Effectiveness of Structured Peritoneal Dialysis Training Program in Improving Patients' Quality of Life

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Introduction
The quality of life (QoL) in patients with end stage renal disease (ESRD) is affected by various uraemic symptoms as well as adjustment to the dialysis treatment. In Hong Kong, peritoneal dialysis (PD) is the most common dialysis modality. Targeting at improving physical well-being and QoL of patients with ESRD, a well-designed holistic PD training program was set up in TKOH since April 2016.

Objectives
(1) To measure the effect of PD training program on improving QoL
(2) To detect changes of health-related quality-of-life (HRQOL) in PD population

Methodology
A structured training program with multidisciplinary approach by nephrologist, renal nurse, dietitian, medical social worker, physiotherapist, occupational therapist, community nurse and clinical psychologist was designed for patients undergoing PD. Additional services included social functions and sharing activities were organized by patient resources centre with participation of patient volunteers. All new PD patients were invited to complete Short Form-36 (SF-36) questionnaire at baseline and 6-months post-training. Clinical information of primary diagnosis, socio-demographic data and rehabilitation status were reviewed from Organ-Registry-Transplant-Systems and medical records. Components of HRQOL; intra-individual changes in physical component summary (PCS) and mental component summary (MCS) of the two-stated periods were measured.

Result
From Apr 2016 to June 2017, of the 70 patients who had conducted baseline SF-36 at start of PD training program, 1 had died, 2 had changed center and 2 had incomplete
survey at 6-months post training. Total 65 patients (92.9%) recruited in study. Male to female ratio was 42 to 23; age ranged from 22-86 (mean age: 61.6±12.4) years. The majority (63.1%, n=41) had diabetic nephropathy. Among them, 63.1% (n=41) were retired or worked as housewife, 20% (n=13) worked full-time and 16.9% (n=11) were unemployed. Baseline SF-36 survey showed low mean scores for all eight components of HRQOL, especially on the domain of role-physical, general-health and role-emotional, with mean scores 25.0, 33.9 and 34.9, respectively. In intra-individual trajectory analyses, 47 patients (72.3%) had better HRQOL 6-months post-training (P<0.001). For PCS and MCS, both showed significant improvement (P=0.001) at 6-months with higher mean scores (56.2±20.5 and 58.2±19.5) than baseline (44.6±20.2 and 45.5±22.9) indicating that patients were able to achieve more daily activities and cope with emotional changes. Conclusion: A structured PD training program is effective to improve QoL for dialysis patients. Apart from dialysis prescriptions, various interventions with multidisciplinary involvement provided social and psychological support are paramount in enhancing HRQOL. Continuous measurement is recommended to determine changes in QoL that affect patient’s functioning and well-being.