

# A Study to Evaluate Psychological Distress and Self-Esteem Among Patients with Hemodialysis

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## Abstract:-

### ➤ **Background:**

Chronic kidney disease (CKD) is a progressive disease that affects more than 800 million people worldwide, representing more than 10% of the global population. It is more common in older people, women, and racial minorities, as well as in people with diabetes mellitus and high blood pressure. CKD has become one of the top causes of mortality worldwide, and is one of the few non-communicable diseases that have seen an increase in related deaths over the last few decades. The high number of affected people and the serious negative consequences of chronic disease should lead to increased efforts to improve prevention and treatment efforts. Around the world, there are an estimated 1,800-1,600 extra deaths per 10000 patients who are on dialysis.

### ➤ **Aim:**

The aim of the study is to determine the psychological distress and self-esteem among dialysis patients.

### ➤ **Research Methodology:**

A quantitative cross-sectional investigate plan was utilized to conduct a research study among 30 dialysis patients. Convenient sampling techniques were utilized to collect data from standardized tool using questionnaire techniques.

### ➤ **Result:**

Study showed that 36.7% of the samples were doing well, 23.3% had mild psychological distress, 23.3% of the samples had moderate psychological distress and severe distress is seen in 16.7% of the samples. 73.3% of them had normal self-esteem, 20% of the study population had low self-esteem and 6.7% had above average self-esteem. Significant relationship is seen between social and family support with self-esteem ( $p=0.033$ ).

### ➤ **Conclusion:**

About half of the samples were having psychological distress which is of mild and moderate, severe psychological distress were seen in 16.7% of the samples, ordinal self-esteem were seen in 73% of the samples, 27% of samples had mild and average self-esteem.

**Keywords:-** Hemodialysis, Psychological Distress, Self-Esteem, Rosenberg's Scale, Kessler's Scale.

## I. INTRODUCTION

### ➤ *"It takes Great Strength to Live a Life on a Machine"*

Chronic kidney disease has revealed in all most 1 million deaths worldwide and is the direct cause of one out of 57 fatal outcomes.1. In, India it is estimated that a population of over 7.8 million people are living with chronic kidney disease. Chronic kidney disease is the sixth fastest growing cause of death globally and around 1.7 million people are estimated to die annually because of kidney injury globally, there was a 38% increase in population of death attributed to kidney failure between 2010-2013.2.

Hemodialysis is the most common method of treatment, with approximately 90.6% of patients undergoing it. The difficulties faced by these patients are countless and influence their routine and the way they relate, as they often cause emotional difficulty and physical impairment.3.

Dialysis is diffusion of molecules in solution across a semipermeable membrane along an electrochemical gradient. The primary goal of hemodialysis is to restore the intracellular and extracellular fluid environment that is characteristics of normal kidney function.4.

Hemodialysis is the commonest form of kidney replacement therapy in the world, accounting for approximately 69% of all kidney replacement therapy and 89% of all dialysis. Over the last six decades since the inception of Hemodialysis, dialysis technology and patient access to the therapy have advanced considerably, particularly in high-income countries.5.

Psychological distress may more accurately describe the patient condition to which nurses respond than does the term "distress". Psychological distress describes the unpleasant feelings or emotions that you may have when you feel overwhelmed. These emotions and feelings can get in the way of your daily living and affect how you react to the people around you.6.

Self-esteem means psychological well being, that is the patients feels satisfied with his/her life and affection related to his/her body are positive, in that emotional responses are stable over a period of time, reflecting acceptance of his or

her self image, as well as in the adaptation of processes arising from his/her life cycle and social relationship.7.

#### ➤ *Need for the Study*

Over 2 million people worldwide currently receive treatment with dialysis or a kidney transplant to stay alive, yet this number may only represent 10% people who actually need treatment to live.6. We found that CKD had emerged as one of the leading causes of mortality worldwide and these patients found to have the problems of psychological distress and self esteem.8.

## II. METHODOLOGY

Research methods are the steps, procedure and strategies to gather and analyzes the data in a research investigation. This chapter deals with the methodological approaches. It includes description of research approach, research design, study setting, sampling technique, description about the tool, collection of data done plan for data analysis.

### A. *Research Approach*

It guides the researcher what to research, whom to analyze and how to interpret the results. A quantitative evaluative approach was considered as an appropriate one for present study. An approach helps to explain the effect of the independent variable on the dependent variable.

### B. *Research Design*

Descriptive research design is adopted for the present study using convenient sampling technique.

### C. *Setting of the study*

It is the regional location and where the condition that permits to collect the data which takes place in a study. The study was conducted in St. Joseph's Hospital, Mysuru. The average number of patients undergoing dialysis in a day is 18.

### D. *Target Population*

The population referred to as the target which represents the entire group or all the elements like individual or objects that meet certain, criteria for inclusion in the study are individuals who are undergoing Hemodialysis.

### E. *Sample and Sapling Techniques*

#### ➤ *Sample*

It refers to a subset of a population or it is a portion of the population, which represents the total population. In the study sample is individual's undergoing Hemodialysis in St. Joseph's Hospital.

#### ➤ *Sample Size*

The sample comprise of 30 individual's undergoing Hemodialysis are selected.

#### ➤ *Sampling Technique*

Sampling is defined as the process of opting group of people or elements with which to conduct study. In this

study non-probability sampling (convenient sampling) technique was used to select the samples.

#### ➤ *Criteria for Selection of Samples*

##### • *Inclusive Criteria*

- ✓ Patients with renal failure undergoing Hemodialysis for minimum 1 year.
- ✓ Patients living with their family members.
- ✓ Patients should be above 18 years
- ✓ Those who are available during data collection.
- ✓ Those who are willing to participate in the study.

##### • *Exclusive Criteria*

- ✓ Patients who have any mental health problems.
- ✓ Patients with renal failure undergoing hemodialysis for minimum one month.
- ✓ Minors and elderly people who having age above 60 years.

#### ➤ *Data Collection Instruments*

Data was collected using Sociodemographic tool, Kessler's Psychological Distress and Rosenberg's Self Esteem Scales.

#### ➤ *Pilot Study*

Pilot study is a small scale version or trail run of the major study. To assess the feasibility in conducting the main study and to gain information for improve the project, the pilot study was conducted on 16/06/2023-20/06/2023 by opting 10% of the sample size.

#### ➤ *Data Collection Procedure*

As the first step in the data collection procedure, the investigator met the director and Medical Superintendent of St. Joseph's hospital in order to establish support and cooperation to conduct study successfully. Data was collected by using 3 phases.

##### • *Phase 1: Initial Assessment*

- ✓ Screening of subject based on sampling criteria.
- ✓ Subjects were selected based on inclusion and exclusion criteria.

##### • *Phase 2: Obtaining Informed Consent*

- ✓ Prior to data collection the researcher explained the purpose of the study in the local language to the participants.
- ✓ Researcher requested the participants for their full co-operation and assured them confidentiality of their response. Subsequently obtained written consent from the participants.

##### • *Phase 3: Administration of Tools*

Eligible subjects were assured by using following tools

- ✓ Sociodemographic tool
- ✓ Kessler’s Psychological Distress Scale
- ✓ Rosenberg’s Self-Esteem Scale.

➤ *Plan for Data Analysis*

The attained data from the replier were coded numerically and tabulated. After tabulation and coding, the entered data in master sheet, are collected and analyzed with the descriptive and inferential statistics. The chi-square test was used and finds the association between variables with knowledge scores.

**III. RESULTS**

The collected data are analysis and interpretation to see the level of psychological distress and Self esteem

*A. Objectives of the Study*

- To assess the level of psychological distress among patients undergoing dialysis.
- To assess the self-esteem among patients undergoing dialysis.
- To find association between psychological distress with selected sociodemographic data.
- To find association between self-esteem with selected sociodemographic data.

*B. Presentation of the Data*

In order to find the relationship, the data was tabulated, analyzed and interpreted by using descriptive and inferential statistics. The data is presented under the following headings.

- *Section I: Analysis of Demographic Characteristics of Respondents under Study.*
- *Section II: Analysis of Level of Psychological Distress*
- *Section III: Analysis of Self Esteem*
- *Section IV: Association between Sociodemographic with Level of Psychological Distress.*
- *Section V: Association between Sociodemographic with Self-Esteem.*

➤ *Section I: Demographic Characteristics of Respondents under Study.*

Analysis of demographic data of the sample is described in terms of Age, Religion, Type of family, Residential area, Marital status, Education, Occupation, Monthly family income, Social and family support, Habits and Duration of illness.

The frequency and percentage distribution of respondents according to demographic characteristics are shown in the Table:1 and in respective figures.

- *Section 1:*

Table 1: Classification of Respondents by Personal Characteristics N=30

Characteristics	Category	Respondents	
		Number	Percentage
Age group (Years)	18-28	3	10%
	29-38	3	10%
	39-48	1	3.3%
	49-60	23	76.7%
Gender	Male	16	53.3%
	Female	14	46.7%
Religion	Hindu	12	40%
	Christian	7	23.3%
	Muslim	11	36.7%
Type of family	Nuclear family	24	80%
	Joint family	6	20%
Residential area	Urban	18	60%
	Rural	12	40%
Marital status	Married	7	23.3%
	Unmarried	23	76.7%
Education	Illiterate	4	13.3%
	Primary education	15	50%
	High school	6	20%
Occupation	PUC & above	5	16.7%
	Unemployment	14	46.7%
	Private job	5	16.75%
	Government job	1	3.3%
Monthly family income	Others	10	33.3%
	10,000 and below	17	56.7%
	10,000-20,000	10	34.3%
	20,000-30,000	2	6.7%
	30,000 and above	1	3.3%

Social and family support	Yes	24	80%
	No	6	20%
Habits	Smoking	1	3.3%
	Medication	9	30%
	Others	7	23.3%
	No habits	13	43.3%
Duration of illness (Years)	0-2	11	36.7%
	2-4	9	30%
	4-6	4	13.3%
	6 years and above	6	20%

Table 1: shows the following findings. More than (76.7%) 3/4<sup>th</sup> of the samples were in the age group of 49-60years, 10% of the samples belongs to the age group of 18-28 years and 29-38 years respectively and 3.3% belongs to the age group of 39-48 years. 53.3% of the samples were male, (46.7%) of the participants were female. Majority of the samples 12 (40%) belongs to Hindu, 7(23.3%) Christian, 11 (36.7%) Muslim. 23(76.7%) of the participants were married and 7(23.3%) were unmarried. Large number

of participants 18(60%) reside in urban area 12 (40%) in rural area. With respect to annual income 17 (56.7%) were in the group of 10,000 and below, 10(34.3%) fall in the category of 10,000-20,000, 2 (6.7%) fall in the category of 20,000-30,000 and 1(3.3%) belongs to the group in 30,000 and above. 15 (50%) of the participants have primary education, 6(20%) were having high school, 5(16.7%) were puc and above, 4(13.3%) were illiterate.

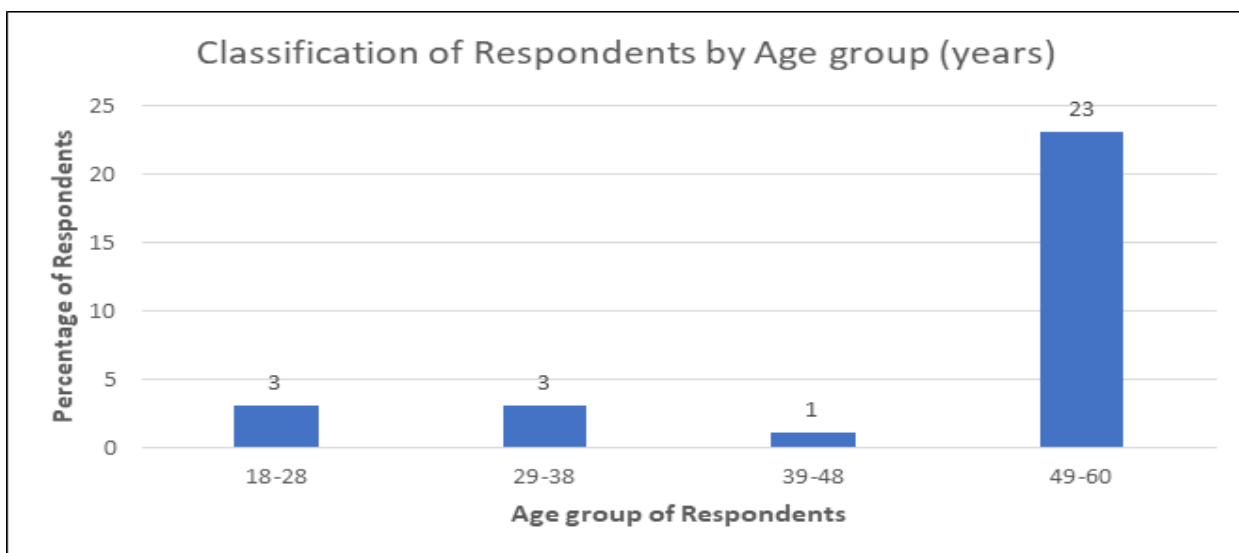


Fig 1 Classification of Respondents by Age Group (years)

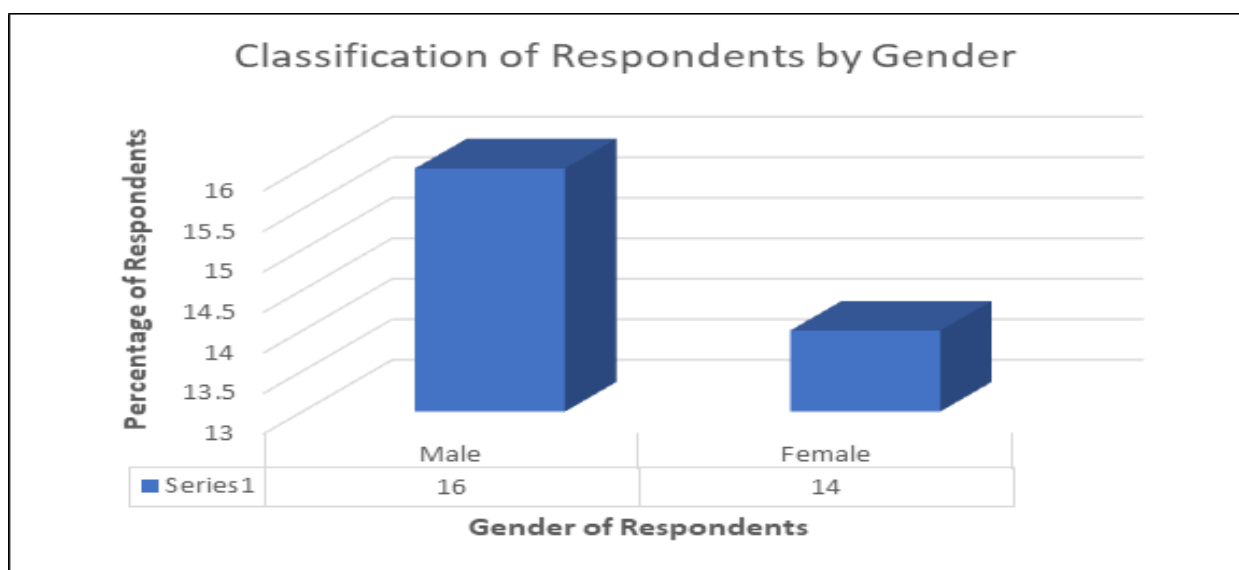


Fig 2 Classification of Respondents by Gender

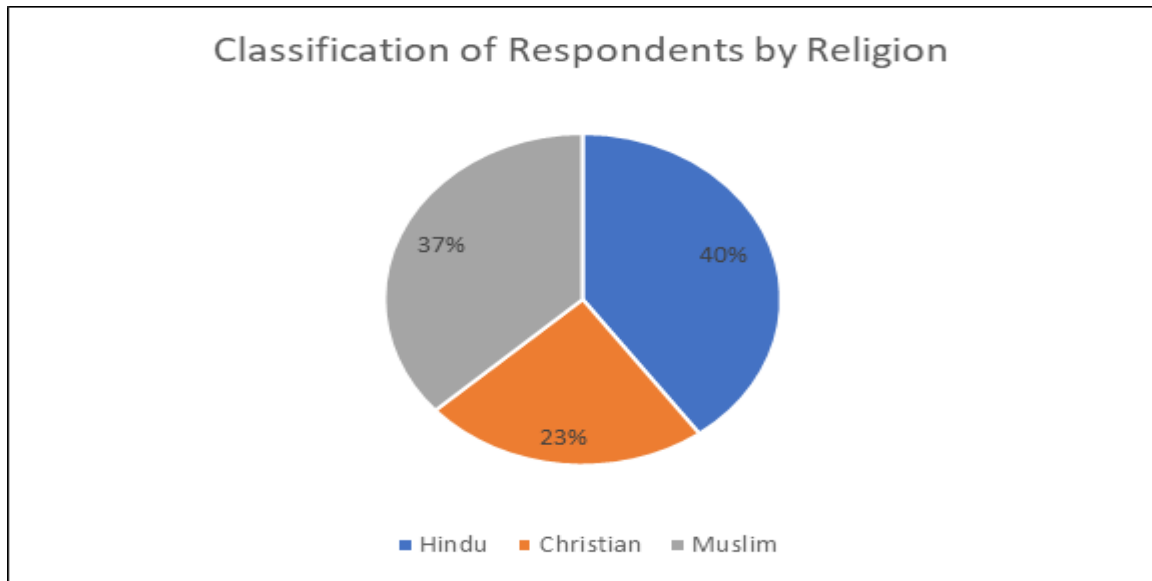


Fig 3 Classification of Respondents by Religion

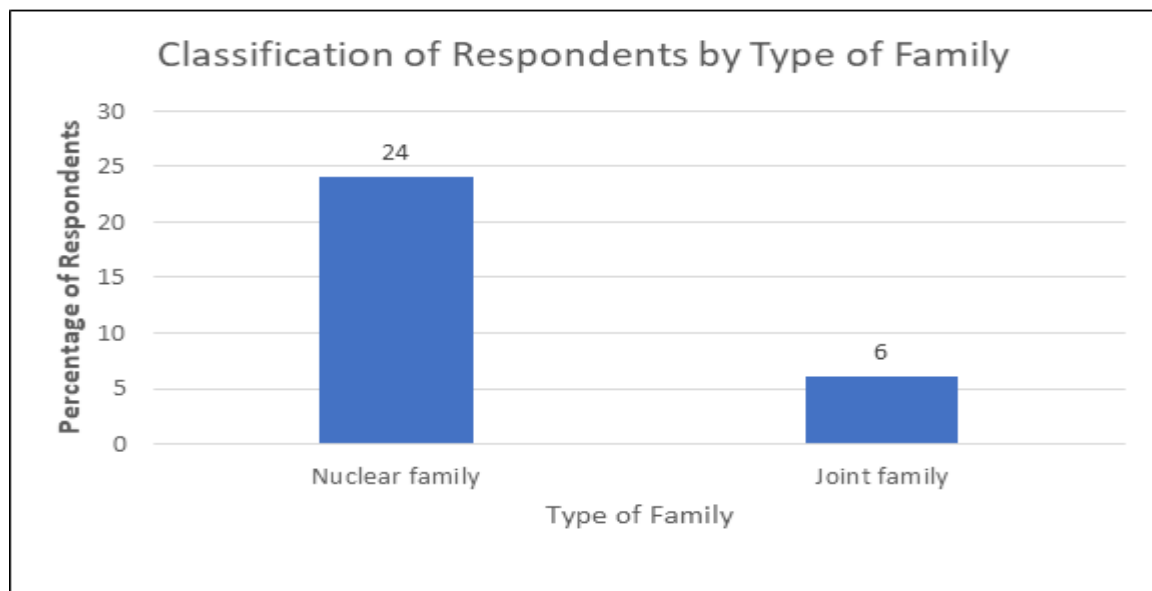


Fig 4 Classification of Respondents by Type of Family

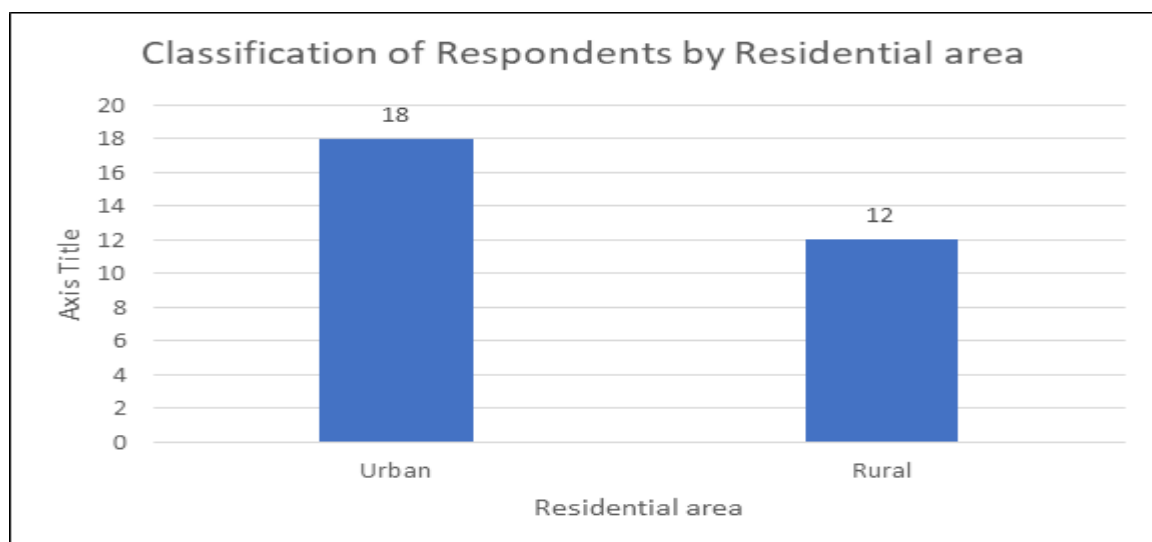


Fig 5 Classification of Respondents by Residential Area

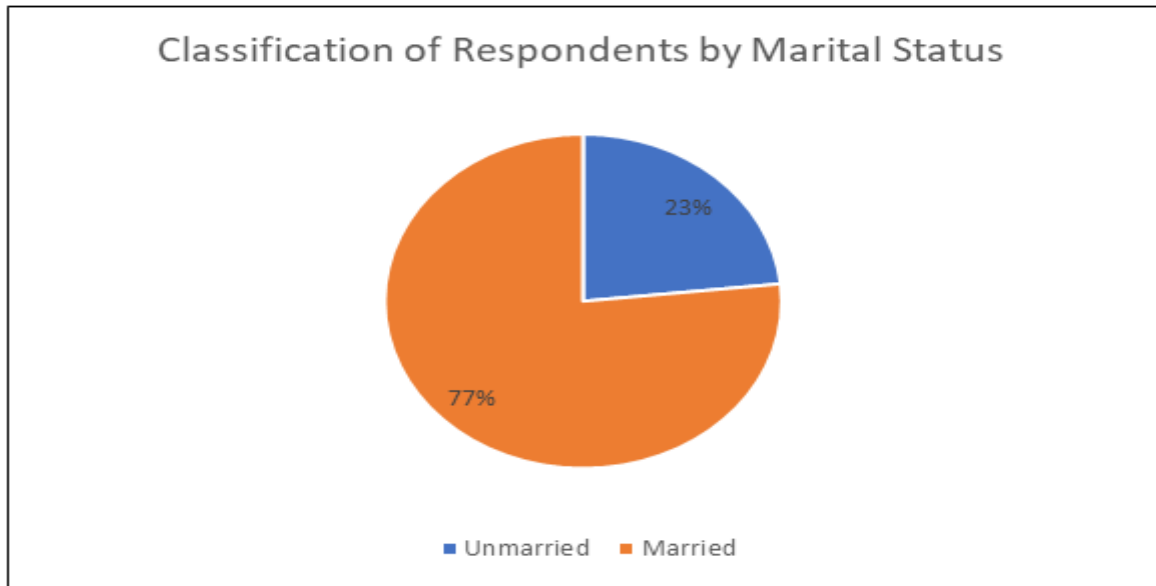


Fig 6 Classification of Respondents by Marital Status

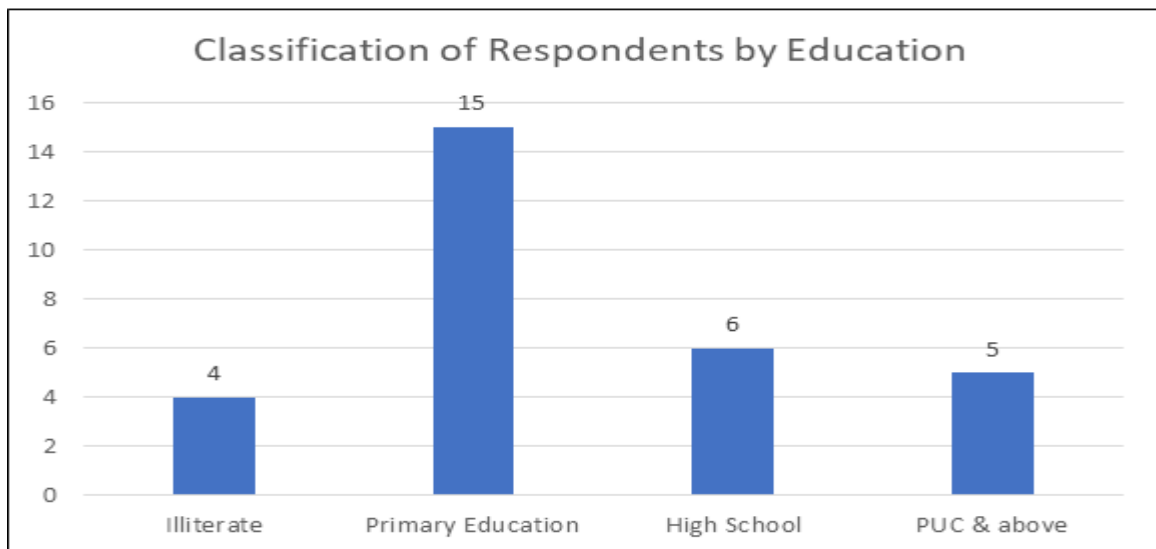


Fig 7 Classification of Respondents by Education

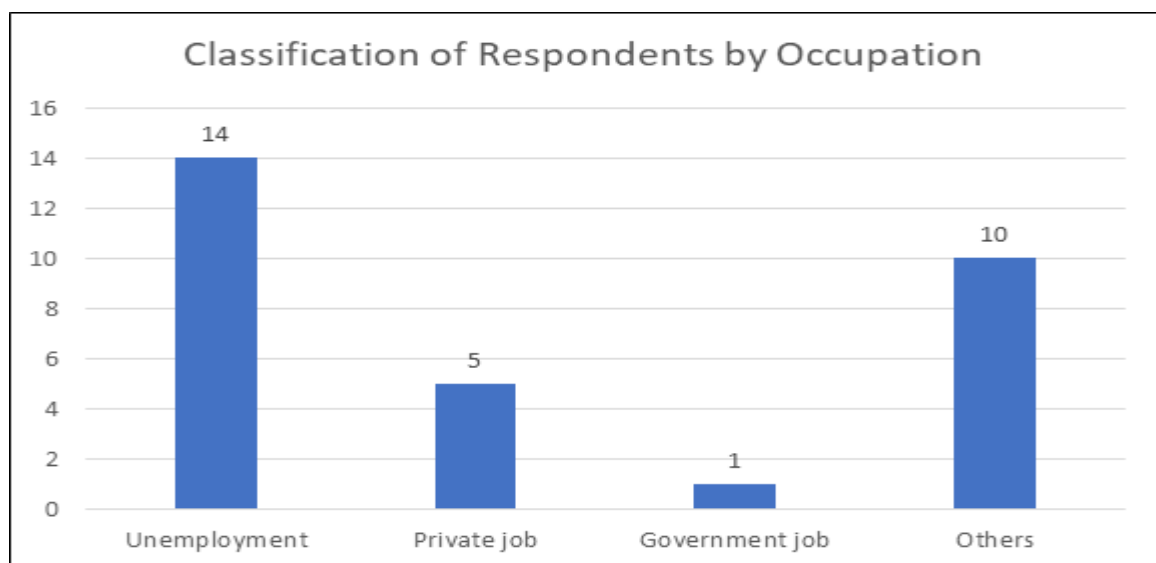


Fig 8 Classification of Respondents by Occupation

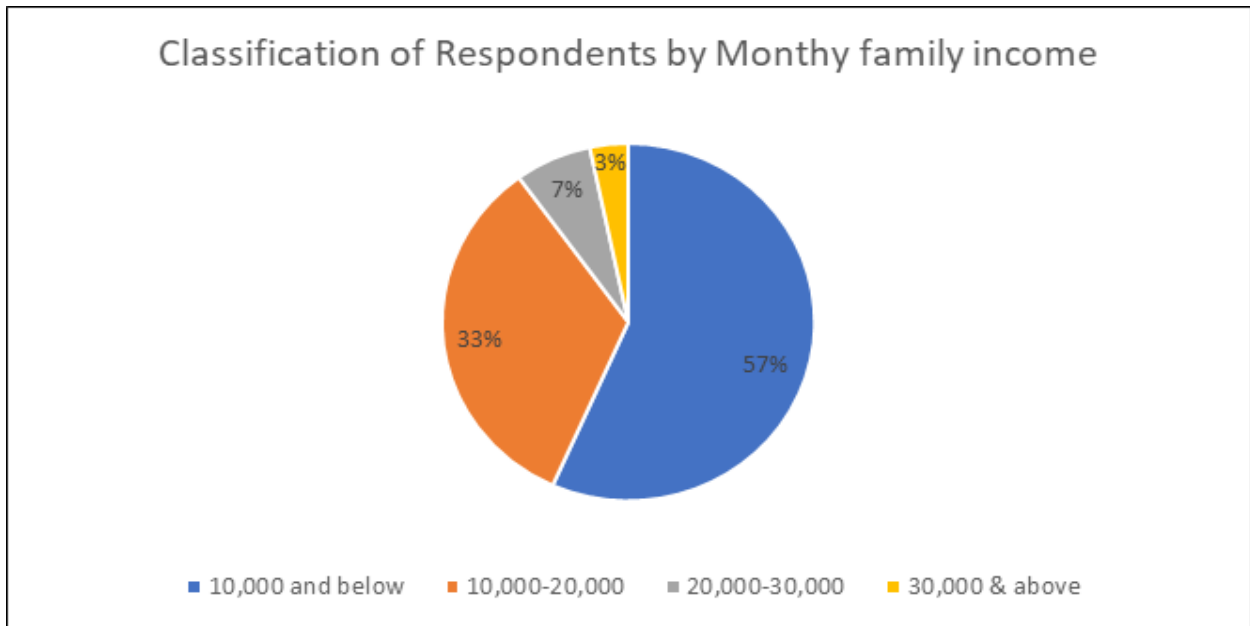


Fig 9 Classification of Respondents by Monthly Family Income

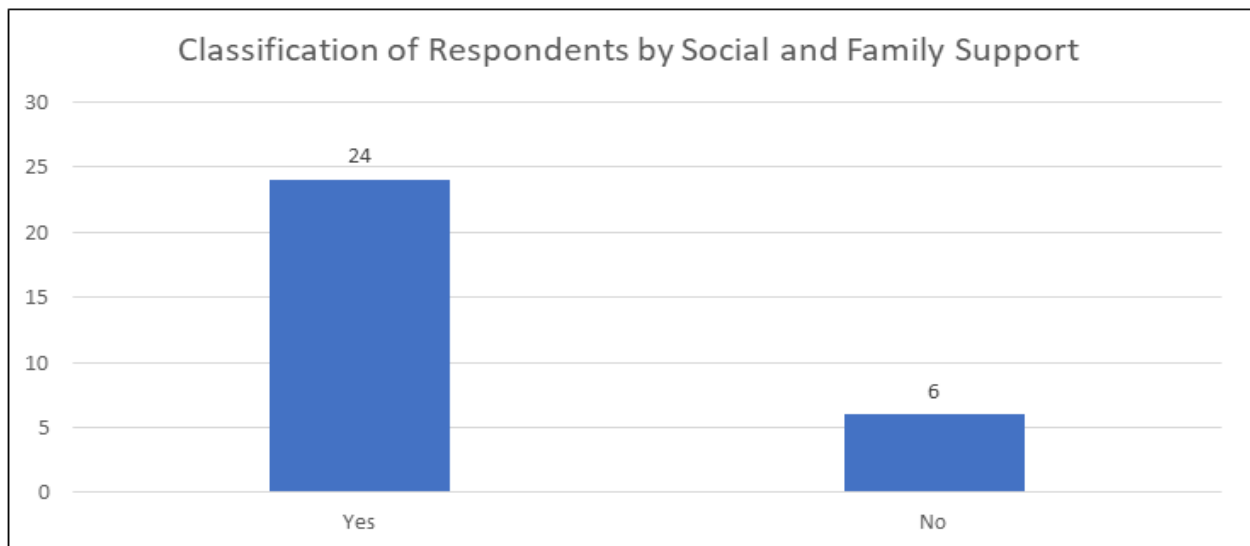


Fig 10 Classification of Respondents by Social and Family Support

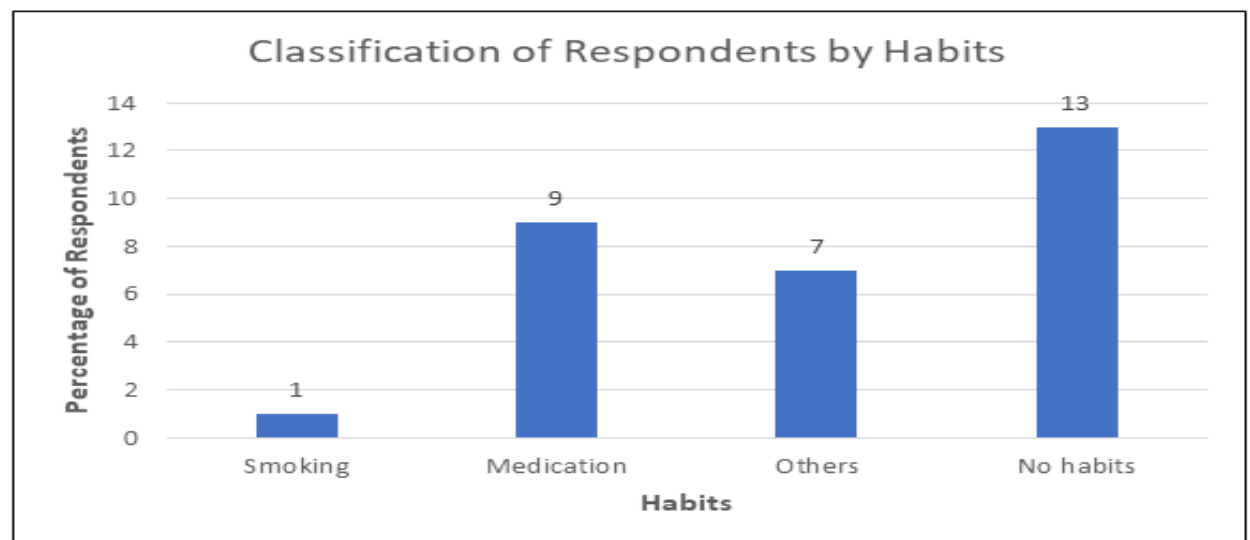


Fig 11 Classification of Respondents by Habits

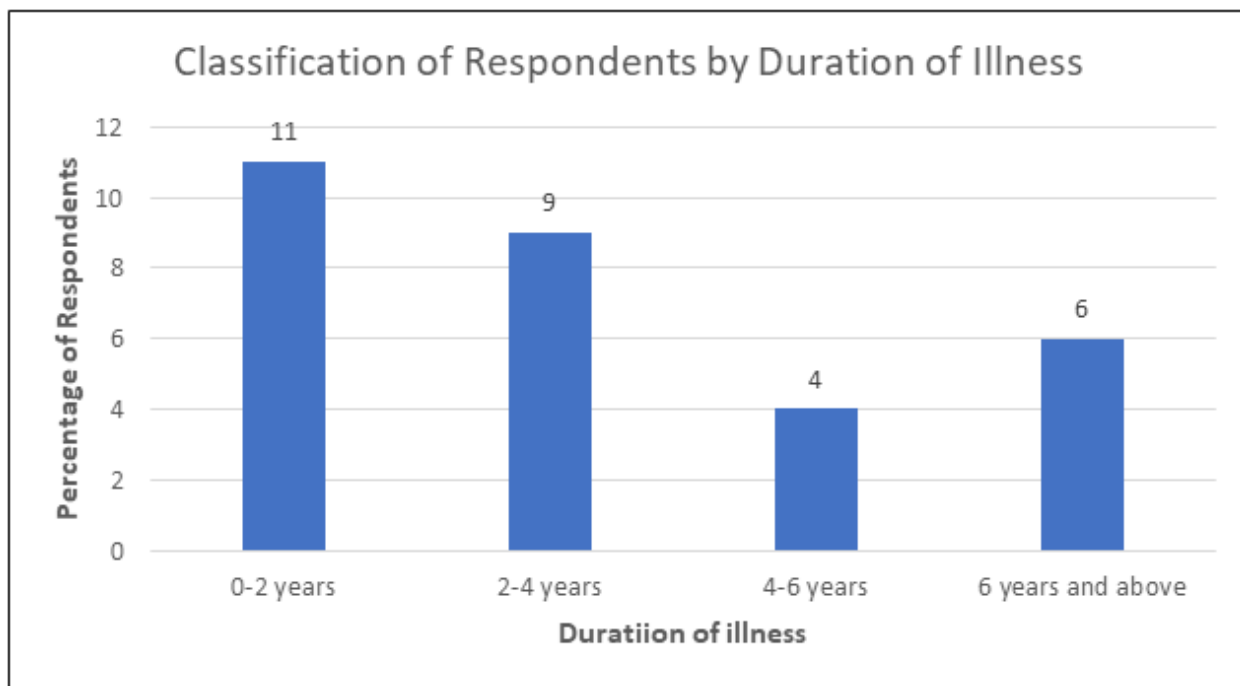


Fig 12 Classification of Respondents by Duration of Illness

➤ Section II

Table 2 Analysis of Psychological Distress N=30

Sl no	Category	Range	Frequency	Percentage
1	Likely to be well	10-19	11	36.7%
2	Mild disorder	20-24	7	23.3%
3	Moderate disorder	25-29	7	23.3%
4	Severe disorder	30-50	5	16.7%

Table 2: shows the information regarding psychological distress related variables among total of 30 participants. 11 (36.7%) of participants are likely to be well, 7 (23.3%) of participants have mild disorder, 7 (23.3%) of participants have moderate disorder and 5 (16.7%) of participants have severe disorder.

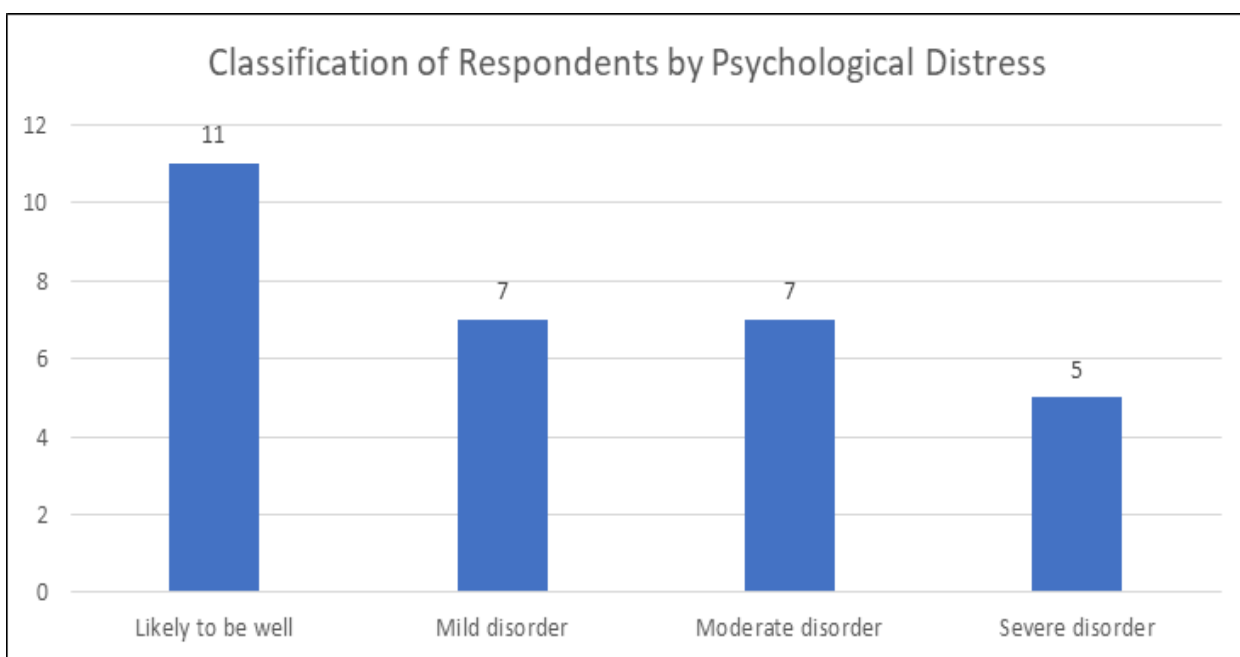


Fig 13 Classification of Respondents by Psychological Distress



➤ Section III:

Table 3 Analysis of Self Esteem

Sl no	Category	Range	Frequency	Percentage
1	Low Self Esteem	0-14	6	20%
2	Normal	15-25	22	73.3%
3	Above average Self Esteem	25-30	2	6.7%

Table 3 depicts 22 (73.3%) of participants have normal self-esteem, 6 (20%) of participants have low Self-esteem and 2 (6.7%) have above average self-esteem.

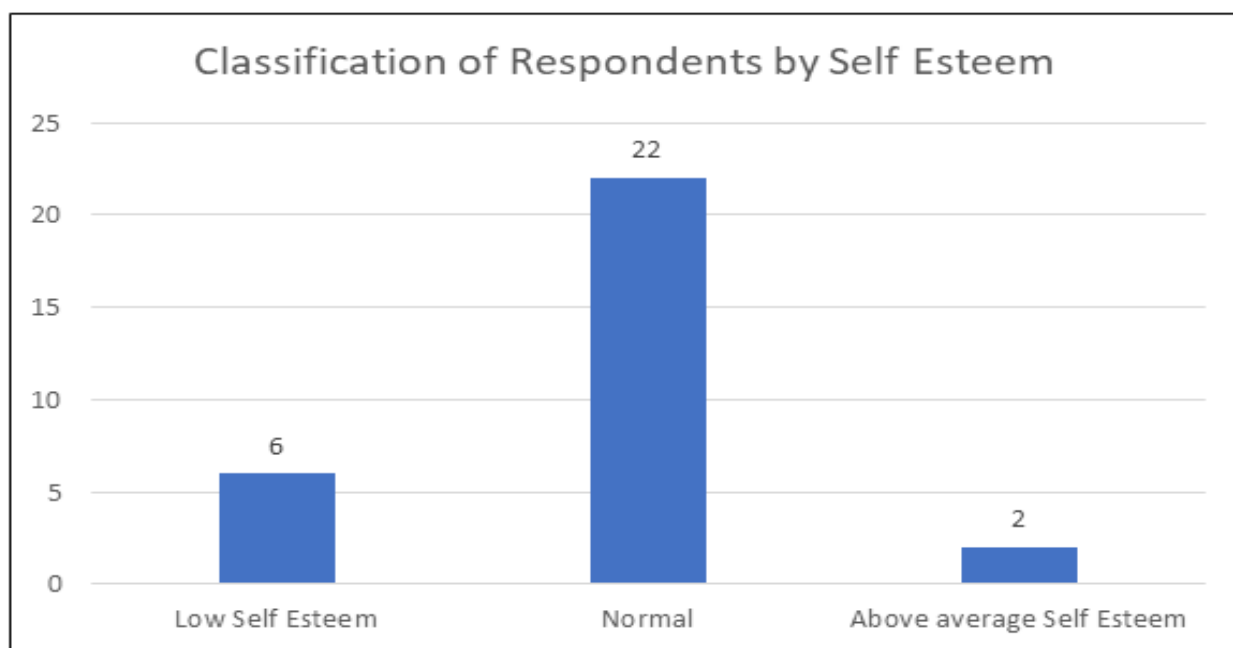


Fig 14 Classification of Respondents by Self Esteem

➤ Section IV:

Table 4 Association between Socio Demographic with Level of Psychological Distress

Demographic Variables	Category	Psychological Distress				Chi-Square	P Value
		Likely to be well	Mild Disorder	Moderate Disorder	Severe Disorder		
Age in years	18-28	3	0	0	0	12.11	0.20 NS
	29-38	1	2	0	0		
	39-48	1	0	0	0		
	48-60	6	5	7	5		
Gender	Male	5	4	5	2	1.59	0.66 NS
	Female	6	3	2	3		
Religion	Hindu	5	3	1	3	5.96	0.42 NS
	Muslim	2	3	4	2		
	Christian	4	1	2	0		
Type of family	Nuclear Family	8	6	5	5	2.07	0.55 NS
	Joint Family	3	1	2	0		
Residential area	Urban	5	5	4	4	2.20	0.53 NS
	Rural	6	2	3	1		
Marital Status	Unmarried	5	1	1	0	5.17	0.16 NS
	Married	6	6	6	5		
Education	Illiterate	1	0	2	1	10.73	0.29 NS
	Primary Education	3	5	4	3		
	Higher Secondary	4	0	1	1		
	PUC & above	3	2	0	0		

Occupation	Unemployment	7	4	2	1	10.28	0.32 NS
	Private Job	2	1	0	2		
	Government Job	0	0	1	0		
	Others	2	2	4	2		
Monthly Income	10,000 & below	6	3	5	3	7.79	0.55 NS
	10,000-20,000	2	4	2	2		
	20,000-30,000	2	0	0	0		
	30,000 & above	1	0	0	0		
Social & Family Support	Yes	10	5	5	4	5.12	0.05 NS
	No	1	2	2	1		
Habits	No	6	4	3	0		
	Smoking	0	0	1	0		
	Medications	4	1	2	2		
	Others	1	2	1	3		
Duration of Illness (years)	0-2 years	2	3	4	2	9.58	0.30 NS
	2-4years	4	3	1	1		
	4-6 years	2	0	0	2		
	6 years and above	3	1	2	0		

\*Significant at 5% Level, NS: Non-significant

➤ Section V:

Table 5 Association between Self-Esteem with Sociodemographic Data

Demographic Variables	Category	Self Esteem			Chi Square	P Value
		Low self esteem	Normal	Above average		
Age in years	18-28	0	3	0	3.32	0.78 NS
	29-38	0	3	0		
	39-48	0	1	0		
	49-60	6	15	2		
Gender	Male	4	11	1	0.56	0.76 NS
	Female	2	11	1		
Religion	Hindu	3	2	1	3.45	0.48 NS
	Christian	0	6	1		
	Muslim	3	8	0		
Type of family	Nuclear	5	17	2	0.64	0.72 NS
	Joint	1	5	0		
Residential area	Urban	4	12	2	1.71	0.42 NS
	Rural	2	10	0		
Marital status	Unmarried	0	6	1	2.81	0.24 NS
	Married	0	16	1		
Education	Illiterate	1	3	0	3.83	0.69 NS
	Primary Education	3	12	0		
	High School	1	4	1		
	PUC & above	1	3	1		
Occupation	Unemployment	1	12	1	6.09	0.41 NS
	Private job	2	2	1		
	Government job	0	1	0		
	Others	3	7	0		
Monthly income	10,000 & below	4	12	1	7.41	0.28 NS
	10,000-20,000	2	8	0		
	20,000-30,000	0	1	1		
	30,000 & above	0	1	0		
Social and family support	Yes	3	18	3	4.61	<b>0.03*</b> <b>S</b>
	No	3	3	0		
Habits	NO	0	1	1	6.04	0.41 NS
	Smoking	1	10	1		

	Medications	2	7	0		
	Others	3	4	0		
Duration of illness	0-2 years	3	7	1	5.72	0.45 NS
	2-4 years	1	7	1		
	4-6 years	2	2	0		
	6 years and above	0	6	0		

\*Significant at 5% Level, NS: Non-significant

- *Table 5 Indicates that there was a Significant Relationship between Social and Family Support with Self-Esteem p=0.033.*

#### IV. CONCLUSION

➤ *The Following Conclusion were Drawn from the Study.*

- 76.7% of the study samples were belongs to the age group of 49-60 years.
- 53.3% of the CKD is seen among males.
- About 3/4<sup>th</sup> (76.7%) of the samples were un-married.
- Nearly half (46.7%) of the samples were un-employed.
- 80% of the samples have adequate social and family support.
- 36.7% of the samples were having an illness duration of 0-2 years.
- The result showed that about 77% of samples were had psychological distress of various level (mild, moderate and severe disorder) and remaining 23% were likely to be well.
- About 73% were had normal self-esteem, 27% of samples had low and average self-esteem.
- Significant relationship were found between social and family support with self-esteem.

#### RECOMMENDATIONS

- The present study can be replicated in different population including large sample size.
- Experimental study can be done to reduce the psychological distress and to improve self-esteem.

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