



DEPRESSION, ANXIETY AND STRESS AMONG THE PATIENT OF CHRONIC KIDNEY DISEASE AT NADIAD CITY, A CROSS SECTIONAL SURVEY

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AUTHOR'S CONTRIBUTION

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

Introduction: Chronic kidney disease is considered a public health problem worldwide. It is defined by kidney tissue injury [with or without a decrease in glomerular filtration rate and /or a decrease in kidney function over a period of three or more months. When the glomerular filtration rate [GFR] is below 15ml./min./1.73m², the patient is in the terminal stage of dialysis, requiring renal replacement therapy [RRT], dialysis, or transplant as alternative treatments. Renal failure is the inability of the kidney to excrete wastes, concentrate urine, and conserve electrolytes. Renal failure is precipitated by a variety of etiological factors. It is treatable but not curable, which means that the patient needs long-term therapy or transplantation.

The overall prevalence of depression, anxiety, and stress in this study was found to be 22.9%, 19.2%, and 28.2%, respectively. Forty nine (13.84%) respondents had mild depression twenty eight (7.91%) has moderate depression.

Depression and anxiety are frequent comorbid disorders among chronic kidney disease (CKD) patients, with an estimated prevalence of approximately 25% in this population, [1] and are associated with worse outcomes, such as progression to end-stage renal disease (ESRD) and mortality [2,3,4,5]. The transition from predialysis management to renal replacement therapy (RRT) is a stressful event in the course of CKD, leading to challenges and decisions that might increase their susceptibility to anxiety, mood disorders or even exacerbate psychological issues that already exist [6].

Aims: The researcher aim to assess the level of depression, anxiety and stress among chronic kidney disease patient in selected hospital of Nadiad City, Gujarat. The research wants to explore the actual psychological status of the patients who were suffering from chronic illness like CKD, because due to long-term suffering from the illness disturbed everyone mind and cause various psychological changes in the body. Hence research wants to assess what kind of changes take place due to chronic kidney diseases.

Objectives:- 1) To assess the level of depression among CKD patients at a selected hospital, Nadiad.

2) To assess the level of anxiety among CKD patients at selected hospital, Nadiad.

3) To assess the level of stress among the CKD patients at selected hospital, Nadiad.

Methodology:

Design and Setting: Descriptive cross sectional survey research design was adopted for the study and a non-probability purposive sampling method was used to drawn samples from the participants. For the data collection researcher has used modified The DASS-42 is a 42 item self-report scale designed to measure the negative emotional states of depression, anxiety and stress, it is a standardized tool.

Prior to data collection written setting permission obtain from the head of the hospital as well as prior informed consent form was obtain from the study participants, the objectives and methods of the study were appropriately explain to the samples. For data collection researcher has select MPUH kidney hospital situated Nadiad City. The total sample size was 30 chronic kidney disease patients.

The research data collection tool consists of the following Section I Demographic variables of the CKD patients section II DASS 42 questionnaire self-rating scale.

Statistical Analysis: Descriptive statistics were applied where, data were analyzed by using SPSS software, and Frequency, percentage, tables, etc. were used to represent the statistical data in the tables and graphs and figures.

Results: The majority of participants (30%) were 41-50 years, sample (36.67%) belong, age group of above 50 years, majority 56.67% were Male, (43.33%) were graduate, (67%) Having 5000-10000 Monthly Income, (60%) were living in Joint family, (56.67%) were belong to 0-3 years, (23.33%) were belong above 9 years if illness. Duration of hospitalization (80%) 0-15 days.

The prevalence rate of depression, anxiety, and stress among Chronic Kidney Disease the most of patients have 50% had moderate symptoms of depression, anxiety, and stress, 30% had mild and only 20% have severe symptoms of depression, anxiety, and stress which was measured by DASS self-rating scale.

Conclusions: the currents study ended to assess the prevalence rate of depression, anxiety, and stress among Chronic Kidney Disease patients, the study result concluded that the majority (50%) of Patients having a moderate level of depression, anxiety, and stress. The people in the age group 41-50 or above 50 are having a higher rate of depression, anxiety, and stress during chronic kidney disease.

Keywords: CKD; WHO; Renal; GFR; RRT; DASS.

1. INTRODUCTION

Chronic kidney disease is considered as a public health problem worldwide [7]. It is defined by kidney tissue injury [with or without a decrease in glomerular filtration rate and /or a decrease in kidney function over a period of three or more months [8]. When the glomerular filtration rate [GFR] is below 15ml./min./1.73m², the patient is in the terminal stage or dialysis, requiring renal replacement therapy [RRT], dialysis or transplant as alternative treatments. Renal failure is the inability of the kidney to excrete wastes, concentrate urine, and conserve electrolytes. Renal failure is precipitated from a variety of etiological factors [9]. It is treatable but not curable, which means that the patient needs long-term therapy or transplantation [9].

The overall prevalence of depression, anxiety and stress in this study was found to be 22.9%, 19.2%, and 28.2%, respectively. Forty nine (13.84%) respondents had mild depression twenty eight (7.91%) has moderate depression [10].

1.1 Objectives

- 1) To assess the level of depression among CKD patients at selected hospital, Nadiad.
- 2) To assess the level of anxiety among CKD patients at selected hospital, Nadiad.
- 3) To assess the level of stress among the CKD patients at selected hospital, Nadiad.

1.2 Assumption

The study is based on following assumption:

- 1) The patients with CKD may have depression anxiety and stress.

1.3 Operational Definitions

1. **Depression:-** It refers to the abnormal extension of over-elaboration of sadness and grief and loss of interest in pleasurable activities feeling of worthlessness and excessive guilt among CKD patients as measured by DASS self –rating scale.
2. **Anxiety:-** It refers to diffuse apprehension that is vague in nature and is associated with the feeling of uncertainly by DASS self-rating scale.
3. **Stress:-** It refers to a stage of psychological and physiological imbalance from the disparity between situational demand and individual ability measured by DASS Self-rating scale.
4. **CKD:-** It refers to a chronic condition in which a patients kidney is no longer able to perform its function.

1.4 Delimitation

A study is delimited:-

- 1) The study was limited to the patients with CKD at selected hospital, Nadiad.
- 2) The sample size was limited to 30 CKD patients.

2. METHODOLOGY

2.1 Research Approach

Non-experimental research approach.

2.2 Research Design

A descriptive survey research approach was used.

2.3 Variable

Background variables includes: Age, gender, education, economic status, family type, Duration of Disease condition, Duration of Hospitalization.

Dependent variable: Depression, Stress, and Anxiety.

Independent variable: DASS self-rating scale [11].

Population of the Study: The population includes all the patients of CKD admitted to MPUH hospital of the Nadiad city.

Sample and Sampling Techniques: The sample size was 30 CKD patients and the sampling techniques were non-probability convenient sampling techniques [12,13].

Tool for Data Collection: DASS self-rating scale was used to assess the level of Depression, Stress, and Anxiety.

3. RESULTS AND FINDING

Revealed that the distribution of sample according to age sample 6 (20%) belong age group of 20-30 years, sample 4(13.33%) belong age group of 31-40 years, sample 9(30%) belong age group of 41-50 years, sample 11(36.67%) belong age group of above 50 years.

Regarding the Gender CKD patients out of 30 samples, 13(43.33%) were Female and 17(56.67%) were Male.

Regarding the Education CKD patients out of 30 samples, 4(13.33%) were illiterate, 3(10%) were primary education, 3(10%) were secondary education, 7(23.33%) were higher secondary education, 13(43.33%) were graduate or above.

Regarding the Economical condition of CKD patients out of 30 samples, 11(67%) Having 5000-10000 Monthly Income, 6(20%) Having 10000-15000, 3(10%) having 15000-20000, 10(33.33%) having above 20000 rupees monthly.

Regarding the Type of family patients of CKD out of 30 Samples, 18(60%) were living in Joint families, 8(26.67%) were living in Nuclear families, 4(13.33%) were living single.

Regarding the Duration of Disease Condition of CKD patients out of 30 samples, 17(56.67%) were belong to 0-3 years, 2(6.67%) were belong to 4-6 years, 4(13.33%) were belong to 7-9 years, 7(23.33%) belonged above 9 years.

Regarding Duration of Hospitalization of patients out of 30 samples, 24(80%) were belong 0-15 days, 2(6.67%) were belong to 16-30 days, 0(0%) were belong to 31-45 days, 04(13.33%) belonged to above 45 Days.

Regarding to participation in any research activity related to CKD out of 30 samples, 04(13.33%) has participated and 26(86.67%) has been not participated.

Table 2 revealed that the distribution of the sample according to the incidence rate of Depression, Anxiety, and Stress, 9(30%) were suffering from mild symptoms of Depression, Anxiety, and Stress, 15(50%) were suffering from moderate symptoms of Depression, Anxiety and Stress, 6(20%) were suffering from severe symptoms of Depression, Anxiety and Stress.

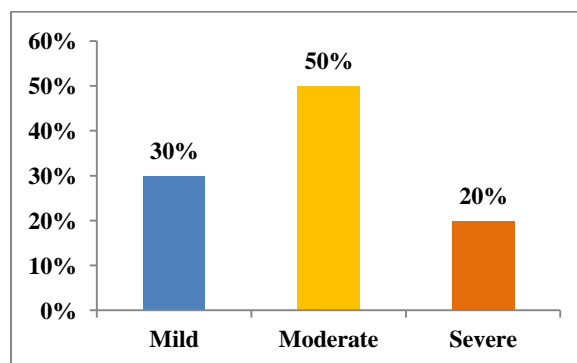


Fig. 1. Percentage distribution of CKD Patients according to the Incidence rate of Depression, Anxiety, and Stress

Table 1. Frequency and Percentage distribution of CKD Patients according to demographic variables

Variables	Categories	(F)	(%)
Age	20-30 years	6	20
	31-40 years	4	13.33
	41-50 years	9	30
	Above 50 years	11	36.67
Gender	Female	13	43.33
	Male	17	56.67
Education	Illiterate	4	13.33
	Primary	3	10
	Secondary	3	10
	Higher secondary	7	23.3
Monthly Income	Graduate or Above	13	43.33
	5000-10000	11	36.67
	10000-15000	6	20
	15000-20000	3	10
Family Type	above 20000	10	33.33
	Joint	18	60
	Nuclear	8	26.67
	Single	4	13.33
Duration of disease condition	0-3 years	17	56.67
	4-6 years	2	6.67
	7-9 years	4	13.33
	> 9 years	7	23.33
Duration of hospitalization	0-15 days	24	80
	16-30 days	2	6.67
	31-45 days	0	-
	> 45 days	4	13.33

Table 2. Frequency and percentage distribution of CKD Patients according to the Incidence rate of Depression, Anxiety, and Stress

Score	Number of Sample	Percentage (%)
Mild	9	30%
Moderate	15	50%
Severe	6	20%
Total	30	100%

3.1 Major Finding of Study

- Finding related to the distribution of sample according to age sample 6 (20%) belong age group of 20-30 years, sample 4(13.33%) belong age group of 31-40 years, sample 9(30%) belong age group of 41-50 years, sample 11(36.67%) belong age group of above 50 years.
- Finding related to the distribution of sample according to the incidence rate of Depression, Anxiety and Stress, 9(30%) were suffering from mild symptoms of Depression, Anxiety, and Stress, 15(50%) were suffering from moderate symptoms of Depression, Anxiety and Stress, 6(20%) were suffering from severe symptoms of Depression, Anxiety and Stress.

4. CONCLUSION

1. The majority of Patients having moderate level of depression, anxiety, stress.
2. The people in age group 41-50 or above 50 are having more depression, anxiety, stress during chronic kidney disease.

CONSENT

Informed consent was acquired from the participants.

ETHICAL APPROVAL

The study was approved by the research committee, IEC – DPCN/1st IEC/2018-19/09 and a formal written

permission was gathered from the authority of Principal of Institute.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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