

**How to Cite:**

Roudsary, D. M., Nia, H. S. ., & Najm, Z. S. (2022). Assessment of Self-Care in Hemodialysis Clients Admitted in Al-imam Al-Sadiq Educational Hospital/ Babylon-Iraq. *International Journal of Health Sciences*, 6(S5), 6401–6419. <https://doi.org/10.53730/ijhs.v6nS5.10129>

# **Assessment of Self-Care in Hemodialysis Clients Admitted in Al-imam Al-Sadiq Educational Hospital/ Babylon-Iraq**

**Daryadokht Masror Roudsary**

**Hamid Sharif Nia**

**Zaid Suhail Najm**

**Abstract**---Hemodialysis (HD) patients level of Self-Care are necessary to control the disease operation and symptoms. The person who have low self-care can adequately need meet their needs of self-care. Aim of the study: To determine of self care behavior in clients admitted to dialysis wards to Al-imam Al-Sadiq educational hospital Babylon-Iraq. Descriptive study conducted at hemodialysis. This study was conducted in AL-immam Al-sadiq educational hospital-dialysis center in alhilla city Babyllion in Iraq. Sample: A sample of (200) patients referral to dialysis center at Al-immam AL-sadiq educational hospital.we found most of the patient aged over50 years, more than half about 59.5% are male, marital status 77% of study sample are married, 60% are unemployed. More than half of patients had poor Self-care activities regarding Personal Hygiene. About 71.5% had inadequate Self-care activities regarding arterio-venous shunt. Develop and organize a multidisciplinary team approach in the hemodialysis unit that includes primary nurses, renal physicians, social workers, nutritionists, psychotherapists, and physiotherapists to help patients maintain a near-normal life style

**Keywords**---Assessment, Hemodialysis, self-care, clients.

## **Introduction**

Chronic diseases (such as diabetes, asthma, heart disease, lung disease, cancer, depression, stroke, hypertension, and chronic kidney disease) account for seven out of ten deaths each year, according to the Centers for Disease Control and Prevention, and treating people with chronic diseases accounts for 86 percent of health-care costs. More than 140 million people in the United States suffer from one or more chronic

illnesses, and the population is predicted to expand by at least 10 million new cases every decade . (Bardhan & Chen and Karahanna 2020). Chronic kidney disease is a global public health issue with rising incidence and prevalence, poor outcomes, and significant costs. Chronic kidney disease has a wide range of consequences including renal failure diminished kidney function and cardiovascular disease. (Mahmoud, et al 2014). chronic kidney disease is an irreversible chronic disease that causes a major health concern around the world. The incidence of chronic kidney is increasing by 7% each year (AL-Abedi & Al- Khafaj,2020).

Chronic kidney disease(CKD) is a chronic loss of renal function that causes uremia by disrupting body metabolism, water and electrolyte balance. Renal failure kills around 60000 people every year around the world. Chronic renal failure affects roughly 242 persons out of every 100,000 people worldwide, and the rate is rising at an annual rate of 8%.Every country's rate of occurrence is different (Heidarzadeh, et. al 2010). Chronic and incapacitating illnesses produce a wide range of psychiatric repercussions. Renal failure, also known as chronic renal failure, is a progressive and irreversible loss of renal function. Every seven years, the number of patients with chronic renal failure doubles (Poorgholami, 2016). chronic kidney disease is an incurable chronic illness that can only be treated with long-term renal replacement therapy such as dialysis or kidney transplantation ( Roy & Gurjar and Bhattacharjee, 2017). The most common form of treatment for CKD is haemodialysis. However, it has been stated that this treatment come with a variety of restrictions and changes that have a negative influence on the quality of life of patients and their physical and psychological well-being (Gerogianni, and Babatsikou,2014). Hemodialysis (HD) is a treatment that is used to remove waste from the body. It creates a lot of extra care when it's done three times a week requirements for maintaining the appropriate compensation. (Santana et,al 2020).

### **Hemodialysis**

Hemodialysis (HD) is the process of removing unwanted and surplus water from the circulatory system by using a thin sheet of protein material (semi-permeable membrane) with microscopic holes. When the procedure began Two or three dialysis sessions per week may be scheduled for the patients as a lifelong (kasim et,al 2018). After symptoms and complications of chronic renal disease develop, hemodialysis is suggested. Patients confront a variety of problems, including physiological losses and lifestyle changes (Hinkle&cheever2013). When hemodialysis first began, it had an impact on the patients and their families in the following ways: role changes, difficulty working and keeping a job, medication maintenance, and frequent visits to the physician, all of which have a negative impact on the patient's financial situation(Ignatavicius,2015).

Hemodialysis restores roughly 10% of normal kidney function, which can enhance patients' quality of life and lengthen their lives ( Ignatavicius & Workman, 2013) .

## **Self care**

Numerous studies have shown that Self-care is the most important form of primary care, both in developed countries. Chronic kidney disease is a long-term condition that is typically treated with dialysis or a kidney transplant. Clients with Chronic kidney disease must follow a difficult and time-consuming recovery plan that requires food and fluid restrictions as well as prescription schedule (PARIPEX 2015).

## **Chronic kidney disease (CKD)**

necessitates ongoing medicine and dialysis treatment; patients' diets, water intake, movement, emotional management, leisure activities, and social lives must all be altered in accordance with their disease's stage. (Lee, et al 2021) Individuals who practice competent self-care may fulfill their own needs in a timely and appropriate manner, take responsibility for their own health, and carry out their daily activities without the assistance of others. (Bag, and Mollaoglu, 2010). Self-care programs, which are an important therapeutic target, assist patients in gaining independence, avoiding repeated hospitalizations, and lowering skyrocketing costs, with nurses emphasizing the remaining ability to strengthen patients' sense of independence and support them in self-care (Rahimi, et al, 2014) patients with chronic kidney disease are subjected to a variety of physical and psychological stressors that, despite technological breakthroughs, remain uncontrollable. In terms of physical and psychological concerns, hemodialysis patients are reliant on others for all or part of their daily activities, and they do not have complete self-care abilities (Atashpeikar, et al, 2012).

## **Material and Method**

Descriptive, cross-sectional study, aiming to determine knowledge of patient with end stage renal disease on hemodialysis regarding home self-care. The research samples is clients that admitted to hemodialysis wards at Al-imam Al-Sadiq educational hospital/ Babylon-Iraq. A sample of (200) patients referral to dialysis center in AL-immam AL-sadiq educational hospital from may and june 2022.

inclusion criteria ability to read and writing, had normal cognitive function, age 18 until 65, don't participate in similar studies. Exclusion criteria immobility patients, spinal cord injury muscular dystrophy kidney rejection that started hemodialysis.

Identifying the reliability of study instrument in order to find out the stability through performing the pilot study and utilize the questionnaire form. After applied and accomplished the pilot study on 20 hemodialysis patients, the reliability of the questionnaire was measured by using SPSS program (v 26), The Alpha Cronbach's was ( $\alpha = 0.80$ ), this consequence statistically is passable.

## **Instrument Covariates**

Demographic data include age, sex, marital status, employment status, living address, educational status, family monthly income and hemodialysis duration in (table 1)

Self-care: Activities and practices that are important for people undergoing hemodialysis to maintain their health and reduce complications are usually performed in coordination with and after guidance from a health care expert. Actions and attitudes that contribute to the individual's ability to maintain life and health, which are begun and carried out by the individual based on knowledge and physical capacities (Dictionary of nursing, 2008)

Client: A sick person who is experiencing a change in his or her health state and is seeing a doctor or waiting for intervention or care to maintain or improve his or her condition. Treatment of disease signs and symptoms, as well as disability and pain management, illness, incapacity, or discomfort are reduced (Centers for Medicare and medical services)

Chronic Kidney Disease: Fluid and waste material retention signal irreversible renal failure, which is treated by filtering patients' blood through a sophisticated equipment

Hemodialysis: It is a typical treatment method used to purify a patient's blood from collected fluid and waste material using a particular access and machine for patients with end-stage renal failure.

## **Data Analysis**

Data analysis by using SPSS26. In this way, the data collection form is prepared after studying the sources and books related to the research topic and then the corrections made using the scientific opinions of 5 esteemed faculty members of the School of Nursing and Midwifery of Iran University of Medical Sciences. In this study, the data will be collected by 1 questionnaire it consists of four parts and sections; the first section was designed to collect data about personal characteristics of clients include (age, sex, marital status, employment status, living area, family monthly income & hemodialysis duration). The second section was designed to collect data about Self-care activities two Domains: First Domain: Self-care activities regarding Personal Hygiene, Second Domain: Self-care activities regarding arterio-venous shunt and The Three part include Physical Wellbeing for patient with Dialysis and the Four part include: Uremic Symptoms may appear on the clients with Dialysis.

The ethics committee of Iran university approved the study (IR .IUMS.REC.1401.200) the participant signed the consent form after explain the study. Participant were informed that they could withdraw at any time and their care not effected and the confidentiality for the patient information.

Tables:  
Objectives & research question According to

Table (1) distribution of studied group according to their ages

Age Percentage	Frequency
Under35 18.5%	37
36-40 13%	26
41-45 7.5%	15
46-50 16%	32
Over50 45%	90
Total 100%	200

This table illustrate that (45%) had more than over 50 of ages.

Table (2) shows the distribution of studied group according to their sex.

Sex Percentage	Frequency
Male 59.5%	119
Female 40.5%	81
Total 100%	200

This table illustrate that (59.5%) sex is male and (40.5%) female.

Table (3) shows the distribution of studied group according to marital status.

Marital status percentage	frequency
Single 14%	28
Married 77%	154
Lost souse 9%	18
Total 100%	200

This table illustrate that (77%) is married.

Table (4) show the distribution of studied group according to employment status.

Employment status percentage	frequency
Unemployed 60%	120
Employed 18.5%	37
Retire 21.5%	43
Total 100%	200

This table illustrate (60%) had unemployed.

Table (5) show the distribution of studied group according to living address.

Living address percentage	frequency
Rural 50.5%	101
Urban 49.5%	99
Total 100%	200

This table illustrate (50.5%) rural and (49.5%) is urban.

Table (6) show the distribution of studied group according to educational status.

Educational status percentage	frequency
Illiterate 26%	52
Primary school 36.5%	73
Secondary school 23.5%	47
Diploma& more 14%	28
Total 100%	200

This table illustrate (36.5%) had primary school.

Table (7) show the distribution of studied group according to family monthly income.

Monthly income percentage	frequency
Enough 18.5%	37
Adequate 39.5%	79
Enough 42%	84
Total 100%	200

This table illustrate (42%) had enough monthly income,(39.5%) that adequate and (18.5%) are enough.

Table (8) show the distribution of studied group according to hemodialysis duration.

frequency	percentage	du
Less than a year 32%		64
1-5year 52.5%		105
More than 5 year 15.5%		31
Total 100%		200

This table illustrate (52.5%) had 1-5 year duration,(32%) less than a year and (15.5%) more than 5 years

Table (9) frequency distribution of studied group according to Self-care activities regarding personal hygiene.

No	Variable	Never		Rarely		Some days		Most of the days		All the days	
		N	%	N	%	N	%	N	%	N	%
1	Have someone can help you in take shower	61	30.5%	28	14%	52	26%	18	9%	41	20.5%
2	Have someone can help you in care of feet	62	31%	26	13%	50	25%	22	11%	40	20%
3	Have someone can help you care of mouth and teeth	86	43%	30	15%	39	19.5%	16	8%	29	14.5%
4	Have someone can help you in shaving hair	65	32.5%	30	15%	36	18%	23	11.5%	46	23%
5	Have someone you can rely on if you need help or guidance in their life?	40	20%	23	11.5%	41	20.5%	27	13.5%	69	34.5%

over all self-care-personal hygiene			
		Frequency	Percent
	Never	40	20.0
	Rarely	50	25.0
	some days	46	23.0
	most the days	25	12.5
	all the days	39	19.5
	Total	200	100.0

Table (10) Frequency distribution of studied group according to Self-care activities regarding arterio-venous shunt

No	Variable	Never		Rarely		Some days		Most of the days		All the days	
		N	%	N	%	N	%	N	%	N	%
1	sleep on the arm /side of the shunt	51	25.5%	29	14.5%	51	25.5%	42	21%	27	13.5%
2	wear jewelry or tight slaves on the arm of the shunt	85	42.5%	28	14%	53	26.5%	26	13%	8	4%
3	Measure BP or take blood sample from the arm of the shunt.	110	55%	53	26.5%	26	13%	7	3.5%	4	2%
4	Carry heavy things by the	92	46%	30	15%	39	19.5%	27	13.5%	12	6%

	arm of the shunt.										
5	Palpate and check thrill on the site of the shunt	73	36.5%	50	25%	29	14.5%	24	12%	24	12%
6	Check for pulsation over shunt.	69	34.5%	49	24.5%	33	16.5%	26	13%	23	11.5%
7	Check for hardness or pain in the arm with the shunt.	75	37.5%	44	22%	39	19.5%	26	13%	16	8%
8	Check for redness or leakage	89	44.5%	38	19%	28	14%	26	13%	19	9.5%
9	Check for bleeding from needle puncture site.	85	42.5%	39	19.5%	27	13.5%	24	12%	25	12.5%
10	Check for numbness over the arm of shunt	103	51.5%	41	20.5%	24	12%	17	8.5%	15	7.5%
11	Use hot compresses for cleaning site of shunt site.	120	60%	38	19%	23	11.5%	12	6%	7	3.5%
12	Apply ointment over the shunt	153	76.5%	26	13%	9	4.5%	6	3%	6	3%
13	keep the site of shunt dry and clean	90	45%	11	5.5%	18	9%	25	12.5%	56	28%

over all arterio-venous shunt			
		Frequency	Percent
	Never	55	27.5
	Rarely	88	44.0
	some days	55	27.5
	all the days	2	1.0
	Total	200	100.0

Table (11) Frequency distribution of studied group according to physical Wellbeing for patient with Dialysis.

No	Variable	Never		Rarely		Some days		Most of the days		All the days	
		N	%	N	%	N	%	N	%	N	%
1	Eat a whole foods-based diet rich in colorful fruits and vegetables?	48	24%	48	24%	48	24%	29	14.5%	27	13.5%
2	Drink enough water?	54	27%	61	30.5%	36	18%	23	11.5%	26	13%
3	Exercise for more than 20 minutes daily?	115	57.5%	48	24%	24	12%	10	5%	3	1.5%
4	Wake feeling refreshed from sleep?	85	42.5%	47	23.5%	41	20.5%	18	9%	9	4.5%
5	Sleep at least 7 hours per night?	83	41.5%	49	24.5%	27	13.5%	26	13%	15	7.5%
6	Make time to relax or nap?	93	46.5%	47	23.5%	25	12.5%	20	10%	15	7.5%

7	Take time to breathe deeply throughout the day?	105	52.5%	47	23.5%	23	11.5%	12	6%	13	6.5%
8	Engage in stress-reducing activities (excluding TV or screen time)?	110	55%	35	17.5%	22	11%	22	11%	11	5.5%
9	Spend time in nature?	90	45%	42	21%	26	13%	24	12%	18	9%
10	Feel nourished, healthy, and strong?	98	49%	28	14%	41	20.5%	21	10.5%	12	6%

over all physical wellbeing			
		Frequency	Percent
Valid	Never	82	41.0
	Rarely	51	25.5
	some days	39	19.5
	most the days	25	12.5
	all the days	3	1.5
	Total	200	100.0

Table (12) Frequency distribution of studied group according to uremic Symptoms may appear on the patients with Dialysis

No	Variable	Never		Rarely		Some days		Most of the days		All the days	
		N	%	N	%	N	%	N	%	N	%
1	Itching	37	18.5%	33	16.5%	57	28.5%	36	18%	37	18.5%
2	Sleep disturbance	18	9%	39	19.5%	82	41%	42	21%	19	9.5%
3	Loss of appetite	17	8.5%	36	18%	95	47.5%	41	20.5%	11	5.5%
4	Fatigue	14	7%	40	20%	86	43%	50	25%	10	5%
5	Bones and joint pain	15	7.5%	47	23.5%	65	32.5%	46	23%	27	13.5%
6	Alteration in memory/ being confused	80	40%	59	29.5%	43	21.5%	14	7%	4	2%
7	Muscle cramps	26	13%	46	23%	61	30.5%	47	23.5%	20	10%
8	Chest pain	57	28.5%	41	20.5%	64	32%	26	13%	12	6%
9	Muscle weakness	19	9.5%	32	16%	78	39%	51	25.5%	20	10%

over all uremic symptoms			
		Frequency	Percent
Valid	never	11	5.5
	rarely	59	29.5
	some days	92	46.0
	most the days	34	17.0
	all the days	4	2.0
	Total	200	100.0

Table (13) determine the mean and standard deviation of all the variable

variable	Min	Max	Mean	Std.devaition
Age	1.00	5.00	3.5600	1.59030
Sex	1.00	2.00	1.4050	.49212
Marital status	1.00	3.00	1.9500	.47817
Employment status	1.00	3.00	1.6150	.81861
Living address	1.00	2.00	1.4950	.50123
Educational status	1.00	4.00	2.2550	.99747
Family monthly income	1.00	3.00	2.2350	.74333
Hemodialysis duration	1.00	3.00	1.8350	.67084
Self-care activities regarding Personal Hygiene	5.00	<b>25.00</b>	<b>13.9550</b>	<b>6.14179</b>
Self-care activities regarding arterio-venous shunt	<b>16.00</b>	<b>56.00</b>	<b>28.5300</b>	<b>8.20400</b>
Physical Wellbeing for patient with Dialysis	<b>10.00</b>	<b>46.00</b>	<b>21.4450</b>	<b>8.91653</b>
uremic Symptoms may appear on the patients with Dialysis	<b>12.00</b>	<b>43.00</b>	<b>25.6650</b>	<b>5.86727</b>

## Discussion

This is descriptive study was conducted to Assessment of self-care in hemodialysis clients admitted in Al-imam Al-Sadiq Educational hospital/ Babylon-Iraq,(200) clients included in this study in period (15 november to 28 december) .A three part questionnaire was, it involved (200) clients. The study show that (45%) over 50 years old and this agreed with (El Sayed, 2018) this study show that (45% of patients are > 50 years. More than half (59.5%) are male , this percentage was almost similar to what was mentioned in (AL-Abedi,2020) revealed that the majority (63.9%) are male and agree to gether on marital status AL-Abedi show that (74%) of clients were married and our study shows (77%) of subjects were married.(60%) of subjects of current study unemployed . according to living address (50,5%) are rural . then about the educational level (36.5%) are primary school and (42%) enough monthly income and (52.5%) they are in 1-5 years period duration hemodialysis that agree with (Heidarzadeh et ,al 2010).

In the table of self care activities regarding personal hygiene the result show most of the answer (never). in the question have someone help in take shower (30.5%) says never. This was the highest rate of response to this question.in question of of have someone help in care feet (31%) of subject says never . in the question of care mouth and teeth (43%) of subject answered never . and

in the question of shaving hair (32.5%) also never this was the highest percentage in the answers in these four questions but in question Have someone you can rely on if you need help or guidance in their life the answer of subjects (34.5%) says all the days. In over all self-care personal hygiene in current study the answers rarely (25%), (23%) some days, (20%) never, (19.5%) all the days and (12.5%) most of the days with mean and Std. (13.9550±6.14179) and this result similar in the study .Cerver, Bagon, Soriano, and Roda (2008), require special considerations when it comes to dental treatment, not only because of the disease's inherent conditions and multiple oral manifestations, but also because of the side effects and characteristics of the treatments they receive. Cerver et al. (2008) found that 90% of research participants have oral indications and symptoms and in the study Berman and Snyder(2012) went on to say that family dynamics may shift to the point that clients are no longer involved in family decisions. These findings suggest that nurses should present enough information to the client to allow them to participate in decision-making.

About Self-care activities regarding arterio-venous shunt the subjects says that(25.5%) of both never and som days , (42.5%) never and (26.5%) some days about wear jewelry or tight slaves on the arm of the shunt it is good patient education about the shunt , most of the subjects (55%) says never on Measure BP or take blood sample from the arm of the shunt. And (46%) never Carry heavy things by the arm of the shunt. But there are not good indications regarding the personal care of the dialysis patient regarding arterio-venous shunt i.e (76.5%) never Apply ointment over the shunt , (60%) never Use hot compresses for cleaning site of shunt site, (51.5%) never Check for numbness over the arm of shunt ,(44.5%) never Check for redness or leakage This indicates a weakness in the culture of the study sample trend of self-car activity regarding arterio-venous shunt. Over all arterio-venous shunt the result show for all part two of questionnaire (44%) rarely with mean an Std deviation(28.5300± 8.20400) this result agree with the study Shimaa Abd Allah Mahmoud, Mohga Selim, Hoda Abdel Raouf, 2014. Assessment of Self-Care Practice of Patients on Maintenance Hemodialysis at Cairo University Hospitals. The proportions of this study were close in terms of patients' responses to self-care activity regarding arterio-venous shunt.

The result show poor physical wellbeing for patient in this study recorded high rates for answered never i.e about ecercise (57.5%) , Wake feeling refreshed from sleep(42.5%), Sleep at least 7 hours per night(41.5%) , Make time to relax or nap(46.5%), take time to breathe deeply throughout the day(52.5%), engage in stress-reducing activities(55%), spent time in the nature (45%), Feel nourished, healthy, and strong(49%) all of these questions says never.and over all physical wellbeing (41%)never and (25.5%) rarely with mean and Std.

(21.4450±8.91653). These answers from the study sample indicate a clear defect in the treatment of patients physical wellbeing Therefore, we need to provide intensive programs to raise the level of patient culture towards this, These results are different from what was stated in the study of Bahadori, M., Ghavidel, F., Mohammadzadeh, S. and Ravangard, R., 2014. The effects of

an interventional program based on self-care model on health-related quality of life outcomes in hemodialysis patients. Where the results and the answers of the study sample were rather good regarding physical wellbeing in hemodialysis clients.

In uremic Symptoms may appear on the patients with Dialysis in current study (28.5%) some days the answers there were nearly identical in itching that (18.5%) all days, (18%) most of the days and (18.5%) rarely. "Etiology and prognostic relevance of severe uremic pruritus in chronic hemodialysis patients," wrote the same scientists (Narita, et al., 2006). In individuals with chronic renal failure, pruritus is a common and sometimes intolerable consequence. There isn't any proof. There is no proof that uremic pruritus is caused by a single component, despite the fact that multiple metabolic variables have been implicated. It has been suggested that it is involved in the etiology of itching. Hypercalcemia, hyperphosphatemia, and secondary hypercalcemia are examples. Hyperparathyroidism and hypermagnesemia are two conditions that can occur together. Higher dialysis efficacy has been linked to a good diet. then (32.5%) some days had bones and joint pain in Lameire N. and Eknayan G., 2006 Definition, evaluation, and classification of renal osteodystrophy mentioned bones and joints ache More than a third of the participants in the study experienced this issue on a daily basis. In terms of muscular weakness, more than a third of the participants in the study experience it on occasion, It was almost similar to the current study situation regarding joint and bone pain. And (43%) some days feeling fatigue then (47.5%) loss of appetite some days, (40%) never Alteration in memory and (29.5%) rarely memory alteration. in the muscle cramps (30.5%) some days, chest pain (32%) also some days this finding supported by Agrawal 2012. Mentioned patients also suffer dyspnea, severe cardiac arrhythmias, symptomatic hypoxia, and mild complications including chest discomfort associated with hypotensive episodes and backache, according to the research "Acute Intradialytic Complications in End Stage Renal Disease on Maintenance Hemodialysis" (39%) some days and (25.5%) most of the days had muscle weakness this result agree with Shimoda, T., Matsuzawa, R., Yoneki, K., Harada, M., Watanabe, T., Yoshida, A., Takeuchi, Y. and Matsunaga, A., 2018. Combined contribution of reduced functional mobility, muscle weakness, and low serum albumin in prediction of all-cause mortality in hemodialysis patients. The combined assessment of lower functional mobility, muscle weakness, and low blood albumin had higher prognostic discrimination in hemodialysis patients, according to the findings of this study. These findings suggest that hemodialysis patients' physical conditions, such as muscular function, walking ability, and nutritional status, should be monitored. And over all uremic symptoms (46%) of subjects some days and (29.5%) rarely with mean and Std. (25.6650±5.86727).

### **Limitations**

It seems that the psychological condition of the research samples while completing the questionnaires affect their response, which is beyond the control of the researcher. But for solving this problem researcher will be try to explain very simple about the objective in time the patient has a good mood

and convenience. And The Covid -19 pandemic is another limitation of this study. For solving these limitations we have to do all protocols during completing sampling and filling the questionnaires.

### **Conclusion**

The study subjects were 200 patients in Al-Imam Al-Sadiq educational hospital with the highest percentage of over age 50 years old (45%) and low percentage between 41-45 are (7.5%). About the sex the study result revealed that (59.5%) are male and (40.5%) are female. The marital status result are (77%) they are married and fourteen percentage are single. Twenty one point five percentage are retired and (60%) unemployed. According to living address they are (50.5%) rural and (49.5%) urban. About educational status they are twenty six percentage illiterate and (36.5%) are primary school. Forty two percent are not enough family monthly income and (39.5%) adequate.

The results show that more than half of study samples have someone help them in self-care personal hygiene and about forty five percentage that had someone help in self-care personal hygiene. Seventy one and half percentage of clients for study samples had inadequate information about self-care activities regarding arterio-venous shunt. The results revealed that 86.5% of the clients had poor knowledge of physical wellbeing for patient with dialysis then the results appear that sixty five percentage that had uremic symptoms with dialysis.

### **Declarations**

Conflict of interest: there are no conflict of interest by any authors of this study.

Consent of participant: informed consent was obtained from all individual in the study.

Ethics approval: Ethical committee of Iran university of medical sciences (IR.IUMS.1401.200).

### **References**

- Bardhan, I., Chen, H. and Karahanna, E., 2020. Connecting systems, data, and people: A multidisciplinary research roadmap for chronic disease management. *MIS Quarterly*, 44(1), pp.185-200.
- Haloob AL-Abedi, H.M., Abbass Al-Khafajy, Z.A., Eidan, A.J., Al-Mossawy, D.A.J. and Al-Zeyadi, A.A., 2020. Assessment Self-Care of Patients' Undergoing Hemodialysis with end Stage Renal Disease. *Indian Journal of Forensic Medicine & Toxicology*, 14(1).
- PARIPEX- INDAIN JOURNAL OF RESEARCH (2015) of self reported practice regarding home care management among patient undergoig hemodailysis with view to prepare an information Boocklet.
- Mahmoud, S.A.A., Selim, M. and Raouf, H.A., 2014. Assessment of Self-Care Practice of Patients on Maintenance Hemodialysis at Cairo University Hospitals. *Assessment*, 5(39).

- Roy, J., Gurjar, N.R. and Bhattacharjee, T., 2017. Effectiveness of structured teaching programme on knowledge and practice of home based self-care among patients undergoing haemodialysis. *Innovational Journal of Nursing and Healthcare*, 3(3), pp.155-159.
- Heidarzadeh, M., Atashpeikar, S. and Jalilazar, T., 2010. Relationship between quality of life and self-care ability in patients receiving hemodialysis. *Iranian journal of nursing and midwifery research*, 15(2), p.71.
- Gerogianni, S.K. and Babatsikou, F.P., 2014. Psychological aspects in chronic renal failure. *Health science journal*, 8(2), p.205.
- Heidarzadeh, M., Atashpeikar, S. and Jalilazar, T., 2010. Relationship between quality of life and self-care ability in patients receiving hemodialysis. *Iranian journal of nursing and midwifery research*, 15(2), p.71.
- Poorgholami, F., Javadpour, S., Saadatmand, V. and Jahromi, M.K., 2016. Effectiveness of self-care education on the enhancement of the self-esteem of patients undergoing hemodialysis. *Global Journal of Health Science*, 8(2), p.132.
- Atashpeikar, S., Jalilazar, T. and Heidarzadeh, M., 2012. Self-care ability in hemodialysis patients. *Journal of caring sciences*, 1(1), p.31
- Santana, M.B.A., Silva, D.M.G.V.D., Echevarría-Guanilo, M.E., Lopes, S.G.R., Romanoski, P.J. and Böell, J.E.W., 2020. Self-care in individuals with chronic kidney disease on hemodialysis. *Revista Gaúcha de Enfermagem*, 41.
- Kasim, N.A.H.S., Ali, S.A. and Saadoon, N.Y., 2018. Effect of Dietary Educational Program on Self-Care Efficacy for Patient Schedule for Regular Hemodialysis. *Indian Journal of Public Health Research & Development*, 9(10).
- Bağ, E. and Mollaoğlu, M., 2010. The evaluation of self-care and self-efficacy in patients undergoing hemodialysis. *Journal of evaluation in clinical practice*, 16(3), pp.605-610.
- Rahimi, F., Gharib, A., Beyramijam, M. and Naseri, O., 2014. Effect of self-care education on self efficacy in patients undergoing hemodialysis. *Life Science Journal*, 11(1 SPEC), pp.136-140.
- Royani, Z., Rayyani, M., Behnampour, N., Arab, M. and Goleij, J., 2013. The effect of empowerment program on empowerment level and self-care self-efficacy of patients on hemodialysis treatment. *Iranian journal of nursing and midwifery research*, 18(1), p.84.
- Glasscock, R.J., Denic, A. and Rule, A.D., 2017. The conundrums of chronic kidney disease and aging. *Journal of nephrology*, 30(4), pp.477-483.
- Wadait allah and mular khuder, 2016. Assessment of knowledge of patient undergoing Hemodialysis Regarding Home Self Care in Noury center of Atbara Hospital (Doctoral dissertation, shindig university).
- Webster, A.C., Nagler, E.V., Morton, R.L. and Masson, P., 2017. Chronic kidney disease. *The lancet*, 389(10075), pp.1238-1252.
- Brasileiro, T.O.Z., Prado, A.A.D.O., Assis, B.B.D., Nogueira, D.A., Lima, R.S. and Chaves, E.D.C.L., 2017. Effects of prayer on the vital signs of patients with chronic kidney disease: randomized controlled trial. *Revista da Escola de Enfermagem da USP*, 51.

- Levey, A.S. and Coresh, J., 2012. Chronic kidney disease. *The lancet*, 379(9811), pp.165-180.
- Smeltzer S, Bare BG. 2018. *Textbook of Medical –Surgical Nursing*. 11th ed. Philadelphia: Lippincott, Williams &Wilkins.
- Himmelfarb, J. and Ikizler, T.A., 2010. Hemodialysis. *New England Journal of Medicine*, 363(19), pp.1833-1845.
- Inrig, J.K., 2010. Intradialytic hypertension: a less-recognized cardiovascular complication of hemodialysis. *American Journal of Kidney Diseases*, 55(3), pp.580-589.
- Crown, S., Vogel, J.A. and Hurlock-Chorostecki, C., 2017. Enhancing Self-Care Management of Interdialytic Fluid Weight Gain in Patients on Hemodialysis: A Pilot Study Using Motivational Interviewing. *Nephrology Nursing Journal*, 44(1).
- Bahadori, M., Ghavidel, F., Mohammadzadeh, S. and Ravangard, R., 2014. The effects of an interventional program based on self-care model on health-related quality of life outcomes in hemodialysis patients. *Journal of education and health promotion*, 3.
- Lee, M.C., Wu, S.F.V., Lu, K.C., Liu, C.Y., Liang, S.Y. and Chuang, Y.H., 2021, February. Effectiveness of a self-management program in enhancing quality of life, self-care, and self-efficacy in patients with hemodialysis: A quasi-experimental design. In *Seminars in Dialysis*.
- Yang, M. Zhao, H. (2018). Self-Care Behavior of Hemodialysis Clients with Arteriovenous Fistula in China: A Multicenter, Cross-Sectional Study, Apr; 23(2):167-172. doi: 10.1111/1744-9987.12770.
- Hinkle, J. and Cheever, K. (2013). “Brunner and Suddarth's Textbook of Medical-Surgical Nursing”. 13th ed. Lippincott Williams and Wilkins. 954-965.
- Ignatavicius, D., (2015). *Medical-Surgical Nursing: PatientCentered Collaborative Care*, Single Volume. 8th ed. Saunders. pp. 945-970.
- Ignatavicius, D., & Workman, M. (2013). *Medical Surgical nursing patient centered collaborative care*. 7th ed. Saunders: an imprint of Elsevier Inc. pp. 1465-1472, 1537-1574. In chronic kidney disease . *Med Clin North Am* 2005;89:525.
- Centers for Disease Control and Prevention (CDC). (2007). “Prevalence of chronic kidney disease and associated risk factors” *MMWR. Morbidity and Mortality Weekly Report*. 56(8), 161–165. *Dictionary of Nursing*,(2008).
- Centers for Medicare and medical services. <https://www.cms.gov/>.
- Smeltzer, S., Bare, B., Hinkle, J., Cheever, K. (2010) “Brunner Suddarth’s Text Book of Medical-Surgical Nursing”. 11th Edition. Philadelphia: lippincott Williams and wikins. 1528.
- Khalaf, S. (2016). “Impact of maintenance Hemodialysis upon functional status of patients in Baghdad Teaching Hospitals; University of Baghdad” *College of Nursing. Department of pediatric Nursing*. Bard, R. (2010). *Canadian Nurse* 106[1], 3.
- Suzanne, C., Janice, L., Brenda, G., Kerry H. (2010). *Textbook of Med.-Surg. Nursing*. 12th ed. Brunner and Suddarth. Philadelphia. Baltimore. New

- York. Landon and Buenos Aires.  
Honkong. Sydney. Tokyo.
- Porth, C. and Matfin, G. (2009). "Pathophysiology: Concepts of altered health status" (8th ed.). Philadelphia: Lippincott Williams and Wilkins.
- Singh, A.S., 2017. Common procedures for development, validity and reliability of a questionnaire. *International Journal of Economics, Commerce and Management*, 5(5), pp.790-801.
- Ramezani, T., Sharifirad, G., Rajati, F., Rajati, M. and Mohebi, S., 2019. Effect of educational intervention on promoting self-care in hemodialysis patients: Applying the self-efficacy theory. *Journal of education and health promotion*, 8.
- Wu, S.F.V., Hsieh, N.C., Lin, L.J. and Tsai, J.M., 2016. Prediction of self-care behaviour on the basis of knowledge about chronic kidney disease using self-efficacy as a mediator. *Journal of clinical nursing*, 25(17-18), pp.2609-2618.
- Haloob AL-Abedi, H.M., Abbass Al-Khafajy, Z.A., Eidan, A.J., Al-Mossawy, D.A.J. and Al-Zeyadi, A.A., 2020. Assessment Self-Care of Patients' Undergoing Hemodialysis with end Stage Renal Disease. *Indian Journal of Forensic Medicine & Toxicology*, 14(1).
- Poveda V , Amado L , Filgueiras M , Teixeira L , Miranda V , Santos-Silva A , Costa E, 2016. End-stage renal disease adherence questionnaire: translation. 96( 101) : 98 .
- U.S. Renal Data System (2007) Annual Data Report. Available at: <http://www.usrds.org/atlas.aspx> (accessed 5 May 2015).
- Coresh J, Selvin E, Stevens LA, Manzi J, Kusek JW, Eggers P, Van Lente F & Levey AS (2007) Prevalence of chronic kidney disease in the United States. *Journal of the American Medical Association* 298, 2038–2047.
- Gunes, D., 2020. Evaluation of self-care agency and perceived social support in patients undergoing hemodialysis. *International Journal of Caring Sciences*, 13(1), pp.250-257.
- Wilters kluwer-2010etalsBruner and suddarth's Text book of medical-surgical nursing12 editions 2010Print in India, Chapter 44 1323-1324
- Margaret A. Degler, 2010Bruner and suddarth's Text book of medical-surgical nursing10 editions 2010Print in India, Chapter 44 1285-1289
- Vadiee, M., 2012. The UK "Expert Patient Program" and self-care in chronic disease management: An analysis. *European Geriatric Medicine*, 3(3), pp.201-205.
- Kennedy, A., Rogers, A. and Bower, P., 2007. Support for self care for patients with chronic disease. *Bmj*, 335(7627), pp.968-970.
- Baumann, L.C. and Dang, T.T.N., 2012. Helping patients with chronic conditions overcome barriers to self-care. *The Nurse Practitioner*, 37(3), pp.32-38.
- Amir, . F., Suhron, M., & Sulaihah, S. (2021). Family care model development in treating schizophrenia patients that have self-deficit nursing based system: Structural equation modeling analysis. *International Journal of Health & Medical Sciences*, 5(1), 7-14. <https://doi.org/10.21744/ijhms.v5n1.1808>

- El Sayed, S.M., 2018. Assessment of Self-Care Behaviors, Self-Efficacy and Level of Physical Activity of Patients Undergoing Hemodialysis. *Port Said Scientific Journal of Nursing*, 5(1), pp.73-94.
- Bahadori, M., Ghavidel, F., Mohammadzadeh, S. and Ravangard, R., 2014. The effects of an interventional program based on self-care model on health-related quality of life outcomes in hemodialysis patients. *Journal of education and health promotion*, 3.
- Moe S., Dru"eke T., Cunningham J., W Goodman W., Martin K., Olgaard K., Ott S., S Sprague S., Lameire N. and Eknoyan G., 2006 Definition, evaluation, and classification of renal osteodystrophy: A position statement from Kidney Disease: Improving Global Outcomes (KDIGO), 2006, *International Society of Nephrology*, 69, 1945–1953
- Agrawal RK, Khakurel S, Hada R, Shrestha D, Baral A,(2012), Acute Intradialytic Complications in End Stage Renal Disease on Maintenance Hemodialysis, *J Nepal Med Assoc*; 52(187):118-21
- Suryasa, I. W., Rodríguez-Gómez, M., & Koldoris, T. (2022). Post-pandemic health and its sustainability: Educational situation. *International Journal of Health Sciences*, 6(1), i-v. <https://doi.org/10.53730/ijhs.v6n1.5949>
- Shimoda, T., Matsuzawa, R., Yoneki, K., Harada, M., Watanabe, T., Yoshida, A., Takeuchi, Y. and Matsunaga, A., 2018. Combined contribution of reduced functional mobility, muscle weakness, and low serum albumin in prediction of all-cause mortality in hemodialysis patients: a retrospective cohort study. *Journal of Renal Nutrition*, 28(5), pp.302-308.