Abstract

Background

Chronic kidney disease (CKD) has become a significant global health concern, making its effective management crucial. Patients with end-stage renal disease (ESRD) often require multiple medications, restriction of fluid and diet intake, and maintenance hemodialysis (HD) to manage their condition, which together makes it difficult to maintain adherence to treatment. This study aimed to evaluate the prevalence of treatment adherence among ESRD patients and to identify influencing factors, addressing the lack of such data from Northern India.

Methods

This cross-sectional study was conducted at a tertiary care hospital in Northern India. ESRD patients on maintenance HD for at least three months were recruited from the outpatient and dialysis units of the hospital. Patients were interviewed using a validated and reliable tool, the End-Stage Renal Disease Adherence Questionnaire (ESRD-AQ). The primary objective was to assess the prevalence of treatment adherence among ESRD patients on HD who presented to the hospital, and the secondary objective was to evaluate various factors influencing treatment adherence among these patients.

Results

A total of 199 patients were enrolled, with a mean age ± standard deviation of 44.34 ± 13.7 years. Among the patients, 51.76% (n = 103) demonstrated good adherence (adherence score >1000), 41.71% (n = 83) showed moderate adherence (adherence score 700-999), and 6.53% (n = 13) exhibited poor adherence (adherence score <700). A significant association was found between adherence scores and patients' perception of treatment regimens ($p < 0.0001$ for each of the four treatment adherence domains, namely, HD, medication, fluid restriction, and diet restriction) and between adherence scores and the frequency of counseling by medical professionals ($p = 0.106$, 0.037, 0.014, and 0.002 for HD, medication, fluid restriction, and diet restriction, respectively). Individuals with graduate-level education or higher exhibited significantly better adherence scores than those with education levels below graduation ($p = 0.044$). However, age, sex, marital status, area of residence, employment status, mode of transportation, and the presence of family members accompanying patients to HD sessions were not significantly associated with treatment adherence.

Conclusion

Approximately half of the study population exhibited moderate-to-poor adherence, emphasizing the need for substantial improvement in adherence levels. These findings suggest that more frequent and effective counseling is necessary, as low adherence scores were significantly associated with infrequent counseling and poor patients' perceptions of the importance of treatment regimens.