

# Level of Anxiety Among Hemodialysis Patient at Al Hussein Educational Hospital in Dhi-Qar Governorate

Mohammed Fadil Ali<sup>1</sup>, Alaa Mahibes Tuama<sup>2</sup>, Gosson Juma Elywy<sup>3</sup>

<sup>1,2,3</sup> Department of Community Health Nursing, College of Nursing, University of Thi-Qar, Thi-Qar, 64001, Iraq.

Email: [gusson-j@utq.edu.iq](mailto:gusson-j@utq.edu.iq)

Email: [mohammed-f@utq.edu.iq](mailto:mohammed-f@utq.edu.iq)

Email: [alaa-m@utq.edu.iq](mailto:alaa-m@utq.edu.iq)

## Abstract

**Objective:** Assessment of the level of anxiety in dialysis patients at Al Hussein Educational Hospital in Dhi-Qar Governorate. **Methodology:** A "non-probability" sample of (103) patients who were selected from Al Hussein Educational Hospital for the period from December 27th, 2018, to January 27th of 2019. **The results:** The study shows that the overall assessment for the anxiety among hemodialysis patients is moderate. **Conclusion:** Anxiety is a term that is used to characterize abnormal feelings, that people feel when faced with danger, threat, or when stressed. Dialysis patients are exposed to many stresses that can lead to different levels of anxiety, so we recommend using muscle relaxants and correct breathing techniques that help relieve dialysis patients' anxiety.

**Keywords:** anxiety; hemodialysis.

## 1. Introduction

Anxiety is an inevitable feeling experienced by life for anyone, it help in several positive functions like motivating individuals to take action for solving problems and a crisis, it is concerned normal when suitable to the event and recede when the event is resolved. Anxiety is defined as an ambiguous feeling of horror or fright. It is a response to external or internal stimuli that can have emotional, behavioral, and physical symptoms. (1)

Anxiety is a condition characterized by the subjective and physiologic manifestations of fear (2)

Anxiety can be defined as an emotional status recognized by a confused state of inner upset, commonly convey by tense behavior such as running back and forth, bodily complaints, and rumination. (3)

As defined by department of health "Anxiety is a term used to describe abnormal feeling people experience when faced with threat, danger, or when stressed. When people become anxious, they typically feel upset, uncomfortable, and tense" (4)

There are different ways of the body responds toward anxiety, causing symptoms that vary in severity according to the level of anxiety. Anxiety has four levels: mild, moderate, severe, and panic, mild anxiety is widespread in everyday life. Symptoms may include restlessness, irritability, palmar sweating, and increased senses. Mild anxiety is usually a trigger. Moderate: probable to concentrate exclusively on the stressful event directly and disregard other duties, may have a

dry mouth, fast heartbeat, sweating, nausea or stomach pain, speech may be fast and high-pitched. Nervous habits, such as nail biting or rubbing hands, are common. Severe anxiety: With severe anxiety, symptoms such as heart palpitations, distracting thoughts, chest pain, vomiting, headache, tremors, diarrhea, unpredictable behavior, and feeling of fear are severe. The panic anxiety is the greatest unpleasant, Because it is beyond the ability to function normally, and one may suffer from an inability to move or speak, but sometimes the opposite is true. Some people run or find it impossible to sit down or stay still. The ability to think rationally is likely poor, concepts may be distorted, and may not identify danger, or understand needs at the moment. The intense stresses of life can lead to these types of reactions (5).

Dialysis is a treatment to clear the blood of waste and water, As did the kidneys when it healthy. Dialysis helps control blood pressure and balance important minerals such as sodium, calcium, and in the potassium blood (6).

Dialysis help to cleanse the blood of accumulated waste products, remove urea and creatinine and uric acid from the blood, maintain and restore the body electrolytes level, maintain the buffer system of the body, and remove excess body fluids (7)

The exact prevalence of anxiety disorders among dialysis patients is unclear, but estimates have ranged from about 12% to 52% in various studies (12). The wide variability in the range likely reflects differences in the screening methods for anxiety disorders used by investigators and the

different patient groups sampled (8).

## 2. Material And Method

### sample of the Study

After appropriate licensing from the hospitals to conduct the study, a total of 103 subjects undergoing chronic periodic dialysis at Al-Hussein Hospitals in Dhi Qar were invited to participate in the study. All prospective participants were informed that their participation was entirely voluntary, and confidentiality was emphasized. Out of 320 patients, a consent form was obtained from 103 patients who agreed to participate in the study.

To fulfill the inclusion criteria for participation, subjects must:

1. Receiving treatment for chronic dialysis.

2. Their age is between 11 and 65 of either gender.  
 3. They don't have mental disorders

Data collection: The current study relied on a set of data from primary and secondary research sources. The primary data came from patients undergoing periodic dialysis, by filling out a questionnaire, and the tool consists of two parts, the first relates to the demographic information of each respondent. Included 8 questions (age, gender, academic education level, work status, marital status, monthly income, time of illness, time of dialysis) Part two included 19 questions, in the main study, patients were asked to rate the extent to which they were bothered by each One of the psychological concerns on a 3-point Likert (never, sometimes and always).

## 3. Results of the study

Table (1): Demographic Data for Participants

Percent %	Frequency	Responses	Items	N
6.8	7	(11 - 21)	Age	1-
9.7	10	(22 - 32)		
5.8	6	(33 - 43)		
13.6	14	(44 - 54)		
35.0	36	(55 - 65)		
29.1	30	66 and above		
50.5	52	Male	Gender	2-
49.5	51	Female		
50.5	52	Do not read or write	Academic achievement	3-
33.0	34	primary school		
10.7	11	secondary school		
3.9	4	Institute		
1.9	2	college and above		
10.7	11	wage earner	Occupation	4-
5.8	6	Employee		
18.4	19	Retired		
65.0	67	Unemployed		
14.6	15	Single	Marital status	5-
85.4	88	Married		
12.6	13	Enough	Monthly income	6-
51.5	53	Hardly enough		
35.9	37	Not enough		
35.9	37	One year or less	Duration of the disease	7-
21.4	22	(1- 2) years		
42.7	44	3 years or above		
22.3	23	One month or less	Duration of dialysis	8-
19.4	20	(1- 6 ) months		
58.3	60	More than 6 months		

This table show that majority of participants (64%) more than (55 years) in age, more than half of them (50.5%) don't read or write, most of them (65%) unemployed and (85.4) married, also more

than half of them (51.5%) monthly income were hardly enough, and more than half of them duration of dialysis were more than 6 months (85.3%).

Table (2) level of anxiety among study sample

L	M.S	%	F	R	Items	N
M	2.25	13.6	14	Never	I feel nervous about the dialysis process	1-
		47.6	49	Sometimes		
		38.8	40	Always		
M	2.21	15.5	16	Never	I feel as if something terrible is about to happen	2-
		47.6	49	Sometimes		
		36.9	38	Always		
H	2.34	14.6	15	Never	I have disturbing thoughts	3-
		36.9	38	Sometimes		
		48.5	50	Always		
M	2.27	9.7	10	Never	I feel as if I am less effective	4-
		53.4	55	Sometimes		
		36.9	38	Always		
M	2.31	18.4	19	Never	I feel scared	5-
		32.0	33	Sometimes		
		49.5	51	Always		
M	2.02	20.4	21	Never	I lost interest in my appearance	6-
		56.3	58	Sometimes		
		23.3	24	Always		
H	2.60	6.8	7	Never	I feel upset because I have to be here in the dialysis unit	7-
		26.2	27	Sometimes		
		67.0	69	Always		
H	2.37	11.7	12	Never	I have sudden feelings of panic	8-
		38.8	40	Sometimes		
		49.5	51	Always		
M	2.33	20.4	21	Never	Avoid situations and social places	9-
		25.2	26	Sometimes		
		54.4	56	Always		
M	2.29	15.5	16	Never	I have sleeping problems because of my condition	10-
		39.8	41	Sometimes		
		44.7	46	Always		
M	2.17	10.7	11	Never	I feel unable to concentrate because of my condition	11
		61.2	63	Sometimes		
		28.2	29	Always		
M	2.38	15.5	16	Never	I feel angry	12
		30.1	31	Sometimes		
		54.4	56	Always		
H	2.35	6.8	7	Always	I feel happy	13
		50.5	52	Sometimes		
		42.7	44	Never		
M	2.16	5.8	6	Always	I sit easily and relax	14
		71.8	74	Sometimes		
		22.3	23	Never		
M	2.15	10.7	11	Always	I look forward to enjoying things	15
		63.1	65	Sometimes		
		26.2	27	Never		
M	2.08	26.2	27	Always	I can enjoy reading a good book, radio or TV show	16
		38.8	40	Sometimes		
		35.0	36	Never		
M	2.23	9.7	10	Always	I yet enjoy with things that I enjoyed	17
		57.3	59	Sometimes		
		33.0	34	Never		
M	2.16	6.8	7	Always	I laugh and see the laughable portion of things	18
		69.9	72	Sometimes		
		23.3	24	Never		
H	2.45	4.9	5	Never	I feel sad and depressed because of my condition	19
		44.7	46	Sometimes		
		50.5	52	Always		

R=Rating= Frequency; %= Percent; m.s=mean of score;L= Level;H=High,M=Medium,L=Low

High = (mean of score more than 2.33), medium score less than 1.67).  
 (mean of score between (1.67-2.33)), low (mean of

Table 3 :The total level of anxiety among hemodialysis patients

Level of anxiety					
	R	F	%	m.s	L
Valid	Low	17	16.5	2.18	M
	Moderate	50	48.5		
	sever	36	35.0		
	Total	103	100.0		
R=Rating;F= Frequency; %= Percent; m.s=mean of score;L= Level;M=Moderate					

This table shows that the overall assessment for the anxiety among hemodialysis patients is moderate, at mean of score more 2.18.

#### 4. Discussion

The study showed that the most affected ages ranged from 55 to 65, while a similar study in São Paulo city showed that the most affected ages were 75 years and above.(8) This is, maybe because the average age of Brazil's population greater compared to the average age of the population in Iraq.

The study also showed that the proportion of male and female affected was close. While a study in brazil showed that Males had a higher dialysis incidence than women. (9)

Another study in France, conducted in 2775 patients, showed that incidence was twice as high in males than in female (10)

also, the study showed the rate of incidence is highest in people with less academic achievement, while a study in America showed the highest rate of incidence was among people who had completed high school (11)

The study showed the highest rate of incidence in unemployed people, where they accounted for 65%, This is confirmed by a study in France, where the highest percentage of unemployed, where they reached 76% Of the total samples. (12)

As well the study showed that the proportion of married couples is higher than singles, as confirmed by a study conducted in America on a sample of 3650 patients, where it was found that 56.4% of them are married. (13)

The study showed that people with hardly enough monthly income are the most incidence with hemodialysis by their high and middle-income counterparts, This was confirmed by a study in France, where the proportion of those whose monthly income is less than \$ 58 is the highest incidence (14)

The study showed that patient s with the duration of dialysis above 6 month were the highest incidence, While a study conducted in Athens in 2014 showed that the most high incidence in people were with duration of dialysis is 1-3 years (15)Also the results showed that 48.5% of the patients always had disturbing thoughts about their future or the prognosis of the disease, while 36.9% said that these thoughts sometimes worry them. Most of the patients were also disturbed by their presence in the dialysis unit, and their illness had a negative consequence on the patient's life, affecting his

physical functions, psychological status, and individual and family life. Numerous patients often leave out their families and jobs due to long-term treatment in order to receive dialysis 3 times a week and most spend 4 hours per dialysis session. Also, hemodialysis patients spend up to approximately 12 hours per week on dialysis, that is a considerable time and they must be near a dialysis center or may be hospitalized for a few days.

In addition, patients feel sad and depressed because of their condition. They experience sudden feelings of panic that lead to impairment in psychological status during dialysis.

#### Recommendations

Provide a program to educate patients about

Behavior therapy: Provide recreational activities and programs to get rid of boredom and reduce grief by providing a small library to spend waiting time or read during the period of dialysis as well as to educate about disease and diet and control anxiety. As well as providing the corridors with TV screens or recreational activities or to provide healthy meals Improve patient handling and give accurate dates

#### 5. References

- Sheila L. Videbeck, PhD, RN, (2011) Psychiatric-Mental Health Nursing fifth edition Des Moines Area Community College Ankeny, Iowa P.226
- Corrado Barbui, Andreas Cipriani Shekhar Saxena. World Health Organization (2009). Pharmacological Treatment of Mental Disorders in Primary Health Care (PDF). Geneva. ISBN 978-92-4-154769-7. Archived (PDF) from the original on November 20, 2016
- seligman ME, walker EF, Rosenhan DL, abnormal psychology (4th ed.) New York. W.w. Norton & company
- National institute of diabetes and digestive and kidney diseases: hemodialysis. Retrieved from <https://www.niddk.nih.gov/health-information/kidney-disease/kidney-failure/hemodialysis>
- Psychiatric-Mental Health Nursing, 5th Edition; Sheila L. Videbeck 9) A. Testa, R. Giannuzzi, F. Sollazzo L. Petrongolo, L. Beranardini S. Daini (2013) Psychiatric emergencies (part I): psychiatric disorders causing organic symptoms. European Review for Medical and Pharmacological Sciences
- Jutzler GA, Keller HE 2006 Purpose, possibilities and limitations of dialysis irrigation fluid regeneration.

German. National Center for Biotechnology Information.; 74:1174-7 Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/5714267>

Scott D. Cohen, Daniel Cukor, † and Paul L. Kimmel 2016 Dec 7 Anxiety in Patients Treated with Hemodialysis. National Center for Biotechnology Information 11(12): 2250–2255.

Antonio Carlos Cordeiro,I,,II Juan Jesús Carrero,III Abdul Rashid Qureshi,III Ricardo Ferreira da Cunha,II Bengt Lindholm,III Isac de Castro,IV and Irene Lourdes NoronhaV Sao Paulo 2013 Jun :Study of the incidence of dialysis in São Paulo, the largest Brazilian city : 8(6): 760–765 Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3675216/9>)

Antonio Carlos Cordeiro,I,,II Juan Jesús Carrero,III Abdul Rashid Qureshi,III Ricardo Ferreira da Cunha,II Bengt Lindholm,III Isac de Castro,IV and Irene Lourdes NoronhaV Sao Paulo 2013 Jun :Study of the incidence of dialysis in São Paulo, the largest Brazilian city : 8(6): 760–765 Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3675216/10>)

P. Jungers1, P. Chauveau1, B. Descamps-Latscha2, M. Labrunie2, E. J. P. Grunfeld1 and C. Jacobs4: Age and gender-related incidence of chronic renal failure in a French urban area: a prospective epidemiologic study Department of Nephrology, Necker Hospital, "La Pitie Hospital, Paris, France (1996)11)

Sofia Rubinstein,1 Chengwei Wang,1 and Wenchun Qu2, Int J Nephrol Renovasc Occupational risk and chronic kidney disease: a population-based study in the United States adult population 2013 Mar 9 2013; 6: 53–59 Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3647359/#!po=2.8846212>)

Marie Claire Mukakarangwa, Geldine Chironda, Busisiwe Bhengu, and Godfrey Katende Adherence to Hemodialysis and Associated Factors among End Stage Renal Disease Patients at Selected Nephrology Units in Rwanda: A Descriptive Cross-Sectional Study. National Center for Biotechnology Information Published online 2018 Jun 3. doi: 10.1155/2018/4372716 retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6008892/13>)

M. W. Khattaka,c\*, G. S. Sandhua R. Woodwardd, J. S. Stoffe and A. S. Goldfarb-Rumyantzeva,b (2010) : Association of Marital Status with Access to Renal Transplantation. American Journal of Transplantation 2010; 10: 2624–263114)

Marie Claire Mukakarangwa, Geldine Chironda, Busisiwe Bhengu, and Godfrey Katende Adherence to Hemodialysis and Associated Factors among End Stage Renal Disease Patients at Selected Nephrology Units in Rwanda: A Descriptive Cross-Sectional Study. National Center for Biotechnology Information Published online 2018 Jun 3. doi: 10.1155/2018/4372716 retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6008892/15>)

Stavroula Gerogianni1, Fotoula Babatsikou2,

Georgia Gerogianni3, Eirini Grapsa4, Georgios Vasilopoulos5, Sophia Zyga6, Charilaos Koutis7 "Concerns of patients on dialysis: A Research Study" .Health Science Journal.2014;8 (4) retrieved from: <http://www.hsj.gr/medicine/concerns-of-patients-on-dialysis-a-research-study.pdf>