



## Evaluating the impact of Community Rehabilitation on Health-Related Quality of Life

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### INTRODUCTION

There is a **significant gap** in rehabilitation literature and clinical knowledge regarding the measurement and prediction of health-related quality of life (HR-QoL) in Community Rehabilitation (CR) clients.

The aims of this study, therefore, were:

- To establish whether the Assessment of Quality of Life (AQoL-6D) is a responsive and reliable measure of outcome for routine use in clinical practice in a community rehabilitation population.
- To evaluate the changes in health-related quality of life that occurs in a community rehabilitation population.
- To identify which set of factors (illness-related, demographic, and psychological) best predict community rehabilitation outcome (as measured by clients' health-related quality of life).

### METHODS

Prospective longitudinal observational study  
117 participants recruited from clients admitted for centre-based community rehabilitation.

On admission and discharge, participants completed interviewer administered questionnaires and physical outcome measures (see Figure 1). The significance threshold was set at  $p = 0.05$ .

HR-QoL domains underwent reliability analysis using Cronbach's alpha co-efficient to assess internal consistency. Predictors of the Independent Living domain of the AQoL-6D were identified using Best Subsets Regression.

Figure 1 – Outcome Measures and Timepoints

Outcome	Measure	Admission	Discharge
Demographic data	None	✓	✓
Health Related Quality of Life	Assessment of Quality of Life Test (AQoL-6D)	✓	✓
Outcome HR-QoL	Function 0-50 (F0-50)	✓	✓
Comorbidity	Comorbidity Impact Rating Scale for Assessment (CIRA)	✓	✗
Mood	Geriatric Depression Scale (GDS)	✓	✓
Exercise Capacity	6 Minute Walk Test (6MWT)	✓	✓
Capacity	Mini Mental State Examination (MMSE)	✓	✗
Home and community barriers	Home and Community Environment, assessment (HACE)	✓	✓

### RESULTS

The independent living, mental health and pain domains of the AQoL-6D were shown to be reliable in a community rehabilitation population. Additionally, combining Mental health and coping domains to create a new domain with improved reliability in this population (See Figure 2).

From admission to discharge, participants demonstrated a significant ( $p \leq 0.01$ ) improvement in HR-QoL, as well as overall health ratings, exercise capacity, use of mobility devices and mood (all  $p < 0.001$ ) (See Figures 3, 4 & 5).

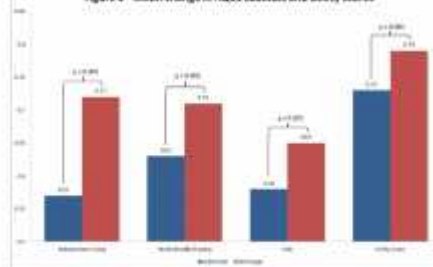
Significant predictors of the "Independent Living" HR-QoL domain on discharge included age, number of therapy contacts, number of mobility devices used and exercise capacity, accounting for **38%** of variance in Independent Living scores. (See Figure 6)

Figure 2 – Reliability of AQoL-6D subscales

Subscale	No. of items	CRONBACH'S $\alpha$	Internal consistency acceptable
Independent Living	4	0.730*	✓
Mental health	4	0.702*	✓
Coping	3	0.704*	✓
Mental health / Coping	5	0.814*	✓
Pain	5	0.815	✗
Activities of Daily Living	5	0.804	✗
Pain	5	0.814*	✓

\*Acceptable internal consistency

Figure 3 – Mean changes in AQoL subscale and utility scores



### DISCUSSION

HR-QoL was a reliable and responsive outcome measure in Community Rehabilitation clients, with improvement seen in both Quality of Life and its predictors. Future research should include study of such outcomes in the long-term, in home based rehabilitation populations and in clients with speech / language deficits.

Figure 4 – Change in mobility devices, gait aids and mood

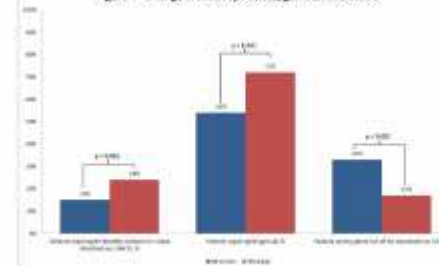


Figure 5 – Change in mobility devices, mood and exercise capacity

Variable	Admission	Discharge	P
Patients requiring 40 or more devices on admission (N=22)	17%	24%	<0.001
Patients requiring 40 gait aids (N=15)	14%	15%	<0.001
6 Minute Walk Test, metres, mean (SD)	100 (55.2)	107 (62.7)	<0.001
Patients scoring above cutoff for depression (on GDS, N=)	10%	17%	<0.001

Figure 6 – Predictors of Independent Living from Best Subsets Regression\*

Predictor Variables	Univariate Correlation	R <sup>2</sup>	Adjusted R <sup>2</sup>	Predicted R <sup>2</sup>	Multiple Co.	p
Age	-0.211					
No. of therapy contacts	0.085					
Discharge 6 Minute Walk Test	0.116	0.4	0.2	0.3	0.8	0.17
No. of mobility devices (HACE)	-0.201					
*Total R-squared (adjusted) for these variables	0.313					

\*The full regression has a larger R<sup>2</sup>, and includes age and mood's status.

