The Research of Medical Science Review
ISSN: 3007-1208 & 3007-1216 Volume 3, Issue 12, 2025

ASSESSMENT OF ATTITUDE AND PRACTICES REGARDING LIFESTYLE MODIFICATION FOR THE PREVENTION OF CHRONIC KIDNEY DISEASE IN GENERAL POPULATION.

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DOI: https://doi.org/10.5281/zenodo.18060348

Keywords
Chronic Kidney Disease, public awareness, health education, lifestyle practices, risk factors, physical activity, hydration, smoking, alcohol consumption, financial concerns, age demographics, social impact, employment, health perception, and preventive measures.

Article History
Received: 27 October 2025
Accepted: 11 December 2025
Published: 26 December 2025

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Abstract

Aim: *The aim of the study was to assess the attitude and practices regarding lifestyle modification for the prevention of chronic kidney disease in general population.*

Methodology: *A descriptive cross-sectional research design was used. Study used purposive sampling technique. The study population was general population or CKD Diagnosed patients that visiting hospitals and sample size is 164.*

Result: *This study examined the attitudes and practices related to preventing chronic kidney disease (CKD) in the general population. The results showed that many participants had poor knowledge (65.9%) and were unaware of their risk for CKD. In contrast, 52.8% of participants had good practices for CKD prevention, such as not smoking and avoiding alcohol. The study found a significant link between education level and knowledge ($p < 0.050$), meaning those with higher education understood CKD better. There was also a strong connection between education and attitude toward CKD ($p < 0.001$) and between occupation and attitude ($p < 0.050$). Additionally, age was significantly related to how participants viewed their risk for CKD ($p < 0.001$). These findings show the importance of public health campaigns to increase CKD awareness, particularly among younger people and those with lower education levels.*

Conclusion: *Well-informed and educated people are less likely to develop or worsen chronic kidney disease (CKD). This study shows the importance of increasing public knowledge, as it could help prevent many individuals from progressing to severe kidney disease or end-stage renal failure.*

INTRODUCTION

Chronic Kidney Disease (CKD) is a global public health challenge, often unnoticed in its early stages and affecting individuals at any age. A major consequence of CKD is End Stage Renal Disease (ESRD) (Yadav & Non-Nephrologists, 2022). According to the National Kidney Foundation Kidney Diseases Outcome Quality Initiative, CKD is defined as a glomerular filtration rate (GFR) of less than 60 mL/minute/1.73 m^2 for three months or more, with or without kidney damage (Kistler et al., 2021; Huang, Donin, Levey, & Campbell, 2020). Kidney injury persisting for over three months may present as abnormalities in blood or urine, histological findings, or structural changes detected through imaging (Yea, Yoon, Lee, Yun, & Lee, 2021; Sahu et al., 2022). CKD is irreversible, and

management focuses on slowing progression and treating complications (Alfano et al., 2022).

The global burden of CKD continues to rise, with >10% of the population—over 800 million individuals—affected worldwide (Nugent, Fathima, Feigl, & Chyung, 2011). Prevalence is higher in older adults, women, minorities, and individuals with diabetes and hypertension. Systematic reviews have estimated CKD prevalence at 13.4% for stages 1–5 and 10.6% for stages 3–5, with stage-specific prevalence ranging from 3.5% in stage 1 to 0.1% in stage 5 (Kovesdy, 2022).

Key modifiable risk factors include hypertension, diabetes, and smoking. Lowering blood pressure slows disease progression (Cortese et al., 2020), while diabetic renal disease is rising by 10% annually (Burrows et al., 2020). Heavy smokers face up to 5.9 times greater risk of ESRD (Boggia, Silvariño, Fuentes, & Worldwide, 2021). CKD is also linked to significant morbidity and mortality, requiring management strategies that address blood pressure, glycemic control, diet, and lifestyle (de Boer et al., 2020).

Awareness and early detection remain limited, as most patients are unaware until 90% of kidney function is lost (Zhou, Yang, & Treatment, 2020). Preventive strategies include screening high-risk individuals, public education, and lifestyle modification (Tegegne, Demeke, Amme, Edmealem, & Ademe, 2020). However, knowledge, attitudes, and practices toward CKD remain inadequate, underscoring the urgent need for awareness programs (Lakhan & Sharma, 2010; Sahu et al., 2022). This study emphasizes evaluating attitudes and practices among relatives or caretakers of patients at risk of CKD, highlighting prevention through improved awareness and healthier lifestyles.

Methodology:

This study was a descriptive cross-sectional survey carried out at Services Hospital, Lahore, over nine months after approval from the Ethical Review Board. Participants were selected from people visiting the outpatient department (OPD) using a purposive sampling method. The sample size was calculated with Solvin's formula, based on a population of 280 and a margin of error of 5%, which gave a final sample of 164 participants. Both patients already diagnosed with chronic kidney disease (CKD) and members of the general public were included, while student nurses, head nurses, and individuals with a medical background were excluded. Data were collected using a structured questionnaire divided into three parts. The first part recorded demographic information such as age, gender, income, education, family background, and access to healthcare. The second part assessed participants' attitudes toward CKD prevention using eight Yes/No questions, with each correct answer scoring one point for a maximum of eight; the scores were grouped as very positive, positive, neutral, negative, or very negative (Ajzen, 2012). The third part was a checklist that looked at daily lifestyle practices, including smoking, alcohol use, exercise, diet, water intake, and urinary habits. Answers were scored as Yes/No and then converted into percentages, where a score of 85% or above was considered competent and below 85% as incompetent (Squires et al., 2017). All data were entered and analyzed using SPSS version 22. Chi-square tests were used for qualitative variables, t-tests for quantitative variables, and further statistical tests were applied to examine relationships between study variables.

Results:

Out of 164 participants, only 34.1% thought they might have kidney problems, while most (65.9%) did not see themselves at risk. However, 55.5% were interested in learning more about kidney disease, and 66.5% said they would worry about their future if diagnosed. Concerns were also reported about community reputation (60.4%), ability to work (59.1%), survival (57.3%), and financial burden (57.3%). A large majority (78.7%) agreed that kidney disease is a serious problem in Pakistan.

Table 1: Response To Attitude Regarding Lifestyle Modification for the Prevention of Chronic Kidney Disease in General Population.

SR#	Items	Yes F(%)	No F(%)
1.	Have you thought that you may have kidney problems?	56(34.1%)	108(65.9%)
2.	Do you like the idea of learning all that you can about kidney problems?	91(55.5%)	73(44.5%)
3.	If you found out that you have kidney problems, would you be worried about your future?	109(66.5%)	55(33.5%)
4.	Would you be worried about your reputation in the community if you found out that you have kidney disease?	99(60.4%)	65(39.6%)
5.	Would you be worried about your ability to work if you found out that you have kidney problems?	97(59.1%)	67(40.9%)
6.	Do you think that kidney disease is a problem in Pakistan?	129(78.7%)	35(21.3%)
7.	Would you be worried about your chances of survival if you found out that you have kidney problems?	94(57.3%)	70(42.7%)
8.	Do you think that the cost of kidney disease would be a problem for you?	94(57.3%)	70(42.7%)

Table 2: Response To Practices Regarding Lifestyle Modification for The Prevention of Chronic Kidney Disease in General Population

Sr No.	Questions	Frequency (%)
01	**Do you smoke?**	
	Yes	57(34.8%)
	No	107(65.2%)
02	**If yes, how many cigarettes you smoke per day?**	
	0	107(65.2%)
	1-3	7(4.3%)
	4-6	11(6.7%)
	7-9	39(23.8%)

03	**Are you Alcoholic?**	
	No	**149(90.9%)**
	Yes	**15(9.1%)**
04	**Level of Physical Activity?**	
	Very active	**65(39.6%)**
	Moderately activity	**48(29.3%)**
	Low active	**24(14.6%)**
	No activity	**27(16.5%)**
05	**How Often Do You Exercise?**	
	Once a week	**10(6.1%)**
	Twice a week	**15(9.1%)**
	Daily	**66(40.2%)**
	Don't exercise	**73(44.5%)**
06	**Number of glasses of water you drink daily?**	
	2-3	**28(17.1%)**
	4-6	**48(29.3%)**
	7-10	**88(53.7%)**
07	**How many times you pass your urine daily?**	
	1-2 Times/Day	**33(20.1%)**
	3-4 Times/Day	**53(32.3%)**
	5-6 Times/Day	**78(47.6%)**

In lifestyle practices, 34.8% of participants smoked, with most smokers consuming 7–9 cigarettes daily. Alcohol use was low (9.1%). Regarding physical activity, 39.6% were very active, but 44.5% did not exercise at all. Water intake was relatively good, with 53.7% drinking 7–10 glasses daily, while urinary frequency showed 47.6% passed urine 5–6 times a day, suggesting

Discussion:

This study gives useful insights into how people think and act when it comes to lifestyle changes for preventing chronic kidney disease (CKD). Most participants (65.9%) had never thought about the possibility of having kidney problems, showing that awareness is still low. Younger adults, especially those aged 20–40, seemed less concerned about their risk, which reflects a common trend of underestimating health issues at a younger age. On a positive note, more than half of the participants were interested in learning about kidney health, suggesting that awareness programs could make a real difference. Many also recognized CKD as a major problem in Pakistan, though over half expressed worries about the financial burden of treatment, pointing to cost as a serious barrier in care. Lifestyle findings were mixed: the majority did not smoke or drink alcohol, which is encouraging, but some smokers reported heavy use, showing the need for stronger quit-smoking efforts. Physical activity levels varied, with some being very active while many reported little to no exercise, highlighting the need for programs that promote regular activity. Hydration habits were generally good, as more than half drank 7–10 glasses of water daily, though a small portion had very low intake, which could affect kidney health. Overall, while the results show encouraging behaviors in some areas, there are clear gaps in awareness, physical activity, and financial access that must be

addressed through health education and supportive policies.

Conclusion:

This study reveals that many people are not aware of their risk for Chronic Kidney Disease (CKD), especially younger adults aged 20-40. Despite this, more than half of the participants showed interest in learning about kidney health. The research also highlights worries about how CKD could affect people's social lives, jobs, and finances, pointing to the need for better support in these areas. The findings on lifestyle habits, such as low smoking and alcohol use, are positive for CKD prevention. However, the differences in physical activity and water intake among participants suggest that more public health efforts are needed to encourage regular exercise and proper hydration.

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