

Improved eating behaviours, quality of life, mental health, mobility and nutritional literacy after 9 months of the Oviva digital UK Tier-3 weight management programme: a real-world data analysis (n=1270)

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Background

Obesity is associated with maladaptive eating behaviours, impaired physical functioning, reduced quality of life, and limited health literacy, all of which may hinder sustained behaviour change and contribute to long-term health and economic burden¹.

Understanding changes in these domains and the associated patient-reported outcomes in a real-world evidence setting is essential for evaluating the broader value of Tier-3 weight management programmes.

Methods

This real-world evidence study included 1,270 adults enrolled in a digital UK Tier-3 weight management programme who completed validated surveys (PROMIS-10, FFQ, NHLS) at baseline and after nine months of treatment. Outcomes included emotional eating behaviours, dietary patterns, physical functioning, self-rated quality of life, mental health, social functioning, and nutrition literacy.

Changes over time were assessed using Chi² tests, with effect sizes reported as Cramér's V. Weight-loss analyses focused on 948 participants receiving semaglutide with complete data.

Results

Participants had a high baseline clinical burden (mean three comorbidities), a mean baseline BMI of 45 kg/m², and were predominantly female (87%), with a mean referral age of 48 years for women and 53 years for men; the cohort was socioeconomically diverse (from Index of Multiple Deprivation deciles 3, 4, and 1, each accounting for approximately 11% of the cohort).

After nine months, mean weight loss was 12.4%, with mean BMI decreasing to 39 kg/m². Emotional eating in response to negative emotions improved significantly, with the proportion reporting "always" decreasing from 21% to 5% (p<0.001; Cramér's V=0.23). Dietary behaviours improved, including increased fruit and vegetable intake at least twice daily (p<0.001; V=0.06) and reduced multiple daily consumption of high-calorie foods (p<0.001; V=0.31).

Participant demographics

Percentage of women participants	87%
Average baseline BMI	45kg/m ²
Average age	48 years
Resided in deprived areas (IMD 1-4)	33%
Mean weight loss after 9 months	12.4%
High baseline clinical burden	Mean three comorbidities

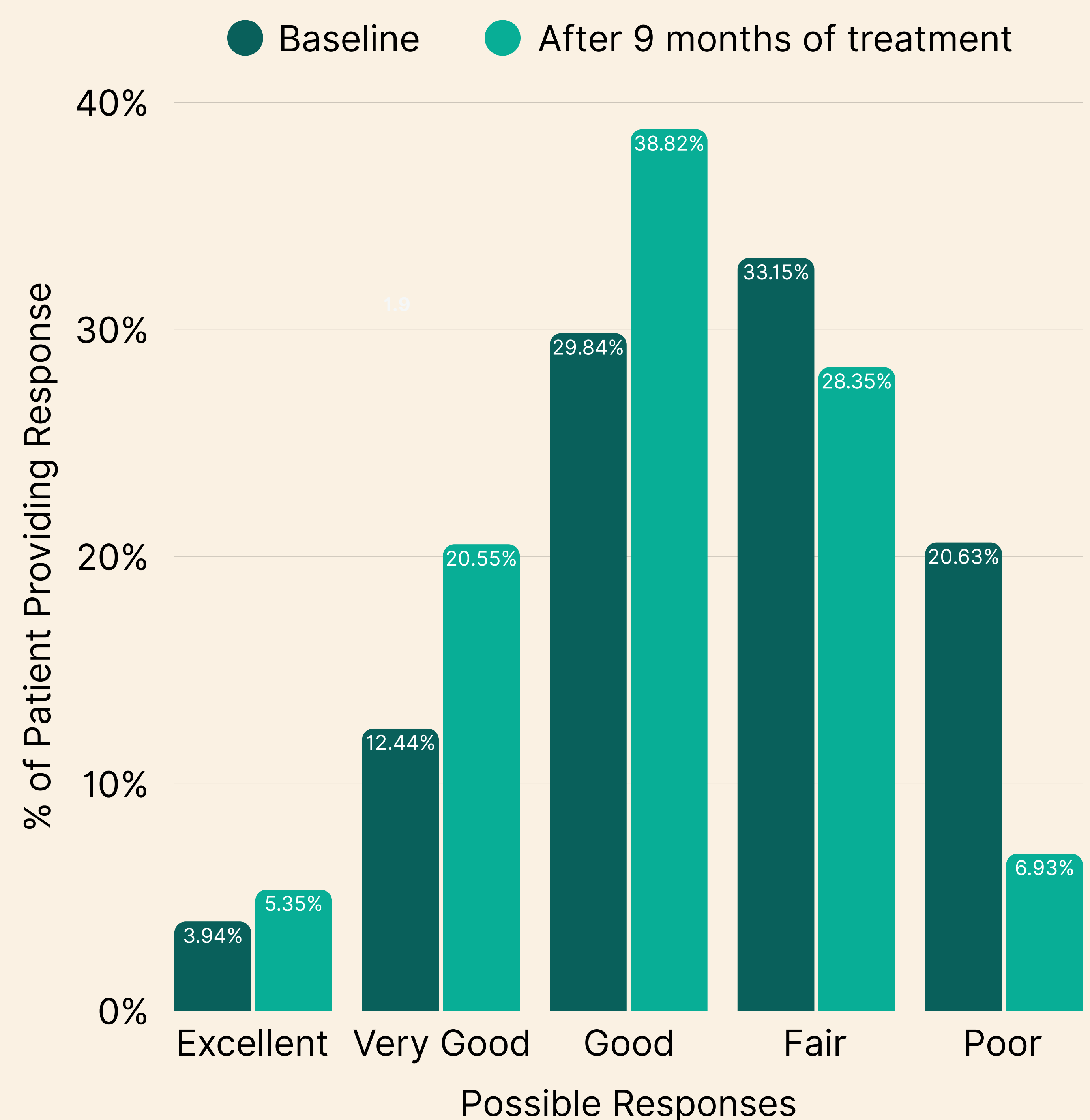
Dietary behaviour changes



Physical functioning improved, with a higher proportion reporting complete ability to perform everyday activities (p<0.001; V=0.16). Self-rated good physical health (p<0.001; V=0.32), mental health (p<0.001; V=0.09), overall quality of life (p<0.001; V=0.22), and social functioning (p<0.001; V=0.15) all showed significant positive shifts. The proportion reporting frequent emotional distress decreased (p<0.001; V=0.09).

Nutrition literacy improved across the ability to find (p<0.001; V=0.09), understand (p<0.001; V=0.07), evaluate (p<0.001; V=0.12), and explain healthy-eating information (p<0.001; V=0.16).

Self-Reported Mental Health (Including Mood and Ability to Think) at Baseline and After 9 Months of Oviva Digital UK Tier-3 Weight Management Programme



Conclusions

Participation in a digital UK Tier-3 weight management programme was associated with statistically significant improvements in eating behaviours, dietary quality, physical functioning, quality of life, mental health, social functioning, and nutrition literacy over nine months.

These multidimensional patient-reported improvements underscore the impact of digitally delivered Tier-3 weight management programmes in addressing behavioural and psychosocial drivers of obesity, supporting its value beyond weight loss alone.

Reference

1. Ahmed SK, Mohammed RA. Obesity: Prevalence, causes, consequences, management, preventive strategies and future research directions. *Metabolism Open*. 2025 Jun 14;27:100375.

Conflict of interest: DW, FS, LS, SM, WM are employees of Oviva AG.