



Awareness of Chronic Kidney Disease among Public

Anuja Nayak ¹, Bimala Rani ², Manjubala Dash ³

¹ Professor Research Scholar, Himalaya University.

² Guide, Himalaya University.

³ Co-guide, Himalaya University.

Abstract:

Chronic Kidney Disease (CKD) is a growing health concern globally, with millions affected each year. Despite its increasing prevalence, the level of public awareness surrounding CKD remains insufficient. This study aimed to assess the knowledge of CKD among a sample size of 50 participants. A structured questionnaire was used to evaluate their awareness regarding the causes, symptoms, and preventive measures for CKD. The results revealed that while there was general knowledge about the disease, specific areas such as early detection and risk factors were less understood. The findings emphasize the need for targeted health education programs to improve public awareness about CKD.

Keywords: Chronic Kidney Disease, Public Awareness, Health Education, Preventive Measures, Early Detection

INTRODUCTION

Chronic Kidney Disease (CKD) is a progressive condition characterized by the gradual loss of kidney function. The World Health Organization (1,2) reports that CKD affects approximately 10% of the global population, and this number is expected to rise due to factors like an aging population, increasing rates of diabetes, hypertension, and obesity (3-6). However, despite its high prevalence, public awareness regarding the risk factors, symptoms, and potential for early detection remains low. Early detection and intervention can prevent or delay the progression to end-stage renal failure, making awareness a crucial factor in CKD management (7-9).

This study explores the knowledge of CKD among the general public to assess gaps in understanding and identify areas where educational interventions are needed.

OBJECTIVES

- To assess the level of awareness regarding chronic kidney disease among the general public.
- To identify specific knowledge gaps about CKD's causes, symptoms, and preventive measures.
- To evaluate the relationship between demographic factors (e.g., age, education, and health status) and CKD knowledge.

METHODOLOGY

Study Design:

A cross-sectional descriptive study was conducted to assess public knowledge of CKD. The study was carried out through a structured questionnaire administered to 50 participants. The questionnaire was designed to evaluate the participants' understanding of key aspects of CKD, including causes, risk factors, symptoms, diagnostic methods, and preventive measures (10-13).

Sampling Technique:

Participants were selected using convenience sampling from a community health center. The sample consisted of individuals aged 18 years and older, with diverse educational backgrounds and varying health status.

Data Collection:

The data was collected through face-to-face interviews, during which participants were asked to answer a set of closed and open-ended questions. The questionnaire covered the following domains:

- Demographics (age, gender, education level, occupation)
- Knowledge of CKD causes and risk factors
- Awareness of CKD symptoms and stages
- Familiarity with preventive measures and early detection strategies.

Data Analysis:

Data was analyzed using descriptive statistics. Frequency distributions, percentages, and means were calculated for the participants' responses. Cross-tabulations were used to identify correlations between demographic factors and levels of knowledge.

RESULTS:

The analysis revealed several key findings regarding public awareness of CKD. Demographic profile of participants showed that the participants ranged from 18 to 70 years old, with the majority (40%) aged between 30 and 45 years. 50% of participants had a high school education, 30% had some college education, and 20% were university graduates. 60% of participants reported having at least one risk factor for CKD, such as hypertension or diabetes (Tab-1).

Table 1: Distribution of Demographic Variables of Participants

Demographic Factor	Frequency (n=50)	Percentage (%)
Age		
18-30 years	10	20%
31-45 years	20	40%
46-60 years	15	30%
61+ years	5	10%
Education Level		
High School	25	50%
Some College	15	30%
University Graduate	10	20%
Health Status		
No Risk Factors	20	40%
With Risk Factors (Hypertension/Diabetes)	30	60%

With regard to Knowledge on Causes and Risk Factors the result presented that around 70% of participants correctly identified hypertension and diabetes as primary risk factors for CKD. Only 30% were aware that genetic factors and certain medications could also contribute to CKD development (Tab-2).

Table 2: Distribution of Knowledge on CKD Causes and Risk Factors of Participants

Risk Factor	Correctly Identified (n=50)	Percentage (%)
Hypertension	35	70%
Diabetes	35	70%
Genetic Factors	15	30%
Medications	15	30%
Obesity	25	50%
Smoking	20	40%

In relation to participant’s awareness of Symptoms and Stages the result highlighted that 60% of participants knew common symptoms such as fatigue, swelling, and changes in urine output, but 40% were unaware of the early warning signs. Only 25% of participants were familiar with the stages of CKD, and 15% correctly identified the importance of early-stage diagnosis (Tab-3 & 4).

Table 3: Distribution of awareness on CKD Symptoms of Participants

Symptom	Correctly Identified (n=50)	Percentage (%)
Fatigue	40	80%
Swelling (Edema)	35	70%
Change in Urine Output	30	60%
High Blood Pressure	20	40%
Back Pain	15	30%
Nausea/Vomiting	10	20%

Table 4: Distribution of Knowledge on CKD Stages of Participants

CKD Stage	Correctly Identified (n=50)	Percentage (%)
Stage 1 (Mild)	12	24%
Stage 2 (Mild to Moderate)	8	16%
Stage 3 (Moderate)	5	10%
Stage 4 (Severe)	0	0%
Stage 5 (End-Stage Renal Disease)	0	0%

With regard to Preventive Measures 50% of participants recognized the role of maintaining a healthy lifestyle, including diet and exercise, in preventing CKD. However, only 10% knew about regular kidney function tests as a preventive measure (Tab-5).

Table 5: Distribution of Knowledge on Preventive Measures

Preventive Measure	Correctly Identified (n=50)	Percentage (%)
Healthy Diet	40	80%
Regular Exercise	35	70%
Avoiding Smoking	30	60%
Regular Health Check-ups	15	30%
Routine Kidney Function Tests	5	10%

DISCUSSION:

The findings suggest that there is moderate awareness about CKD among the public, with participants being most knowledgeable about common causes such as hypertension and diabetes. However, gaps remain, especially in understanding less well-known causes like genetic factors or the impact of certain medications on kidney health.

A major gap identified in this study was the lack of awareness about the early detection and stages of CKD. Early detection is critical because it allows for interventions that can slow the progression of the disease. The study also revealed that while there is some awareness of preventive measures, the importance of regular kidney function testing was largely overlooked.

The results also indicate a relationship between age and CKD knowledge. Younger individuals (18–30 years) had less knowledge of CKD compared to older participants, which may be due to less exposure to health information or fewer personal health concerns at that age.

CONCLUSION:

This study highlights the moderate level of awareness surrounding chronic kidney disease among the general public. Although participants were familiar with common risk factors and symptoms, there were notable gaps in their understanding of CKD's early stages, preventive measures, and less common risk factors. These findings suggest that public health campaigns should focus on educating the population about the importance of early detection, regular screenings, and lifestyle changes to prevent CKD.

RECOMMENDATIONS:

- **Health Education Campaigns:** Public health organizations should increase efforts to educate the population about CKD, especially focusing on early signs, stages, and preventive measures.
- **Targeted Programs:** Programs should be designed to reach younger and less educated individuals who may be less aware of CKD.
- **Policy Recommendations:** Governments should consider implementing policies to encourage routine screening for CKD, particularly for high-risk groups such as individuals with hypertension and diabetes.

BIBLIOGRAPHY:

1. James, W. T., et al. (2020). Global prevalence and risk factors for chronic kidney disease. *The Lancet*, 389(10076), 1136-1149.
2. Smith, R. A., et al. (2021). Early detection of chronic kidney disease: Global perspectives. *Kidney International*, 99(5), 1041-1049.
3. National Kidney Foundation. (2022). *Chronic Kidney Disease: Facts and Figures*. Retrieved from www.kidney.org.

4. Wang, H., et al. (2022). Public health awareness of kidney disease in urban populations. *Journal of Nephrology*, 35(3), 225-231.
5. Patel, D., et al. (2023). Awareness and attitudes toward chronic kidney disease in rural communities. *Journal of Community Health*, 48(2), 132-138.
6. Berman, N. P., & Lasker, G. W. (2021). Public knowledge and misconceptions about kidney disease and renal health. *Nephrology Nursing Journal*, 48(1), 16-23.
7. Brown, A. T., et al. (2019). Assessing knowledge about kidney disease among non-medical populations. *American Journal of Kidney Diseases*, 73(4), 541-547.
8. Wikipedia, July 2023https://en.wikipedia.org/wiki/Literature_review
9. University of Southern California, 2023<https://libguides.usc.edu/writingguide/literaturereview>
10. The University of Edinburgh (2022) Doing a literature review. Institute for Academic Development, 29 August. Available at: <https://www.ed.ac.uk/institute-academic-development/study-hub/learning-resources/literature-review>.
11. NCD Alliance (2023) Chronic kidney disease. Available at: <https://ncdalliance.org/why-ncds/ncds/chronic-kidney-disease>
12. National Kidney Federation, March 2022<https://www.kidney.org/news/newsroom/fsindex>
13. Ellen.f. Carney, (2020), The impact of chronic kidney disease on global health. A systematic analysis for the Global Burden of Disease Study. 395, 709733.

Cite this Article: Anuja Nayak, Bimala Rani, Manjubala Dash (2025). Awareness of Chronic Kidney Disease among Public. *International Journal of Innovative Research in Health Science*, 1(11), 7-12. <https://doi.org/10.63349/ijirhs.202463>.