

# Maintenance of Quality of Life Improvement for Patients with Chronic Pain and Obesity after Multimodal Pain Rehabilitation

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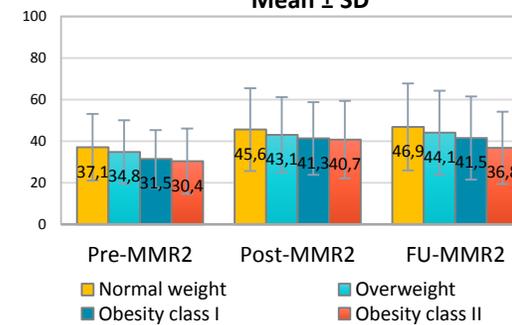
**Introduction** Obesity and chronic pain are serious health concerns and common comorbidities. Both conditions are related to reduced health-related quality of life (HRQoL) over time. It is uncertain whether patients with comorbid obesity are able to maintain the improved HRQoL after multimodal pain rehabilitation programs (MMRP).

**Methods** Data was obtained from the **Swedish Quality Registry for Pain Rehabilitation**. MMRP participants (N= 860) reported body weight and length, pain aspects (debut, intensity and spreading) and HRQoL (SF-36) at baseline, immediately after MMRP and one-year follow-up (FU). We used linear mixed regression models with HRQoL as outcome to assess the main effects as well two-way interactions between BMI category and time controlling for sociodemographic factors and pain aspects.

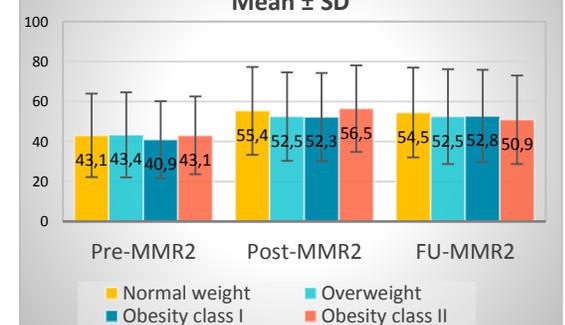
BMI classification	
Normal range	18.5-24.9
Overweight	25.0-29.9
Obese	≥ 30.0
Obese class I <i>Mild obese</i>	30.0-34.9
Obese class II	35.0-39.9
Obese class III <i>Severely obese</i>	≥ 40.0

## Results

SF-36 Physical Component Summary  
Mean ± SD



SF-36 Mental Component Summary  
Mean ± SD



Registry-based study

- More than one in four patients (224/860) were obese and nearly one third of the obese patients (63/224) were severely obese;
- **Significant improvements** were shown in both physical and mental health after MMRP (**pre and post-MMRP**,  $P < 0.001$ );
- The **improvements persisted** through one-year follow-up (**post-MMRP vs follow-up**,  $P > 0.05$ ; **pre-MMRP vs follow-up**,  $P < 0.001$ ).
- **BMI did not have any impact** on physical health [BMI x time,  $F(6, 579) = 0.906$ ] or mental health [ $F(6, 592) = 1.365$ ].

## Conclusion

Across all BMI groups, patients achieved improvement in HRQoL after MMRP. The improvements were maintained for all patients regardless of excess weight.

Improved HRQoL maintained!