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Effect of Intradialytic Exercise on Depression and Fatiguein Hemodialysis Patients

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Background: Patients with end-stage renal disease under hemodialysis (HD) are associated with dramatically impaired depression and fatigue. Exercise may be effective in improving depression and fatigue in these patients.

Purpose: This study aimed to evaluate the effects of intra-dialytic aerobic and resistance cycling exercise program (ARCEP) on depression, and fatigue.

Methods: This was randomized controlled trial. Data were collected from June, 2013 to August, 2014. Seventy-six maintenance HD patients were included and randomly assigned into control and exercise group, with 38 participants each group. The control group received nursing routine care (n= 31), whereas the exercise group received not only nursing routine care but also a 3-month ARCEP (30 minutes per session, 3 times a week) (n= 27). Data were collected at baseline, 1st month, 2nd month, and 3rd month. Outcome measures include the Beck Depression Inventory, and fatigue scale. Data were analyzed by SPSS 20.0 software. Descriptive statistics were calculated for basic characteristics. The independent t-test and Chi-square test were identically distributed to homogeneity of demographic characteristics. Generalized estimating equation (GEE) examined the repeated measurements data explored the impact of exercise program on depression, and fatigue.

Results: The data shown the depression score was significantly improved over-time between groups in the second and third month (p= .21, p= .003, p< .001), the fatigue score was significantly improved over-time between groups in each testing month (p= .03, p= .02, p= .001).

Conclusion: The 3-month ARCEP revealed reduced depression, and improved fatigue. Future studies might implement this ARCEP in various medical settings, and examining the longitudinal effects of this intervention.

Biography:

Yueh-Min Liu has graduated from National Taipei University of Nursing and Health Sciences She has worked in the hospital for 24 years as a registered nurse. She is working as an assistant professor in the Ching Kuo Institute of Management and Health, Taiwan.