

Does Self Co-Pay for Dialysis Affect Mental Health?

Findings from NKF Malaysia's Cross-Sectional Study
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For patients on haemodialysis, the physical and emotional demands of treatment are already immense. Adding financial responsibility on top could, in theory, worsen mental wellbeing. But does paying a portion of treatment costs truly impact the mental health of dialysis patients? The NKF set out to answer this important question.



The Study

In 2024, NKF conducted its **Annual Patient Review**, screening **1,562 haemodialysis patients** across 29 dialysis centres nationwide using the **SF-12v2 Health Survey Questionnaire**. This well-established tool provides a mental component summary (MCS) score ranging from 0–100, with higher scores reflecting stronger mental health. Patients with severe illness, hospitalisation, or cognitive impairment were excluded.

At NKF, patients either:

- **Self co-pay** RM90 per dialysis session, or
- Receive full support via sponsorship schemes (Ministry of Health, SOCSO, or other aid).

The study compared the mental health of these groups.

Key Findings

Demographics

- Average age: 56.5 years
- 55% male, 61% married
- 67% above secondary school education
- 16% employed, 44% had a spouse as caregiver
- Main cause of kidney failure: diabetes (51%)
- Mean dialysis duration: 73.5 months

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Mental Health Scores

- **Self co-pay group:** Mean score **50.2**
- **Fully sponsored groups:** Mean scores **51.7 – 52.7**
- **No significant difference** between self-paying and sponsored groups ($p = 0.078$).
- Both groups scored **well above international risk thresholds** for depressive disorders (42–45.6 cut-off), suggesting overall mental wellbeing was stable.

What This Means

Contrary to common assumptions, patients who contribute RM90 per dialysis session did not experience poorer mental health compared to fully sponsored patients. In fact, both groups scored higher than international thresholds for depressive symptoms, indicating resilience and adequate coping mechanisms.

One possible explanation is that self co-pay patients often come from households with **higher per capita income**, reducing financial stress compared to those relying solely on subsidies.

The findings are reassuring — financial contribution at NKF's subsidised rate does not push patients into depression or hopelessness. Still, continuous monitoring is key, as circumstances may change over time

Looking Ahead

The study reinforces the value of **regular mental health monitoring** among dialysis patients. PROMs such as the SF-12v2 help identify those at risk early, ensuring NKF can provide timely psychosocial support as part of a holistic rehabilitation approach.

Ultimately, dialysis care must look beyond survival — it must safeguard dignity, resilience, and mental wellbeing.

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DOES THE SELF-CO-PAY FOR HAEMODIALYSIS AFFECT MENTAL HEALTH? RESULTS FROM THE CROSS-SECTIONAL MONITORING AT NKF MALAYSIA DIALYSIS CENTRES.

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ABSTRACT

Introduction:

The mental health of patients on haemodialysis cannot be extrapolated from economic considerations. The World Health Organization defines health as a “state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (WHO, 1946). Similarly, health-related quality of life, or rather patient-reported outcome measures (PROMs), encompasses the individual experience of their mental, social, and physical health. The routine use of PROMs has the potential to help transform healthcare (Black, N. 2013).

Objective:

We analyse the mental health of haemodialysis patients with a self-co-pay dialysis fee model in NKF Malaysia

METHODS

Setting:

All 29 Dialysis Centres run by the National Kidney Foundation of Malaysia (NKF Malaysia), a charitable organisation, provide highly subsidised haemodialysis for those who qualify. The NKF Dialysis Centres are throughout Malaysia, including in Sabah and Sarawak, except in Malacca and Negeri Sembilan, where NKF does not have a dialysis centre.

Design:

A cross-sectional multicenter yearly routine screening of all patients dialysing at NKF Dialysis Centres by the NKF Welfare Department.

Subjects:

A sample of 1,562 out of 1,745 dialysis patients completed the SF12v2 from all the Dialysis Centres run by the National Kidney Foundation of Malaysia in 2024. The response rate was 89.5%.

Screening Criteria:

All the patients dialysing in NKF Dialysis Centres are included in the routine screening. Those unable to participate due to illness, hospitalization, cognitive impairment, or refusal to participate were excluded.

Screening Tool:

The SF-12v2 Health Survey questionnaire was administered to measure mental health, focusing on the mental component summary scores, with supplementary questions on profiles of patients. The higher the mental component score, from 0 to 100, of the SF12v2, indicates better the mental health.

Statistical Analysis:

Statistical analysis was done with SPSS using univariate and bivariate analyses.

RESULTS

Profiles:

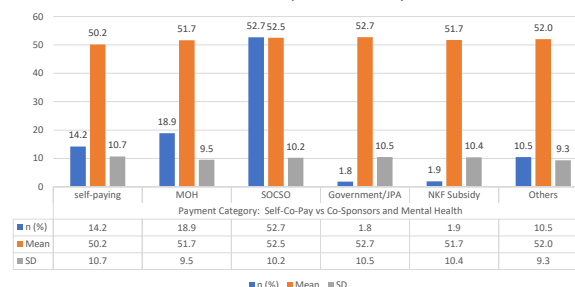
The haemodialysis patients' mean age was 56.5 years, 54.7% male, 61.2% married, 66.7% above secondary school education, 15.8% working, 43.7% with a spouse as caregiver, 50.7% with etiology of diabetes, 84.5% dialysed with a native AV fistula, 23.6% with cardio-respiratory co-morbidity, 39.1% with muscular-skeletal co-morbidity, 27.6% with neurological co-morbidity, 82.8% with one or more functional co-morbidities, and mean dialysis duration 73.5 months.

RESULTS

Mental Health:

The mean mental component summary score was 50.2, SD 10.7, for out-of-pocket self-co-pay patients, paying RM90 per dialysis in NKF. The mean mental component summary scores for co-sponsored sub-groups by MOH, SOCSO, and others in NKF, with zero-sum payment, were marginally higher, from 51.7 to 52.7 mean scores, as shown in Table 1.

Table 1: Mental Component Summary Scores



The mental component summary scores of self-co-pay patients were *not significantly impaired* ($p < 0.078$) as compared to other sub-groups' cosponsored patients by MOH, SOCSO, and others in NKF Malaysia.

Discussion:

The result suggested that self-co-pay haemodialysis patients' mean mental component scores in NKF were greater than the risk scores of <42 to screen depressive disorder using the SF36 in the US general population (Ware, J., et al.,1994).

It is also higher than the cut-off score of 45.6 on the SF12 mental component scores in detecting both active and recent depressive disorders, with a sensitivity of 0.86 and specificity of 0.88 within 30 days in the European general population (Vigalut, G., et al., 2013).

The mental health of the self-co-pay of RM90 per dialysis patient in NKF Malaysia is not in a state of depressive disorder. This is because they have a higher family per capita income compared with patients under the co-sponsorship of the MOH HD Subsidy Scheme, but not necessarily for all those under the SOCSO's insured person co-sponsorship.

Further continuous screening and monitoring are warranted as the dialysis patients' mental state may change with the changing circumstances, changing cohorts, and changing dynamics over time, affecting their mental health.

CONCLUSIONS

This monitoring study suggested that the self-co-pay model of RM90 per dialysis does not negatively affect the overall mental health of haemodialysis patients in NKF Malaysia. Their mental health is sound, and they are not in the stage of depressive disorder or hopelessness. It is important to note the SF12v2 mental component summary score in identifying mental health and depressive disorder, primarily as a monitoring tool, and targeting them for psychosocial support in their rehabilitation in NKF Malaysia.

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