Title of the highlight:
The longitudinal association between weight change and health-related quality of life: the KORA S4/F4 cohort study

Keywords:
Health-related quality of life, Weight change, Obesity, Longitudinal, Population-based

Central statement of the highlight in one sentence:
Weight gain over a time period of 7 years is associated with impaired physical health-related quality of life but also with improved mental well-being, particularly among women.

Text of the highlight:
Despite the increasing importance of patient-centered perspectives, the impact of weight-change on the health-related quality of life (HRQL) has remained unclear. Previous studies mainly examined cross-sectional associations between weight status and HRQL. This study is one of the first investigating the longitudinal relationship.
Data was collected from the population-based KORA S4/F4 cohort study of 3080 Germans. Anthropometrics and HRQL (SF-12 Survey) were assessed in a baseline examination and after a 7-year follow-up period. Using linear regression the average change in HRQL-scores was calculated among 5 mutually exclusive weight-change groups. Further, multilevel growth modelling was conducted to differentiate between interpersonal (cross-sectional) and intrapersonal (longitudinal) associations of Body Mass Index (BMI) respectively BMI-change and HRQL.
Heavy weight gain (≥10% of body weight) was associated with impairments in physical health among women (-2.82 points, CI:-4.29 to -1.34) and obese men
Weight gain leads to clinically relevant impairments in physical health, but to improvements in mental well-being, particularly among women. More in depth research is needed to elucidate potential biological links or gender specific aspects related to the antipodal effects of weight-change on physical and mental HRQL.

Publication:
Laxy M, Holle R, Döring A, Peters A, Hunger M.

Taking account of the HMGU mission:
Providing tailored solutions for the prevention and management of major common diseases such as diabetes is a key goal of the HMGU. Obesity is one of the biggest risk factors for diabetes and metabolic disorders. This study shows the complex impact of weight-change on physical and mental components of quality of life. The understanding of this patient-centered perspective on weight change provides crucial information for developing medically effective and cost-effective strategies to prevent and manage obesity.

The internal HMGU co-operation partners with whom the highlight was compiled, if appropriate:
Institute of Epidemiology II: Annette Peters, Angela Döring
Association between weight-change and the physical and mental component of health-related quality of life

Adjusted mean change-scores of ordinary least squares regression analysis for weight change categories stratified by sex;
Model adjusted for age, education, CVD, cancer, diabetes, baseline BMI-category and baseline BMI-category*weight-change category;
* p< 0.05  ** p<0.01  *** p<0.001