

Body composition, nutritional status and handgrip strength of people with mental disabilities in Northern Germany

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Background

- People with mental disabilities (DP's)
 - Are at higher risk for overweight and obesity [1-3]
 - Show aberrant dietary behavior [1, 3]

1. Emerson E et al. J Intellect Disabil Res 2005;134-43.
2. Rimmer JH et al. Prev Chronic Dis 2011;8(2).
3. Hove O et al. Res Dev Disabil 2004;9-17.

Aims

Primary Endpoint: Procentual amount of the DP in the BMI-categories in comparison to the normal German population.

- To analyse the nutrition status, body composition, muscle strength, eating habits and nutrition literacy in free-living DP.
- To compare anthropometry and body composition of the DP with the „normal“ German population or with reference thresholds.



Methodology and Population

Study-Type: Cross-sectional Study

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Anthropometry

- Body height and weight
- Waist circumference

Body composition

- BIA (SECA mBCA 526)
- Handgrip strength (Jamar dynamometer)

Questionnaire

- Self-made:
- Nutrition literacy
- Eating habits

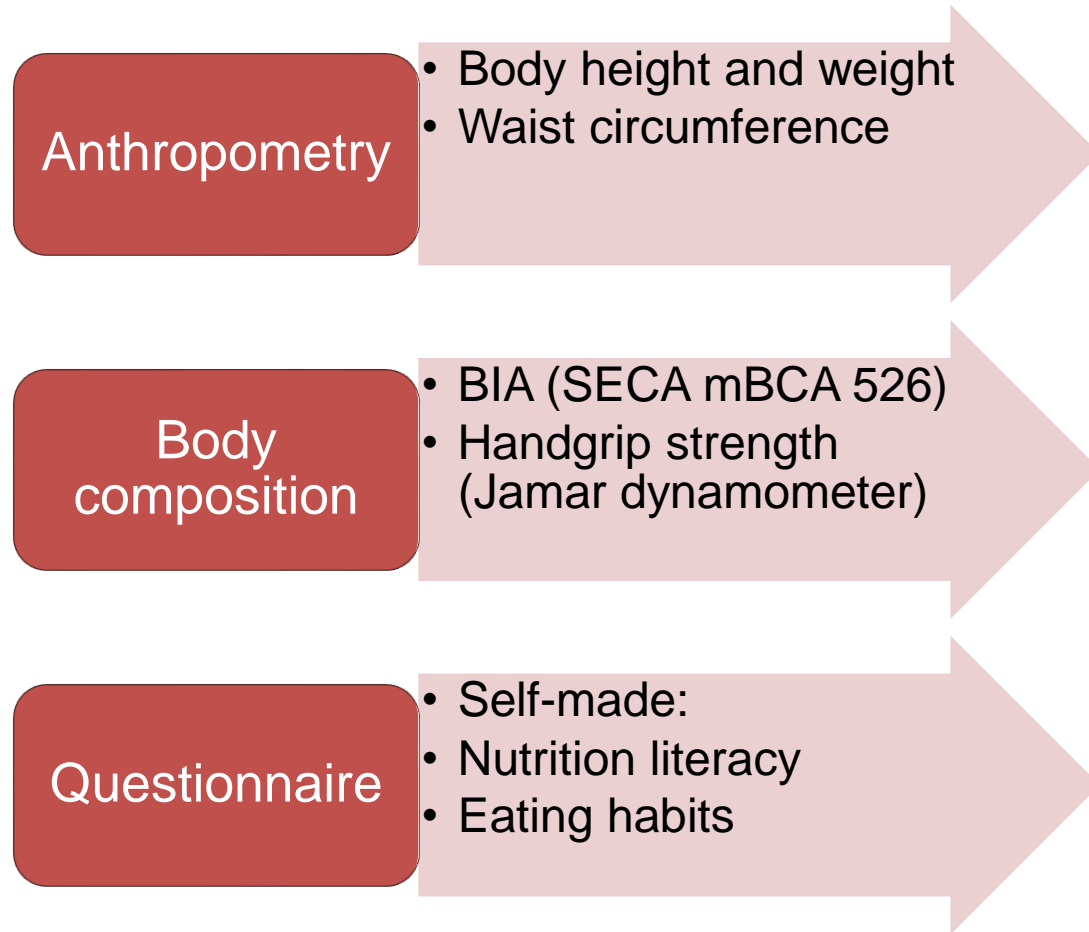
Which food is very fatty?

- Bread
- Egg
- Oil



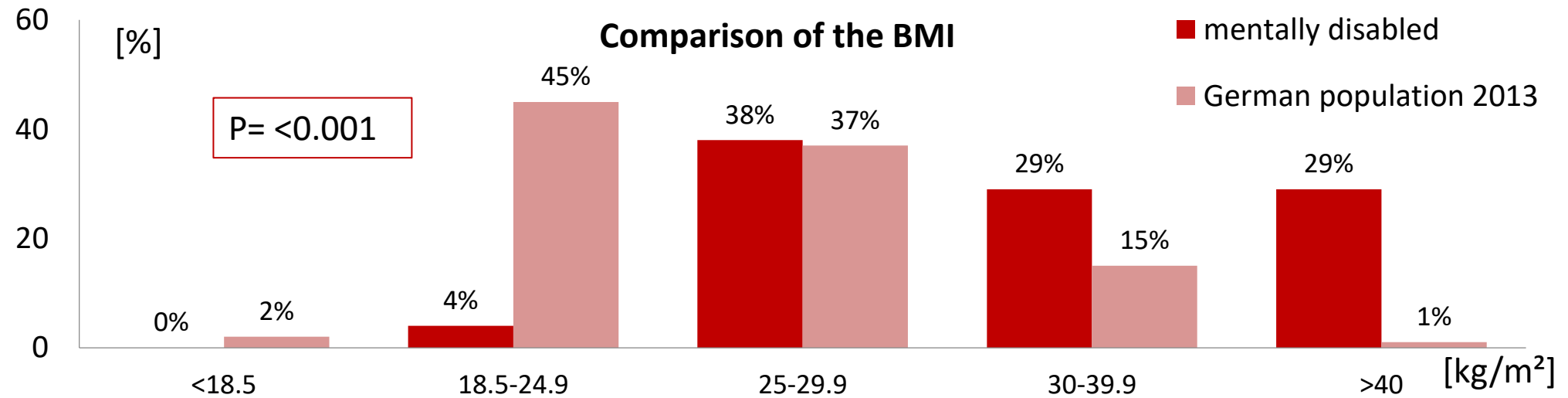
Methodology and Population

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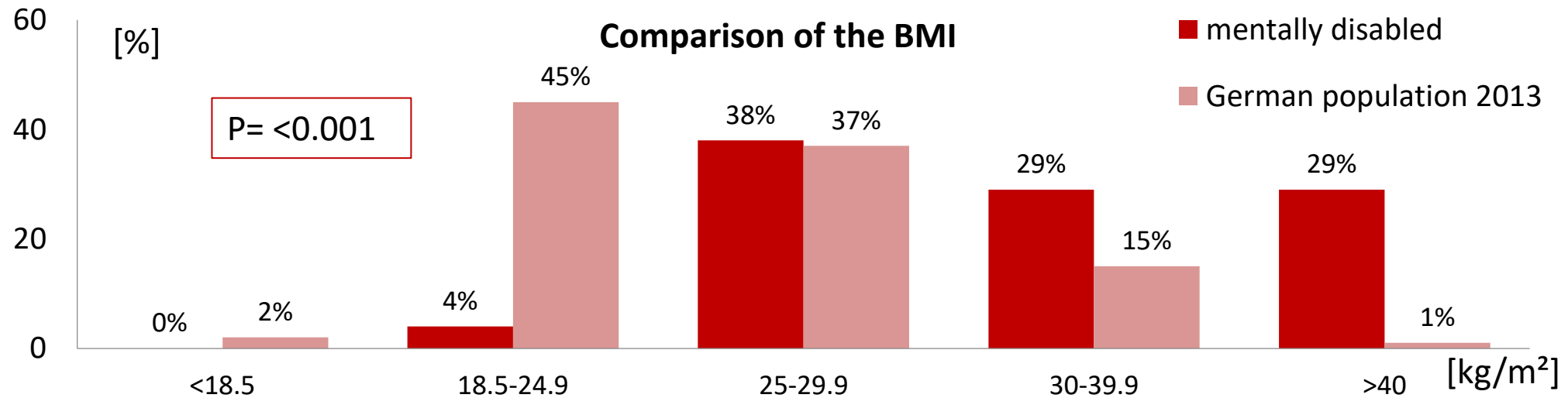


N = 24 (14 f/ 10 m)	Study group	
	M ± SD	range
Age [years]	40.2 ± 11.1	24 - 64
Height [cm]	167 ± 11.4	144 - 186
Weight [kg]	99.2 ± 27.3	54.6 - 145
BMI [kg/m ²]	35.8 ± 10.1	24.9 - 55.0
Waist circumference [cm]	111 ± 18.8	91.9 - 147
Degree of disability	73.0 ± 16.3	50 - 100

Results – Anthropometric Data



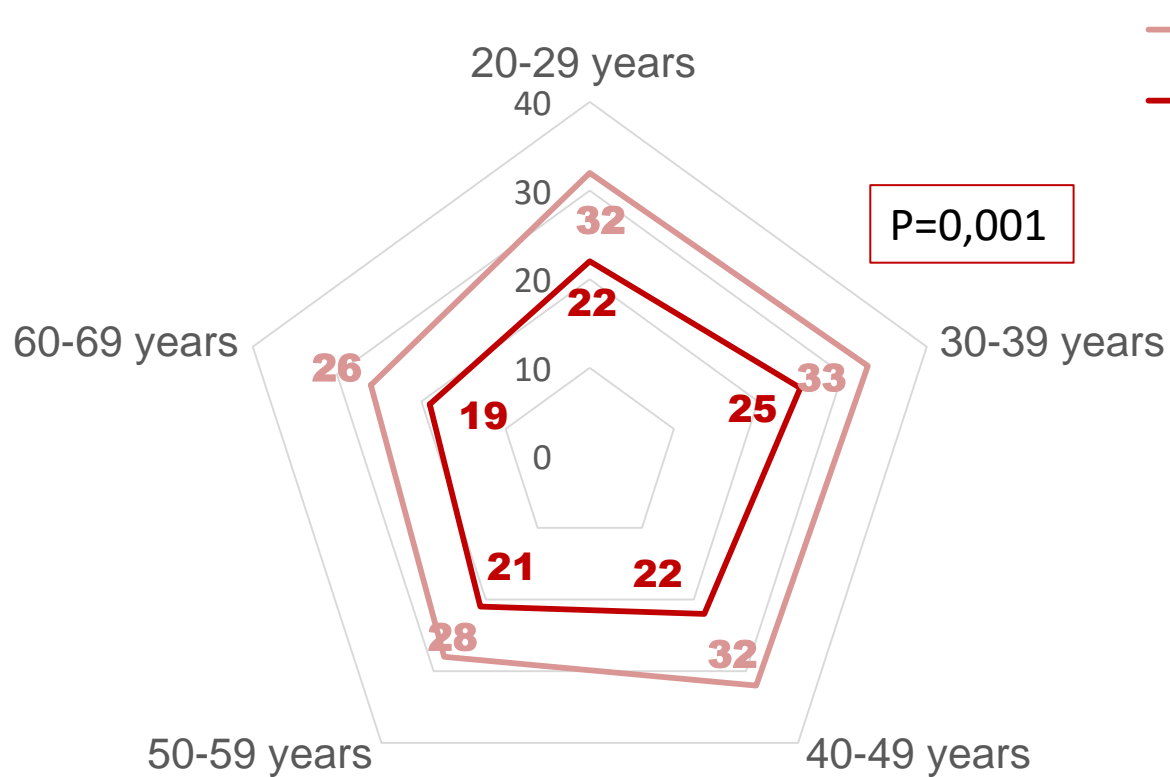
Results – Anthropometric Data



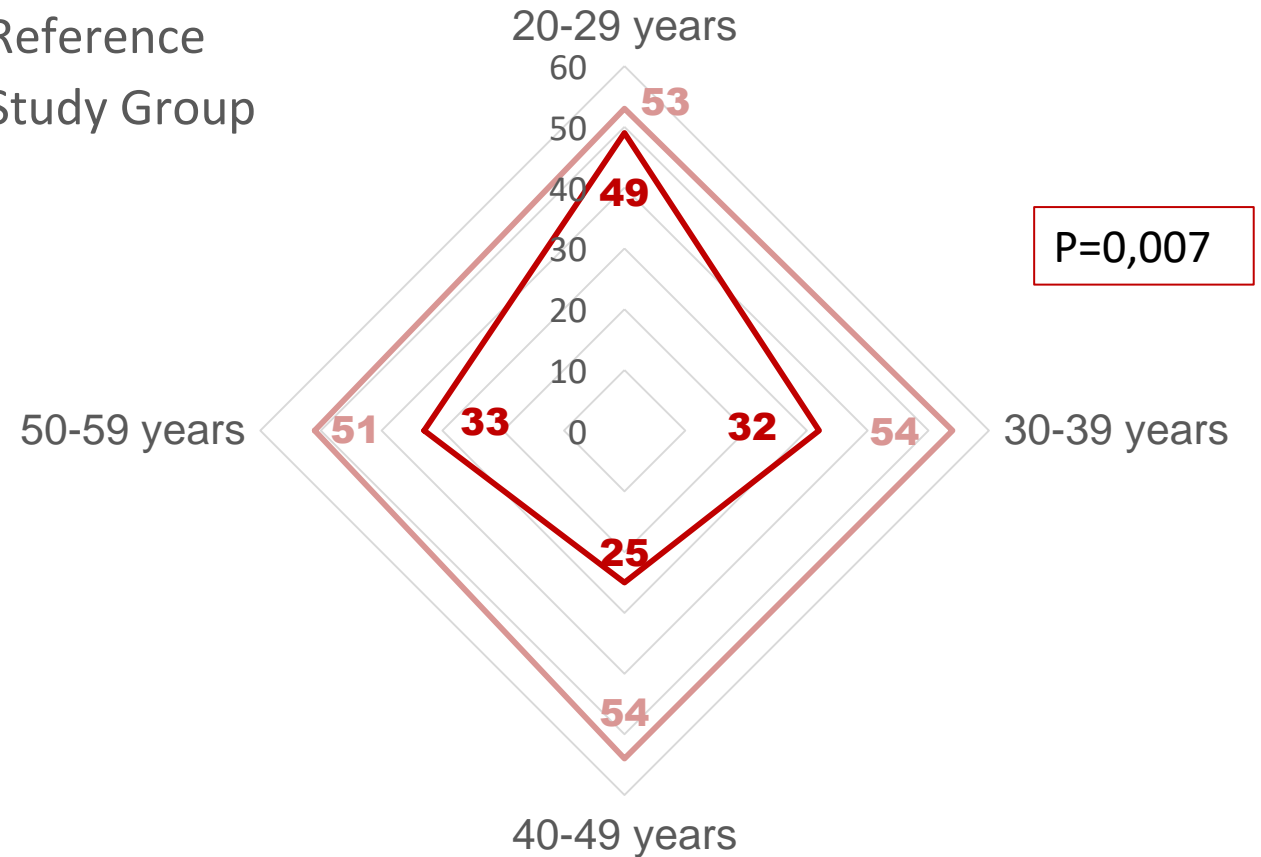
Waist circumference [cm]	n	DPs M ± SD	Reference thresholds M ± SD	p
Men	10	113 ± 18.9	102	0.33
Women	14	108 ± 19.1	88	0.04
All	24	110 ± 19.0	94 ± 7	0.002

Results – Hand Grip Strength

Women

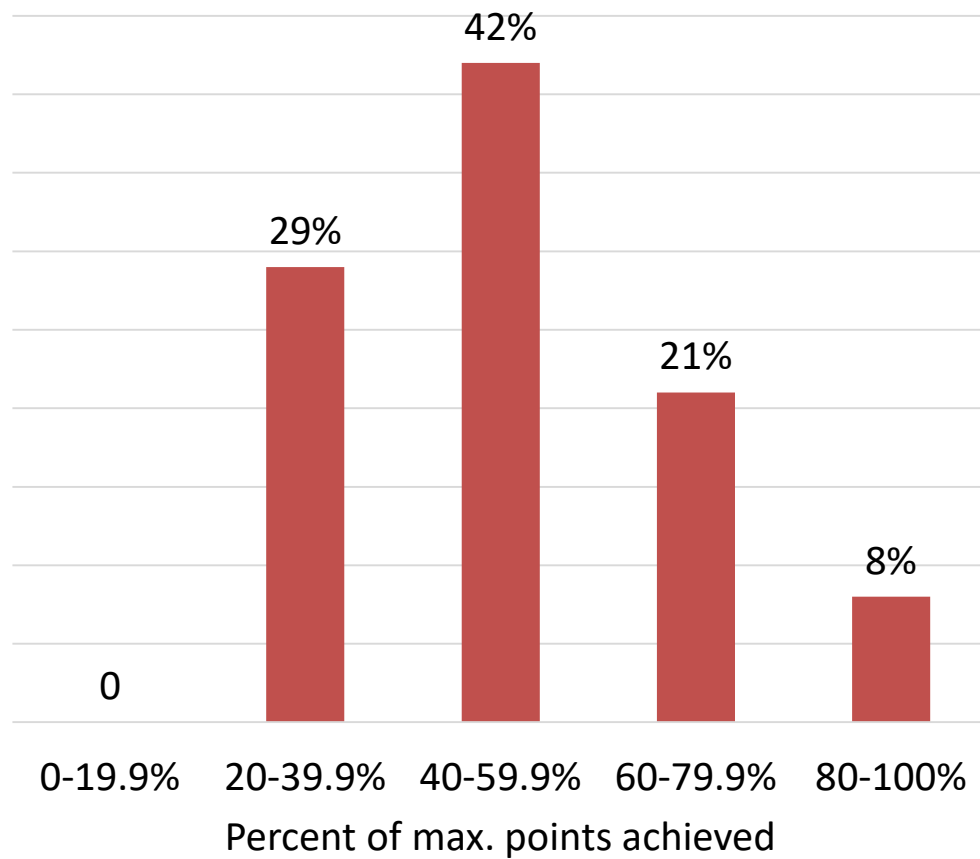


Men

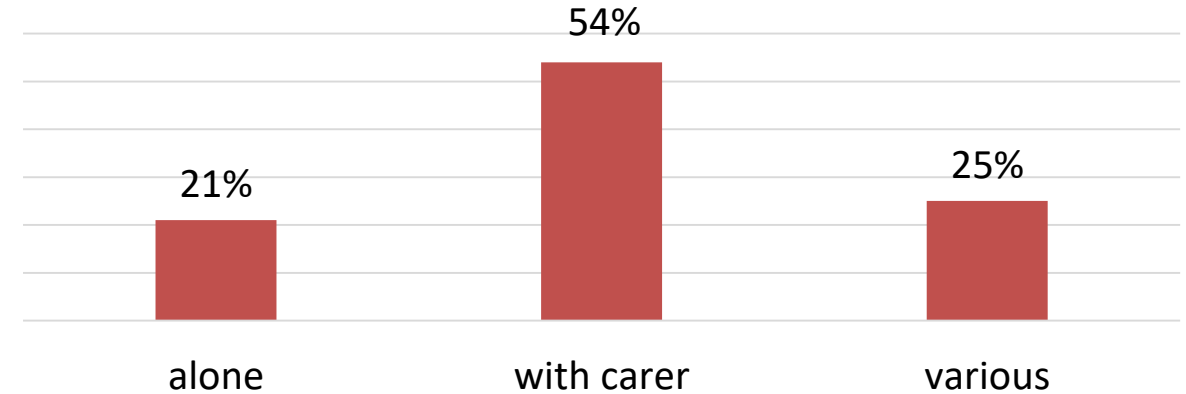


Results

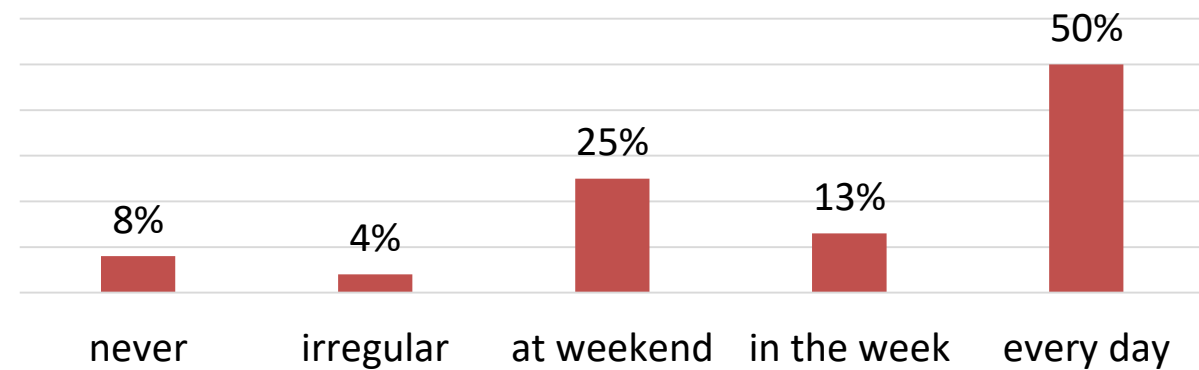
Nutrition literacy



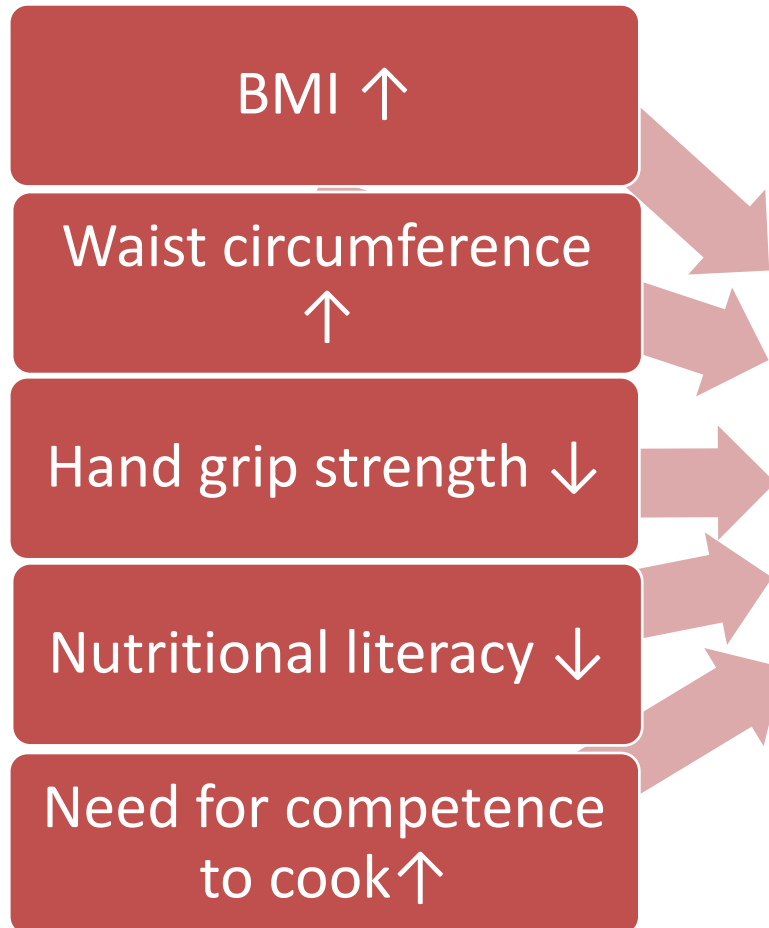
Organization and provision of the food shopping



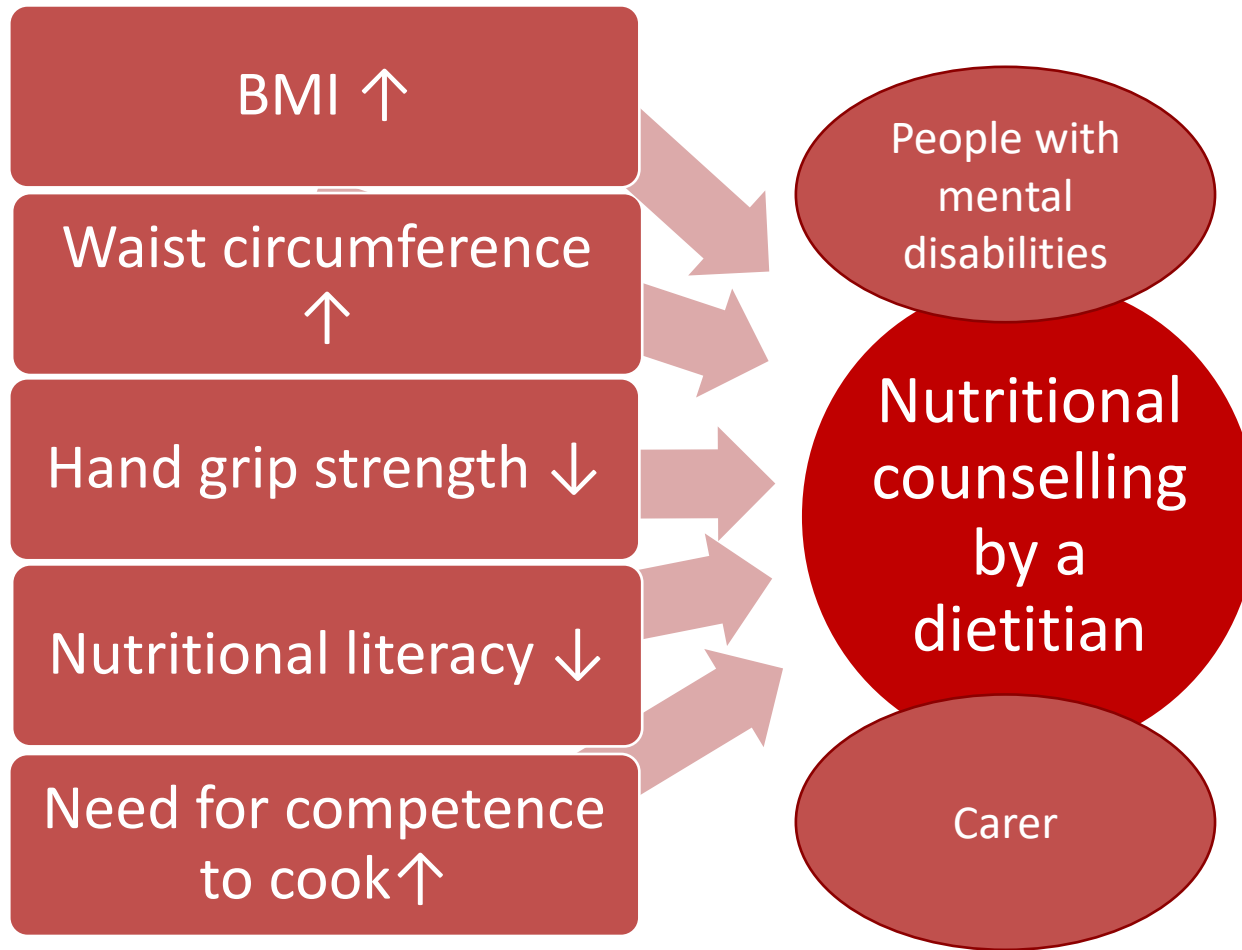
How often do you make meals for yourself?



Conclusion



Conclusion



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