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Biopsychosocial Needs For Patients With Chronic Renal Failure

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Abstract:

Background: *Chronic renal failure (CRF) is a worldwide public health problem with anincreasing incidence and prevalence. Assessment of biopsychosocial needs of patients with CRF is an important nursing role helping to provide a comprehensive patient's care.* ***Aim of study:*** *The study aimed to assess biopsychosocial needs for patients with chronic renal failure.* ***Study design:*** *A descriptive exploratory design was used.* ***Settings:*** *The study was conducted at Hemodialysis Units, which is affiliated to Makkah Hospitals.* ***Subjects:*** *A purposive sample of 137 patients with chronic renal failure attending the previous mentionedsettings.* ***Tools of data collection:*** *I- Patient's interviewing questionnaire. II- Patient's biopsychosocial needs questionnaires:- was assessed through using;-1-Barthel Index 2-Anxietyassessment scale 3-Beck depression inventory 4- Social Dysfunction Rating Scale.* ***Results:****78.1% of studied patients had unsatisfactory level of total knowledge. 76.5% of studied patientswere independent, 48.9% of studied patient had mild anxiety, and 71.5% [1]of them had mild depression and 51.1% of them had mild social dysfunction.* ***Conclusion:*** *a majority of patientshad unsatisfactory knowledge regarding disease, the highest needs for patient with CRF werethe psychological needs followed by social and physical needs.* ***Recommendations:*** *A simplified, illustrated and comprehensive Arabic booklet including information about disease should be available for patients and supportive care services in dialysis setting should be directed towards meeting biopsychosocial needs of patients with CRF.*

Keywords: *Biopsychosocial needs (physical, psychological and social needs)**,** Chronic renal failure.*

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Introduction:

Chronic kidney disease (CKD) is gradualloss of kidney function over a period of months or years. Early on there are typicallyno symptoms. Later, leg swelling, feeling tiredness, vomiting, loss of appetite,or confusion may be developed. Complications may include heart disease, highblood pressure, bone disease, or anemia. Causes of chronic kidney diseaseinclude diabetes, high blood pressure, glomerulo-nephritis, and polycystic kidney disease **(National Institute of Diabetes, Digestive and Kidney Diseases, 2017).**

Chronic renal failure (CRF) was considered a fetal disease prior to the development of hemodialysis and transplantation. The numbers of patients receiving hemodialysis are increasing and increase costs which lead to increase the burden on health systems. The incidence of renal failure has doubled in the last 15 years **(Bagalad, Mohankumar, Madhushankari, Donoghue, & Kuberappa, 2017).**

The patients with CRF are faced with numerous biopsychosocial problems which cannot be controlled even with new advancement. In every aspect of life, patientsundergoing hemodialysis are faced with manystressful factors such as; difficulty in daily living activity, dependency to others to keepliving, family problems, change in sexual functions, social isolation, change in self imagination (body image), mental pressure and fear from death **(Mamhoud, 2015).**

Prober assessment and effective management of the patient with CKD is veryimportant to slow the rate of progression, reduce mortality& morbidity and the burdenof disease on the healthcare system and peopleaffected by this condition **(Murphy et al., 2016).**

Nurses play a pivotal role in the management of patients with CKD because the patient has many physical, psychological and social needs. In additionto an initial assessment of the patient, the nurse makes on going assessment, theseassessment make nurse alert to change on patient response to health and illness**(Farag, 2013).**

Biopsychosocial assessment is a nursing role from the time of the first diagnosis of CKD. Ask patient aboutunderstanding of diagnosis and treatment regimen. Assess changes in body system related to disease. Assess for anxiety and coping styles used by the patient or family members. Psychosocial issues affected by CKD include family relation, social activity, work pattern, body image and sexual activity. The long-term treatment ofdisease and many treatment options need psychosocial assessment **(Urden, Stacy & Lough, 2018).**

Assessment of biopsychosocial needs is very important to suggests patient’s perceptions of health and the threat of disease, as well as barriers in a patient's social or cultural environment, which help nurse to encourage patient to engage in health promoting or treatment behaviors, such as medication, taking proper diet or nutrition, and engaging in physical activities and this result in promoting patient's quality of life **(Hasselder, 2017).**

Aim of the study:

This study aimed to assess biopsychosocial needs for patients with chronic renal failure through the following:

-Assess physical needs for patients withchronic renal failure.

-Assess psychological needs for patientswith chronic renal failure.

-Assess social needs for patients with chronic renal failure.

Research question:

What are the biopsychosocial needs (physical, psychological and social needs) for patients with chronic renal failure?

Materials and method:

Research design:

A descriptive exploratory design was utilized to meet the aim of thisstudy.

Descriptive research is method aims to accurately and systematically describe a population, situation or phenomenon. A descriptive research design can use a wide variety of quantitative and qualitative methods to investigate one or more variables. Unlike in experimental research, the researcher does not control ormanipulate any of the variables, but only observes and measures them **(McCombes, 2019).**

Research setting:

The study was conducted at Hemodialysis Units, which are affiliated toMakkah Hospitals.

Subjects:

A purposive sample of 137 patients with CRF through consecutive six months duration of data collection in the previous mentioned setting. The total number of patients was 180 patients andthe study subjects were selected after exclusion of 43 patients according to the following inclusion criteria:- Adult patients (age ≥ 18 years), from bothgenders, accept to participate in the study and able to comprehend, patients free fromco-morbid mental or psychiatric condition.

Tools of data collection:

The tools used in this study were: -

I-Patient's interviewing questionnaire:

This tool was developed by the researcher in simple Arabic language based on the extensive review of relevant and recent literatures **(Long, Phipps & Cassmeyer, 2010; Osborn, Wraa & Watson, 2010; Christensen & Kockrow, 2011; Daniels, Nosek & Nicoll, 2012).**

It was consists of three parts:-Socio- demographic characteristics, medical related data as well knowledge. It was the following:

- **The first part:** it was concerned with the socio-demographic characteristics of patients under the study as age, gender, marital status, educational level, occupation, residence, housing condition, home ventilation, number of rooms, sanitation and number of family members, income, health insurance cover treatment cost, health awareness and health guidance from the medical team.
- **The second part:** it was concerned with patient‘s clinical data. This part was used to assess patient‘s past medical history it included other chronic diseases, past surgeries, previous hospitalization and family history. Also present history as diagnosis, duration of the disease, duration of treatment by hemodialysis, investigation performed periodically, complications, medications and follow up.
- **The third part:** it was concerned with assessment of patient‘s knowledge regarding the disease. It was composed of six parts each question have three multiple choices as the following:

I: It was concerned with definition and causes of CRF. It is consisted of 4questions

II: It was concerned with signs andsymptoms of CRF. It is consisted of 3 questions.

III: It was concerned with complications of CRF. It is consisted of 2 questions.

IV: It was concerned with diagnosis and investigation of CRF. It is consisted of 2 questions.

V: It was concerned with medicalmanagement of CRF. It is consisted of 2 questions.

VI: It was concerned with patient‘s self care and follow up. It is consisted of 7questions.

Scoring System:-

- This tool consisted of 20 questions whichwere scored as the correct answer has got one score and zero was given to the incorrect answer.
- The scores of each statement were summed up giving a total score, the total score of all patients knowledge was calculated and categorized as follows:-

- If total grade <75% (<15 grades) itwas considered unsatisfactory level of knowledge.
- If total grade ≥75% (≥15 grades) itwas considered satisfactory level of knowledge.

II- Patient's Biopsychosocial NeedsQuestionnaires:

It was used to assess physical,psychological and social needs of patients with CRF, this tool included the following parts:-

Part 1: Barthel Index: - It was used toassess patient’s physical needs of daily livingactivity; it was adapted from **Collin et al., (1988).** It was translated into Arabic language. It was composed of ten items as the following:-

- Mobility included (3) items.
- Nutrition included (1) item.
- Urination and defecation included (3)items.
- Personal hygiene included (3) items.

Scoring system:

Barthel index of activity of daily living (ADLs) included ten items and threeresponse for each item ranged from (0-2) classified as the following:

0= Dependant

1= Need assistance

2= Independent

➢ The total score of Barthel Index Scale was (0-20). The lower the score is the higher patient’s physical needs. The patient’s score was calculated and classified as the following :-

-The score from (0-6) (0-30%) patients were dependent and had higher physical needs.

-The score from (7-13) (35% - 65%)patients were need assistant.

-The score from (14- 20) (70% -100%) patients were independant.

Part 2: Patient’s psychological needs:- It was assessed through using the followings:-

a) **Anxiety assessment scale:-** was adaptedfrom **Costello & Comery (1995).** Arabicversion (anxiety scale A - 2nd edition). Which is a 9-items self-report scale; it was used to assess patient’s level ofanxiety.

Scoring system:

The scale was composed of nine items each items had three responses, ranged from (1-3) as the following: -

1= Never 2=Sometimes

3=Always

-Total score of instrument is 27, the higher the score is the higher anxiety level and higher psychological needs.

-The score (22-27) =sever anxiety

-The score (16-21) =moderate anxiety

- The score (9- 15) =mild anxiety

b) **Beck depression inventory**(BDI):- Itwas adapted from **Beck, Steer and Brown, (1996)** 2nd edition. It was usedto assess the existence and severity of symptoms of depression as listed in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders Fourth edition, it translated into Arabic version by **(Ghareeb, 2000).** It is composed of 16items, each statement had four responsessuch as; crying, optimism, feeling of guilt and change in sleep pattern.

Scoring system:

The scale was composed of sixteen items each item had four responses, ranged from (0-3) the total score of instrument is 48, the higher the score is the higher the depression level and higher psychological needs. The patient's total depression score was calculated and classified as the following: -

-The score (48-33) =severe depression

-The score (32-17)=moderate depression

-The score (16-1) = mild depression

-The score (0) = no depression

Part 3: Social Dysfunction Rating Scale: Itwas a standardized scale adapted from **linn et al., (1969).** It was written inArabic language used to assess patient’ssocial needs. It was included 19 items scale which measures the negative aspectof an individual’s social adjustment. Thisscale was divided into three subgroups, the self-perception, interpersonal relations, and social performance

Scoring system:

The scale was composed of nineteen items each items had three responses, rangedfrom (1-3) as the following: -

1= Never 2=Sometimes3=Always

The total score of instrument was rangedfrom (19-57) the higher score is the higher social needs. the patient's score was calculated and classified as the following:-

The score (57-45) = sever socialdysfunction

The score (44-32) = moderate socialdysfunction

The score (31-19) = mild level of socialdysfunction

Validity:

Validity was conducted to test the toolsfor appropriateness, relevance,comprehensiveness, understanding and applicability, easiness for administration, and clearance of tool

Reliability:

The suitable reliability test was carried outto test tool reliability using internal consistencymethod. They proved a high degree of reliability with alpha Cronbach test in which(alpha = 0. 86 for assessment of patient's socialneeds & alpha = 0.85 for assessment of patient's physical needs & alpha = 0.83 for Assessment of patient's educational needs &alpha = 0. 79 for Assessment of patient'spsychological needs and alpha = 0.78 for Patient's interviewing questionnaire)

Pilot study:

A pilot study was carried out on 10% (14patients) of studied subjects under study fortesting clarity and applicability of the data collection tools and then the necessary modifications was done according to the results of pilot study. Some questions wereomitted such as five statements had been deleted from Beck Depression Inventory Scale and two questions were deleted fromsocial dysfunction rating scale and some sentences were rephrased. The Barthel Indexof ADLs was rephrased and then the final form was developed. The patients recruited inthe pilot study were excluded from the currentstudy subjects.

Ethical consideration:

Ethical approval was obtained. Explainingthe aim of the study to each participant to befamiliar with the importance of his participation.A brief explanation of the study was given toassure the participant that the information obtained were confidential and used only for the purpose of the study and didn't cause anyharm or pain for participants. Patients were informed that they were allowed to choose toparticipate or not in the study and that, they hadthe right to withdraw from the study at any timewithout giving any reasons.

Field work:

Data collection took about 6 months beginning from February 2022 until end ofJuly 2022. An official letters were issued.

Statistical Design:

The data were collected, tabulated, and analyzed by statistical package for social science (SPSS) version 17.0 on IBMcompatible computer (SPSS Inc., Chicago,IL, USA).

Two types of statistics were done:

1. Descriptive statistics [e.g. percentage (%), mean (x) and standard deviation (SD)]
2. Analytic statistics: which include thefollowing tests.

- Chi-square test ($\chi 2$): was used to study association between twoqualitative variables.
- t- test; is a test of significance used for comparison between two groups normally distributedhaving quantitative variables.
- Pearson correlation: is a measure of the linear correlation or dependence between two variables X and Y, giving a value between +1 and −1 inclusive, where 1 is total positive correlation, 0 is no correlation, and −1 is total negative correlation.

-Non significant (NS) P- value < 0.05

-Significant (S) P- value < 0.05

-Highly significant (HS) P- value ≤ 0.01

Results:

Regarding socio-demographiccharacteristics of patients under study table 1 showed that, the mean age was45.67±13.97. In relation to educational levelit was found that, 32.8% were not read and write, higher educational level were 25.5%.While 75.9% didn't work. Also,45.5% of the patient who had job depends on physical and mental work. Regarding the residence, 62.0% of studied patients were living in rural areas.

Items	No	%
Age groups		
≥18 – 30 years	13	9.5 %
<30 – 50 years	66	48.2 %
≥ 50 years	58	42.3 %
Age (years)		
Mean ±SD	45.67±13.97	
Range	18 – 78	
Educational level		
Not read & write	45	32.8 %
Read & write	29	21.3 %
Secondary	28	20.4 %
High	35	25.5 %
Job		
Full time work	15	10.9 %
Half time work	18	13.2 %
Don't work	104	75.9 %
Nature of work	N = 33	
Physical	7	21.2 %
Mental	11	33.3 %
Physical & mental	15	45.5 %
Residence		
Rural	85	62.0 %
Urban	52	38.0 %

Regarding total knowledge of patients under study, the result revealed that, 21.9% of patients had satisfactory total level of knowledge while, 78.1% of them had unsatisfactory level of total knowledge.

This table revealed that, 68.6%, 74.5% and 63.5% of the patients had satisfactory level of knowledge regarding definition and causes of disease,complications of disease and medical management respectively. While 82.5%,91.2% and 79.6% of patients hadunsatisfactory level of knowledge regarding signs and symptoms of disease, regarding self care and diagnosis respectively

Items	Satisfactory		Unsatisfactory	
	N	%	N	%
Definitionand causes of disease	94	68.6	43	31.4
Sign & Symptomsof disease	24	17.5	113	82.5
Complications of disease	102	74.5	35	25.5
Diagnosisand investigation	28	20.4	109	79.6
Medical management	87	63.5	50	36.5
Patient's self-care andfollow up	12	8.8	125	91.2

Figure 2 showed that, according to parthel index, it was found that, 76.5% of patients were independent, 15.5% of them need assistance, and 8.0% of patients under study were dependent.

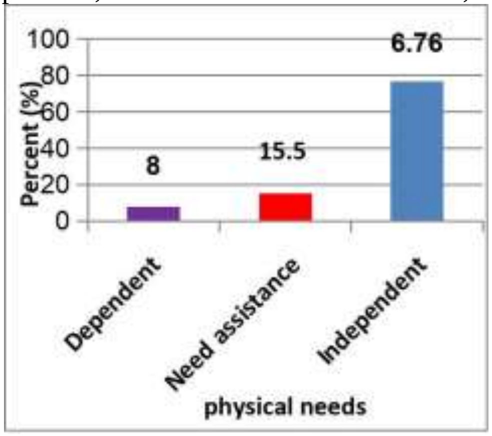
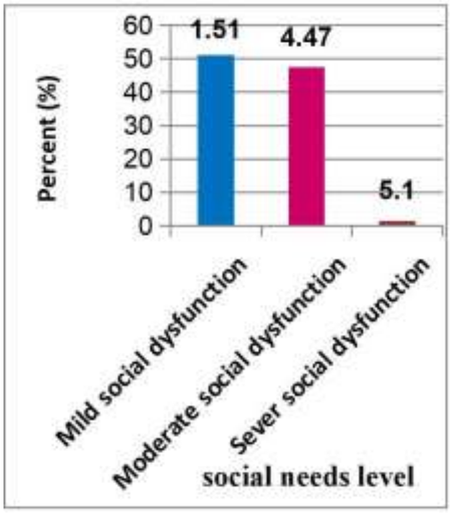


Figure 3 showed that, regarding social needs of patients under study, this figure revealed that, 51.1% of patients under study had mild social dysfunction, while 47.4% of patients under study had moderate social dysfunction, and 1.5% ofthem had sever social dysfunction



This table revealed that, there no significant correlation between patient's knowledge and their physical needs with score (-0.14) at (P value=0.14), also there were a positive statistically significant correlation between total level of knowledge and anxiety (0.17) at P value=0.04, and there were a positive highly statistically significant correlation between total level of knowledge and depression (0.35) at P-value <0.001 and their social needs (0.44) at P-value<0.001.

Biopsychosocial items	Total satisfactory level of knowledge

	r	P value
Physical needs	-0.14	0.14
Depression level	0.35	<0.001
Anxiety level	0.17	0.04
Social dysfunctionlevel	0.44	<0.001

Discussion:

Chronic renal failure is the conditions that greatly reduce renal function by destroying renal nephrons and producing amarked decrease in the GFR. Many patients with chronic renal failure progressed to the final stages of the diseasewhich deteriorate patient's physical health and then death occurred. So, patients need renal replacement therapy (dialysis therapy) to improve the biopsychosocial outcomes **(Allrefer, Pretagostini & Poli,**2016).
A long with basic survival and other clinical outcomes; patients' quality of life is an important indicator to reflect the biopsychosocial needs of these patients. Although it is well-documented that ESRD patients suffer an impaired quality of lifecompared to the general population, thereis limited research focusing on the uniqueexperiences and needs of ESRD patients in Saudi arabia **(Mazairac et al., 2011).** So, thisstudy was carried out in order to assess biopsychosocial needs of patients withchronic renal failure.

Regarding socio-demographiccharacteristics. The finding of the present study showed that, near half of studied patients their age were ranged from 30-50 years and more than two fifths were above

50 years at mean 45.67±13.97. This finding is consistent with **Ghonemy, Farag, Soliman, El-okely, and El- hendy, (2016),** in their study entitled"Epidemiology and risk factors of chronic kidney disease in the El-Sharkia Governorate, Egypt", who reported that the prevalence of ESRD increased with ageing, particularly after 50 years, and these results are also similar to the study performed by **El-Zorkany, (2017),** who showed that in his study entitled" maintenance hemodialysis in Menoufiya,Egypt", the mean age of ESRD patients in the Menoufiya Governorate, was 53.18±13.26 years. The highest proportion of patients (36.6%) was aged between 50 and 60 years. It was noted that middle aged patients affected with CKD that may be due to genetic, healthy habit, sanitary environment or social differences between the Egyptian community and other communities.

Regarding to gender, the finding of this study revealed that, slightly more than half of the patients under study were males.This is in accordance with **Abdel-Naem, (2016),** in study entitled "Impact of selflearning module on compliance with therapeutic regimen for patients undergoingregular hemodialysis" who found that, morethan half of the patients were males. This maybe related to males may have unhealthier lifestyles leading to a higher risk for HTN andDM which the most causes of CRF. In addition to differences in hormone levels. Higher testosterone levels in men may cause aloss in kidney function. On the other hand, men's kidneys may not be protected by estrogen, which is higher in women until menopause.

In relation to marital status, the resultsshow that, four fifths of studied patients weremarried. This might be due to Egyptian socialculture, so it requires cooperation from partnerfor dealing with the entire condition. This finding is highly consistent with the finding of**Hefnawy, (2020)** who found that, 81% of patients were married, and 18.4 were a singlein study entitled "Impact of end-stage renaldisease and hemodialysis in physical and psychosocial status of elderly patients".

Concerning the educational level, theresult of this study revealed that, about onethird of patients under study were illiterate, slightly one fifth of patients read and write, one fifth of them were secondary school andone quarter of them had high educational level.This result is consistent with **Ahmed, Zahran,and Issawi, (2020)** in study entitled "Prevalence and etiology of end-stage renal disease patients on maintenance hemodialysis", who reported that one third ofpatients under study were uneducated. This result may be due to educational costs and economic level of patients.

In relation to occupational status, thecurrent study demonstrates that, more than two thirds of patients under study didn't workor were housewife. This is in agreement with**Abdel-Naem, (2016)** who found that, threequarters of patients under his study had no work. This result may be attributed to that, about half of patient's age were <50 years, andmost of patients complain of general weakness and generalized pain, which causelimitation in their movement and ability to carry out normal activity and the patients usually requiring three sessions per week, typically during the work day with eachsession lasting 3-4 hours.

In relation to residence, this result indicates that, about two thirds of patients under study reside rural area. This result goesin the same line with **Ghonemy et al., (2016),**who found that, more than half of patients were from rural areas. This could be due topoor sanitation in village which may leadingcauses of increased number of ESRD.

In relation to monthly income of the patients under study, the result revealed that,about three quarters of patients hadn't enoughmonthly income for their needs, this result isconsistant with **Mohamed, (2016)** in study titled "Impact of associated self-care programon selected outcomes among patients undergoing hemodialysis", who reported that,the majority of studied patients hadn't enoughincome for their needs, and minority of themhad enough income for treatment. Insufficient income may contribute to physical and psychological problems. Also, it could lead tonon-compliance to dietary modifications or adherence to medications regimen whichaffected greatly on health of patients.

Regarding health education of patients under study, the result showed that more thanhalf of patients received health education about renal failure, along with the fact that,these educational sessions were not regular and weren't well organized because more thanone fifth of them had unsatisfactory level ofknowledge regarding their condition. Also, low educational level of the studied patients. All these factors declare the indigence for better health education for these patients. Thisis inconsistent with **Abbas, and Jaddoue, (2011).** In study titled "Impact of Health Education Program upon Knowledge of Patients with End-Stage Renal Failure" whofound that more than half of studied patientswith ESRD had poor knowledge regarding their health status.

Biopsychosocial needs among the patientsunder study. Physical needs assessment of thepatients under this study showed that, minorityof patients under study were dependent in ADL and less than one fifth of them neededassistant, while the majority of studied patientswere independent in daily living activity. Regarding ADL items, the movement ofpatients was mostly affected followed by personal care eight percentages were dependente, while non of patients were dependant in nutrition. This is in agreementwith **Lou, Li, Shen, Juan, and He, (2019)** instudy entitle "physical activity and somatic symptoms among hemodialysis patients" whofound that, there was a significant of ESRDpatient's movement ability than reference control population.

This affected of physical power of ESRDpatient was due to the fact that, ESRD commonly associated with CKD-mineral andbone disorder. It is a systematic disease thatincludes skeletal abnormalities which are called renal osteodystrophy, soft-tissue calcification and biochemical change reflecting mineral and hormonal abnormalities.In addition to fatigue due to anemia and dialysis, and complications which occurs fromCRF and HD.

Regarding anxiety level among studiedpatients, the current study revealed that, halfof ESRD patients suffered from mild anxiety,one third of them with moderate anxiety andless than one fifth of them had sever anxiety.The current study approximately similar to results were noted by **Sampaio de Brito, Machado, Reis, Carmo and Cherchiglia, (2019)** in study entitled "Depression and anxiety among patients undergoing dialysis and kidney transplantation", found that, 32.3%of patients had anxiety.

Also**, El Filali, Bentata, Ada and Oneib, (2017)** reported that, 25.2% of patientshad anxiety disorders in study entitled "Depression and anxiety disorders in chronichemodialysis patients and their quality of life"and **Schouten, et al., (2019)** documented that,22% of patients had anxiety symptoms, and documented that, the prevalent anxiety symptoms among ESRD patients could be explained as dialysis is a life-changing eventthat can create an overwhelming amount ofstress for a dialysis patient and anxiety symptoms were associated with increased risk for mortality and frequent hospitalization associated with this condition.

Regarding psychological needs of thepatients, using Beck inventory depression scale revealed that, all the studied patients had depression symptoms, less than three quarters of patients had mild depression, lessthan one fifth of patients had moderate depression and minority of them had severedepression, this result is in disagreement with**Schouten et al., (2019), in** study entitled "Anxiety symptoms, mortality, and hospitalization in patients receivingmaintenance dialysis" who found that, 34% of the patients had depression symptoms, and **Sampaio et al., (2019)** observed that 41.7%of ESRD patients had depression.

Also, **Ahlawat, Tiwari and D'Cruz.,(2018),** in study entitle "Prevalence of depression and its associated factors amongpatients of chronic kidney disease in a publictertiary care hospital in India" who noted that44% of the patients had depression, mild depression was found to affect 28.4% of the patients followed by moderate depression, moderately severe, and severe depression (11.8%, 3.8%, and 0.8%, respectively). Themost nearby results to our findings which was observed by **Khan, Khan, Adnan andSulaiman., (2019),** in studyentitled "Prevalence and predictors ofdepression among hemodialysis patients"who found that 84.9% depression level among ESRD patients.

According to **Shirazian et al., (2016),** in study entitled "Depression in chronic kidney disease and end-stage renaldisease: Similarities and differences in diagnosis, epidemiology and management"who documented that, this associationbetween ESRD and depression occur as depression was highly prevalent and associated with poor quality of life and increased mortality among adults with CKD, including those with end-stage renal disease.

The different rates of depression in different studies was suggested to be due to the changes between different population in environmental factors, health related factors and co-morbidities, also social support and health services introduced to such debilitated patients.

The present study declared that, more than half of patients had mild social dysfunction, less than half of patients had moderate social dysfunction, with much better domain which is interpersonal relations majority of studied patients had mild social dysfunction but the worst domain was self-perception less than one fifth of studied patients had sever dysfunction. Regarding **Bedrov and Bulaj,(2018),** in their study entitled "Improving self-esteem with motivational quotes" thisis due to live with a chronic medical condition is often accompanied by low self-esteem, a diminished sense of personal worth, and lower self-efficacy, a diminished sense of one's ability to influence behavioral outcomes.

This study demonstrated that severity of social dysfunction in ESRD patient's increases with older aged patients and those with not enough income. Regarding **Alhajim, (2017),** also reported that in study entitled, "Assessment of the quality of life in patients on hemodialysis in Iraq". Who found that older age wascorrelated with poor quality of life (QOL) in all its domains (physical, social, psychological and environmental). But opposite results was noted by Joshi, et al., (2017). In study entitled "Assessment of quality of life in patients undergoinghemodialysis" this study was conducted among 150 patients with chronic kidney disease undergoing hemodialysis and he found that older age had better QOL score in the social domain.

Moreover, regarding correlation between total satisfactory level of knowledge and biopsychosocial needs among studied patients, the study showed that, there were no correlation between patient’s knowledge and their physical needs and a positive statistically significant correlation between anxiety, depression and their social needs. This isin agreement with **Abd elhamid, (2017)** instudy entitle "Assessment of physical and psychological effect of constant site and different sites of puncture on hemodialysis patients".

In my opinion as age increased inthe elderly, the ability to understand knowledge regarding disease decreasedand physical function decreased also ability to concentrate in health education, on the other hand increasing knowledge about disease increasing anxiety and depression due to fear of complications and death and increasing social needs due to low self-esteem and increase burden on family.

Conclusion:

It was concluded that. Regarding physical needs of the patients under study, theminority of patients were dependent in daily living activity and about less than one fifth of them need assistance for performing ADL, while

the majority of studied patients were independent in daily living activity. Regarding psychological needs, it was foundthat more than one third of patients under study had moderate anxiety level and more than two thirds of them had mild depression.Regarding social needs, it was found that, slightly less than half of studied subjects had moderate social dysfunction and more than half of them had mild social dysfunction. Inaddition, it was found that majority of the study subjects had unsatisfactory level of knowledge regarding chronic kidney disease

Recommendations:

The study recommended that: - Recommendation related to the patients:

- Supportive care services in dialysis setting should be directed towards meeting biopsychosocial needs of patients with chronic renal failure
- A simplified, illustrated and comprehensive Arabic bookletincluding information about diseaseshould be available for patients.
- Continuous assessment ofbiopsychosocial needs for patients with chronic renal failure are recommended.

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