

Background

Obesity is a chronic disease defined by excessive fat accumulation, commonly diagnosed when body mass index (BMI) exceeds 30 kg/m². It represents a major global public health issue due to its association with metabolic disorders such as type 2 diabetes, dyslipidemia, hypertension, cardiovascular diseases, cancer, and severe osteoarticular complications—resulting in significantly reduced quality of life. Its societal impact is substantial, not only in terms of increased morbidity and mortality, but also in healthcare expenditures and long-term economic burden. The prevalence of obesity has reached alarming levels across OECD countries, where more than half of the population is overweight and one in four individuals is obese. Despite public health efforts, sedentary lifestyles and increased caloric intake continue to fuel this crisis. Obesity disproportionately affects children—impairing academic performance, wellbeing, and reinforcing social inequality—while in adults, it contributes to chronic disease, reduced productivity, and shorter life expectancy. Currently, OECD countries allocate 8.4% of their health budgets to treating obesity-related diseases such as diabetes and cardiovascular conditions, with global treatment costs estimated at 423 billion USD across 52 countries.

In this context, GLP-1 receptor agonists have emerged as a breakthrough in obesity treatment. Initially developed for type 2 diabetes, these agents promote satiety, suppress appetite, delay gastric emptying, and regulate insulin/glucagon secretion—leading to sustained weight loss. Clinical trials report weight reductions of ~15% with liraglutide and semaglutide, and up to 25% with tirzepatide. Their metabolic benefits and effectiveness mark a paradigm shift, offering new hope for patients who have not achieved results with lifestyle interventions alone.

Methods and Objectives

The objective of the **NAVETA Obesity scientific** committee was to develop a patient-centered evaluation model aimed at identifying the most appropriate PROMs and PREMs to comprehensively capture health outcomes and patient experience in the context of GLP-1 receptor agonist treatment. Over the course of five structured meetings, obesity was addressed from a multidisciplinary perspective that integrated clinical, surgical, pharmaceutical, nutritional, and psychosocial viewpoints. This approach enabled the consensus on a set of priority domains and validated tools, incorporating both relevant clinical variables and aspects related to dietary habits and adherence to nutritional guidelines. The final consensus document was reviewed and endorsed by the **Asociación Nacional de Personas que Viven con Obesidad**, ensuring alignment with the real needs and perspectives of this patient population.

Results

Core Domains for Multidimensional Assessment in Obesity

Variable	Description
Cardiovascular comorbidities	Hypertension, dyslipidemia, and type 2 diabetes – common and high-risk conditions.
Polycystic Ovary Syndrome (PCOS)	In obese women, linked to insulin resistance and hormonal/metabolic disorders.
Sleep Apnea (OSA)	Disrupts sleep and increases cardiovascular risk.
Osteoarthritis	Joint damage worsened by excess weight.
Digestive diseases	Includes GERD, pancreatitis, diverticulitis, gallbladder issues.
Psychiatric history	Depression and anxiety—affect treatment adherence.

Metrics



Variable	Description
Weight, BMI, Waist Circ., % Fat	Core measures for assessing obesity severity and impact.
Liver fibrosis & FIB-4 Index	Non-invasive score to detect hepatic fibrosis risk.
Edmonton Obesity Staging System (EOSS)	Assesses physical, psychological, and functional impact beyond BMI.



Surgical Evaluation

Variable	Description
Prior bariatric procedures	Evaluation of previous weight-loss surgeries and outcomes.
Clavien-Dindo classification	Categorizes post-surgical complications by severity.
Late post-surgical complications	GERD, dumping syndrome, weight regain.
ER visits (GLP-1 treatment-related)	Monitors GI side effects and local issues linked to GLP-1 agonists.

Variable	Description
GLP-1 Receptor Agonists	Used for obesity and type 2 diabetes management; common GI side effects.
Portion Control	Teach appropriate portion sizes to manage food intake.
Meal Planning & Preparation	Encourages healthier food selection and cooking habits.
Nutrient-Dense Food Selection	Promotes vegetables, lean proteins, and whole grains.

Health-Related Quality of Life in People Living with Obesity

Domain	Description
Physical Health	Linked to heart disease, type 2 diabetes, hypertension, joint issues, sleep apnea, and cancer. Limits mobility and life expectancy.
Mental Health	Stigma, low self-esteem, depression, and anxiety are common. GLP-1 agonists require mental health monitoring despite no proven suicide risk.
Emotional Wellbeing	Reduced participation in daily/social activities due to fatigue, low mobility, and shame—leading to emotional withdrawal.
Interpersonal Relationships	Obesity increases discrimination in social, workplace, and family settings, leading to isolation and loneliness.
Sleep Quality	Higher risk of disorders like sleep apnea—causing fatigue, cognitive decline, and poor physical function.
Socioeconomic Impact	*Obesity costs 9.7% of national health budget in Spain, reduces GDP by 2.9%, and adds in taxpayer burden. * https://oe.cd/obesity2019

PROMs and PREMs in Obesity Care

Questionnaire	Dimensions Assessed	N ^o of Items
Moorehead-Ardelt QoLQ	Physical, Social, Self-esteem, Sexual	6
Stigmatizing Situations Inventory (SSI)	Stigma	10
PHQ-9	Psychological (Depression & Suicide Risk)	9
STOP-BANG	Sleep Apnea	8
Insomnia Severity Index (ISI)	Sleep Quality & Insomnia	7
MEDAS	Diet - Mediterranean Adherence	14
TSQM	Treatment: Effectiveness, Convenience, Side Effects, Satisfaction	14
MMAS-8	Treatment Adherence	8
MSPD	Perceived Discrimination	20
IEXPAC	Patient Experience	15

Consensus Proposal for a Standard in the Follow-Up of Obesity

PROMs

- Moorehead-Ardelt QoLQ¹
- Stigmatizing Situations Inventory (SSI)¹
- PHQ-9¹
- Mediterranean Diet Adherence Screener (MEDAS)¹

PREMs

- IEXPAC (Instrument for Evaluation of the Experience of Chronic Patients)²

Treatment Satisfaction Questionnaire for Medication (TSQM)¹

Morisky Medication Adherence Scale (MMAS-8)¹

Insomnia Severity Index (ISI)¹

STOP-BANG¹

Collection Frequency

Initial visit¹ and every 6 months^{1,2}

Other variables

Medical History: Cardiovascular History; Polycystic Ovary Syndrome (PCOS); Obstructive Sleep Apnea Syndrome (OSA); Osteoarthritis; Digestive Diseases; Psychiatric History; Hepatic Steatosis

Basic Parameters and EOSS: Weight; BMI; Waist Circumference; Body Fat Percentage; Liver Fibrosis (F) and FIB-4; Edmonton Obesity Staging System (EOSS)

Surgery: Prior bariatric surgery procedures; Surgical complications (Clavien-Dindo); Late surgical complications; ER visits due to GLP-1 treatment

Eating Behavior: Portion control; Meal planning and preparation; Food selection

Conclusion

This consensus highlights the need for a comprehensive, multidisciplinary, and patient-centered approach to the follow-up of individuals living with obesity. By integrating clinical, surgical, nutritional, psychological, and patient-reported data (PROMs and PREMs), this proposal aims to standardize and optimize care, enhance treatment adherence, and improve health outcomes and quality of life.

