

Effectiveness of community-based diet and exercise intervention program in middle-aged and elderly with non-alcoholic fatty liver disease

Shu-Hung Chang

Chang Gung University of Science and Technology, Taiwan

Statement of the Problem: Non-alcoholic fatty liver disease causes an increased risk of liver cirrhosis and cardiovascular disease. Increasing number of abdominal obesity clients and unhealthy dietary habits, non-alcoholic fatty liver disease has been recognized as a serious health and financial burden. Dietary behaviors and exercise are the important factors to development and improvement of non-alcoholic fatty liver disease. The purpose of this study is to examine the effects of a lifestyle intervention on biochemical indicators and level of fatty liver index in community-dwelling middle-aged and elderly.

Methodology: This was a cluster randomized controlled study. The group-A (n=45) received an exercise and diet intervention program. The group-B (n=45) received an exercise intervention program. The control group (n=45) received a health education leaflet. The measurement time was baseline and six months from 2018 and 2019 in northern Taiwan. We used ANOVA to analyze these data.

Findings: After 6 months, 64.4% participants in the group-A, 33.3% participants in the group-B and 28.9% in the control group achieved the suggestion of healthy dietary behaviors. 71.1% participants in the group-A, 68.9% participants in the group-B and 53.3% participants in the control group achieved the suggestion of 200 minutes of physical activities. There were significant differences that the improvement of fatty liver index (5.00 vs. 1.77 vs. -5.3), waist circumference (3.82 cm vs. 2.57 cm vs. 0.93 cm) and triglyceride (22.07 mg/dl vs. 10.04 mg/dl vs. -38.82 mg/dl) in the group A, B and the control group, respectively. The improvements in the group-A and B were better than the control group.

Conclusion & Significance: The community-based intervention program improved biochemical indicators and level of fatty liver index in community-dwelling middle-aged and elderly. Recommendations are made for community-dwelling adults to perform exercise and diet to improve the status of fatty liver.

Biography

Shu-Hung Chang has her expertise in evaluation and passion in improving the health and wellbeing. She had established 32 community-based health stations in the villages to provide health promotion programs (to create a friendly environment, exercise, diet intervention, regular monitoring of biochemical indicators).

shchang@mail.cgu.edu.tw