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RESEARCH ARTICLE

Determination of Complications of Hemodialysis for children at AL-Hussein Teaching Hospital in Al-Nasiriya City

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ABSTRACT
Objectives: The research aimed to evaluate the hemodialysis complications in the dialysis unit at Al-Hussein Teaching Hospital, Nasiriyah City.

Methodology:- A descriptive study approach was used throughout the current investigation, from 20 October 2018 to February 2019. Eighty patients (non-probability) were carefully examined. AL-Hussein Hospital educates at the AL-Nasiriyah Hemodialysis Unit in the city of AL-Nasiriyah. Data were acquired utilizing a self-reported questionnaire for the administrative reporting procedure. The questionnaire has three components: socio-demographic characteristics of the parents (age, gender, educational level, jobs, monthly income, and residence). The questionnaire's second portion includes questions concerning chronic hemodialysis complications. Panel experts determined the material validity of the instrument, and the instrument's internal correctness was determined by pilot study and the Alpha correlation coefficient (r = 0.870). Descriptive and inferential statistical approaches were used to examine the data., using the Social Science Statistical System (IBM SPSS)20.0.

Results:- The results showed that most of the sample was in the 7-11-year-old age group. The majority of the study sample is male; level of education, the greater number of students not reading and writing (32.0 %) were accounted for by surveys, job status and the findings showed that the largest proportion of the survey were (unemployed and research subjects are inadequate and accountable (49.0 %). Much of the study population is rural living. Study findings indicate the highest rate of infection with hemodialysis.

Recommendations:- The research advised that family members of hemodialysis patients get instructional health education to raise their understanding of chronic hemodialysis complications.

Keywords: Patients, Patient Knowledge, Hemodialysis complication.

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INTRODUCTION

Chronic hemodialysis (HD) is known to be a preventive measure to save the lives of terminally ill patients with kidney disease (ESRD). It is largely dependent on the availability of vascular access (VA) and does not allow access to blood vessels, arteries and arteriovenous fistula veins (AVF) to be created and used successfully (Beathard & Posen 2000; Moist et al,2013).

For patients between 200 and 800 ml/min vascular access to the patient's blood vessel system should be established. There are several different kinds of access (Smeltzer et al., 2010).

Conversely, establishing well-quality delivery remains difficult, but this is a critical aspect of dialysis patient treatment. Preparation in arteriovenous fistula and the high failure rate are included in the original entry. Arteriovenous greases prevent the use of mother ships of organic or biological substances that require a new strategy and surgery (Naser & Mohammed, 2016).

The safest vascular access would be to provide safe and successful care by allowing the blood to be drained and retrieved from the body by mistake. Vascular access is easy to use, reliable and has a minimal risk to the client when dialysis is performed. On the contrary, it is still difficult to develop high-quality access despite being an integral part of treating dialysis patients. The original arrival involves preparation in an arteriovenous fistula, And the defect rate is high. Using synthetic or organic matter with mother ships, which requires further planning and operational experience, is replaced by venous grafts (Mick Kumwenda et al ., 2015).

Holland et al . (2010) believe that successful dialysis, which is a good job of reaching and maintaining blood vessels, requires a multidisciplinary connection between the kidneys, surgeons, and nurses. In the next partnership, the dialysis and patients work together as one team.

Proper monitoring and treatment of blood vessel control is very important for dialysis patients. Connection is the foundation in treating dialysis. Maintaining vascular access requires a strong relationship between doctors and patient care staff. Nurses must bring their clinical experience and strategies into action and advise and inspire patients to look out for themselves. Patients are responsible for applying good knowledge of the self-care learned to their daily lives (Bai et al.,2014).

Aim of the study :

To determine complications of hemodialysis for children in the hemodialysis unit at AL-Hussein Teaching Hospital in AL-Nasiriya City.

METHOD

Study design: Descriptive research was carried out as this analysis was carried out from 20 October 2018 until 1 February 2019.

Study settings: - The study occurred in the Al-Hussein Dialysis Center in Nasiriyah.

Sample of the study:- Randomization: Sampling of (80) patients on the choice of chronic dialysis in the dialysis unit at Al-Hussein Teaching Hospital.

Criteria :

A-Age less than 18 years.

B- Patients agreed to cooperate in the study.

C- Patients male and female

Study Tools:

The study was carried out in the dialysis unit of Al-Hussein Teaching Hospital in Nasiriyah, and the researchers developed a questionnaire that included:

Part 1: Among the socio-demographic characteristics are (age, gender, education level, occupation, marital status and monthly income).

Part 2: The questionnaire consists of questions related to patients' knowledge of hemodialysis complications:

Complications of dialysis consist of questions related to the following (with the start of dialysis, fat metabolism disorder (triglycerides), with the start of dialysis contributing to cardiovascular complications, do you suffer from anaemia after dialysis or a stomach problem after the start of Dialysis, and after the start of dialysis, a metallic taste is reported when they need dialysis, bone pain and fractures, Interferes with mobility, these symptoms occur during and after dialysis, do you suffer from high blood pressure, during and after dialysis, do you suffer from low blood pressure, and during and after dialysis, was a skin or itching problem reported, and a problem with Sleep and difficulty falling asleep. You are the one who started dialysis until now, and muscle pain occurs. Do you suffer from this so far, the systemic disorders that have occurred with you from the start of dialysis until now Do these signs and symptoms include headache, nausea, vomiting, insomnia, and decreased awareness of you).

Official permission was obtained from the Health Management Authority's administrative office and from the patients in the dialysis unit obtained from the participants before their inclusion in the study was explained to each participant.

Scoring and ranking:

The following designs were used to grade and score the items:

1-The respondents' evaluations for each question were rated with (2) years (1) No. 2: A higher questionnaire ranking (MS) increased the progression of hemodialysis complications.

The study data was determined according to the Level of (success and failure) The cut point was (1.5) and the acceptance pass was calculated by the formula:

Cut-off point = 3/2=1.5 It is classified as scores of response according to the following

Pass =(1.1-2.0)

Fail= (0.0-1.0)

RESULTS

Table 1: Patient distribution (80) of demographic hemodialysis:

Age group	Number	Present
1-6	5	10%
7-11	55	65%
12-18	20	25%
Total	80	100

Table 2: Distribution of patients (80) with hemodialysis by education level:

Education level	Number of	Present
Note: Read and write	30	37.5
Read and write	17	21.3
Primary	15	18.8
Intermediate school	6	7.5
Secondary school	8	10.0
Total	80	100

Table 3: Distribution (80) of patients with hemodialysis by gender:

Gender	Number of	Present
Male	52	65%
Female	28	35%
Total	80	100%

Table 4: Distribution by the income of the (80) hemodialysis patients

Income	Number of	Present
Barely sufficient	23	28.7
Sufficient	14	17.5
Insufficient	43	53.8
Total	80	100

Table 5: Distribution according to the residency of the (80) hemodialysis patients:

Residency	Number of	Present
urban	37	46%
Rural	43	53.8%
Total	80	100%

Table 6: Summary statistical of the sample regarding complications of hemodialysis for children

No	Items	Yes		No	
		F	%	F	%
1	**Disruptions in lipid metabolism occur at the start of dialysis (hypertriglyceridemia)**	**19**	**23.8**	**61**	**77.2**
2	**The initiation of hemodialysis contributes to cardiovascular complications**	**52**	**65.0**	**28**	**35.0**
3	**Are you suffering from anaemia post-hemodialysis**	**60**	**80.0**	**20**	**20.0**
4	**Are you suffering from Gastric ulcers or gastric problems after initiation of hemodialysis?**	**20**	**250.0**	**60**	**75.0**
5	**After starting hemodialysis, are reported a metallic taste when they require dialysis**	**36**	**45.0**	**44**	**55.0**
6	**Bone pain and fractures interfering with mobility occur with you.**	**41**	**51.2**	**39**	**48.8**
7	**During and post hemodialysis, are you suffering from hypertension**	**31**	**38.8**	**49**	**61.2**
8	**During and post hemodialysis, are you suffering from hypotension**	**20**	**25.0**	**60**	**75.0**
9	**During and post hemodialysis, have you reported skin problems or itching.**	**51**	**63.8**	**29**	**36.2**
10	**Sleep problems and difficulty sleeping have occurred for you since you initiated hemodialysis.**	**20**	**25.0**	**60**	**75.0**
11	**Occurrence of muscle pain: Have you been suffering from these until now.**	**19**	**23.8**	**61**	**77.2**
12	**Dysrhythmias have been occurring with you since you started hemodialysis.**	**27**	**33.8**	**53**	**66.2**
13	**Headache is one of these indications and symptoms. You experience nausea and vomiting, restlessness, and a lowered level of awareness.**	**87**	**1.6**	**10**	**12.5**

F= Frequency, % = percent

DISCUSSION

The diagrams systematically explain the findings and direct the discussion to a reasonable extent of the results while making the literature and related studies accessible.

In order to meet the study objectives, the data were analyzed using descriptive and inferential statistics.

Part 1: Discussion of socio-demographic features of children's complications of hemodialysis

The findings of this study revealed that over half of the research sample in Table (3), the bulk of the middle-aged research sample ranged from (7-11) years to (5) patients with a percentage (65 per cent) average age (22.2) years. Supports Alashek et al. Muhammad et al. (2011) are close to this analysis. They said that there were (115) patients in the sample population who had extracts that had access to blood vessels, and more than half (67%) were male and (33%) males. 33% males. This high prevalence of ESRD in men confirms Mahdi's (2013) results, which suggest that the prevalence of chronic kidney disease was well over half that for men.

As for the quality of education, more people had a limited level of education, such as not reading, writing, or graduating, which is an ordinary outcome for our society as the largest number of families with weak monthly earnings.

The findings show a high percentage of the sample (disabled, unemployed, retired and domestic women) concerning employment status.

Most of the study sample is focused on the insuffi cient monthly income and the cost of health care d ata for the individual, particularly the development person who lives in our nation during the global fin ancial crisis.

Based on these data, we feel that the authorities in our country's health ministry must be more devoted to the critical function of their experts in scientifically creating health policy.

As far as residence is concerned, the largest percentage of the study sample is agricultural.

Part 2: Discuss the distribution of the (80) patients with chronic hemodialysis complications for children.

Complications of chronic hemodialysis in a teaching hospital in Al-Nasiriyah City.

CONCLUSIONS

1-The highest percentage of research samples is more male than female, illiterate, read and write, and married and primary school.

2- Determining patient information about the risk of hemodialysis reveals that most of the research population has limited knowledge about chronic hemodialysis complications.

Recommendation:-

Based on the study conclusions, the study can recommend that :

1- An extensive, systematic population-based (national) analysis could be carried out to evaluate Patients' awareness of the risk of chronic hemodialysis.

2- Provides instructional health education to hemodialysis patient family members to increase their knowledge of complications of chronic hemodialysis.

3- The application of health education had a favourable impact on the investigated patients' management and self-care behaviours regarding vascular access devices, as well as a total understanding of chronic renal failure.

4- Educational programs for patients with end-stage renal disease should be continued with their caretakers following maintenance hemodialysis to improve their understanding of treatment problems and to build their expertise.

Ethical Approval Statement

This research study, titled " **Determination of Complications of Hemodialysis for children at AL-Hussein Teaching Hospital in Al-Nasiriya City** " conducted by [**Munther Kamil Oudah**], has received ethical approval from the [The Council of Ethics of Nasrihya Techincal Instiute] at [Southern Techincal University] under approval reference number [372-2020-9-7].

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The author report no conflict of interest.

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