INSIGHTS-JOURNAL OF
HEALTH AND REHABILITATION

INSIGHTS-JHR
INSIGHTS-JOURNAL OF HEALTH AND REHABILITATION

The Assessment of Illness Perception among Patients with Chronic Kidney Disease

Original Article

Sumaira Pervaiz[1]*, Asia Mukhtar[1], Humaira Saddique[2], Sayeda Sidra Tasneem[3], Rubina Jabeen[4]
[1]Student researcher, Department of Nursing, The Superior University Lahore, Pakistan.
[2]Assistant Professor, The Superior University Department of Nursing
[3]Director, The Superior University Department of Nursing
[4]Principal, The Superior University Department of Nursing
Corresponding Author*: Sumaira Pervaiz, Sumerashahzad506@gmail.com, Student researcher, Department of Nursing, The Superior University Lahore, Pakistan.

Conflict of Interest: None
Grant Support & Financial Support: None

Abstract

Background: Chronic Kidney Disease (CKD) is a significant global health concern, affecting approximately 14.5% of the world's population. This high prevalence, influenced by factors such as aging populations and comorbidities like hypertension and diabetes, is linked with increased mortality and morbidity. Understanding patients' illness perception is crucial for improving adherence to treatment plans and overall disease management, as perceptions can greatly impact their health behaviours and outcomes.

Objective: The objective of this study was to assess illness perception among patients with chronic kidney disease (CKD) by analysing levels of perception (low, moderate, good) using descriptive statistics.

Methods: A descriptive cross-sectional study design was employed to evaluate the illness perception among CKD patients. A convenience sampling method was used to select a total sample size of 133 patients attending the nephrology outpatient department of Services Hospital, Lahore. The study utilized an adapted and translated Illness Perception Questionnaire to collect data, which was analysed using frequency distribution and descriptive statistics. Data normality was verified to ensure the reliability of findings.

Results: The study revealed that among the 133 participants, 47 (35.3%) had a low level of illness perception, 41 (30.8%) demonstrated a moderate perception, and 45 (33.8%) exhibited a good perception. The majority of participants showed poor illness perception, indicating a need for interventions to enhance patient education and disease management strategies.

Conclusion: The study concluded that a significant proportion of CKD patients exhibit poor illness perception, which could negatively impact disease management and treatment adherence. Future strategies should focus on targeted interventions to improve patients' understanding and management of their condition.

Key Words: Adaptation, Psychological, Chronic Kidney Disease, Health Behaviour, Illness Perception, Patient Attitude, Quality of Life, Self-Management

INSIGHTS-JHR
INSIGHTS-JOURNAL OF HEALTH AND REHABILITATION

INTRODUCTION

Chronic Kidney Disease (CKD) is prevalent worldwide. Chronic Kidney Disease found to affect the 14.5% of population globally (1). This drastic increased incidence rate affecting not only developing countries but developed countries are also increased in prevalence due to more aging population and lifestyle related comorbidities like hypertension, and diabetes mellitus. This increased prevalence is directly linked with increased mortality and increased morbidity rate(2). There are five stages of chronic kidney disease (CKD), with stage 5 often known as end stage renal disease (3). Early-stage chronic kidney disease (CKD) has a higher chance of progressing into end-stage renal disease, which would necessitate renal replacement treatment, lead to the development of comorbidities including cardiovascular disease, and increase mortality (4). To lower these risks, individuals with chronic kidney disease (CKD) are generally prescribed a complex drug regimen in addition to a variety of lifestyle modifications, such as a complicated food plan, hydration restriction, regular exercise, and weight control. It is essential that patients be able to acquire, comprehend, and use health information through positive perceptions associated to their condition to follow the recommendations for their care (5, 6).

A subjective perspective on one's experience and condition as a result of an illness, sickness perception provides insight into how chronic patients might maintain their health practices (7). Both cognitive and emotional factors play a role in its influence, including the disease's predicted course, the effects it will have on one's life, how it is managed or treated, the identification and source of the sickness, and feelings like dread or worry about it (8). Individual disease perception is linked to psychosocial and clinical outcomes in hemodialysis patients and serves as a motivator and springboard for sickness coping and action plans. Hemodialysis patients with high control of illness perception and low perceived consequences for their lives were found to have low depression (9, 10).

Inter-dialytic weight control was helpful for hemodialysis patients with high disease impression of chronic timelines (11). Age-related differences in how people perceive illness are evident in the social-cultural context; younger patients are more confident in their ability to manage their condition while holding onto their fears; older patients adhere to their treatment plans only when they felt they required direct care and were less agitated by their condition (12). After starting dialysis, hemodialysis patients highly perceived the impact of their sickness and treatment on their everyday lives; however, as they grew older, their emotional responses and sense of significance declined (1, 3, 13).

The processing of sickness perceptions occurs in three stages: interpretation, in which the person constructs an illness perception based on internal elements like demographics, knowledge, or education, and symptom perception (14). This is followed by coping mechanisms, which help the person recognize ways to lessen the risk to their health posed by the illness. Lastly, assessment occurs during which the person evaluates the results of the coping mechanisms they have chosen. Studies examining the relationship between death in ESKD and perceptions of sickness have verified that beliefs held by patients are related to death (9). According to a study, dialysis patients had a higher chance of dying if they felt more negative effects from their renal condition. A poor illness perception has also been linked with poor disease control (15). Illness perceptions have been identified as predictors of short-term survival in CKD, yet few studies have explored these associations in CKD patients. Research evidence from other clinical populations suggests that illness perceptions are modifiable through psychological interventions such as counselling of patient with chronic condition instead treating them with medication. So, the study is amiable to be conducted to identify the illness perception in patients dealing with comorbidities like CKD so the future interventions will be planned by identifying the issue of patients' disease related perception. Hence, the current study is investigating the level of illness perception among patients with Chronic Kidney Disease(1, 6).

MATERIALS AND METHODS

A descriptive cross-sectional research study design was used. The setting of the study was Services Hospital of Lahore, Pakistan. The study population was patients coming to nephrology outpatient department of services Hospital of Lahore, Pakistan. Study used convenient sample techniques to gather the sample from the total number of populations. Patients coming to the nephrology outpatient department of services Hospital of Lahore, were included in the study. Patients diagnosed with chronic kidney disease were included in the study. Patients coming to the emergency department of services Hospital of Lahore were excluded from the study. Patients who are admitted in nephrology and dialysis department of services Hospital of Lahore, were excluded from the study. Study sample was 133 calculated with the help of Slovin's formula. The study used an adopted and translated version of Illness Perception questionnaire to gather the information from the study participant. Study tool consisted of sections. Section A contained demographic detail. Section B contained Illness Perception questions(16, 17).

Initially, permission was taken from the respective institute going for the data collection. After that again permission was taken from the institute where study was conducted. After getting permission of the population was targeted conveniently, questionnaire was floated after the assurance of data privacy and after taking the consent. After getting the required data, data was entered on SPSS for analysis, descriptive statistics were applied. Data normality was checked, the study tool was checked to ensure the reliability and validity of the tool in our context(8, 18).

INSIGHTS-JHR
INSIGHTS-JOURNAL OF HEALTH AND REHABILITATION

RESULTS

Table 1: Demographic Characteristics of Participants

Category	Subcategory	Frequency (%)
Age	16-20	7 (5.3%)
	21-25	33 (24.8%)
	26-30	52 (39.1%)
	31-35	32 (24.1%)
	36-40	8 (6.0%)
	41-above	1 (0.8%)
Gender	Male	98 (73.7%)
	Female	35 (26.3%)
Marital Status	Married	66 (49.6%)
	Single	67 (50.4%)
Qualification	Primary	13 (9.8%)
	Middle	23 (17.3%)
	Matric	60 (45.1%)
	Intermediate	19 (14.3%)
	Bachelors	12 (9.0%)
	Others	6 (4.5%)
Monthly Income	15000-20000	15 (11.3%)
	21000-25000	45 (33.8%)
	26000-30000	28 (21.1%)
	31000-35000	13 (9.8%)
	36000-40000	8 (6.0%)
	41000-above	6 (4.5%)
	None	18 (13.5%)

The table titled "Demographic Characteristics of Participants" provides a comprehensive overview of the sample population's demographic attributes, organized into several categories: age, gender, marital status, qualification, and monthly income. The age distribution spans from 16 to 41 and above, with the majority of participants falling in the 26-30 age group (39.1%), followed by those in the 21-25 age group (24.8%). Gender distribution shows a significant predominance of male participants, accounting for 73.7% of the sample, while females make up 26.3%. Marital status is almost evenly split, with 49.6% of the participants being married and 50.4% single. In terms of educational qualification, a large proportion of participants have completed matriculation (45.1%), while smaller percentages have attained middle (17.3%), intermediate (14.3%), primary (9.8%), bachelor's (9.0%), and other levels of education (4.5%). The monthly income distribution reveals that the most common income range is between 21,000 and 25,000 (33.8%), followed by the 26,000-30,000 range (21.1%). A smaller percentage of participants earn between 15,000-20,000 (11.3%), 31,000-35,000 (9.8%), 36,000-40,000 (6.0%), and above 41,000 (4.5%). Notably, 13.5% of the participants reported having no income. This detailed breakdown provides insight into the socio-economic and demographic diversity within the sample, offering a foundational understanding of the participants' backgrounds relevant to the study's objectives.

Table 2: Illness Perception Score

Low perception	47 (35.3%)
Moderate perception	41 (30.8%)
Good perception	45 (33.8%)

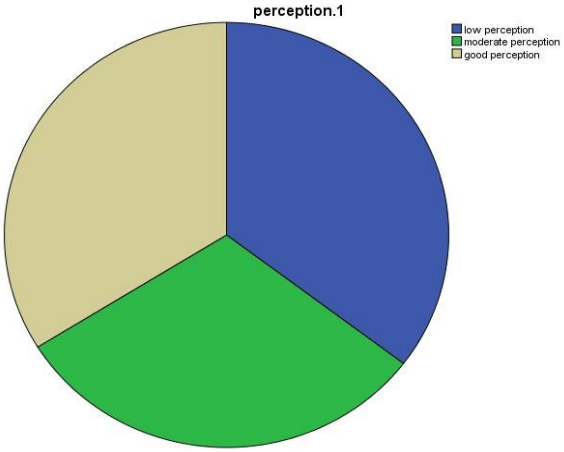

Figure 1 Perception

The table and pie chart shows that from the total number participants who participated in the study and score low in illness perception were 47(35.3%), those who are getting moderate illness perception score were 41(30.8%), and similarly participants get good illness perception score were 45(33.8%).

DISCUSION

The results of the current study reveal that illness perception among patients with chronic kidney disease (CKD) varies significantly, with 35.3% of participants exhibiting a low perception, 30.8% having a moderate perception, and 33.8% demonstrating a good perception of their illness. The demographic analysis highlighted that most of the study population were young adults aged 26-30, predominantly male (73.7%), and had completed secondary education. The distribution also showed a wide range of monthly income, with a substantial proportion of participants earning between 21,000 and 25,000 PKR. This diversity in demographic factors likely influences the varied levels of illness perception observed.

The findings align with those of Santos-Araújo et al. (2023), who reported that demographic variables such as age, gender, and socioeconomic status significantly influence CKD patients' understanding and perception of their condition. In their study, older age groups had higher illness perception scores due to increased exposure to healthcare and long-term management strategies, highlighting the role of experience and support systems in influencing perception (1). The current study's sample, however, predominantly consisted of younger individuals, potentially explaining the lower perception scores in this group, as younger patients may have limited experience managing CKD and less familiarity with long-term healthcare settings. Furthermore, Wang et al. (2023) found similar patterns in the Chinese population, where younger patients reported lower perceptions compared to older individuals, suggesting that age is a consistent predictor across populations (2). Additionally, Suganthi et al. (2020) identified a direct link between illness perception and treatment adherence among patients with end-stage renal disease. Their study showed that patients with a low perception of their condition had poorer adherence to treatment, correlating with our findings where 35.3% of participants exhibited a low illness perception, which could indicate potential issues with treatment compliance in this subgroup (8). Similarly, Vélez-Vélez and Bosch (2016) emphasized that higher illness perception levels correlated with better adherence and coping strategies in CKD patients, supporting the need for targeted interventions to enhance perception in lower-scoring groups (16).

The current study is further supported by the work of Muscat et al. (2021), who indicated that illness perception significantly impacts mental health outcomes among CKD patients. They reported that patients with negative perceptions of their illness were more likely to experience psychological distress, such as depression, which is consistent with the present study's observation of varying perception levels. The low-perception group (35.3%) might be at higher risk for adverse psychological outcomes, necessitating a multidisciplinary approach to improve their illness perception (9). A limitation of the current study is its cross-sectional design and reliance on a single-center sample, which may limit the generalizability of the results. In contrast, the study by Kovesdy (2022) utilized a larger, multi-centered approach, providing a broader perspective on epidemiology and illness perception among CKD patients worldwide. While the findings are consistent with global trends, expanding the sample size and settings would strengthen the conclusions and provide a more comprehensive understanding of how illness perception varies across different populations and healthcare systems (6). The current study's strength lies in its localized focus, allowing for specific insights into the socio-cultural factors influencing CKD patients in Lahore, Pakistan, but further studies are warranted to confirm these observations across diverse populations.

CONCLUSION

Study concluded that the participants possessed good illness perception score were only 45(33.8%), whereas the majority were having low and moderate illness perception score. So, there is a need of the time to consider this number and there must be plan of action to overcome this issue of low illness perception among patient with chronic conditions.

REFERENCES:

1. Santos-Araújo C, Mendonça L, Carvalho DS, Bernardo F, Pardal M, Couceiro J, et al. Twenty years of real-world data to estimate chronic kidney disease prevalence and staging in an unselected population. Clinical Kidney Journal. 2023;16(1):111-24.
2. Wang L, Xu X, Zhang M, Hu C, Zhang X, Li C, et al. Prevalence of chronic kidney disease in China: results from the sixth China chronic disease and risk factor surveillance. JAMA internal medicine. 2023;183(4):298-310.

3. Suriyong P, Ruengorn C, Shayakul C, Anantachoti P, Kanjanarat P. Prevalence of chronic kidney disease stages 3–5 in low-and middle-income countries in Asia: A systematic review and meta-analysis. PLoS One. 2022;17(2):e0264393.
4. Zhang Y, He D, Zhang W, Xing Y, Guo Y, Wang F, et al. ACE inhibitor benefit to kidney and cardiovascular outcomes for patients with non-dialysis chronic kidney disease stages 3–5: a network meta-analysis of randomised clinical trials. Drugs. 2020;80:797-811.
5. Pereira RA, Alvarenga MS, Avesani CM, Cuppari L. Strategies designed to increase the motivation for and adherence to dietary recommendations in patients with chronic kidney disease. Nephrology Dialysis Transplantation. 2021;36(12):2173-81.
6. Kovesdy CP. Epidemiology of chronic kidney disease: an update 2022. Kidney international supplements. 2022;12(1):7-11.
7. Eassey D, Reddel HK, Ryan K, Smith L. 'It is like learning how to live all over again'A systematic review of people's experiences of living with a chronic illness from a self-determination theory perspective. Health psychology and behavioral medicine. 2020;8(1):270-91.
8. Suganthi S, Porkodi A, Geetha P. Assess the illness perception and treatment adherence among patients with end-stage renal disease. Iranian Journal of Nursing and Midwifery Research. 2020;25(1):12-7.
9. Muscat P, Weinman J, Farrugia E, Callus R, Chilcot J. Illness perceptions predict distress in patients with chronic kidney disease. BMC psychology. 2021;9(1):75.
10. Suarilah I, Lin CC. Factors influencing self-management among Indonesian patients with early-stage chronic kidney disease: A cross-sectional study. Journal of clinical nursing. 2022;31(5-6):703-15.
11. Lafta A. Fluid overload and vascular stiffness in hemodialysis patients. 2020.
12. Ofori-Ansah S, Evans M, Jones J, Thomas N. Decision-making experiences of young adults with long-term conditions. Journal of renal care. 2022;48(1):24-40.
13. Oliveira J, Sousa H, Bartolo A, Figueiredo D, Ribeiro O. Illness perception and treatment adherence in haemodialysis: a systematic review. Psychology, Health & Medicine. 2023;28(7):1641-55.
14. Wolf J, Sattel H, Limburg K, Lahmann C. From illness perceptions to illness reality? Perceived consequences and emotional representations relate to handicap in patients with vertigo and dizziness. Journal of psychosomatic research. 2020;130:109934.
15. Nataatmadja M, Evangelidis N, Manera KE, Cho Y, Johnson DW, Craig JC, et al. Perspectives on mental health among patients receiving dialysis. Nephrology Dialysis Transplantation. 2021;36(7):1317-25.
16. Vélez-Vélez E, Bosch RJ. Illness perception, coping and adherence to treatment among patients with chronic kidney disease. Journal of advanced nursing. 2016;72(4):849-63.
17. Cockwell P, Fisher L-A. The global burden of chronic kidney disease. The Lancet. 2020;395(10225):662-4.
18. Duan D, Yang L, Zhang M, Song X, Ren W. Depression and associated factors in Chinese patients with chronic kidney disease without dialysis: a cross-sectional study. Frontiers in public health. 2021;9:605651.

