Association between nutritional status and quality of life in frail community-dwelling older persons

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Background
Healthy aging is one of the challenges for developed countries. A poor quality of life (Qol) in older persons might reflect health problems causing disability, dependency and malnutrition. The aim of this study was to assess the relationship between persons’ nutritional status and Qol and to explore which items concerning nutritional status are associated with Qol.

Methods
Qol was measured using the WHOQOL-BREF with the dimensions overall Qol, physical health, psychological health, social relationship, and environment, and the WHOQOL-OLD with the dimensions sensory abilities, autonomy, past, present, future activities, and social participation in (pre)frail community-dwelling older persons. Nutritional status was assessed with the full Mini Nutritional Assessment (MNA®-LF). Linear regression analyses were used to identify whether the nutritional status made an important contribution to the Qol dimensions and to explore the contribution of individual MNA items to Qol, adjusted for age, sex, number of drugs and comorbidities.

Results
83 (pre)frail persons [14% men; 83 years (standard deviation 8)] were analysed. 52% were normal nourished, 8% were malnourished and 45% were at risk of malnutrition. The nutritional status (MNA score) was significantly associated with the following Qol dimensions: overall Qol (β = 0.260, p = 0.016), physical health (β = 0.228, p = 0.036), autonomy (β = 0.243, p = 0.030), and social participation (β = 0.279, p = 0.013). Individual items of the MNA®-LF, as mobility, lives independently, consumption markers for protein, and patient consider health status, emerged as significant independent factors associated with Qol.

Conclusions
Malnutrition risk is associated with poor Qol. Mobility, independently living, and protein consumption are major influencing factors on Qol in (pre)frail community-dwelling older persons. For public health impact, studies are needed to investigate interventions which improve nutritional status and consequently Qol.

Key message
- There is an association between nutritional status and quality of life in community-dwelling older persons which has implications for prevention, early recognition and treatment of nutrition problems.