

The longitudinal impact of acceptance of illness on quality of life outcomes for haemodialysis patients.

Miss Carol Stalker¹, Professor Kathryn Mitchell¹, Professor James Elander¹, Professor Paul Stewart¹, Professor Maarten Taal^{2,3}, Dr Nicholas Selby^{2,3}

¹University Of Derby, Derby, United Kingdom, ²University of Nottingham, Nottingham, United Kingdom, ³University Hospitals Of Derby And Burton NHS Foundation Trust, Derby, United Kingdom

Introduction: A growing body of evidence has suggested that how patients relate to haemodialysis is associated with clinical and psychological outcomes. Adjusting to illness is a complex process and one factor identified as important in other chronic conditions is acceptance. Findings from studies across a range of chronic conditions suggest that more positive acceptance of illness facilitates improvements in patients' overall quality of life (QoL). However, there is limited research addressing the role of acceptance of illness and its impact among dialysis patients. This study aimed to test the longitudinal impact of acceptance on haemodialysis patients' QoL.

Method: Haemodialysis patients completed four questionnaires at baseline, 6 months and 12 months. The Kidney disease quality of life questionnaire (KDQoL) measured three components of quality of life; kidney disease-related quality of life, physical quality of life and mental quality of life. They also completed the acceptance of illness scale (AiS), the depression anxiety and stress scale (DASS) and the illness cognitions questionnaire (ICQ). A total of 98 patients completed the baseline questionnaire, 71 completed the 6-month measures and 50 completed the 12-month measures. Sample characteristics were consistent with the national profile in terms of gender and age.

Results: The group means indicated moderate acceptance at baseline (mean 24.100 (SD 9.157)) and these did not significantly differ across timepoints. 6- and 12-month acceptance measures were significantly correlated with baseline scores ($r=0.612$ $p<0.001$ and $r=.689$ $p<0.001$). However, the group means masked individual changes with some patients reporting large increases and others decreases in acceptance. Regression models showed increases in acceptance of illness at 6 months predicted increases in mental quality of life ($f(4,57)=16.927$, $p<0.001$) and increases in kidney disease-related quality of life ($f(4,66)=46.400$, $p<0.001$). Changes in acceptance at 6 months were not predictors of change in physical quality of life; instead, changes in clinical measures (urea and PTH) were stronger predictors ($f(6,55)=19.964$, $p<0.001$) (Table 1). These findings were replicated at 12 months; 12-month changes in acceptance of illness were associated with changes in 12-month mental quality of life and kidney disease-related quality of life. For 12-month changes in mental quality of life, depression was retained in the regression models and mediated the effect of changes in acceptance (Sobel = 0.2064, 95% CIs 0.0454 to 0.4987, $p < 0.001$). Depression was also an independent predictor of 12-month changes in kidney disease-related quality of life.

Discussion: The results suggest that although acceptance appeared stable across the sample, individual changes were associated with changes in mental quality of life and kidney disease-related quality of life. However, the results also indicated that acceptance cannot be considered in isolation and depression is also a significant consideration. For haemodialysis patients, who must contend with demanding treatment, increasing their acceptance of illness has the potential to improve their kidney disease-related quality and mental quality of life, either directly or indirectly through reduced depression. These findings support the development of dialysis-focused acceptance-based interventions that aim to improve patients' quality of life and reduce the burden of treatment.