

Mental Health Score of SF-36 Quality of Life and 5-Year Mortality in Maintenance Hemodialysis Patients

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INTRODUCTION

- Maintenance hemodialysis patients have a high mortality and often suffer from mental health derangements.
- Over 70% of maintenance hemodialysis patients who had symptoms of depression or anxiety and described barriers to mental health treatment did not recognize their symptoms or did not perceive that they were in need of therapy for their mental health condition.
- The mental health component of the SF-36 questionnaires can capture subjective health related quality of life related to mental health status.
- We hypothesized that mental health is a predictor of survival in hemodialysis patients mortality.

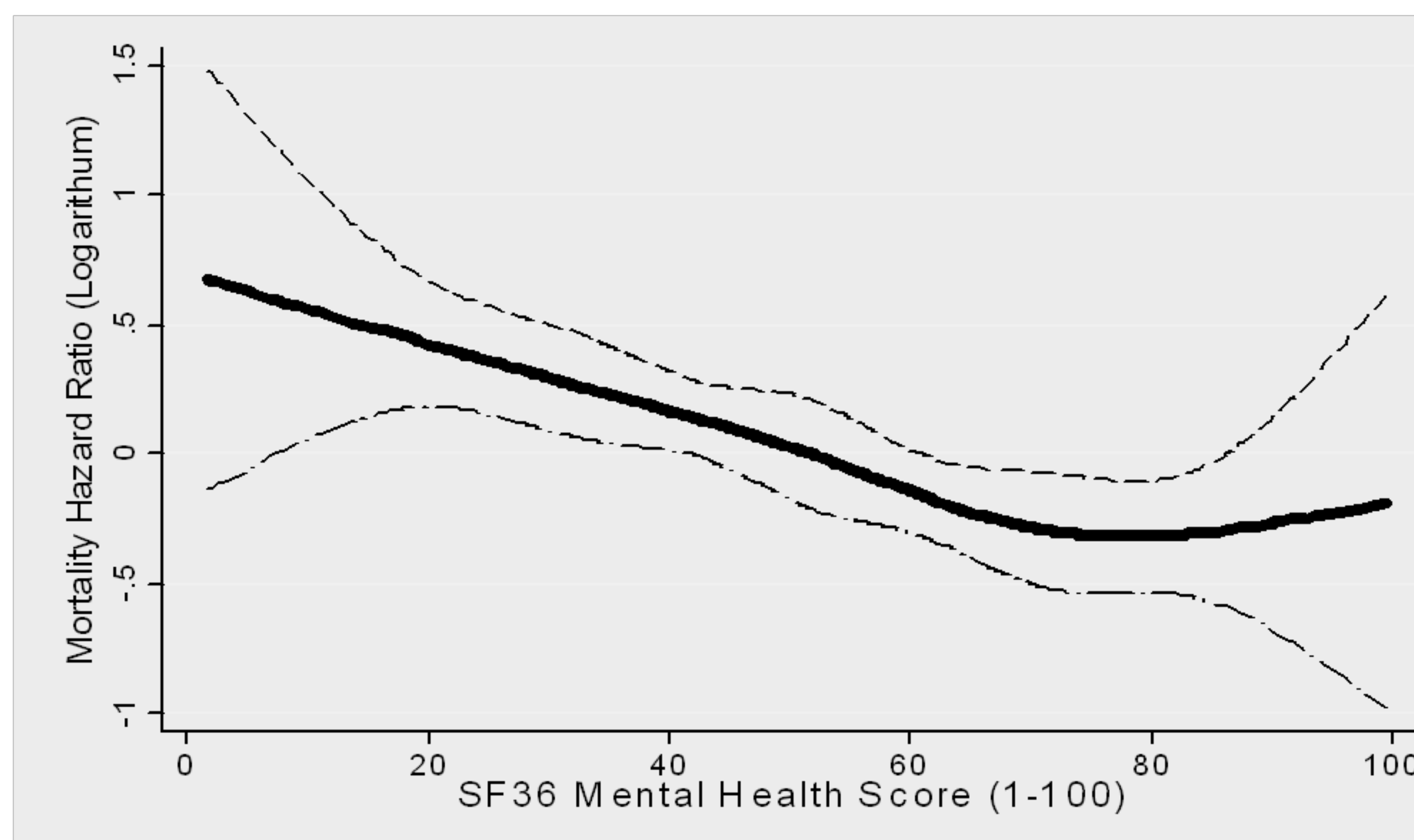
METHODS & RESULTS

- Mortality predictability of mental health, assessed via SF36 questionnaires quality of life, was examined in 705 hemodialysis patients over 2001-2007 period using Cox models and cubic splines. Hemodialysis patients age across the above 4 increasing (improving) mental health score quartiles were 55.2±13.2, 53.6±14.4, 52.5±15.1, 52.7±16 yrs old.
- Fully adjusted death hazard ratio (HR) (95% CI) for the lowest (worse) compared to the highest (best) MH quartile showed 62% higher death risk: HR 1.62(1.12-2.34) (Table 1). Cubic spline graph confirmed the almost linear association (Figure 1).

Table1: Death HR of quartiles of SF36 MH score in 705 HD pts

Mental Health Quartiles	T1 (n=177) HR(%CI) P=0.001	T2 (n=176) HR(%CI) P=0.008	T3 (n=177) HR(%CI) P=0.5	Trend p
Unadjusted	1.8 (1.2-2.5) P=0.001	1.6 (1.1-2.3) P=0.008	1.1 (0.79-1.63) P=0.5	<0.001
Case-mix*	1.5 (1.06-2.1) P=0.02	1.5 (1.05-2.12) P=0.02	1.08 (0.75-1.56) P=0.68	0.005
Previous + MICS#	1.63 (1.13-2.3) P=0.009	1.52 (1.05-2.2) P=0.026	0.97 (0.64-1.4) P=0.87	0.001
Previous + Inflammation	1.62 (1.12-2.34) P=0.01	1.66(1.14-2.4) P=0.008	0.99 (0.66-1.5) P=0.95	0.001

Reference group: 4th (best) MH score quartile



- Demographics:
 - 54±15 yrs old
 - 47% female
 - 32% Black

Figure 1. Mortality hazard ratio across the SF36 Mental health score (1-100).

CONCLUSIONS

- Mental health status appears associated with survival in maintenance hemodialysis patients.

KEY LEARNINGS

- ✓ Maintenance hemodialysis patients are often undertreated for mental health problems.
- ✓ Mental health has robust and linear association with mortality in MHD patients.
- ✓ Mental health is a strong predictor of longevity.
- ✓ Clinical trials to examine the effectiveness of methods to improve the mental health in MHD patients are indicated.

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