

# A Study to Assess the Level of Psychological Problem Among CKD Patients Under Hemodialysis at Selected Hospital of Bihar

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**Abstract-** A study to assess the psychological problem among CKD patients under hemodialysis at selected hospital of Bihar.

**Background and Objectives:** People with chronic kidney disease who are on hemodialysis often experience significant psychological distress. This is due to the long-term nature of the treatment, the lifestyle changes it requires, and the financial strain it causes. These factors can affect both emotional well-being and how well someone follows their treatment plan. Understanding how psychological problems are distributed, and their connection to demographic and clinical factors, is essential for developing effective patient support and intervention strategies.

**Methods:** A descriptive cross-sectional study was conducted out on 80 CKD patients undergoing haemodialysis at selected hospital of Bihar. The DASS scale was used to evaluate psychological issues, classifying patients into Normal, Mild, Moderate, Severe, and Extremely Severe levels of psychological distress. Structured interviews were used to gather sociodemographic information.

**Results:** There was a wide range of psychological distress. Significant correlations were found with age, income, and length of dialysis; younger, low-income, and long-term dialysis patients were more impacted, whereas gender and education were not significant.

**Conclusion:** Based on the study's findings, those receiving hemodialysis frequently experience psychological distress, which is significantly impacted by their age, income, and length of treatment and requires targeted support.

**Key Words:** CKD, hemodialysis, psychological problem

## I. INTRODUCTION

Long-term loss of kidney function characterized by decreased eGFR, progressive decline, and staged classification based on cause and proteinuria is known as chronic kidney disease.<sup>1</sup> Worldwide, more than 850 million people are affected by chronic kidney disease, acute kidney injury, or require renal replacement therapy.<sup>2</sup> The overall incidence of chronic kidney disease in India is 13.24 percent; it is more common in men and rural areas. The southern region has a rate of 14.78 percent. The prevalence has increased over time, and estimates may differ significantly in the future.<sup>3</sup> In 2021, more than 700,000 people died by suicide, and many more attempted it. Suicide affected all regions, not only high-income countries. About 73 percent of these deaths occurred in low- and middle-income nations, with high mortality among people aged 15 to 29.<sup>4</sup> Quality of life of CKD patients declined with rising anxiety, depression, and disease severity. Advanced CKD and unemployment increased anxiety risk, while better health scores were protective.<sup>5</sup> Personal, clinical, and social factors influence depression in dialysis patients, and certain traits can increase or decrease a person's risk.<sup>6</sup>

II. MATERIALS AND METHODS

This descriptive cross-sectional study included 80 adults with chronic kidney disease receiving hemodialysis at selected hospitals in Bihar. Data collection focused on both psychological status and background characteristics. Psychological distress was assessed using the DASS scale, which measures depression, anxiety, and stress and categorizes each into Normal, Mild, Moderate, Severe, and Extremely Severe levels. To complement these assessments, trained investigators conducted structured interviews to obtain detailed sociodemographic information, including age, gender, education, occupation, income, and clinical history. This approach allowed the study to capture a clear picture of the psychological burden experienced by hemodialysis patients alongside key personal and social factors that may influence their mental health.

III. RESULTS

The study showed that psychological problem levels among the 80 haemodialysis patients ranged from normal to extremely severe, with 31.2 percent reporting normal levels, 25 percent moderate, 18.8 percent mild, and 12.5 percent each reporting severe and extremely severe distress. Analysis of demographic factors found significant associations with age ( $\chi^2 = 10.5, p = 0.03$ ), income ( $\chi^2 = 12.1, p = 0.02$ ), and duration on dialysis ( $\chi^2 = 11.3, p = 0.03$ ). Younger and middle-aged patients reported more moderate to severe psychological issues compared to older adults, while those with monthly income below 10,000 INR showed higher distress levels, and patients undergoing dialysis for more than three years demonstrated greater psychological burden. Education level showed a borderline association ( $\chi^2 = 8.9, p = 0.05$ ), with lower-educated patients experiencing higher distress, whereas gender differences were not statistically significant ( $\chi^2 = 4.2, p = 0.24$ ). Overall, age, income, and treatment duration were key factors influencing psychological problem severity in this group.

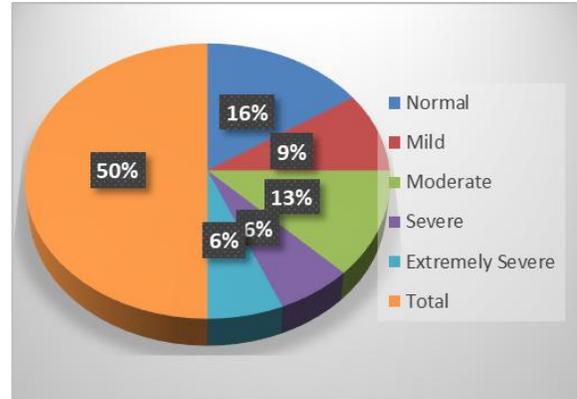


Figure 1 Distribution of level of psychological problem of the participants

IV. DISCUSSION

The results show that among CKD patients receiving hemodialysis, psychological issues are highly prevalent, with one-third reporting moderate to severe psychological distress. This is consistent with other research showing that CKD patients frequently experience anxiety and depression as a result of treatment stress, lifestyle modifications, and the burden of the illness. Improving patient outcomes requires integrated mental health support and early psychological screening.

V. CONCLUSION

This study identifies important psychological problems among CKD patients receiving haemodialysis at NMCH Jamuhar. Different levels of distress were successfully identified by the DASS scale, highlighting the necessity of regular psychological evaluations in nephrology practice. Age and other sociodemographic characteristics have an impact on psychological outcomes, highlighting the need for customized interventions.

Conflict of Interest:

The authors declare that there are no conflicts of interest regarding the publication of this research.

ACKNOWLEDGMENT

I am immensely grateful to my esteemed guide and mentor, Prof. Dr. Shaveta Sharma, Vice-Principal, Narayan Nursing College, who has been a guiding

light throughout this journey. Her scholarly guidance, constructive suggestions, timely feedback, and critical reviews helped me improve the quality of my work immensely.

I extend my sincere thanks to Prof. Dr. K. Latha, Dean cum Principal, Narayan Nursing College, for her valuable encouragement, continuous inspiration, and for allowing me the opportunity to undertake this study at the esteemed institution.

I would like to thank all the students of GNM for actively participate and constant support towards completion of this study.

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