

## Health Needs and Self-Efficacy for Patients Undergoing Hemodialysis

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### ABSTRACT

**Background:** Hemodialysis is critical process for chronic renal failure patient that make them have several health needs that must be met to improve the patient self-efficacy. **Aim of the Study:** This study aimed to assess health needs and identify self-efficacy for patients undergoing hemodialysis. **Subjects and method: Design:** A descriptive design was used in carrying on this study. **Setting:** The present study was conducted at the hemodialysis units of El-Salam and Al-Hayah Hospitals that affiliated to the universal health insurance in Port Said Governorate. **Subjects:** Subjects were recruited using a purposive sampling technique. The total number of patients was (100) patients. **Tools:** Three tools were used. First tool is demographic characteristics and Patient's health history sheet. Second tool was health needs assessment scale. Third tool was Self – Efficacy for Managing Chronic Disease **Results:** The results revealed that all studied patients have met level of arteriovenous access care, 98% of studied sample have met level of psychological need, while 96% , 95% & 88% of them have unmet level of diet , sleep & hygiene and mobility needs respectively. There was significant negative correlation between total health needs scores and total self- efficacy scores among studied sample. **Conclusion** There was significant negative relation between total health needs and total self-efficacy. **Recommendations:** Provide Patients undergoing hemodialysis with needed pamphlets, posters and booklets including instructions that contain information about hemodialysis therapy, diet schedule, medication, life style changes.

**Key words:** Health Needs, Hemodialysis patients & Self-efficacy

## **INTRODUCTION**

Hemo refers to blood. The term "dialysis" describes the separation or filtering procedure. Through a semipermeable barrier, metabolic wastes or toxins are removed from the blood and transported away by the dialysate. Hemodialysis is used to treat chronic renal disease-related uremia, fluid overload, and electrolyte abnormalities (Negi, Verma & Siva, 2019).

There are around 100,397 dialysis patients in Brazil, and hemodialysis accounts for 90.8% of those patients. According to Gesualdo et al. (2017) the incidence in 2013 was 170 patients per 100,000 people. The majority of these patients were located in the south east.

End-stage chronic renal disease, the most advanced stage of chronic kidney disease, necessitates the use of alternative therapies such as peritoneal dialysis, hemodialysis, or kidney transplantation to restore kidney function. More than 1 million patients globally are currently receiving these treatments due to the surge in new end-stage cases (Negi et al., 2019).

Although hemodialysis is thought to be a safe procedure and to be the preferred course of treatment for End-stage chronic renal disease patients, disease-related changes in physical activity, stress, social isolation, dependence, uncertainty about one's health and well-being; grief and/or depression; and feeling victimized by one's illness, their loved ones, or the community, particularly as a result of poor quality of life, complications, disability, or even early death (Himmelfarb, Vanholder, Mehrotra, & Tonelli, 2020).

Hemodialysis takes the place of the kidneys' filtering capabilities in conditions of renal insufficiency. Toxic to renal illness, the buildup of different waste materials in the body can cause severe problems and even death. Hemodialysis preserves the body's homeostatic environment even though it does not continuously monitor normal biological functioning (Dembowska et al., 2022).

Patients undergoing hemodialysis are people with chronic illnesses who have a variety of medical requirements that can help them get well and manage their sickness. Health needs are defined as "capacity to use" and encompass health determinants like employment, housing, health services, education, and disadvantage that express broader social and environmental approximations of these needs (medication needs, nutritional

needs, patient assessment needs, need for vascular access care, educational needs, and psychological needs) (Cantor-Cruz, Cruz-Benavides, Mara & Ramirez, 2021).

In the care of hemodialysis patients, nurses are crucial. Additionally, a crucial nursing function in the management of chronic diseases is patient education. Hemodialysis patients need continuing, protracted care as well as self-care. Patients must become aware of their disease and self-manage it in order to successfully manage a chronic condition. Through education, nurses can help patients develop their coping, self-management, and self-efficacy skills (Dickman & Aslan, 2020)

It is intended that despite their chronic illness, patients would be able to maintain or improve their physical and emotional well-being and enjoy a high standard of living. A person's self-perceived capacity to perform well in a range of circumstances is referred to as self-efficacy. Also describes a person's confidence in their capacity to take the steps necessary to attain a specific goal (Heydarzadeh, Rezaee, & Habibzadeh, 2020).

Self-efficacy is crucial since it affects a patient's capacity to control the symptoms of a chronic illness on their own. A crucial factor in determining whether a self-care action is initiated, how much effort is expended on it, and how long it lasts in the face of challenges and setbacks is self-efficacy. Patients who report high levels of self-efficacy in managing chronic illnesses have a sense of control over their life and a perceived capacity to handle disease-related obstacles (Shahgholian, & Yousefi, 2018).

### **AIM OF THE STUDY:**

Assess health needs and identify self-efficacy for patients undergoing hemodialysis.

### **Research Questions:**

To achieve the aim of this study, the following research questions are formulated:

- 1- What are the health needs for patients undergoing hemodialysis?
- 2- What are the self- efficacy for patients undergoing hemodialysis?
- 3- What are the demographic factors affecting the health needs for patients undergoing hemodialysis?
- 4- What are the demographic factors affecting the self-efficacy for patients undergoing hemodialysis?

## SUBJECT AND METHOD:

### I - Technical Design

The technical design involves a description of the study design, setting, the subject included in its sample, and the tools for data collection

#### Research design:

A descriptive design was utilized to accomplish this research.

#### Study Setting:

This research was carried out at the hemodialysis units of El-Salam and Al-Hayah Hospitals that affiliated to the universal health insurance in Port Said Governorate.

#### Study sample:

Subjects were recruited using a purposive sampling technique of hemodialysis adult patients from the pre mentioned setting over a period extending from the 1st January 2022 to the end of April 2022. Sample size included a total number of 100 patients divided to 60 patients from El-Salam hospital and 40 patients from Al-Hayah hospital.

#### Sample size: -

The sample size was determined using the Steve-Thompson formula with a 5 percent error (95.0 percent significance) and a 20.0 beta error (80.0 % research power) (Janet. Peacock & Phil. Peacock, 2020).

$$n = \frac{N \times P(1-P)}{(N-1) \times (d^2 / Z^2) + P(1-P)}$$

n=Sample size

N=Total society size (344 hemodialysis patients)

Z= The corresponding standard class of significance 95 = 1.96

P=percentage of availability of the character and objectivity= (0.1)

d =error percentage = 0.05

The sample size was calculated to be 100 hemodialysis patients.

Hospital name	No	Sample size
EL-Salam	208	(208/344) X 100= 60 hemodialysis patients
AL-Hayah	133	(133/344) X 100= 40 hemodialysis patients
Total patients number	341	100 hemodialysis patients

**Inclusion Criteria:**

- 1- Adult patients of both sexes.
- 2- Patients who have been undergoing hemodialysis for more than three months ago.

**Exclusion Criteria:**

Patients with the following conditions will be excluded from the study sample:

- 1- Patients with disabilities.
- 2- Patients with diabetic foot or burns injury.
- 3- Patients with psychiatric or cognitive disorders.

**Data collection tools:**

Data was collected using the following three tools:

**Tool I:** Demographic characteristics and Patient's health history sheet researcher in the Arabic language. It is composed of two parts:

**Part 1: Demographic characteristics: -**

It was utilized to assess demographic characteristics of the studied sample e.g, age, sex, marital status, level of education, job, income.....etc.

**Part 2: Patient's health history: -**

It was divided to two items (past medical history, present medical assessment).

- Past medical history as medical history of comorbid diseases, history of partial or complete surgical resection to the kidney, causes of renal failure and family history.
- Present medical assessment which included hemodialysis duration, frequency of hemodialysis sessions, nutritional assessment.

**Tool II: Health Needs Assessment scale for patient undergoing hemodialysis: -**

It was developed by researcher to assess the health requirements for hemodialysis patient. It included the following attributes (physical, psychological, social, spiritual, and knowledge). Physical dimension include diet, sleep & hygiene, arteriovenous fistula care, mobility, and medication. Psychological aspect included statements about speaking openly about sickness, anxiety, showing respect and appreciation from family members and others, talking with those who had renal failure similarly and feeling of reassurance from doctors and nurses. Social needs contained statements about treating as a person who have active role inside family, maintaining anonymity and receiving more assistance from others, etc. Spirituals that help reducing stress, experience inner calm, and look forward with hope are just examples of spiritual demands. Knowledge aspect include

statement about patient's awareness about hemodialysis. medication, complication of hemodialysis, arteriovenous access care and diet.

### **Scoring system**

A grading system was used to represent the responses provided by the patients. The response for every statement is one degree from three choices; 2 points are awarded for "yes," 1 point for "sometimes," and 0 point is awarded for "no." These scores are converted into percentage scores as met needs level  $\geq 60\%$ , and  $< 60\%$  unmet needs level.

### **Tool III: Self –Efficacy for Managing Chronic Disease 6- item Scale**

This scale developed in English Language by ( Lorig, Sobel, Ritter, Laurent,& Hobbs, 2001) to measure sense of efficacy for individuals with chronic diseases. It consists of Six questions about patient,s confidence and ability to manage symptoms and physical impairments, emotional functioning, role functioning, living with sickness, and minimizing the need for a doctor or medicine.

### **Scoring system:**

The scoring method is based on a Likert scale with a range of 1 to 10. Score 1 if you are not at all confident, and 10 if you are totally confident. The score for each item is the number circled and the overall score ranges from 6 to 60 points. If two consecutive numbers are circled, code the lower number. If the numbers are not consecutive, don,t score the item. If more than two items are missing, don,t score the scale .Higher number indicates high self-efficacy  $>40$  to 60 while  $>20$  to 40 consider moderate self-efficacy and finally up to 20 is low self-efficacy. This scale uses an average of six items to determine scores (lorig et al., 2001).

## **II - Operational Design**

It includes the preparatory phase, validity, field work, pilot study and reliability.

- **Preparatory phase**

This phase included a literature review, as well as testing the validity and reliability of the study developed tools.

### **The validity of the study tools:**

A panel of seven experts in the field of medical-surgical nursing reviewed and revised the first tool demographic characteristics and patient's health history sheet , second tool **health needs assessment scale** as well as the content and apparent validity of research instruments that were designed and modified to assess how effectively the scores

represent the variables they are intended to evaluate, it has been changed for clarity, content, element order, and relevance or irrelevance of content. Two months passed at this stage.

**Reliability of the study tools:**

With the use of the Cronbach's alpha test in the SPSS program version 25, the validity of the study tool (the Analysis of Health Needs Scale) was evaluated. Ten patients underwent the test, with the following outcomes: The instrument's internal consistency reliability (Cronbach's) value was 0.865, making it dependable. On a 6-point scale developed by Lorig et al. (2001), internal consistency was examined using Cronbach's alpha coefficient, it was 0.91

- **Fieldwork**

Data were collected for four months starting on January, 2022, and ending on April, 2022., researcher collected data on the first and second shifts all the week except Friday. Each subject was given verbal agreement after being informed of the study's goal. A method used in a study context on hemodialysis patients using one-on-one interviews. In addition to examining the hemodialysis machine and the patient's medical records while undergoing treatment, each patient spends 40 to 45 minutes doing interview to gather data.

- **Pilot study**

On 10% of the study sample, a preliminary analysis was done. Before collecting data, it is done to assess the tool's clarity, viability, and applicability. It also determines how long it will take to correctly respond and complete the tool and identifies any challenges that may arise. No adjustments were made in light of the pilot study's findings. The full study sample was purified from the pilot study participants.

**III- Administrative Design**

- Under the Port Said Government's Universal Health Insurance Scheme, the El Salam Hospital and Al Hayah hospital directors received a formal letter from the University of Port Said's Faculty of Nursing.
- After outlining the study's methods to the head of each hemodialysis unit at the aforementioned facility, permission to carry out the study was gained.

**Ethical considerations**

The Faculty of Nursing at the University of Port Said's Research Ethics Committee granted their approval following their ethical standards (NUR: (19/8/2019)(10)). Each patient gave verbal agreement after being informed of the study's goal. It was made clear to patients that participation was entirely optional and that they might end it at any time. Data confidentiality and anonymity are ensured. The subjects experienced no negative effects from the study method.

**Statistical Design**

Data were digitized in Microsoft Excel 2010 after being taken from the interview questionnaire. Version 25.0 of the Statistical Package for Social Sciences (SPSS) was used to conduct statistical analyses (SPSS, Chicago, IL). Using descriptive statistics, data are displayed as frequencies and percentages for qualitative variables and mean and standard deviation for quantitative variables. If the p-value was less than 0.05, statistical significance was considered.

**Study limitations**

- 1- Time is required to get the hospital's consent for collecting sample.

**RESULTS:**

**Table (1):** Reveals that 68% of the studied sample agree that they "Commit to eating breakfast every day," while only 51 %of the sample disagree that they "Commit to the diet recommended by the doctor" and 90% of the sample disagree that they "make a diet schedule for basic and light meals."

**Table (2):** demonstrates that 100% of the study's sample agrees that they adhere to the arteriovenous access care recommendations of "Check fistula's pulse daily, Avoid sleeping on the arm with the arteriovenous connection, Avoid lifting excess weight in the arm where the arteriovenous connection is located."

**Table (3):** shows that a majority of the studied sample, or about 91%, agrees that they "get a degree of respect and appreciation from family members and others," a majority of the studied sample, or about 85%, agrees that they "speak freely about all the fears I have about my illness," "I talk to people who have similar experiences with renal failure," and "I feel reassured by doctors and nurses."



**Table (4):** shows that the majority of the studied sample agreed with the statements "Others accept my sick nature," "I don't need help when communicating with others," and "I am treated as someone who has an active role within my family and not as an anonymous person" in proportions of 91%, 90%, and 87%, respectively.

**Table (5):** shows that a majority of the studied sample—roughly 100 % agreed with the statements "I have enough information about the ways of caring for arteriovenous access," "Familiar with enough information about my disease," "I am aware of the evolution of my health condition," and "I have enough information about diet regimens for renal failure patients."

**Figure (1):** illustrates that 100%,98%,97%&92% of studied sample have met arteriovenous access level of care, psychological needs, prescribed medication and social needs respectively, while 96% , 95%& 88% of studied sample have unmet level of diet , sleep & hygiene and mobility needs respectively.

**Table (6):** illustrates that the total Mean of self- efficacy was  $42.250 \pm 10.212$  and the highest mean was  $7.400 \pm 1.825$  related to "How confident do you feel that you can keep the physical discomfort or pain of your illness from interfering with the things you want to do?", while the lowest mean was  $6.490 \pm 1.855$  related to "How confident do you feel that you can do things other than taking medication lessen the impact of illness on your daily life?".

**Table (7):** indicates that there was significant negative correlation between total health needs scores and total self- efficacy scores among studied sample.

**Table (1):** Distribution of the studied sample according to diet regimen (N= 100)

Items Diet regimen	No	Sometimes	Yes
	N (%)	N (%)	N (%)
Commit to the diet prescribed by the doctor.	51	36	13
Follow a specific diet according to my condition to prevent complications.	50	26	24
Commit to eating breakfast daily.	30	2	68
Commit to abstaining from foods high in potassium.	72	13	15
Commit to avoiding high sodium foods.	73	4	23
Commit to eating the allowed amount of protein-rich foods.	75	10	15
Consume any foods rich in calcium in an allowed amount according to the doctor's instructions.	73	4	23
Commit to eating iron-rich foods.	74	17	9
Commit to refraining from eating foods rich in phosphorus.	58	30	12
Commit to avoiding fast foods.	51	32	19
Commit to abstaining from canned foods.	53	33	14
Eat high-fiber foods.	65	23	12
Avoid excessive fluid intake.	50	36	14
Replacing salt with vinegar and lemon in food preparation.	77	13	10
Stick to the amount of fluids allowed to drink per day (4 cups).	74	10	16
Making a diet schedule for basic and light meals.	90	2	8
Mean $\pm$ SD	8.770 $\pm$ 5.889		

**Table (2):** Distribution of the studied sample according to arteriovenous access care (N= 100)

Items Arteriovenous access care	No	Sometimes	Yes
	N(%)	N(%)	N(%)
Check the fistula's pulse daily.	0	0	100
Avoid sleeping on the arm with the arteriovenous connection.	0	0	100
Avoid lifting excess weight in the arm where the arteriovenous connection is located.	0	0	100
Avoid wearing tight clothing, a watch, or jewelry on the arm where the arteriovenous connection is located.	0	0	100
Avoid measuring pressure from the arm where the arteriovenous connection is located.	0	0	100
Avoid taking venous samples from the arm where the arteriovenous connection is located.	0	0	100
Wash the arteriovenous junction site with soap and water before the dialysis session.	0	0	100
Disinfect the arteriovenous junction site before the dialysis session.	0	0	100
Mean $\pm$ SD	16.000 $\pm$ 0.00		

**Table (3):** Distribution of the studied sample according to psychological needs (N= 100)

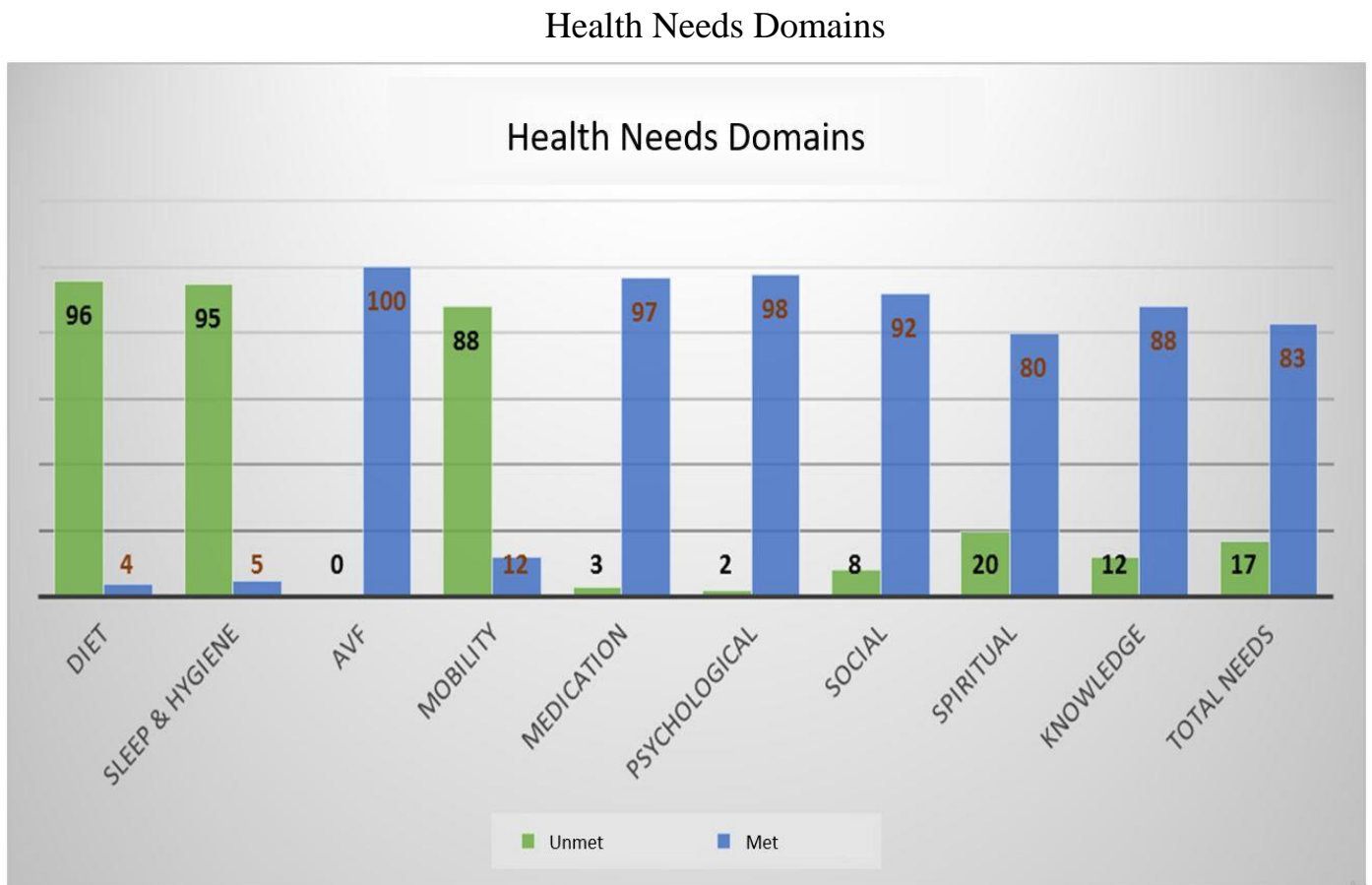
Items	No	Sometimes	Yes
	N (%)	N (%)	N(%)
I speak freely about all the fears I have about my illness.	6	9	85
I get a degree of respect and appreciation from family members and others.	1	8	91
I talk to people who have similar experiences with renal failure.	2	13	85
I feel reassured by doctors and nurses.	2	14	84
Mean $\pm$ SD	7.340 $\pm$ 1.182		

**Table (4)** Distribution of the studied sample according to social needs (N= 100)

Items	No	Sometimes	Yes
	N(%)	N(%)	N(%)
I am treated as someone who has an active role within my family and not as an anonymous person.	2	11	87
I get more support from others.	9	14	77
I feel love and belonging within the family and society.	1	17	82
Participate actively in family and social life.	1	17	82
Participate in my treatment options.	1	19	80
Others accept my sick nature.	1	8	91
I don't need help when communicating with others.	3	7	90
Mean $\pm$ SD	12.690 $\pm$ 2.191		

**Table (5):** Distribution of the studied sample according to knowledge needs (N= 100)

Items	No	Sometimes	Yes
	N(%)	N(%)	N (%)
Familiar with enough information about my disease.	61	10	29
I am aware of the evolution of my health condition.	56	15	29
I have enough information about hemodialysis alternatives.	54	30	16
I have enough information about renal transplantation.	52	32	16
I have enough information about my medications and doses and side effects.	43	34	23
I have enough information about the ways to treat hemodialysis complications.	43	35	22
I have enough information about the ways of care for arteriovenous access.	0	0	100
I have enough information about the diet regimes of renal failure patients.	67	4	29
Mean $\pm$ SD	13.230 $\pm$ 2.997		



**Figure (1):** Distribution of the studied sample according to health needs (N= 100)

**Table (6):** Distribution of the studied sample according to self- efficacy score (N= 100)

Items	Mean $\pm$ SD
How confident do you feel that you can keep sickness fatigue from interfering with the things you want to do?	7.370 $\pm$ 1.807
How confident do you feel that you can keep the physical discomfort or pain of your illness from interfering with the things you want to do?	7.400 $\pm$ 1.825
How confident do you feel that you can keep the emotional distress caused by your illness from interfering with the things you want to do?	7.120 $\pm$ 2.065
How confident do you feel that you can keep any other symptoms or health problems you have from interfering with the things you want to do?	7.170 $\pm$ 1.831
How confident do you feel that you are capable of the various tasks and activities needed to manage your health condition in order to reduce your need for a doctor?	6.700 $\pm$ 1.817
How confident do you feel that you can do things other than taking medication lessen the impact of illness on your daily life?	6.490 $\pm$ 1.855
<b>Total</b>	42.250 $\pm$ 10.212
<b>Min.</b>	18
<b>Max.</b>	60

**Table (7):** Correlation between total health needs and total self-efficacy.

Variables	Total Self-efficacy score	
	R	P
<b>Total Health Needs Score</b>	-.126	0.012*

## DISCUSSION:

The current study aimed to assess health needs and self-efficacy for patients undergoing hemodialysis. This aim was achieved by study findings and the research questions were answered.

Hemodialysis helps patients live longer and have a better quality of life, but it does not treat chronic kidney disease. However, problems including cardiovascular disease, which frequently affect hemodialysis patients, lower their quality of life. Additionally, comorbidities such as anemia, diabetes, hypertension, dyslipidemia, and thyroid disease seriously reduce the quality of life and negatively impact the physical, social, economical, and mental health of hemodialysis patients (Barbecho, Campo, Yáñez & Suazo, 2020).

More than one-third of the questioned sample was over 60 years old, more than two-thirds were married, and less than half had secondary and higher education, according to the findings on sociodemographic characteristics. Two-thirds of those receiving care at El Salam Hospital lack education, and have a job, and more than two-thirds lack financial support from their families. The sample also included more than two-

thirds of men and more than three-quarters of those with insufficient income. According to the researchers, this outcome may be explained by the fact that age is still another risk factor for hemodialysis and CKD disease. Alhajim (2017), who noted that almost two-thirds of the study patients were men, supported the findings. The patients' mean age was similar to that in this study.

Furthermore, Shehi.,Tahsimi.,Strakosha, and Como. (2020), who indicated that almost three-quarters of them were male, concurred with the current study's findings. More than two-thirds of the population were married or in a committed relationship. The majority of them were between the ages of fifty and fifty-nine, had between one and eight years of education, and most did not have a formal job.

The results of the current study are in line with those of Thenmozhi (2018), who found that more than half of the studied sample was over fifty years old, the majority of them were men, most of them were married, more than two-fifths of them were illiterate, and only one subject from our observation had a scientific degree.

The study results showed that more than two-thirds 68% of studied sample agreed with "commit to eating breakfast every day," and one-half 51% admitted that they disagreed "following their physicians' orders recommended diet" and "limit your hydration consumption. The majority of them 90% disapproved of "making plan for basic and light meals". From researcher opinion this may due to its chronic disease and patient know that they must follow health instruction to maintain their health well. The current study finding incongruent with Osman, Yunos, Yusop and Kamaruzaman (2021), who demonstrated that all individuals improved their quality of life by adopting a balanced diet and exercising regularly. Also, Xhulia et al. (2016), they discovered that more than two-thirds of patients adhered quite closely to the suggested diet. From a researcher's perspective, lack of awareness about healthy diet that is appropriate for their condition and unrestriction in fluid consumption is due to patient's dependence on dialysis sessions.

According to recent findings, practically all studied sample 100% concur that they adhere to AVF care "Check the fistula's pulse every day, stay away from it, and sleep with an arteriovenous junction, refrains from lifting too much weight on the arm and avoiding measuring blood pressure in limbs with AVF. The current findings were supported by Pessoa and Linhares (2015), who discovered that roughly three-quarters of the participants avoided sleeping on their arms, avoiding measuring blood pressure in

limbs with AVF, avoiding drawing blood from limbs with AVF. From the researcher's point of view, this result may be due to the patients know the value of keeping the AVF functioning well.

The majority of patients self-reported poor practice with AV fistula self-care, whereas a minority self-reported moderate practice, according to Oktarina and Sulistiawan (2019). One and only one claimed to practice well. The current findings differed from those of Alsaqri, Edison, Alshammari and Ahmadm (2019) who demonstrated that research participants did not test for arousal at the location of the AV fistula, feel pulsation, or test for stiffness and numbness in the AV fistula arm.

The study's findings revealed that, generally, most of the studied samples agreed with them that "I have received a certain degree of respect and appreciation from my family and others." This was about the distribution of the studied sample by psychological requirements. My concerns over my illness, "I spoke to people who had comparable experiences with kidney failure," and "Doctors and nurses made me feel at peace." The current findings were in line with those of Barbecho et al. (2020), who discovered that seventy-five percent of patients acknowledged receiving some amount of respect and gratitude from family members and others, as well as any anxieties they might have had. About two-thirds of the open-minded people revealed they were speaking with someone who had undergoing hemodialysis similarly and felt at ease with medical professionals. The researchers hypothesize that this outcome may be a result of the patient's family being aware of the nature of the sickness and the particular requirements of the patient.

The findings of this study indicated that the majority of the studied sample responded "I am accepted by others as sick," "I don't need help to communicate with others," and "I am seen as part of my family"—someone who actively participates in it, not an anonymous person. This was about the assignment of the sample according to social needs. The current results were in line with those of Alhajim (2017), more over a third of the employees said they never felt isolated from individuals around them in response. The researchers hypothesize that this outcome may be related to the patient's family's awareness of the characteristics of dialysis patients and the value of social support.

However, Xhulia et al. (2016) found in their study that only over one-fifth of patients reported having many difficulties in their relationships with their social



environment, while many more reported that several or more than two-fifths of people had difficulties in their relationships with their home environment.

According to the current findings, the majority of the studied sample agreed with the statements "I have enough information about the type of AV access care" and "I have enough information to be confident about my disease," while the majority of the examined samples disagreed with the statement "I have enough information about meal plans for people with kidney failure." Because the current findings imply that most patients undergoing HD had difficulties connected to nutritional control during HD, they are in direct conflict with (Kanagarajah, Velraja, & Arambakkam, 2022).

The finding of this study differed from Fawzya et al. (2022), who found that most patients had insufficient understanding of how to take care of their AV fistulas while only a small percentage of patients had moderate knowledge. None of them possess sufficient knowledge. The majority of studies, according to recent data confirmed by Ahmed, Abd Elzahe, and Sabra (2021), appeared to have insufficient patient knowledge, with less than one-fifth of research participants having a reasonable level of knowledge, the majority of whom are knowledgeable about HD. displeased with my state of illness.

Regarding distribution of the studied sample according to total health needs the study findings illustrated that majority of studied sample have met level of arteriovenous fistula care, psychological, medications, social, knowledge and spiritual needs. While majority of them have unmet level of diet and sleep & hygiene and mobility needs respectively. The current study finding supported by Alsaqri, Edison, Alshammari, and Ahmad (2019) who carried out their study about "The effectiveness of instructional module on self-care practices of arteriovenous fistula among hemodialysis patients at Hail region, Saudi Arabia" and showed that three quarter of studied patient had satisfactory level of medication need, more than two fifth of study sample have satisfactory level regarding arteriovenous fistula. While majority of them have unsatisfactory level of, sleep & hygiene and nutritional need. From the researcher point of view, this result may be due medications need and care of arteriovenous fistula access are the most vital needs for the patient so they follow them, however, the spiritual, social and psychological needs should be met. This outcome may be related to the fact that patients must take medication and receive care from the AVF pathway in order to follow them and satisfy their high spiritual, social, and psychological requirements.

The present finding indicated that the highest mean is related to "How confident are you that you can prevent physical discomfort or illness pain from interfering with what you want to do?," while the lowest mean is related to "How confident do you feel that you can do things other than taking medication lessen the impact of illness on your daily life??" when it comes to the distribution of studied sample according to self-efficacy scores. The current study findings were incompatible with Oktarina and Sulistiawan (2019) who conducted their study about "The Self-Efficacy in Hemodialysis Patients" and revealed that it can be seen that the lowest patients had the lowest average belief in treating physical problems. The researcher hypothesized that this outcome may be related to patients adhering to their physician's recommendations on medication and, which assist them to get rid of physical discomfort or pain that could result in complications.

Regarding correlation between total health needs and self-efficacy the findings indicated that there was significant negative correlation between total health needs scores and total self-efficacy score. The present findings were in accordance with Oktarina and Sulistiawan (2019) who revealed that there was statistically significant negative relationship between different patient needs and self-efficacy. On the other hand Mahedy, Mohamed, and El Sayed (2018) who showed that there was no significant correlation between total health needs scores and total self-efficacy score. From the researcher point of view, this result may be due that the patient health needs will be met when the self-efficacy becomes high level.

## **CONCLUSION:**

The study concluded that majority of studied sample have met arteriovenous access level of care, psychological needs, prescribed medication and social needs, while most majority of studied sample have unmet level of diet, sleep & hygiene and mobility needs, the total score of self-efficacy was moderate. Also, there was significant negative relation between total health needs and total self-efficacy.

## **RECOMMENDATIONS:**

- Provide chronic renal failure Patients undergoing hemodialysis with needed pamphlets, posters and booklets including instructions that contain information about hemodialysis therapy, diet schedule, medication, life style changes and etc.
- Provide patients and their family booklet regarding believe about hemodialysis to

reinforce spiritual level of patient and their families.

- provide patient with workshop about how to improve self-efficacy

## RECOMMENDATION

The combination of other psychosocial intervention along with physical conditioning can be investigated.

- Impact of COVID 19 on the hemodialysis patient health needs.

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## الاحتياجات الصحية والكفاءة الذاتية للمرضى الخاضعين للغسيل الكلوي

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### الخلاصة

**المقدمة :** غسيل الكلى هو عملية حرجة لمريض الفشل الكلوي المزمن التي تجعلهم لديهم العديد من الاحتياجات الصحية التي يجب تلبيتها لتحسين الكفاءة الذاتية للمريض. **هدف الدراسة:** هدفت هذه الدراسة إلى تقييم الاحتياجات الصحية وتحديد الكفاءة الذاتية للمرضى الذين يخضعون لغسيل الكلى. **تصميم البحث:** تم استخدام تصميم وصفي في تنفيذ هذه الدراسة. **مكان الدراسة :** أجريت الدراسة الحالية بوحدات غسيل الكلى بمستشفى السلام والحياة التابعين للتأمين الصحي الشامل بمحافظة بورسعيد. **الموضوعات:** تم تجنيد الموضوعات باستخدام تقنية أخذ العينات هادفة. بلغ العدد الإجمالي للمرضى (100) مريض. ادوات جمع البيانات : تم استخدام ثلاث أدوات. الأداة الأولى هي استمارة البيانات الشخصية والتاريخ المرضى للمريض. الأداة الثانية كانت مقياس تقييم الاحتياجات الصحية. الأداة الثالثة هي مقياس الكفاءة الذاتية لرعاية المرضى نوى الأمراض المزمنة. أظهرت النتائج أن جميع المرضى الخاضعين للدراسة قد استوفوا مستوى مرضى من الرعاية الشريانية الوريدية ، 98% من العينة المدروسة استوفوا مستوى الحاجة النفسية ، بينما 96% ، 95% ، 88% منهم لديهم مستوى غير مستوفى من النظام الغذائي والنوم واحتياجات النظافة والتنقل على التوالي. أيضا وجدت علاقة ذات دلالة احصائية بين مجموع درجات الاحتياجات الصحية ودرجات الكفاءة الذاتية الكلية لدى العينة المدروسة.

**التوصيات:** يجب توفير التنظيف الصحي للمريض حول النظام الغذائي الصحي والتقنية الخاصة لتحسين النوم وتزويد مرضى الفشل الكلوي المزمن الذين يخضعون لغسيل الكلى بالكثيبات والملصقات اللازمة بما في ذلك التعليمات التي تحتوي على معلومات حول علاج غسيل الكلى وجدول النظام الغذائي والأدوية وتغيير نمط الحياة .

**الكلمات المرشدة :** الاحتياجات الصحية –الكفاءة الذاتية – مرضى الغسيل الكلوي.