Brigham and Women's Hospital
Founding Member, Mass General Brigham

HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL

Obesity and Health Status in Heart Failure with Preserved Ejection Fraction

A Pooled Analysis of 4 Randomized Clinical Trials

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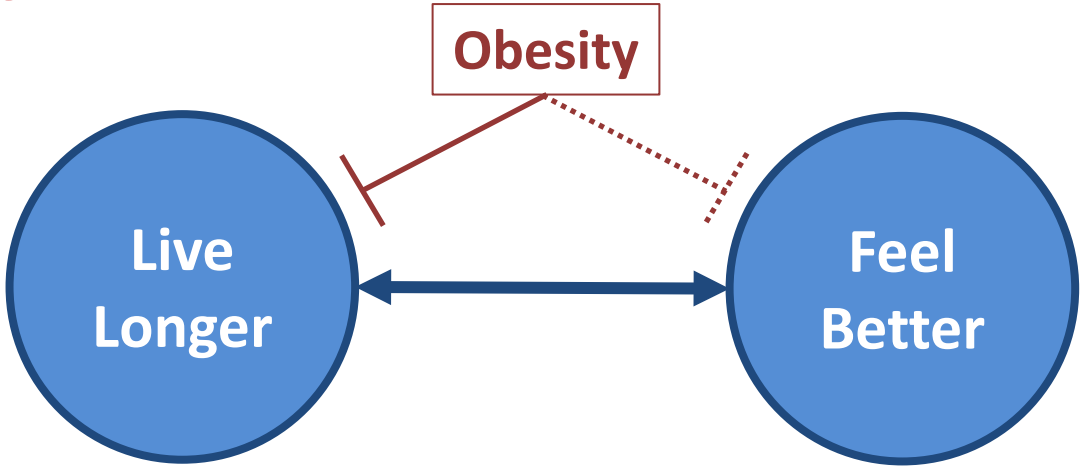
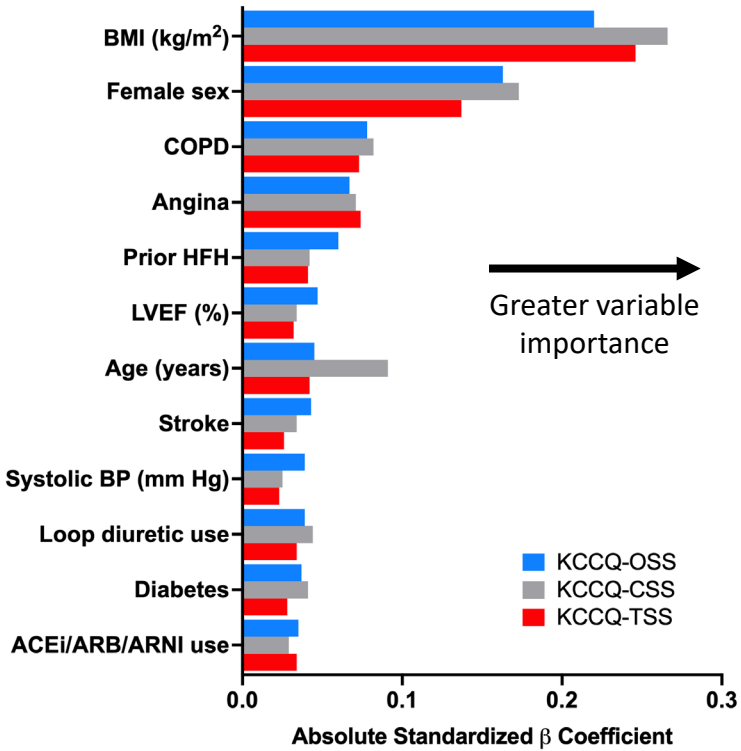
Improving health status is a core clinical priority in heart failure



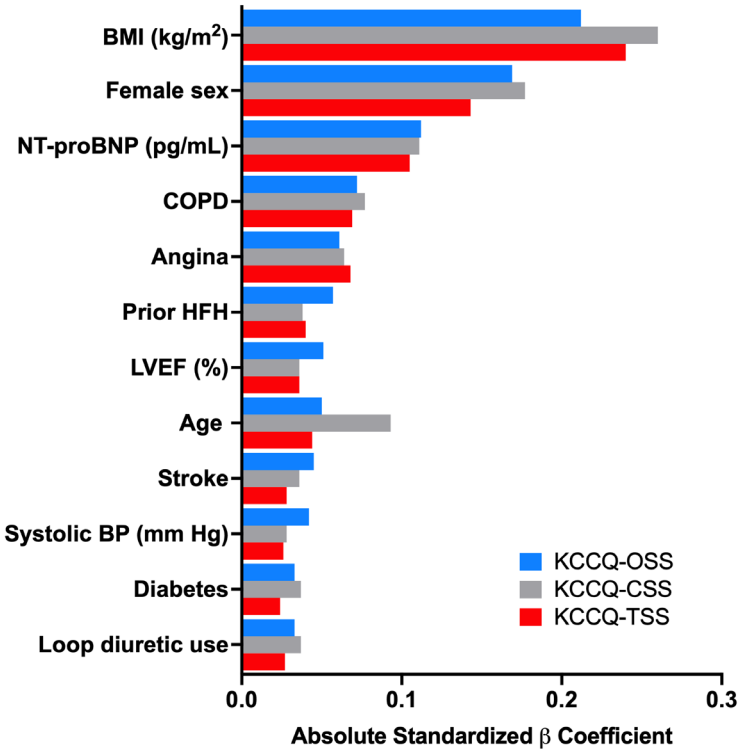
*Obesity is a well-established driver of adverse outcomes in HF, but a **rigorous understanding of the interplay between obesity and health status in HF is lacking***

Predictors of Baseline KCCQ Scores in HFmrEF/HFpEF

A: Model 1 (n=18,122)

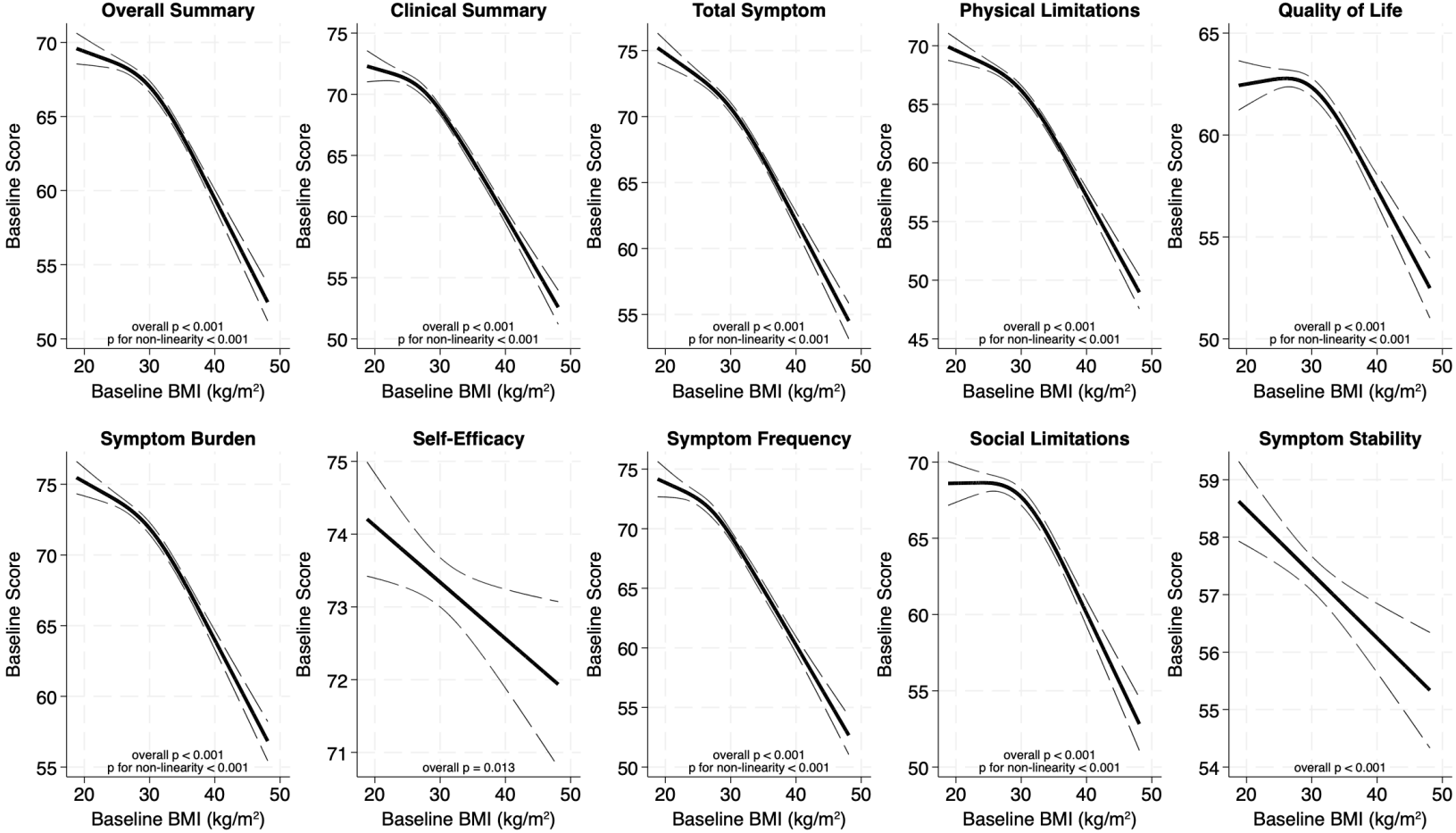


B: Model 1 + NT-proBNP (n=16,564)



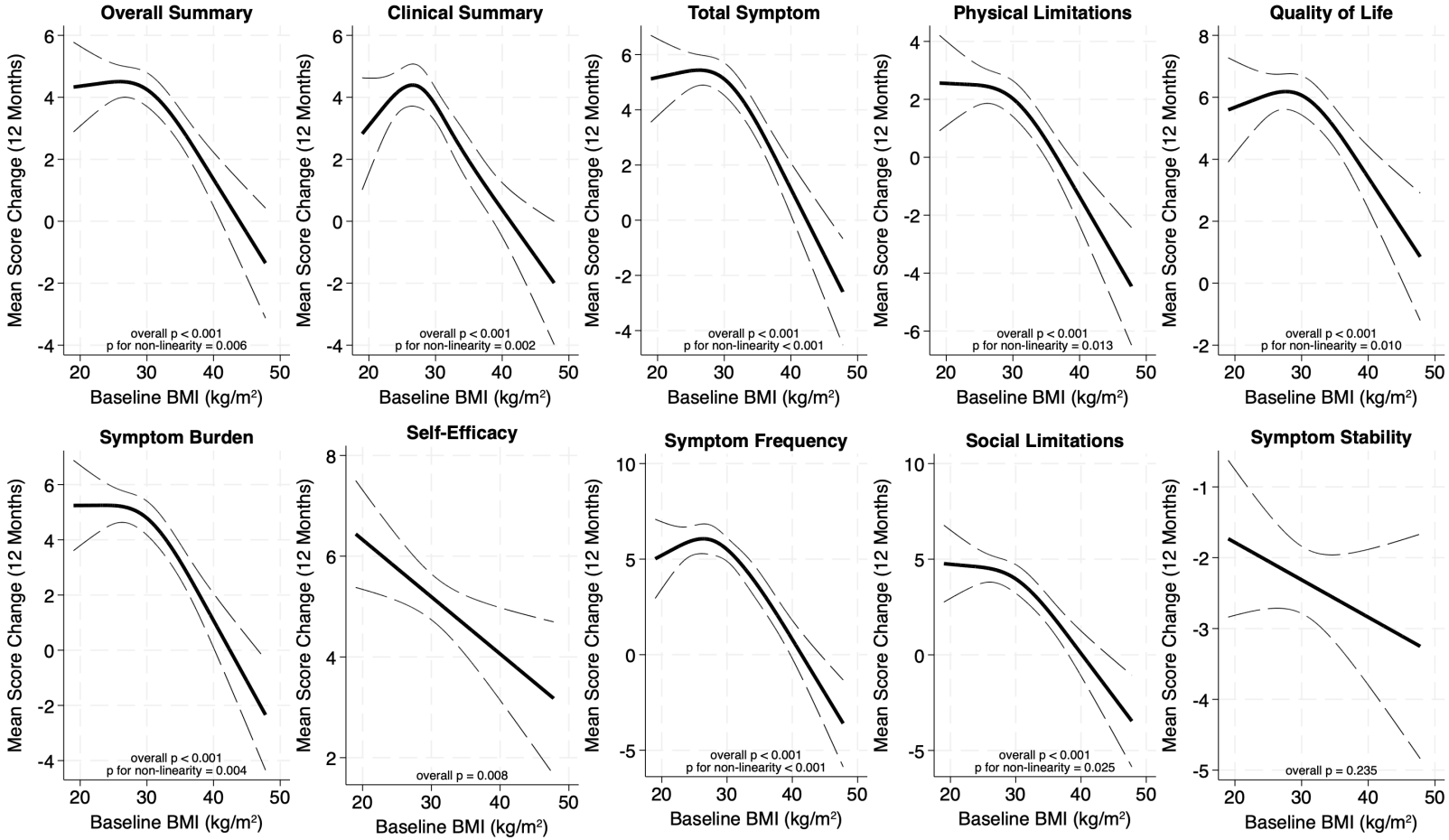
Model 1: linear regression inclusive of age, sex, BMI, diabetes status, hypertension, atrial fibrillation or flutter, angina, stroke, percutaneous coronary intervention, coronary artery bypass grafting, PAD, LVEF, COPD, prior HF hospitalization, smoking status, systolic blood pressure, diastolic blood pressure, estimated glomerular filtration rate, loop diuretic use, beta blocker use, angiotensin-converting enzyme inhibitor/angiotensin receptor blocker/angiotensin receptor-neprilysin inhibitor use, calcium channel blocker use, statin use, and aspirin use

Association Between BMI and KCCQ Domains



Linear regression models adjusted for age, sex, race, trial, region, LVEF, COPD, prior HF hospitalization, angina, stroke, and PAD

BMI & 12-Month Change in KCCQ (Control Arm Participants)



Linear regression models adjusted for baseline KCCQ scores, age, sex, race, trial, region, LVEF, COPD, prior HF hospitalization, angina, stroke, and PAD

Conclusions

- This participant-level pooled analysis of global trials identified BMI as a dominant predictor of health status in HFmrEF/HFpEF
- Higher BMI was associated with a range of wellbeing impairments, spanning physical, social, quality of life, and self-efficacy domains
- Health status was less likely to improve among persons with BMI-defined obesity over time

These findings support obesity treatment as an important, person-centered component of comprehensive HF management efforts