

Impact of Dietary Counselling on Mental Health and Diet Quality in Singapore Older Adults: A Randomized Controlled Trial

Jasmine Low, Jung Eun Kim, Johnson Fam, and Ee Hoek Kua

National University of Singapore

Objectives: As the proportion of population ages in Singapore, some of the challenges associated with mental health conditions such as depression and anxiety become common. A good nutrition has been found to be beneficial for good mental health and the provision of dietary counselling is one of the effective dietary strategies to improve their nutritional status and mental health. However, this effect has not been assessed in Singapore older adults. Therefore, this study aimed to determine the impact of dietary counselling on the mental health and diet quality of older Singaporean adults.

Methods: This was a 24-week, parallel design, randomized controlled trial where 39 older women (aged above 60 y) in Singapore were randomized in which the intervention group received dietary counselling to follow a healthy dietary pattern and the control group did not receive dietary counselling. The dietary counselling was given for 12 weeks for the intervention group and the remaining 12 weeks were for follow up. The counselling topic covered various topics on

food proportioning, food label reading and several age-related diseases. Mental health questionnaire, quality of life questionnaire and sleep quality questionnaire were administered at baseline, week 12 and week 24. Participants were required to complete a 3-day food record and the diet quality was assessed using the Alternative Healthy Eating Index 2010 (AHEI-2010). All results were presented as least square mean \pm SE.

Results: The intervention group observed a significant decrease in Geriatric Depression Scale over time from week 0 to week 12 and week 24 (week 0: 2.0 ± 0.5 ; week 12: 1.1 ± 0.5 ; week 24: 0.8 ± 0.3 , $P < 0.05$) while Geriatric Anxiety Inventory and Quality of Life scores were not changed. The intervention group also showed an increase in dietary quality based on the AHEI-2010 score at week 12 (55 ± 2 to 60 ± 2) and week 24 (55 ± 2 to 61 ± 2 , $P < 0.05$) as compared to week 0 (55 ± 2), however only week 24 was statistically significantly. The control group saw a decrease in score over time though not statistically significant (baseline: 59 ± 2 ; week 12: 58 ± 2 ; week 24: 56 ± 2).

Conclusions: The provision of dietary counselling over a period of 24 weeks may be a viable nutritional strategy to improve dietary quality and may confer benefits in the mental health outcome.

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