

## NKF's Study Gives a Voice to Seniors on Dialysis

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For many Malaysians living with kidney failure, dialysis is more than a medical treatment — it is a way of life. Among them, senior citizens make up a growing group. In fact, dialysis rates among Malaysians aged 65 and above have risen from 158 per million in 1996 to over 1,200 in 2023. While access to treatment has improved, much less is known about how elderly patients themselves perceive their health and wellbeing.



To address this gap, the **NKF** conducted a study in 2024 using **Patient Reported Outcome Measures (PROMs)**. The study aimed to capture the voices of senior citizens on dialysis — their challenges, their strengths, and their lived experiences.

### The Study at a Glance

The cross-sectional study involved **456 patients aged 65 and above** across 29 NKF dialysis centres nationwide (excluding Malacca and Negeri Sembilan). Patients completed the **SF-12 Health Survey**, which measures both physical and mental health.

Those who were unwell, hospitalised, or cognitively impaired were excluded, ensuring responses reflected patients who could directly share their experiences.

#### Head Office

70, Jalan 14/29, 46100  
Petaling Jaya Selangor Darul  
Ehsan, Malaysia  
Tel +603-7954 9048 Fax +603-7957 7328  
[www.nkf.org.my](http://www.nkf.org.my)

**NATIONAL KIDNEY FOUNDATION OF MALAYSIA** Regd.No.PPM-002-10-12021969  
**YAYASAN BUAH PINGGANG KEBANGSAAN MALAYSIA**

**馬來西亞腎臟基金會**  
மலேசிய தேசிய சிறுநீரக அறநிறுவனம்

## What Patients Told Us

The findings painted a picture that was both sobering and inspiring:

- The **average physical health score was 37**, below the healthy threshold of 50, highlighting the natural physical decline that comes with age and comorbidities.
- The **average mental health score was 51**, above the cut-off of 42, showing that despite physical struggles, many patients maintained stable mental wellbeing.
- **Caregiver support mattered greatly** — patients with strong caregiver presence reported better health outcomes.
- Underlying conditions like diabetes, musculoskeletal problems, and neurological issues were strongly linked to poorer scores.

Interestingly, the **duration of dialysis** itself showed no significant impact on either physical or mental health outcomes, suggesting that social and medical support systems may play a greater role in shaping quality of life.

## More Than Numbers: A Patient-Centred Approach

For NKF, these results go beyond statistics. They reflect the daily reality of senior patients — the aches, the resilience, and the importance of family and social support.

*“By listening directly to patients, we can better understand their unique needs. This allows us to provide more holistic care — not only medical treatment, but also emotional and social support”*

## A Roadmap for Better Elderly Care

The PROMs study highlights the need for targeted interventions to improve the lives of elderly dialysis patients. From strengthening caregiver networks to tailoring psychosocial support, the insights gathered will help NKF welfare officers and healthcare teams design more effective programmes in the years ahead.

**Because when patients are given a voice, care becomes more compassionate, more human, and ultimately more effective.**

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## THE PATIENT-REPORTED OUTCOME MEASURES (PROMS) OF SENIOR CITIZENS ON HAEMODIALYSIS: NKF MALAYSIA INSIGHT

Normahwati Mohamad, L.H. Loo, Nur Hadiyah Dalilati Buhan, Siti Fatimah Mohamed,  
 Nor Hazuah Ismail, S.Y. Pang, Nor Adibah Ismail & Nurul Syazwana Mohammad Iqbal.  
 NKF Welfare Department, National Kidney Foundation of Malaysia.

### ABSTRACT

The dialysis rate for Malaysians aged  $\geq 65$  increased from 158 per million age group population in 1996 to 1,232 in 2023 (MDTR 1999 & 2023), reflecting improved access to treatment. However, patient-reported outcomes (PROMs) in this population remain underexplored. We analysed the PROMs of senior citizens undergoing chronic haemodialysis in NKF Malaysia.

In 2024, senior patients aged  $\geq 65$  years receiving haemodialysis at NKF Malaysia completed the SF-12v2 questionnaire during routine annual reviews. Significant differences in health scores were observed based on caregiver support, diabetes-related end-stage renal disease (ESRD), comorbidities (cardiorespiratory, musculoskeletal, and neurological), and functional status.

PROMs offer valuable insights into the well-being of elderly haemodialysis patients and can guide targeted interventions by NKF Welfare to enhance care delivery and psychosocial support.

### METHODS

#### Setting:

All 29 Dialysis Centres operated by the National Kidney Foundation of Malaysia (NKF) across Malaysia, including Sabah and Sarawak (excluding Malacca and Negeri Sembilan, where NKF does not operate any dialysis centres).

#### Design:

A cross-sectional annual screening conducted by the NKF Welfare Department among patients aged  $\geq 65$  years receiving dialysis at NKF Dialysis Centres

#### Subject:

A total of 456 out of 1,562 NKF patients aged  $\geq 65$  years in 2024 were included.

#### Screening Criteria:

Patients aged  $\geq 65$  years receiving dialysis at NKF centres were eligible for the routine screening. Patients who were cognitively impaired, hospitalized, unwell, or declined to participate were excluded.

#### Screening tool:

The SF-12v2 Health Survey questionnaire, which focuses on physical and mental health scores, was administered during the annual patient review conducted by the NKF Welfare Department

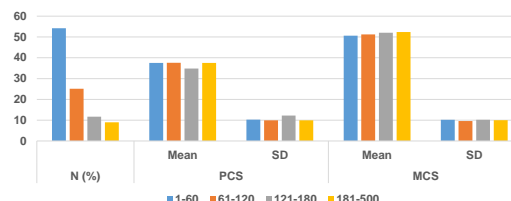
#### Statistical Analysis:

Data were analyzed using SPSS, applying both univariate and bivariate analyses.

### RESULTS

The mean age was 71 years, with 52% male and 48% female participants. Regarding marital status, 7% were single, 63% married, 4% divorced, and 26% widowed. Only 8% were still employed, and 31% contributed co-payment for dialysis. The average dialysis duration was 76 months (6 years). The mean physical health score (PCS) was 37, while the mean mental health score (MCS) was 51 (range 0–100, with higher scores indicating better health). As shown in Table 1.

Table 1: Physical and Mental Component Summary Scores (PCS & MCS) by month of dialysis



HD Duration (months)	N (%)	PCS		MCS	
		Mean	SD	Mean	SD
1-60	54.2	37.5	10.3	50.6	10.2
61-120	25.1	37.6	9.9	51.2	9.6
121-180	11.7	34.8	12.2	52.0	10.2
181-500	9.0	37.5	9.9	52.4	10.0

Significant differences in both physical and mental health scores were associated with caregiver support, diabetes as the underlying cause of ESRD, and the presence of cardio-respiratory, musculoskeletal, and neurological comorbidities, as well as patients' functional status. However, dialysis duration showed no significant association with either health domain.

#### Discussion:

The results suggested that the mean PCS scores of patients aged  $\geq 65$  years in the NKF were below the risk threshold of 50, indicating a decline in physical functioning commonly associated with aging. However, their mean MCS scores were above the mental health cut-off of 42 on the SF-12, suggesting that their mental well-being remained stable despite physical limitations.

### CONCLUSIONS

By utilizing Patient-Reported Outcome Measures (PROMs), the NKF Welfare team can gain deeper insights into the challenges, health status, and personal experiences of senior citizens undergoing haemodialysis. Through this patient-centered approach, welfare officers are better equipped to understand the unique needs of elderly patients, enabling them to provide more tailored and holistic support.

By actively engaging with these patients, they can work collaboratively to enhance treatment outcomes, offer appropriate social and emotional support, and ultimately improve the overall psychosocial well-being and quality of life of elderly individuals receiving care at NKF.

### REFERENCES

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