



## Mediterranean Diet adherence and wellbeing: a preliminary analysis of the MedWalk trial

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Diet and diet quality have been linked to improvements to psychosocial health and wellbeing<sup>(1)</sup>. However, data from national health surveys indicate that most Australian's have poor diet quality and consume a Western style diet high in saturated fat, discretionary foods and added sugars and salt<sup>(2)</sup>. The Mediterranean Diet (MedDiet), a predominantly plant-based diet rich in bioactive foods and nutrients, has been shown to improve mood and wellbeing. However, long-term effects beyond 6-months have not been thoroughly explored in older adults. MedWalk compares a 12-month MedDiet and Walking intervention with habitual lifestyle (HabDiet) in 160 older adults residing in retirement villages across South Australia and Victoria. Data from the South Australian cohort at baseline (n = 83) and 6-months (n = 74) are presented in this preliminary analysis.

To determine dietary compliance, participants completed the 14-point MedDiet Adherence (MEDAS) questionnaire which assesses the intake of key MedDiet foods such as legumes, fish, and extra virgin olive oil; higher scores reflect higher adherence. Wellbeing was assessed using the Flourishing Index, which assesses life satisfaction, relationship satisfaction, happiness, mental and physical health. The total flourishing score includes 10 questions with a maximum of 100 points reflecting highest flourishing, while the secure flourishing score includes two additional questions related to safety, housing, and access to food with a maximum of 120 points to indicate highest flourishing. Group and time interactions for MEDAS and flourishing scores were analysed using linear mixed effects modelling. There were no significant differences between groups for MEDAS score at baseline (MedDiet  $5.78 \pm 0.34$  vs HabDiet  $5.74 \pm 0.32$ ). At 6 months, the MedDiet group had significantly increased their MEDAS by 4.16 points ( $P < 0.001$ ), (MedDiet  $10.0 \pm 0.42$  vs HabDiet  $5.85 \pm 0.39$ ). At baseline there were no significant differences between groups for the total 10-point flourishing score (MedDiet  $83.5 \pm 2.01$  vs HabDiet  $82.1 \pm 2.0$ ) or 12-point secure flourishing score (MedDiet  $100.6 \pm 2.2$  vs HabDiet  $100.4 \pm 2.2$ ). At 6 months there was a significant between-group difference in total flourishing index scores with a mean difference of 6.97 points in the MedDiet group (MedDiet  $85.8 \pm 1.9$  vs HabDiet  $78.8 \pm 1.8$ ,  $P = 0.010$ ). Similarly, the secure flourishing index score was 6.18 points higher in the MedDiet group compared to the HabDiet at 6-months (MedDiet  $102.9 \pm 2.2$  vs HabDiet  $96.8 \pm 2.07$ ,  $P = 0.046$ ). Adhering to a MedDiet and walking intervention may lead to positive improvements to wellbeing in an older population. The flourishing index may need to be compared with other wellbeing questionnaires and instruments to better understand the relationship between wellbeing and MedDiet adherence as there was a cross-sectional association but no positive correlation at 6-months.

**Keywords:** Mediterranean diet; wellbeing; psychosocial health; older adults

### Ethics Declaration

Yes

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### References

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