

Mediterranean diet score linked to cognitive functioning in Czech women

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BACKGROUND

Evidence suggests that adherence to the Mediterranean diet (MED) may be beneficial in preventing cognitive decline, although findings are inconsistent. We aimed to explore this association in the Czech population of older adults.

SAMPLE

- Czech arm of Health Alcohol and Psychosocial factors in Eastern Europe study (HAPEE).
- Total of 6,028 individuals aged 45-69 years were included in the analyses.
- Data were analyzed using multiple linear regression models.

METHODS

- **MED score** calculated based on nine food groups.
- Scoring system 0, 1 or 2 points for each component depending on their frequency of consumption, maximum 17 points.
- **Cognitive function** measured using four tests:
 - verbal memory immediate and delayed,
 - verbal fluency,
 - attention, mental speed and concentration.
- Single z-scores were computed. The composite score of cognitive function was computed as the mean of z-scores.

Vegetables (g/day)
Fruits and nuts (g/day)
Legumes (g/week)
Cereals (g/day)
Fish (g/week)
Meat and meat products (g/day)
Dairy products (g/day)
Alcohol (g/day)
Olive oil usage

RESULTS

In fully adjusted models:

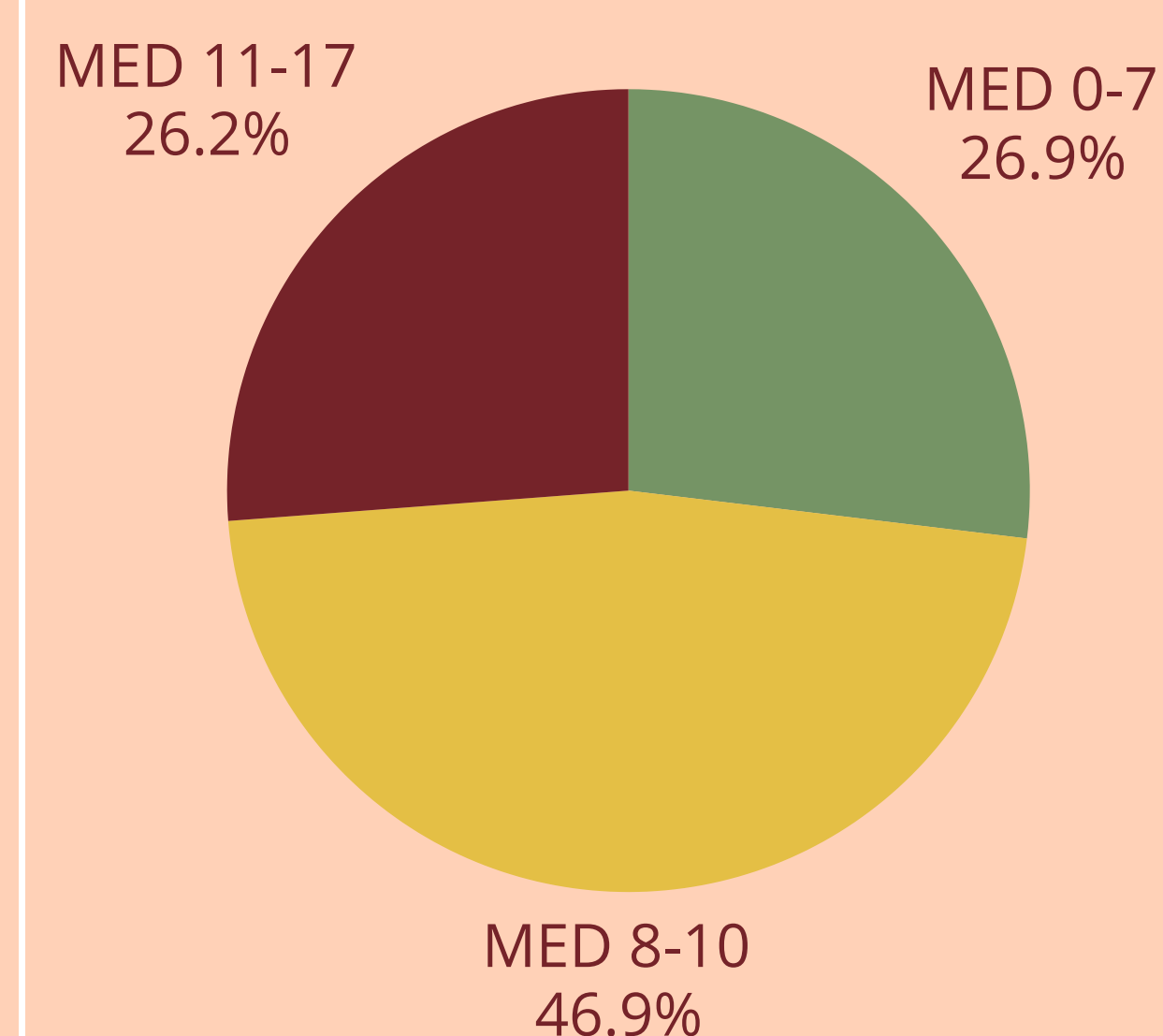
- Females with a dietary score of 8-10 points, and those with a score of 11-16 points had a higher composite cognitive score than women in lowest adherence group.
- Females in the highest adherence group had significantly better immediate verbal memory and delayed recall, respectively, than those in the lowest adherence group.
- No associations found in males.

Females	MED 8-10 Beta (95 % CI)	MED 11-17 Beta (95 %CI)
Composite score	0.047 (0.00, 0.10)	0.078 (0.02, 0.14)
Verbal memory (I)*	0.075 (0.01, 0.14)	0.118 (0.03, 0.21)
Verbal memory (D)*	0.046 (-0.03, 0.12)	0.120 (0.03, 0.21)
Verbal fluency	0.054 (-0.02, 0.12)	0.076 (-0.01, 0.16)
Attention, mental speed, concentration	0.013 (-0.07, 0.09)	-0.001 (-0.10, 0.09)

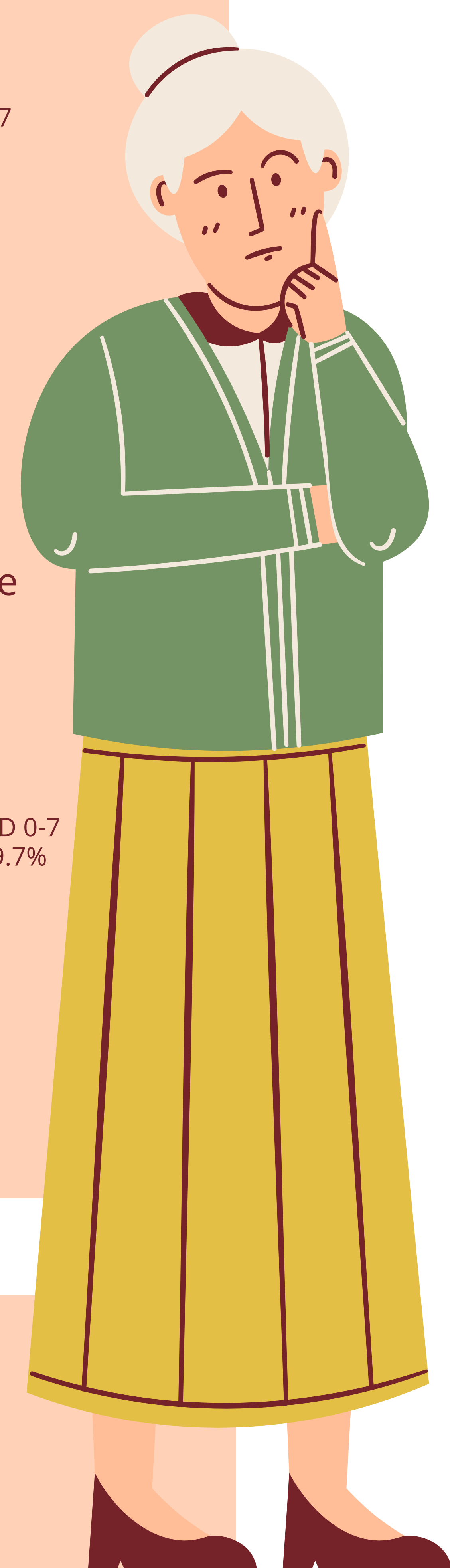
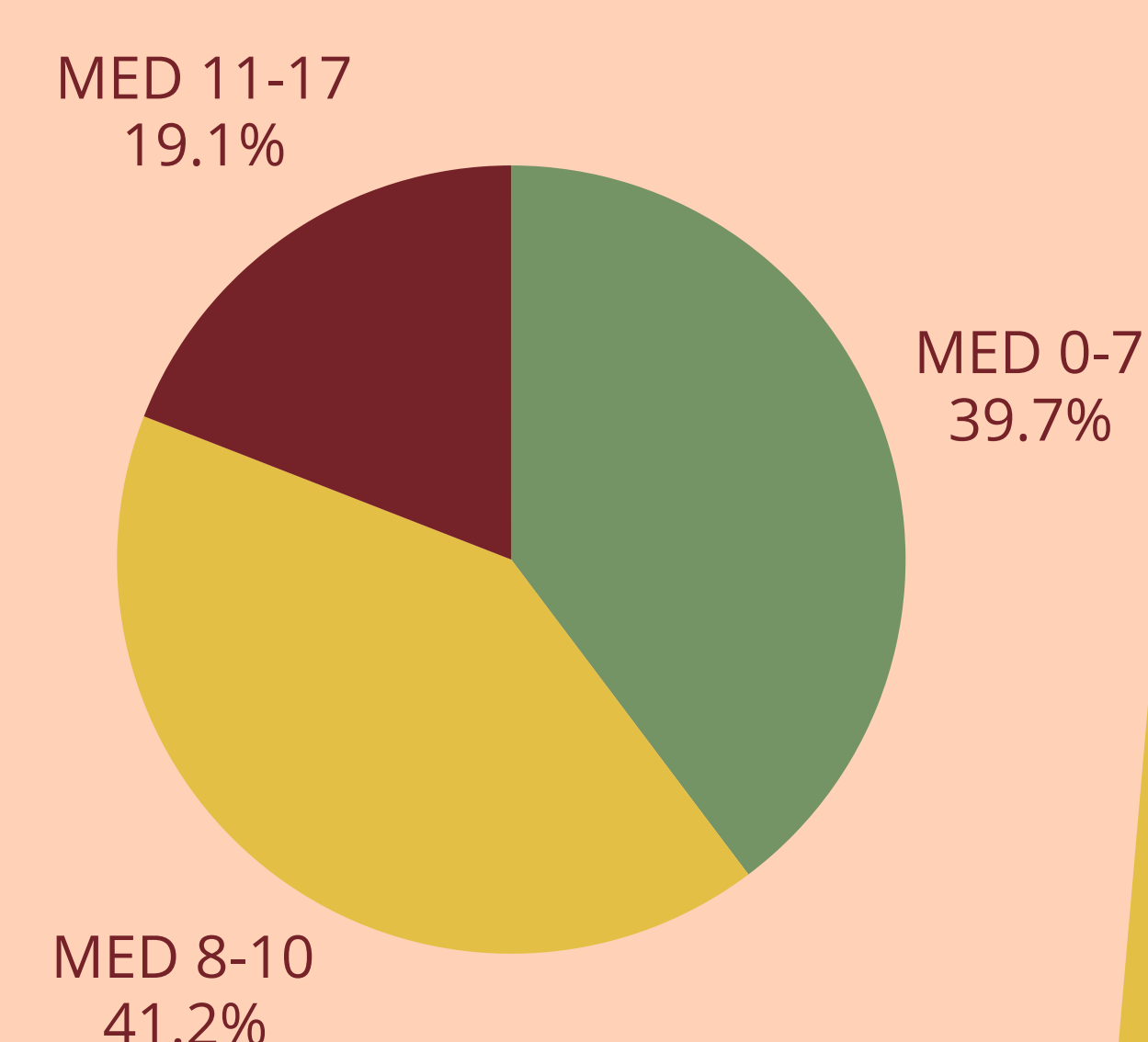
MED 0-7 as a reference category

*I - immediate, D - delayed

Adherence to MED score females



Adherence to MED score males



CONCLUSION

Higher adherence to the MED was associated with better cognitive functioning in verbal memory and composite cognitive score in Czech females. Findings suggest that Mediterranean diet may be beneficial in cognitive functioning in older women.

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