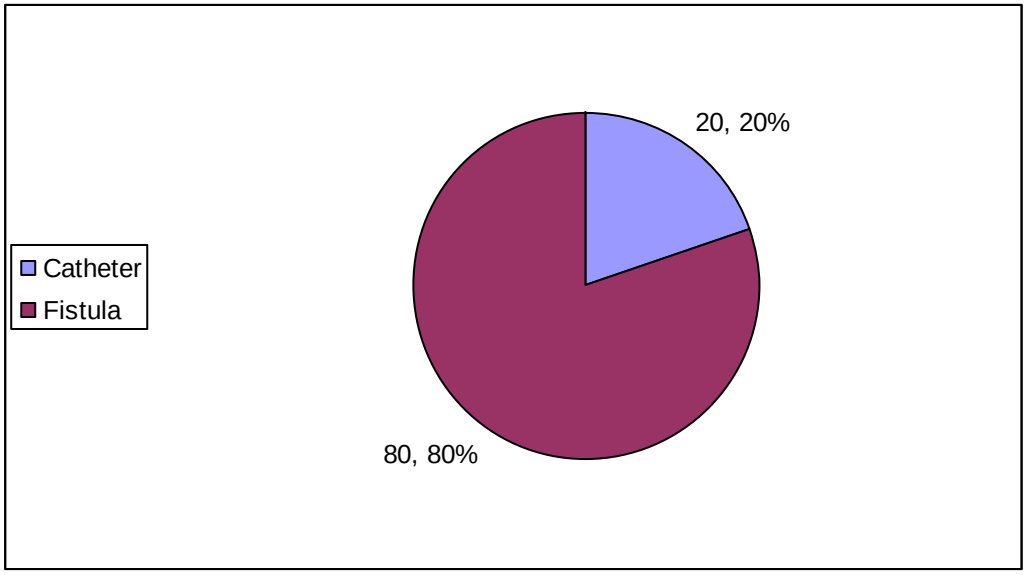

Fig (2): reveals that the children undergoing hemodilaysis therapy through fistula represents the highest percentage (80.0%), while the lowest percentage (20.0%) through catheter.

Fig. (3): Number and percentage distribution of children knowledge about care of fistula.

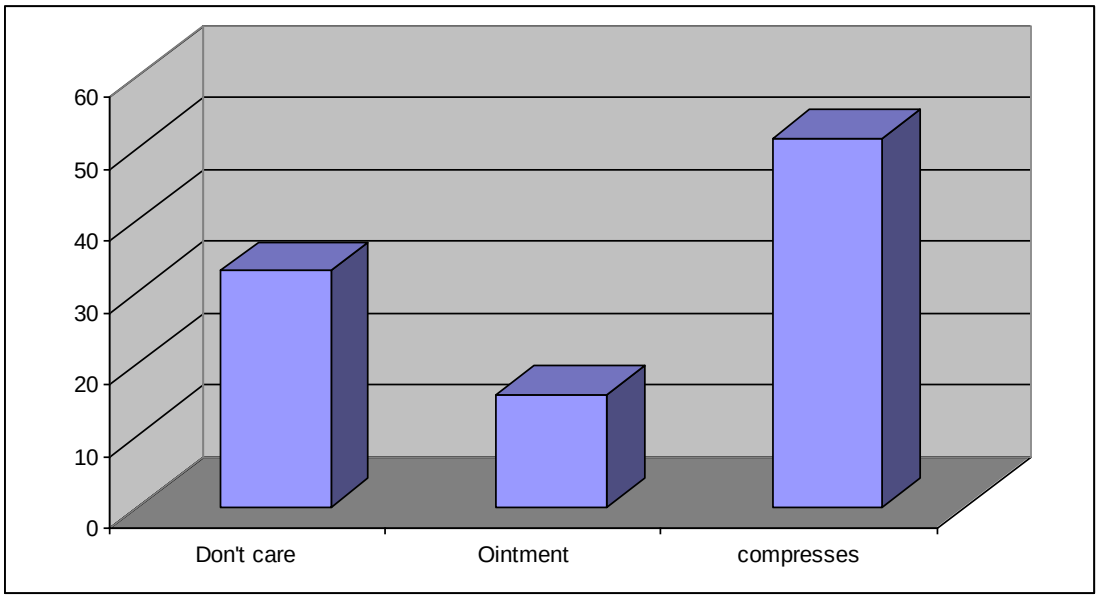

Fig. (3): This figure illustrates that 49.4% of children use compresses for care of fistula, while (15.7%) of them use ointment. Mean while 30.9% of children don't care of fistula.

Part IV: Needs of children undergoing haemodialysis for knowledge about daily physical activities.

Table (7): Number and percentage distribution of children as regards personal hygiene.

Personal		
	No.	**%**
Uses of teeth brush	54	67.5
Bath himself	79	98.8
Dress himself	32	40.0

Table (7) shows that children who used teethbrush were more than half (67.5%), the majority (98.8%) of them, bath themselves and 40% of them dress themselves.

Table (8): Number and percentage distribution of children as regard changes occurs during dialysis.

Items	Total no. 80 (100%)	
	No.	**%**
Changes that occurs before dialysis:		
Fatigue	38	47.5
Lazy	26	32.5
Nothing	16	20.0
Changes that occurs after dialysis:		
Active	51	63.75
As before dialysis	13	16.25
Nothing	16	20.0

Table (8) showed the changes of children before dialysis that represented the highest percentage (47.5%) was fatigue, while the lowest percentage (20.0%) didn't have any changes. Regarding changes that occurs after dialysis, it was found that more than half (63.75%) of children were active.

Table (9): Number and percentage distribution of children's skin condition.

Items	Total no. 80 (100%)	
	No.	**%**
Skin condition		
Dry skin	51	63.75
Cracking of skin	10	12.5
No problem	19	23.75
Skin care through		
Bathing	16	20.0
Uses of ointment	18	22.5
Don't care	46	57.5

Table (9) showed that 63.75% of children had dry skin while 12.5% of them suffer from cracking of skin. Regarding skin care, it was found that highest percentage (57.5%) of children didn't care their skin, while 20.0% of them cared their skin through bathing.

Table (10): Number and percentage distribution of children related to problems face them during daily living activities.

Items	Total no. 80 (100%)	
	No.	**%**
Psychological problems:		
Tired	12	15.0
Time of dialysis not appropriate	4	5.0
No problems	64	80
Problems of fistula:		
During play	21	26.25
With walking	6	8.6
During bathing	6	8.6
At sleeping	4	5.7
All of them	37	52.8
No problems	6	8.6

Table (10) showed that the children who suffer from tired during daily living activities represents 15.0%. Meanwhile about two thirds (80%) of children don't face any problems during daily living activities. As regards a problems of the fistula this table also illustrates that the highest percentage (52.8%) of children faced problem of fistula during playing, walking, bathing and at sleeping.

Part V: Psychological needs of children undergoing haemodialysis.

Table (11): Number and percentage distribution of children regarding psychological problems related to renal failure.

Items	Total no. 80 (100%)	
	No.	%
Frustration	8	10.0
Lost time during dialysis	8	10.0
Inability with daily activities	57	67.7
No problems	7	8.8

Table (11) illustrated that 67.2% of children are suffering from inability of daily activities problems of renal failure, while 10%, of them had frustration and lost time during dialysis day.

Table (12): Number and percentage distribution of children as regards psychological problems related to haemodialysis.

Items	Total no. 80 (100%)	
	No.	%
Psychological problems before dialysis:		
Desire for sleeping	9	11.3
Always anxious	13	16.2
Nervous all time	11	13.8
Signs of Depression (sad, no talk, sleep)	34	42.5
No problems	13	16.2
Psychological problems during dialysis:		
Tired	38	47.5
Frustration	13	16.2
Anxious	9	11.3
No problems	20	25.0
Psychological problems after dialysis:		
As before dialysis	14	17.5
No problems	66	82.5

Table (12) shows about 42.5% of children suffer from signs of depression. Regarding psychological problems during dialysis it was found 47.5% of children tired, 11.3% of them were anxious. As regards psychological problems after dialysis, this table found that 82.5% of children didn't have any problems.

Part VI: Social needs of children undergoing haemodialysis.

Table (13): Number and percentage distribution of children related to time spend during the day at home.

Items	Total no. 80 (100%)	
	No.	%
Play	19	23.8
Watch T.V	26	32.5
Housework	12	15.0
Study	23	28.7

Table (13) showed that the children who spent their time in watching T.V were 32.5%, while 15.0% and 28.7% of them made house -work and studying their subject respectively.

Table (14): Number and percentage distribution of children as regards problems faced them during dealing with family members.

Items	Total no. 80 (100%)	
	No.	**%**
Continuous shouting	9	11.3
No sharing in house work	13	16.3
Nothing	58	72.4
Solve the problem	19	23.7
Ask family for help	26	32.5
Don't know	35	43.8

Table (14) showed that more than half 72.4% of the children hadn't problems during dealing with family members while 11.3% of them were continuous shonting with their family and 16.3% of them shoring in house work with their family. illustrated that nearly half 43.8% of the children are suffering from inability to solve the problem, while 23.7% of them solve the problems facing them by themselves.

Fig. (4): Number and percentage distribution of Children' regarding Problems of visiting friends and relatives

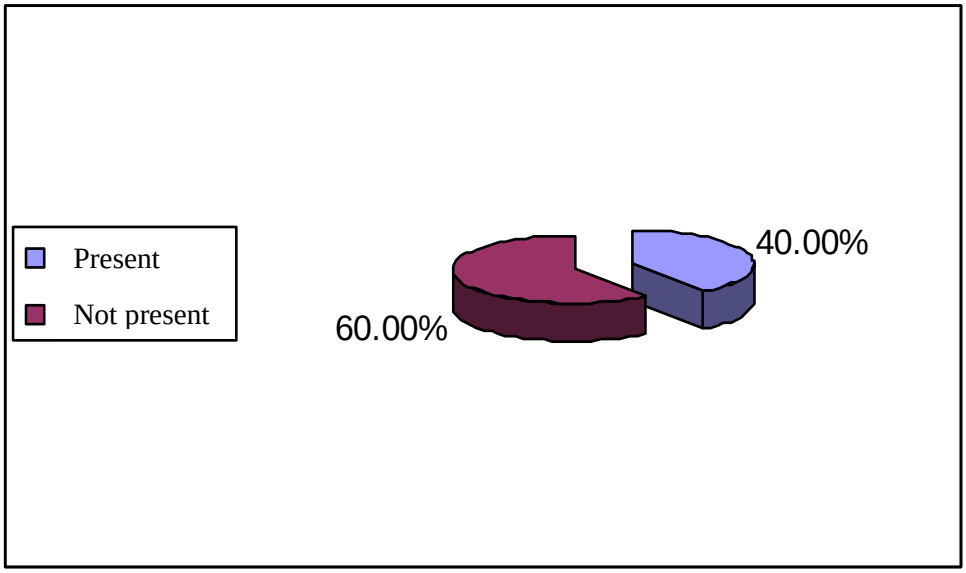

Fig. (4): Showed that about 60.0% of children visit their friends and relatives, while 40.0% of them suffer from problems during visiting their relatives.

Table (15): Number and percentage distribution of children as regards problems, of renal failure.

Items	Total no. 80 (100%)	
	No.	**%**
Growth retardation	58	72.5
Bleeding	10	12.2
Hypersenstivity	3	3.8
Infection	9	11.2

Table (15): showed about 72.5% of children suffer from growth retartaion, and about 12.2% of them exposure to bleeding, also about 3.8% exposure to hypersensitivity during dialysis itself and about 11.2% of children expose to infection through the dialysis units.

Part VII: Needs of children to deal with problems of haemodialysis.

Table (16): Number of percentage distribution of children needs related to feeding pattern.

Items	Total no. 80 (100%)	
	No.	%
Restricted diet		
:Decrease salt in diet	29	36.2
Decrease protein in diet	9	11.3
Decrease fat in diet	42	52.5
Decrease fluid intake	58	72.5
Preferable diet	49	61.3
All food	14	17.5
Vegetables	17	21.2
Fruits		
Problems during feeding	47	58.7
Yes	33	41.3
No		

Table (16) shows about 16.3% of children was eat all type of food. Wile 17.5% of them eat vegetables in the most meal and about (21.2) of children eat a lot of fruits rather other type of food. As regard problems during feeding found 58.7% of children are suffer from problems during eat that is because this children eat all type of food without restricted.

Table (17): Number and percentage distribution of children as regards needs for knowledge about diet.

Items	Total no. 80 (100%)	
	No.	**%**
Diet regimen for children:		
Decrease salt in diet	11	13.7
Decrease fat in diet	4	5.0
Decrease fluid intake	7	8.8
Not follow	58	72.5

Table (17) showed that 72.5% of children did not follow diet regimen while 13.7% of them decrees the salt in their diet also 5.0% of children decrees fat in their diet and about 8.8% decrees fluid in take.

Table (18): Number and percentage distribution of children regard needs for knowledge about treatment.

Items	Total no. 80 (100%)	
	No.	%
Drug used with dialysis:		
Hypertensive drugs	19	23.7
Vitamins & iron	5	6.3
Drug for disease	13	16.3
Hypertensive drugs, vitamins & iron	15	18.7
No drug used	28	35.0

Table (18) showed that about 23.7% of children take hypertensive drugs only beside the dialysis therapy, while 6.3% of them take vitamins and iron, and about 18.7% of children take hypertensive, vitamins and iron drug. But about 35.0% of children didn't take any drugs.

Part VIII: Factors that obstacles the child for dailyliving activities.

Table (19): Number and percentage distribution of children as regards problems faced them to going school.

Items	Total no. 80 (100%)	
	No.	%
Time of dialysis	51	63.7
Tired	3	3.8
Don't like school	1	1.2
Time of dialysis & tired	3	3.8
No problems	22	27.5

Table (19) showed that 63.7% of the children didn't go to school because the time of dialysis while 3.8% of them suffer from tired while going to school. Also about 1.2% of children didn't like going to school.

Table (20): Number and percentage distribution of children have problems related to dealing with school subjects.

Items	Total no. 80 (100%)	
	No.	**%**
Difficult in learning achievement:		
Lack of concentration	10	12.5
Lack of recall	4	5.0
No difficulties	66	82.5

Table (20) showed that 82.5% of children didn't have difficulties in learning achievement, while 12.5% of them had lack of concentration, and also about 5.0% had lack of recall.

Table (21): Number and percentage distribution of children regarding physical activity.

Items	Total no. 80 (100%)	
	No.	**%**
Exercises:		
Yes	38	47.5
No	42	52.5
	Total no. 38 (100%)	
	No	**%**
For plays:		
a. Football	1	2.6
b. Walking	15	39.5
c. Others games	22	57.9
	Total no. 42 (100%)	
	No	**%**
Causes for not practice physical activities:		
a. Time of dialysis	11	26.2
b. Tired & fatigue	16	38.1
c. Don't know	15	35.7

Table (21) showed that 47.5% of children do exercise such as football, walking and other games, while about 52.5% didn't have practices, because time of dialysis and their tired and fatigue during do any effort.

Fig. (5): Number and percentage distribution of children knowledge regarding hobbies.

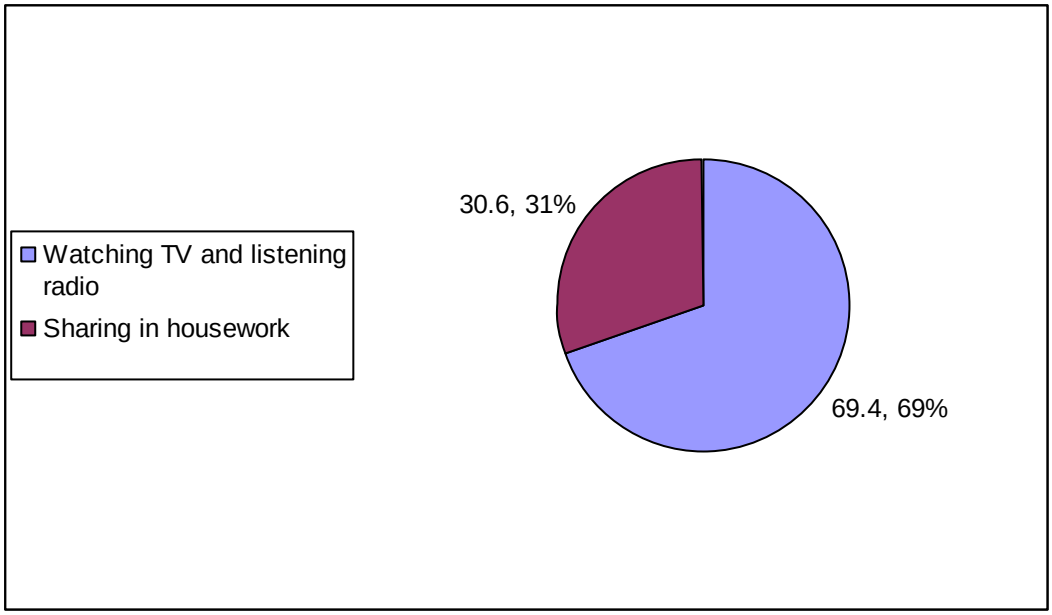

Fig. (5): showed that 69.5% of children had hobbies such as watching TV, playing football and, drawing, while about 30.6% of them sharing in housework.