



## Original Article



## Positive Attitude Toward Health, Health-Related Concerns, Psychological Distress, and Quality of Life among Patients with Kidney Failure Disease

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## ABSTRACT

Individuals' mental health and overall quality of life are affected by kidney disease. Patients' stress and belief about health upset their psychological worry and life satisfaction. **Objectives:** To examine the connection between quality of life, psychological discomfort, health-related anxieties, and positive health attitudes among patients with kidney failure. **Methods:** 250 patients with renal failure were identified by the Nephrology Departments for this study. These people finished a lot of standardized tests. The Depression Anxiety and Stress Scale (DASS-21), Health-Related Concerns Scale, Positive Attitude Towards Health Scale, and Quality-of-Life Scale (QOL) were used. **Results:** In this analytical cross-sectional study, a positive attitude about one's health was significantly associated with quality of life ( $r=0.42$ ,  $p<0.01$ ) and less psychological distress ( $r = -0.36$ ,  $p<0.01$ ). Stress, anxiety, and depression were favorably connected with health-related concerns ( $r=0.40$ ,  $p<0.01$ ), whereas QOL was negatively connected with them ( $r = -0.33$ ,  $p<0.01$ ). Simple linear regression analyses revealed that a positive attitude toward obtaining medical attention was a significant predictor of reduced psychological distress ( $\beta = -0.38$ ,  $p<0.01$ ), fewer health-related concerns ( $\beta = -0.31$ ,  $p<0.001$ ), and higher quality of life ( $\beta=0.44$ ,  $p<0.001$ ). **Conclusions:** Patients who have a positive attitude toward their health have a much higher quality of life, fewer worries about their sickness, and less psychological anguish.

## INTRODUCTION

Psychiatric disorders and chronic illnesses are typically accompanied by psychological distress, notably health anxiety and depression, which can greatly damage a patient's functionality and quality of life [1]. Individuals with chronic kidney disease (CKD) and psychological issues have chronic difficulties related to health. This leads to adverse patterns such as over- or avoidant health-seeking behaviors [2]. The connection between physical and mental health is progressively acknowledged, but no one knows how psychological issues such as depression,

stress, and anxiety affect an individual's life, such as one's overall quality of life [3]. CKD is a public health worry that impacts individuals all over the world, like more than 850 million, globally [4]. The WHO estimates that it impacts more people than diabetes (422 million), osteoarthritis (528 million), and depression (264 million) [5]. Worldwide Disease Study (2017) showed that the incidence of CKD is 697.5 million globally. The incidence of CKD is high in low and middle-income countries due to numerous reasons, such as insufficient management of risks and less access



to medical care [6]. In Asian, such as in Pakistan, approximately 12% to 18% of adults suffer from CKD, which is higher in women, the elderly with numerous health issues, such as people with diabetes, heart disease, and high blood pressure [7]. The study looks at these interrelated groups to uncover common and distinctive psychological traits that affect behaviors related to health. This study aims to investigate the links among CKD patients with psychiatric problems, their QOL, depressive and health-seeking behaviors.

## METHODS

An analytical cross-sectional quantitative research approach was utilized in this study to evaluate the relationships between kidney failure patients' quality of life, psychological distress, health-related anxieties, and positive attitudes toward health. Following the Ittefaq Hospital Lahore's Institutional Review Board (IHT/Adm/30). The data were gathered from Lahore dialysis facilities between May 2024 and May 2025. These locations were chosen because they offer patients with end-stage renal disease (ESRD) and chronic kidney disease (CKD) specialized therapy and follow-up care. Purposive sampling was used to find 250 people with a renal failure diagnosis. This study calculated sample size using G-Power software, estimating effect size ( $f$ )=0.20,  $\alpha$ =0.05, power ( $1-\beta$  error prob.) =0.95, with actual power=0.96, which structured the sample size of 244, and we had 250 participants meet the criteria for eligibility [8]. Exact - Correlation: Bivariate normal model. Options: exact distribution (Table 1).

**Table 1:** A Priori: Compute Required Sample Size

Variables		Values
Input	Tail(s)	1
	Correlation $\rho$ H1	0.21
	$\alpha$ err prob	0.05
	Power ( $1-\beta$ err prob)	0.95
	Correlation $\rho$ H0	0
Output	Lower Critical r	0.1062066
	Upper Critical r	0.1062066
	Total Sample Size	241
	Actual Power	0.9506301

Patients range from 18 to 70. The patients are either receiving hemodialysis or peritoneal dialysis now, or they have a clinical diagnosis of chronic kidney disease (stage 4 or 5). To guarantee a stable course of treatment, the disease must last at least six months. They can read and comprehend English. Patients with severe mental illnesses (such as bipolar disorder or schizophrenia) may have an impact on responses; for this reason, they were not included in the study. Also excluded are people who suffer from neurological disorders or cognitive impairment (e.g.,

dementia, stroke with cognitive decline). Individuals who have recently received a kidney transplant (within the last six months). The study also eliminated patients who were unable to fill out the questionnaires on their own or who refused to participate. The Positive Attitude Toward Health Scale evaluated patients' propensity to take an active and upbeat approach to health management [9]. Cronbach's alpha for this scale is frequently 0.82, indicating that it is typically reliable. This scale is built on a 5-point Likert-type scale, where a higher score denotes a more optimistic outlook on health. The Health-Related Concerns Scale assessed how anxious and concerned patients were about their health, course of treatment, and outlook [10]. The internal consistency of this tool was shown by alpha, which was larger than 0.7. In the scoring method, the higher score is linked to a high level of health-related concerns among patients. Depression Anxiety Stress Scale (DASS-21) [11]. This scale was used to assess Depression, Anxiety, and Stress among individuals. This scale was based on three subscales, and each of the subscales has seven items by using the 4 Likert scales. In this scale, the height scale was linked to a high level of dysfunction. The Cronbach's alpha of this scale ranges between 0.85 and 0.95. The environment, social relationships, psychology, and physical health were all assessed using the Quality-of-Life Scale (WHOQOL-BREF) [12]. A higher quality of life was associated with a higher assessment score. Strong internal consistency was indicated by the scale's score of 0.86. The Cronbach's alpha scores for every instrument used in this study ranged from 0.78 to 0.91 overall, indicating strong internal consistency. The patients were identified based on their medical records, and lately they were approached for outpatient care. All the patients have completed informed consent for participation in the study. By using SPSS (version 26.0), the data were analyzed. Statistics such as descriptive analysis such including mean, standard deviation, frequencies, and percentages, were applied. To study links between variables, Pearson correlations were obtained. Simple linear regression analyses were undertaken to investigate whether a positive health-seeking attitude may predict health-related worries, psychological discomfort, and overall quality of life. Furthermore, multiple regression analysis was utilized to analyze the combined impact of a positive attitude and psychological distress on quality of life. A statistical significance threshold was chosen at  $p < 0.05$ .

## RESULTS

This study gives a summary of the normally distributed data together with the demographic characteristics of the sample, which included 250 participants, 121 men, and 129 female. The mean age of the people was 42.6 years, accompanied by a standard deviation of 12.8 years. A major

segment of this population was married, possessed secondary education qualifications, and stemmed from middle-income nuclear family setups (Table 2).

**Table 2:** Sample Demographic Characteristics

Variables	Total Sample (n=250), n (%)	Male Patients (n=121), n (%)	Female Patients (n=129), n (%)
<b>Age</b>			
Years	42.6 ± 12.8	46.2 ± 11.5	39.3 ± 13.2
<b>Gender</b>			
Male	122 (48.8%)	73 (60.3%)	49 (38.0%)
Female	128 (51.2%)	48 (39.7%)	80 (62.0%)
<b>Education Level</b>			
Primary (≤5 Years)	52 (20.8%)	36 (29.8%)	16 (12.4%)
Secondary (6–12 Years)	111 (44.4%)	54 (44.6%)	57 (44.2%)
Graduate and Above	87 (34.8%)	31 (25.6%)	56 (43.4%)
<b>Marital Status</b>			
Married	186 (74.4%)	102 (84.3%)	84 (65.1%)
Unmarried	64 (25.6%)	19 (15.7%)	45 (34.9%)
<b>Income Group (Monthly)</b>			
Low (<PKR 30,000)	97 (38.8%)	51 (42.1%)	46 (35.7%)
Middle (PKR 30,000–70,000)	112 (44.8%)	53 (43.8%)	59 (45.7%)
High (>PKR 70,000)	41 (16.4%)	17 (14.0%)	24 (18.6%)
<b>Family System</b>			
Nuclear	136 (54.4%)	62 (51.2%)	74 (57.4%)
Joint/Extended	114 (45.6%)	59 (48.8%)	55 (42.6%)
<b>Duration of Illness</b>			
<1 Year	63 (25.2%)	22 (18.2%)	41 (31.8%)
1–5 Years	122 (48.8%)	59 (48.8%)	63 (48.8%)
>5 Years	65 (26.0%)	40 (33.0%)	25 (19.4%)
<b>Period of Treatment</b>			
<6 Months	58 (23.2%)	20 (16.5%)	38 (29.5%)
6 Months–2 Years	108 (43.2%)	50 (41.3%)	58 (45.0%)
>2 Years	84 (33.6%)	51 (42.1%)	33 (25.6%)

Results illustrate the Pearson correlation analysis; a good attitude regarding one's health is considerably linked to a higher quality of life ( $r=0.44$ ,  $p<0.01$ ). This optimistic view, on the other hand, relates to decreased psychological distress ( $r=-0.38$ ,  $p<0.01$ ) and health-related concerns ( $r=-0.31$ ,  $p<0.01$ ). Mental distress was favorably connected with health-related concerns ( $r=0.40$ ,  $p<0.01$ ), whereas quality of life was adversely correlated with them ( $r=-0.33$ ,  $p<0.01$ ). There was also a negative link between quality of life and psychological distress ( $r=-0.41$ ,  $p<0.01$ ) (Table 3).

**Table 3:** Inter-Correlation among Variables

Variables	Mean ± SD	1	2	3	4
1. Positive Attitude Toward Health	34.52 ± 6.21	—	—	—	—
2. Health-Related Concerns	27.83 ± 5.94	-0.31**	—	—	—
3. Psychological Distress (DASS)	30.14 ± 8.72	-0.038**	0.40**	—	—
4. Quality of Life (WHOQOL-BREF)	65.47 ± 11.05	0.44**	-0.33**	-0.41**	—

Note:  $n=250$ , (\*) indicates statistical significance at  $p\leq 0.05$ ,  $p\leq 0.05$  (\*),  $p\leq 0.01$  (\*\*), PATH = Positive Attitude Toward Health; HRC = Health-Related Concerns; DASS = Depression, Anxiety, and Stress Scale-21; WHOQOL-BREF = World Health Organization Quality of Life-BREF.

Independent samples t-tests were conducted to examine gender differences in the study variables. Results indicated that male patients reported significantly higher positive attitude toward health ( $35.12 \pm 6.34$ ) than female patients ( $33.78 \pm 6.01$ ),  $t(228) = 2.14$ ,  $p=0.034$ ,  $d=0.28$ . Female patients reported significantly greater health-related concerns ( $28.71 \pm 6.14$ ) compared to male ( $27.01 \pm 5.72$ ),  $t(228) = -2.03$ ,  $p=0.044$ ,  $d=0.27$ , as well as higher psychological distress ( $31.41 \pm 9.01$ ) compared to males ( $29.02 \pm 8.41$ ),  $t(228) = -2.11$ ,  $p=0.036$ ,  $d=0.29$ . Quality of life was significantly higher among male patients ( $66.89 \pm 11.24$ ) than female patients ( $63.92 \pm 10.71$ ),  $t(228) = 2.45$ ,  $p=0.015$ ,  $d=0.32$  (Table 4).

**Table 4:** Independent Samples t-Test Comparing Male and Female Patients on Study Variables ( $n=230$ )

Variables	Gender	n	Mean ± SD	T	df	p-value	Cohen's d
PATH	Male	121	35.12 ± 6.34	2.14	228	0.003**	0.28
	Female	129	33.78 ± 6.01				
HRC	Male	121	27.01 ± 5.72	-2.03	228	0.004**	0.27
	Female	129	28.71 ± 6.14				
DASS	Male	121	29.02 ± 8.41	-2.11	228	0.003**	0.29
	Female	129	31.41 ± 9.01				
WHOQOL	Male	121	66.89 ± 11.24	2.45	228	0.001***	0.32
	Female	129	63.92 ± 10.71				

Note: (\*) indicates statistical significance at  $p\leq 0.05$ ,  $p\leq 0.005$  (\*\*),  $p\leq 0.001$  (\*\*\*), PATH = Positive Attitude Toward Health; HRC = Health-Related Concerns; DASS = Depression, Anxiety, and Stress Scale-21; WHOQOL = World Health Organization Quality of Life.

Simple linear regression analyses revealed that a positive attitude toward health significantly predicts lower health-related concerns ( $B = -0.28$ ,  $p=0.002$ ,  $R^2 = 0.10$ ) and lower psychological distress ( $B = -0.53$ ,  $p<0.001$ ,  $R^2 = 0.14$ ). Furthermore, a positive attitude was a predictor of higher quality of life ( $B=0.72$ ,  $p<0.001$ ,  $R^2=0.19$ ) (Table 5).

**Table 5:** Simple Linear Regression Analyses Predicting Health-Related Concerns, Psychological Distress, and Quality of Life from Positive Attitude Toward Health ( $n=230$ )

Variables	B	SE-B	$\beta$	t	p-value	$R^2$
Health-Related Concerns	-0.28	0.09	-0.31	-3.12	0.002**	0.10
Psychological Distress (DASS-21)	-0.53	0.14	-0.38	-3.79	0.001***	0.14
Quality of Life (WHOQOL-BREF)	0.72	0.16	0.44	4.55	0.001***	0.19

Note: (\*) indicates statistical significance,  $p\leq 0.05$ ,  $p\leq 0.05$ ,  $p\leq 0.005$  (\*\*),  $p\leq 0.001$  (\*\*\*),  $p$  = significance level; SEB = standard error; B = unstandardized coefficient;  $\beta$  = standardized beta;  $t$  =  $t$ -value;  $R^2$  = coefficient of determination.

## DISCUSSIONS

This current study investigated the relationships between patients with renal failure's quality of life, health-related anxieties, and psychological discomfort. The findings of the study suggested that individuals who have a good and positive attitude towards their health have a high level of quality of life, less health-related anxiety, and stress. Based on this analysis, individuals with chronic kidney disease (CKD) get assistance from well-being-related evaluation in terms of happiness and ability to adjust [13]. Likewise, a positive attitude towards health is linked to better QOL; on the other hand, distress is associated with health-related anxieties [14]. This finding is like previous literature, which showed that positive psychology, such as positive attitude, healthy coping, is related to QOL and well-being among individuals with chronic illnesses [15, 16]. Hence, when an individual goes through the process of renal failure and must take care of medical care as dialysis, then the positive coping strategies helped them to deal with body pain and cope with the situation [17]. Additionally, the data also showed a significant difference in the level of stress and duration of the disease, as well as their coping strategies also different between them. Women, are more sensitive and they are easily to vulnerable to the diseases and stress, similarly, in this case they are more vulnerable to stress and they more worry about the issues, on the other hand, Men, have more positive towards the life and they try to remain busy in the world activities and they have reported the good QOL and less stress about life. Similarly, this is similar to previous research, which indicated that women with chronic illnesses experience more emotional issues and mental health concerns [18]. Caregiving, cultural norms, standards, and different coping mechanisms can all affect one's results. Therefore, it is essential to take gender into account while developing treatments for individuals. Furthermore, regression analysis showed how important it is to have a positive outlook on health. Optimism is a predictor of less health-related anxiety, decreased stress, and an enhanced standard of living in general. This is a thing that a positive attitude towards health makes an individual more motivated, strong, capacity to recover, and different coping strategies for managing disease as well as enhancing their health. However, positive attitudes towards health improve the patient's active role in care, act listen their doctor's instructions, and adopt stress reduction, exercise, and a balanced diet. The findings of this study showed significant evidence that psychological well-being and QOL are linked to patients in enhancing a positive attitude toward health-seeking. Although it is crucial to highlight that other factors, such as social support, treatment compliance, and the existence of concomitant diseases, all have a major impact on quality-

of-life outcomes [19, 20]. Notably, the optimistic attitude explained 10% to 19% of the variance. Firstly, Psychological interventions such as cognitive-behavioral therapy and educational activities may help to take more positive steps. Secondly, based on screening, it will be very helpful in enhancing mental health care. After this, individuals will treat mental health as a normal treatment. Lastly, therapies might be required to report the evident challenges encountered by female patients, who often have a high level of discomfort and lower QOL.

## CONCLUSIONS

It was concluded that patients who report positive concerns and attitudes towards health tend to endure much less problems associated with sickness, experience reduced levels of psychological pain, and enjoy a dramatically improved quality of life.

## Authors Contribution

Conceptualization: ASH

Methodology: ASH, AU

Formal analysis: AU

Writing review and editing: ASH, NN

All authors have read and agreed to the published version of the manuscript

## Conflicts of Interest

All the authors declare no conflict of interest.

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