Consensus-based clinical and research recommendations for use of glucagon-like peptide-1 receptor agonists in the context of eating disorders: a modified Delphi study

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Glucagon-like peptide-1 receptor agonists (GLP-1RAs), initially developed for type 2 diabetes management and later expanded to obesity treatment, have shown preliminary efficacy in reducing binge eating episodes. However, the appetite-suppressing and weight-loss effects of GLP-1RAs raise concerns about misuse and potential exacerbation or emergence of eating disorders (EDs). Evidence remains limited and inconsistent, requiring structured, expert-informed guidance. Using a modified three-round Delphi method, a multidisciplinary panel of experts in diabetes, obesity and/or EDs, and individuals with lived experience of an ED and/or GLP-1RA use (N=45) achieved ≥70% consensus on recommendations (average consensus: 91.7%). Clinical recommendations include: a) the implementation of screening for current and historical ED before initiating GLP-1RAs, using a brief psychometrically validated instrument; b) routine monitoring of ED symptoms with intensity stratified by risk level; c) the development of standardized educational materials for patients and providers; and d) offering concurrent evidence-based psychotherapy to individuals with EDs prescribed GLP-1RAs. These medications should generally be avoided in individuals with active EDs, particularly anorexia nervosa, atypical anorexia nervosa, and bulimia nervosa with marked dietary restraint and/or significant weight suppression. Clinicians should also proceed cautiously in patients with a past history of these EDs. Research recommendations include: a) longitudinal epidemiological studies to assess the incidence, risk factors, and outcomes of EDs in individuals using GLP-1RAs compared to non-users; b) regulatory studies and policies to enhance patient safety in GLP-1RA prescribing practices; and c) clinical trials to investigate the safety, efficacy and psychological outcomes of GLP-1RAs in individuals with binge eating disorder. Overall, these consensus-based recommendations support evidence-informed practice and future research aimed at weighing potential benefits against risks of use of GLP-1RAs in ED populations.

Key words: Glucagon-like peptide-1 receptor agonists (GLP-1RAs), eating disorders, binge eating episodes, appetite-suppressing effects, patient safety, consensus-based recommendations

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Glucagon-like peptide-1 receptor agonists (GLP-1RAs) were first approved for type 2 diabetes and later expanded to obesity treatment, beginning with liraglutide (daily injection), approved by the US Food and Drug Administration (FDA) in 2014 and the European Medicines Agency in 2015[1]. GLP-1RAs now carry multiple additional indications, including cardiometabolic risk reduction, chronic weight management, and other obesity-related conditions[2-4]. Tirzepatide, a dual GLP-1 and glucose-dependent insulinotropic polypeptide (GIP) receptor agonist, was approved by the FDA in 2024 for obesity and subsequently for obstructive sleep apnea[5].

GLP-1RAs function by activating GLP-1 hormone receptors that regulate several metabolic pathways[1], resulting in reduced appetite, lower blood glucose and blood pressure, slowed gastric emptying, and clinically meaningful weight loss[6]. The impressive

clinical efficacy of some of these agents, such as semaglutide and tirzepatide, has accelerated their clinical adoption and prompted interest in broader therapeutic applications.

One emerging area of interest is the potential role of GLP-1RAs in treating eating disorders (EDs), which are mental disorders defined by maladaptive eating behaviors and excessive concerns about body weight[7,8]. Prominent EDs include anorexia nervosa (AN), "atypical" AN, bulimia nervosa (BN), and binge eating disorder (BED), which differ in patterns of restriction, binge eating, and compensatory behaviors. All EDs carry substantial morbidity (e.g., cardiovascular complications, electrolyte imbalances, bone density loss, infertility), and high mortality (e.g., AN all-cause relative mortality risk is 5.52[9]) driven by medical complications and an elevated risk of suicide[9-11]. Disordered eating refers to distressing and/or maladaptive concerns about body weight/shape and engagement in two or more unhealthful behaviors that occur at a frequency or intensity below the diagnostic threshold for EDs.

Preliminary studies of GLP-1RAs for obesity management have reported reduced binge-eating episodes and decrease in general ED psychopathology[12-14]. These early findings suggest that these medications may act on neural pathways relevant to ED pathology that include potential GLP-1 signaling deficits described in BN[15,16], mitigating receptor resistance associated with emotional eating[17], and exerting broader effects on appetite regulation and food reward processing[18].

Despite the therapeutic potential of GLP-1RAs, the relevant evidence base remains limited, as few empirical studies have examined their effects among individuals with EDs[19]. The majority of studies have focused on BED, and consist of case reports, pilot trials, or retrospective studies with small sample sizes. Several case and pilot studies, including one placebo-controlled study, reported reductions in body weight, body mass index, or waist circumference in individuals with BED treated with liraglutide, semaglutide or dulaglutide[20-24]. Research has also found reductions in binge eating in individuals with BED treated with liraglutide[23,24], semaglutide[22,25], and dulaglutide[21,26].

Other studies showed mixed results. For instance, the most rigorously controlled trial to date for BED did not demonstrate significantly greater decreases in binge frequency, despite producing greater weight loss, compared to placebo[20]. Even less is known about GLP-1RA effects in BN: only one case report has been published to date, describing a patient who achieved sustained remission of binge-purge behaviors over a five-year course of liraglutide[27]. Furthermore, there are no published observational or placebo-controlled studies in BED using the dual GLP-1/GIP receptor agonist tirzepatide, though a phase 2, randomized, placebo-controlled clinical trial is underway (NCT06847399).

Overall, while there is some suggestion of the potential therapeutic benefit of GLP-1RA use for EDs, existing studies are largely non-placebo-controlled, underpowered, heterogeneous, and/or lack long-term follow-up.

Alongside growing interest for the therapeutic promise of GLP-1RAs in ED populations, there is also mounting concern regarding their potential harms[28]. Since GLP-1RAs act on appetite-regulatory pathways and can produce substantial weight loss, they may be associated with the development or relapse of EDs, particularly in individuals with prior histories of or an elevated risk for disordered eating.

Case reports described two individuals with a history of AN who relapsed into disordered eating behaviors following GLP-1RA treatment for obesity[29,30]. The first case involved a patient with a history of AN in whom tirzepatide treatment was associated with a return of restrictive eating behaviors and a rate of weight loss that exceeded expectations[29]. In the second case, semaglutide misuse precipitated relapse of atypical AN, with severe gastrointestinal complications[30]. These reports highlight the potential for relapse in individuals with prior or concurrent AN, and the difficulty of detecting ED-related symptoms in individuals who may conceal them to avoid discontinuation of GLP-1RA therapy.

Population-level data also raise concerns. A retrospective cohort study found that individuals with obesity and a history of prior mental health diagnoses were twice as likely to develop an ED within two years of starting a GLP-1RA compared to those without such a history, with the highest incidence observed for AN[31]. Although preliminary, these findings align with clinical anecdotes of rising ED cases linked to GLP-1RA use. In addition, common side effects of GLP-1RAs – such as nausea, constipation and vomiting – may complicate ED management, particularly for individuals vulnerable to purging behaviors and/or laxative misuse.

Currently, no guidelines or clear recommendations exist to help clinicians and researchers navigate the complex use of GLP-1RAs in an ED context. Given the rapid expansion of GLP-1RA use in the general population, individuals with or at risk for EDs will likely encounter these medications in routine care. Clinicians deserve guidance on how to weigh potential benefits against risks, and monitor for adverse effects. Moreover, researchers require coordinated priorities to design studies that address key questions, such as different responses across ED diagnoses, long-term outcomes, and mechanisms of action through which these medications may improve ED symptoms.

When empirical evidence is limited but clinical decisions are required, structured consensus approaches such as the Delphi method provide a systematic way to synthesize expert opinion. The Delphi method, widely used in medicine to develop recommendations and research priorities, relies on iterative feedback and pre-defined agreement thresholds to effectively build collective agreement[32].

The aim of this project was to develop recommendations for clinical care and research regarding use of GLP-1RAs in ED contexts. Using a modified Delphi method, we sought to synthesize expert perspectives to address the urgent need for guidance in this evolving area, provide a foundation for evidence-informed practice, and identify priorities for future research.

METHODS

This study used an adapted three-round Delphi method in which a panel of experts attended working group meetings and provided iterative feedback to develop consensus on clinical and

research recommendations. Consensus was defined as 70% or greater agreement among panelists, consistent with commonly recommended thresholds in the Delphi literature[32]. The Nova Scotia Health research ethics board reviewed the project and granted exemption from a full ethics review.

Core research team and panel selection

The selected panel of experts included clinicians and/or researchers with expertise in diabetes, obesity and/or EDs, and individuals with lived experience of an ED and/or GLP-1RA use. Purposive sampling was used to select an initial core research team (N=12), which was expanded to the full panel (N=45) via snowball sampling of participants' professional networks. Lived experience representatives were recruited via social media. Overall, 16 diabetes/obesity/endocrinology clinicians and researchers, 22 ED clinicians and researchers, and seven lived experience representatives agreed to participate.

Evidence review and consensus process

A structured, Delphi-informed consensus process was undertaken to develop clinical and research recommendations regarding GLP-1RA use in the context of EDs. Prior to panel recruitment, a core research team (N=12) was convened by the first author (AK) based on expertise and reputation in the fields of obesity and EDs. This group participated in two virtual sessions (January-February 2025) to identify and refine preliminary themes for clinical and research recommendations, informed by recent literature on GLP-1RA medications and EDs[28]. The team collated and organized the emerging themes into an initial framework consisting of the following topics in the context of use of GLP-1RA medications: a) screening for an ED; b) educational materials for patients and clinicians; c) monitoring ED symptoms; d) concurrent non-pharmacological treatment; e) epidemiological research; f) regulation and patient safety; and g) clinical trials for BED.

Members of the core research team recommended additional experts and individuals with lived experience to join a larger expert/lived experience panel. This panel attended one or more of three virtual meetings (June 2025) to provide verbal feedback on the draft framework. Detailed notes were recorded, and participants were subsequently invited to complete an anonymous, open-ended written feedback survey.

Recommendations and sub-recommendations were generated based on this feedback and circulated to all panelists via another anonymous online survey (August 2025). Participants rated their agreement with each statement using a 4-point Likert scale (strongly disagree, disagree, agree, strongly agree), and could provide written comments. Percent agreement and qualitative feedback were analyzed to refine the recommendations. The core research team synthesized these data into an advanced draft, which was recirculated to all panelists for final review and approval, resulting in the consensus recommendations presented below and in Tables 1-2.

RESULTS

Clinical recommendations (see Table 1)

Screening for EDs before GLP-1RA treatment

Consensus was reached (94.7%) for the following recommendation: *Prior to initiating GLP-1RAs, clinicians should assess all individuals for a current ED or history of an ED*.

In those who disagreed with this recommendation (5.3%), the main reasons for disagreement were concerns about the lack of equitable access to follow-up interventions for positive screens, and the time burden of screening in non-specialty settings such as primary care.

Sub-recommendations included the following:

- *Use a brief screening tool (3-5 questions) to assess full-threshold EDs, history of EDs, and risk factors for EDs (e.g., body weight/shape concerns, restrictive behaviors)* (consensus: 89.5%). While some experts advocated for more comprehensive validated measures such as the Eating Disorder Examination[33], and others worried that even short tools may be impractical in busy clinical settings, most supported using concise, validated options such as the Eating Disorder Screen for Primary Care (ESP)[34].
- *Screening should be implemented in clinical settings where GLP-1RAs are prescribed, including primary care settings* (consensus: 94.7%). Concerns were raised about feasibility and time burden, with suggestions that screening at the same time as medication eligibility is assessed would be most practical.
- *Positive screens should lead to referral to an ED specialist, increased monitoring, patient education and/or treatment modification, based on symptom severity* (consensus: 92.1%). In high-risk cases, experts suggested delaying initiation of GLP-1RA treatment pending a comprehensive ED risk assessment and/or avoiding GLP-1RA initiation.
- *GLP-1RAs should generally be avoided in individuals with active EDs, particularly AN, atypical AN, and BN with marked dietary restraint and/or significant weight suppression. Clinicians should also proceed cautiously in patients with a past history of these EDs* (consensus: 100%). Experts emphasized that this recommendation should not be interpreted as an absolute contraindication across all ED presentations, given the current limitations of the evidence base regarding differential risk by diagnosis and clinical context. Rather, it is intended to support risk-aware prescribing and should be applied with clinical judgment, including an individualized assessment of symptom profile, illness severity, nutritional status, and treatment context. Experts also highlighted that, although individuals with BED are generally at lower theoretical risk of harm from GLP-1RAs (and in some cases may be more likely to derive benefit), caution remains warranted in this population. In particular, some individuals with BED also exhibit clinically significant dietary restraint and/or weight suppression. Finally, experts noted that obesity does not preclude an ED diagnosis. Individuals with obesity may have co-occurring EDs (e.g., atypical AN, BED or BN) and, in such cases, may not be appropriate candidates for

Table 1 Clinical recommendations for use of glucagon-like peptide-1 receptor agonists (GLP-1RAs) in the context of eating disorders (EDs), with percent agreement

Prior to initiating GRP-1RAs, clinicians should assess all individuals for a current ED or history of an ED (94.7%).
Use a brief screening tool (3-5 questions) to assess full-threshold EDs, history of EDs, and risk factors for EDs (e.g., body weight/shape concerns, restrictive behaviors) (89.5%).
Screening should be implemented in clinical settings where GLP-1RAs are prescribed, including primary care settings (94.7%).
Positive screens should lead to referral to an ED specialist, increased monitoring, patient education and/or treatment modification, based on symptom severity (92.1%).
GLP-1RAs should generally be avoided in individuals with active EDs, particularly anorexia nervosa (AN), atypical AN, and bulimia nervosa (BN) with marked dietary restraint and/or significant weight suppression. Clinicians should also proceed cautiously in patients with a past history of these EDs (100%).
All individuals receiving GLP-1RAs should be monitored for physical and psychological signs of an ED during treatment and following treatment, should medication discontinuation occur (84.2%).
Tailor monitoring intensity based on baseline screening results, with adjustments for emerging risks, such as extreme appetite loss (97.4%).
Monitor variables such as ED psychopathology, weight loss rate, nutrition, hunger/satiety, vital signs, mood, and quality of life (86.8%).
If ED symptoms are identified, provide psychoeducation, refer to an ED specialist, or consider discontinuing the GLP-1RA, based on symptom type and severity (92.1%).
Standardized educational materials on GLP-1RA treatment and EDs should be developed and disseminated for prescribers and patients (92.1%).
Base materials on peer-reviewed literature, treatment manuals, and professional association guidelines (92.1%).
Disseminate provider materials via quick guides, webinars, electronic medical record (EMR) integration, and training, such as continuing education credits (89.2%).
Provide patient materials through accessible formats such as videos, handouts, apps, and moderated support forums (89.5%).
Use social media to increase public awareness and counter predatory marketing (83.7%).
Provide psychoeducation on best practice dietary guidelines to prevent maladaptive restrictive behaviors, and on expected GLP-1RA effects that could increase risk of disordered eating, such as appetite suppression (86.8%).
Develop harm reduction strategies for remote prescribing, including ED screening and monitoring protocols (91.9%).
Individuals with diagnosed EDs who take GLP-1RAs should receive concurrent evidence-based psychotherapeutic interventions (81.6%).
Recommend evidence-based psychotherapy consistent with best practice guidelines (e.g., cognitive behavior therapy, dialectical behavior therapy) for those with full-threshold EDs (86.8%).
For at-risk patients, or sub-threshold EDs, offer interventions such as guided self-help, group therapy, telehealth, or dietitian counselling, in a stepped care approach (81.1%).
Encourage patient-driven intervention selection to enhance engagement and empowerment (86.5%).

GLP-1RA treatment.

Routine monitoring for EDs after GLP-1RA initiation

Consensus was reached (84.2%) for the following recommendation: *All individuals receiving GLP-1RAs should be monitored for physical and psychological signs of an ED during treatment and following treatment, should medication discontinuation occur*.

In those who disagreed with this recommendation (15.8%), the main reason for disagreement was concern that there is insufficient research on the prevalence of new-onset EDs following GLP-1RA initiation to justify monitoring of all individuals for disordered eating behaviors. There were also concerns regarding the increased burden on prescribers if all individuals taking GLP-1RAs have to be monitored.

Sub-recommendations included the following:

- *Tailor monitoring intensity based on baseline screening results, with adjustments for emerging risks, such as extreme appetite loss* (consensus: 97.4%). Specific monitoring practices, including the frequency of follow-up and parameters assessed, should be determined on the basis of each individual's baseline screening results, with heightened vigilance for those who screen positive for EDs or have a prior ED history. Monitoring should be adjusted in response to emerging concerns, such as rapid weight loss beyond what is expected for a particular agent (typically more than 1-2 pounds per week, though this varies by patient context[35]), which may signal developing ED symptoms. This individualized approach supports flexible yet consistent oversight, while facilitating early identification of new or recurrent ED presentations.
- *Monitor variables such as ED psychopathology, weight loss rate, nutrition, hunger/satiety, vital signs, mood, and quality of life* (consensus: 86.8%). Key variables to monitor include ED psychopathology through brief validated tools, rate of weight loss to distinguish therapeutic from potentially pathological weight changes, nutritional intake and hunger/satiety cues (accounting for expected therapeutic medication effects such as adaptive appetite reduction), and signs of physical health stability. Simplifying this list may be necessary in primary care settings to enhance feasibility, focusing on core indicators before escalating to specialists.

Table 2 Research recommendations for use of glucagon-like peptide-1 receptor agonists (GLP-1RAs) in the context of eating disorders (EDs), with percent agreement

Research should investigate the incidence, risk factors and outcomes of EDs in individuals using GLP-1RAs compared to non-users (100%).
Conduct longitudinal cohort studies, case-control studies, and electronic medical record (EMR) reviews to assess ED incidence and risk factors, such as psychiatric history and sociodemographic factors (100%).
Validate brief screening tools for detecting disordered eating in GLP-1RA users (97.4%).
Incorporate neuroimaging and genetic studies to explore GLP-1RA's neurobiological effects on ED psychopathology (89.5%).
Compare GLP-1RA outcomes to other medications influencing eating behaviors to assess relative risk (92.1%).
Regulatory studies and policies should be developed to enhance patient safety in GLP-1RA prescribing practices (91.9%).
Create a national register to track GLP-1RA prescriptions and ED outcomes (73.7%).
Conduct case-control and cross-sectional studies to evaluate risks from telehealth or compounded GLP-1RA prescriptions (86.1%).
Analyze Internet searches and social media for off-label use and predatory marketing trends (94.7%).
Establish guidelines for referring patients to obesity or ED specialists based on screening and monitoring outcomes (94.6%).
Clinical trials should be conducted to investigate the safety, efficacy, and psychological outcomes of GLP-1RAs in individuals with binge eating disorder (BED) (100%).
Incorporate monitoring in trial designs to assess BED-specific outcomes, including frequency of binge episodes, "food noise", and maladaptive dietary restriction (100%).
Include physiological measures (e.g., weight loss rate, liver function, loss of menses) and laboratory parameters to evaluate safety and adverse events (97.4%).
Investigate psychological mechanisms, such as the drive behind binge-eating behaviors and their relationship to GLP-1RA treatment outcomes, using validated tools (100%).
Examine neurobiological (e.g., neuroimaging, genetics) and behavioral effects of GLP-1RAs on BED psychopathology (94.7%).
Compare GLP-1RA effects to other medications impacting BED (e.g., topiramate, lisdexamfetamine) to assess relative efficacy and durability post-discontinuation (94.7%).
Investigate combining GLP-1RAs as an adjunct to evidence-based psychotherapies for BED (94.7%).

- *If ED symptoms are identified, provide psychoeducation, refer to an ED specialist, or consider discontinuing the GLP-1RA, based on symptom type and severity* (consensus: 92.1%). Consideration of discontinuing GLP-1RAs should be balanced against the potential medical benefits of continued use. Some experts noted that decisions about discontinuation should be collaborative and individualized, recognizing the challenges of distinguishing between therapeutic medication effects (e.g., adaptive restrained eating and controlled weight loss) and emergent ED symptoms.

Development of educational materials

Consensus was reached (92.1%) for the following recommendation: *Standardized educational materials on GLP-1RA treatment and EDs should be developed and disseminated for prescribers and patients*.

In those who disagreed with this recommendation (7.9%), the main reason for disagreement was concern that there may not be sufficient research to support educational materials at this time. It was suggested by a small minority that the creation of materials should be delayed until there are additional data available. There was also an expressed concern that education may not be effective.

Sub-recommendations included the following:

- *Base materials on peer-reviewed literature, treatment manuals, and professional association guidelines* (consensus: 92.1%). Some experts noted that these resources remain limited and require ongoing updates as new evidence emerges. Suggestions were made to include psychosocial contributors to EDs, such as weight-based discrimination, that may influence GLP-1RA use.
- *Disseminate provider materials via quick guides, webinars, electronic medical record (EMR) integration, and training, such as continuing education credits* (consensus: 89.2%). Some experts cautioned against widespread dissemination until stronger evidence links GLP-1RAs with ED risk.
- *Provide patient materials through accessible formats such as videos, handouts, apps, and moderated support forums* (consensus: 89.5%). Some experts re-emphasized concerns that creating patient materials may be premature.
- *Use social media to increase public awareness and counter predatory marketing* (consensus: 83.7%). While there was some concern about creating an unduly negative view of GLP-1RAs, the importance of counterbalancing pharmaceutical marketing with evidence-informed perspectives was highlighted, supported by data showing social media's effectiveness for health information sharing[36].
- *Provide psychoeducation on best practice dietary guidelines to prevent maladaptive restrictive behaviors, and on expected GLP-1RA effects that could increase risk of disordered eating, such as appetite suppression* (consensus: 86.8%). Some experts emphasized that these guidelines should be individualized and trialed before broader dissemination.
- *Develop harm reduction strategies for remote prescribing, includ-*

ing ED screening and monitoring protocols (consensus: 91.9%). Although concerns were raised about feasibility in settings where objective measures such as body weight cannot always be verified, this recommendation was viewed as particularly important for rural populations where remote prescribing is routine.

Psychotherapeutic interventions for individuals with EDs receiving GLP-1RAs

Consensus was reached (81.6%) for the following recommendation: *Individuals with diagnosed EDs who take GLP-1RAs should receive concurrent evidence-based psychotherapeutic interventions*.

Those who disagreed with this recommendation (18.4%) noted that it should be considered good practice, but not serve as a barrier to accessing GLP-1RAs, given the extended wait-times for psychotherapies in some public ED services and cost of private therapy. Individuals would also need to consent to engage in such interventions. It was also argued that the research literature available to date may not be sufficient to support the recommendation.

Sub-recommendations included the following:

- *Recommend evidence-based psychotherapy consistent with best practice guidelines (e.g., cognitive behavior therapy, dialectical behavior therapy) for those with full-threshold EDs* (consensus: 86.8%). Guidelines from the American Psychological Association (APA)[37] and the UK National Institute for Health and Care Excellence (NICE)[38] should be consulted. As previously mentioned, GLP-1RAs should generally be avoided in individuals with active EDs, particularly AN, atypical AN, and BN with marked dietary restraint and/or significant weight suppression.
- *For at-risk patients, or sub-threshold EDs, offer interventions such as guided self-help, group therapy, telehealth, or dietitian counselling, in a stepped care approach* (consensus: 81.1%). For those considered at-risk or with sub-threshold or mild ED symptoms, a stepped care model was suggested (as per international ED guidelines), offering lower-intensity interventions[37,38].
- *Encourage patient-driven intervention selection to enhance engagement and empowerment* (consensus: 86.5%). The recommended psychotherapeutic interventions should be pursued collaboratively with the patient, to foster engagement, and be tailored flexibly according to available evidence-based options and individual needs.

Research recommendations (see Table 2)

Epidemiological research on GLP-1RAs and EDs

Consensus was reached (100%) for the following recommendation: *Research should investigate the incidence, risk factors, and outcomes of EDs in individuals using GLP-1RAs compared to non-users*.

Sub-recommendations included the following:

- *Conduct longitudinal cohort studies, case-control studies, and EMR reviews to assess ED incidence and risk factors, such as psychiatric history and sociodemographic factors* (consensus: 100%). Comments highlighted EMR under-reporting, inclusion of disordered eating and sub-threshold ED symptoms (i.e., conditions not meeting the full diagnostic criteria threshold), and long-term youth safety. The importance of matched samples and of establishing real-world comparator groups was emphasized.
- *Validate brief screening tools for detecting disordered eating in GLP-1RA users* (consensus: 97.4%). Some experts disagreed with the need for new instruments when existing ones might work. Supporters stressed tool adaptation for GLP-1RA-specific effects, drawing parallels to tools validated in other high-risk groups (e.g., the development of the Athletic Disordered Eating Screening Tool).
- *Incorporate neuroimaging and genetic studies to explore GLP-1RA's neurobiological effects on ED psychopathology* (consensus: 89.5%). Some experts expressed concerns over cost, feasibility, and limited clinical utility of this line of research.
- *Compare GLP-1RA outcomes to other medications influencing eating behaviors to assess relative risk* (consensus: 92.1%). Such comparative investigations were endorsed to gauge relative risks, such as an ongoing trial comparing tirzepatide to lisdexamfetamine (NCT06847399). Some experts expressed concerns that such research could unintentionally rationalize or justify the potential harms of these medications.

Regulatory studies for patient safety

Consensus was reached (91.9%) for the following recommendation: *Regulatory studies and policies should be developed to enhance patient safety in GLP-1RA prescribing practices*.

In those who disagreed with this recommendation (8.1%), the main reasons for disagreement were concerns related to insufficient evidence to justify new regulations at this time, and the risk of creating additional stigma or invasive monitoring for individuals taking GLP-1RAs.

Sub-recommendations included the following:

- *Create a national register to track GLP-1RA prescriptions and ED outcomes* (consensus: 73.7%). A national register was proposed to generate systematic data, though concerns were raised about feasibility, privacy, and data quality.
- *Conduct case-control and cross-sectional studies to evaluate risks from telehealth or compounded GLP-1RA prescriptions* (consensus: 86.1%). Such investigations were recommended to better understand risks associated with "low-threshold telepresCribing services", which may prioritize profit over proper assessment and distribute compounded products from questionable sources. Some experts questioned the feasibility of these study designs and data reliability.
- *Analyze Internet searches and social media for off-label use and predatory marketing trends* (consensus: 94.7%). Experts emphasized the potential of artificial intelligence tools for identifying patterns in online GLP-1RA discussions. Some noted challenges with this line of research due to ambiguity of language

and intent, demographic and cultural biases, and algorithmic misclassification.

- *Establish guidelines for referring patients to obesity or ED specialists based on screening and monitoring outcomes* (consensus: 94.6%). Referral guidelines were endorsed due to risk of GLP-1RAs triggering or worsening ED symptoms, although some experts raised concerns about the utility of such guidelines given current evidence gaps.

Clinical trials of GLP-1RA treatment in BED

Consensus was reached (100%) for the following recommendation: *Clinical trials should be conducted to investigate the safety, efficacy, and psychological outcomes of GLP-1RAs in individuals with BED*.

Sub-recommendations included the following:

- *Incorporate monitoring in trial designs to assess BED-specific outcomes, including frequency of binge episodes, "food noise", and maladaptive dietary restriction* (consensus: 100%). In addition to measuring binge-eating frequency, clinical trials should incorporate secondary BED-specific outcomes such as "food noise" (i.e., constant preoccupation with food-related decisions) and cognitive features, such as overvaluation of body shape and weight, using validated questionnaires tailored for this population (e.g., the Binge Eating Scale[39] or the Eating Disorder Examination-Questionnaire[33]). Some experts suggested specific study design considerations, such as stratifying individuals by the presence or absence of body shape/weight overvaluation as a potential mediating/moderating factor.
- *Include physiological measures (e.g., weight loss rate, liver function, loss of menses) and laboratory parameters to evaluate safety and adverse events* (consensus: 97.4%). These measures were recommended as part of safety and tolerability assessments.
- *Investigate psychological mechanisms, such as the drive behind binge-eating behaviors and their relationship to GLP-1RA treatment outcomes, using validated tools* (consensus: 100%). Some panelists recommended instruments such as the Binge Eating Scale and phenomenological approaches.
- *Examine neurobiological (e.g., neuroimaging, genetics) and behavioral effects of GLP-1RAs on BED psychopathology* (consensus: 94.7%). Some experts cautioned about feasibility, cost, and limited past translational benefit of these lines of research.
- *Compare GLP-1RA effects to other medications impacting BED (e.g., topiramate, lisdexamfetamine) to assess relative efficacy and durability post-discontinuation* (consensus: 94.7%). Some experts suggested building augmentation protocols and evaluating efficacy for BED symptoms alongside metabolic comorbidities.
- *Investigate combining GLP-1RAs as an adjunct to evidence-based psychotherapies for BED* (consensus: 94.7%). Although this was highlighted as a promising avenue for investigation, some experts urged for initial studies of GLP-1RA monotherapy and highlighted challenges with psychotherapy access.

DISCUSSION

This Delphi consensus study convened multidisciplinary experts to develop a series of clinical and research recommendations regarding the intersection of GLP-1RA treatment and EDs (consensus: ≥70% agreement). Given the widespread emergence of GLP-1RA use in clinical settings and the scant empirical evidence on risks to ED populations, these recommendations offer a framework to inform clinicians on expert perspectives and guide researchers to address the identified and prioritized knowledge gaps.

The recommendations focused on two distinct issues: a) the risk that GLP-1RAs may trigger new EDs or relapse in individuals receiving these medications for obesity or other metabolic conditions; and b) their potential therapeutic role in treating EDs, particularly BED and BN. The following sections expand on this consensus and propose the next logical steps for advancing GLP-1RA research and clinical care in ED populations.

Clinical implications

Screening

Despite logistical concerns regarding accessibility of follow-up interventions and provider burden, the consensus group strongly supported the implementation of screening for a current or prior ED before initiating GLP-1RA treatment. Overall, the consensus suggested the use of a brief screening instrument in all settings where a GLP-1RA is prescribed.

There have been several systematic reviews conducted on ED screening tools[40-43], and potential candidates include the Eating Disorder Screen for Primary Care (ESP)[34], the Eating Disorders in Obesity (EDO)[44], the Sick, Control, One stone, Fat, and Food (SCOFF) questionnaire[45], the Eating Disorder-15 (ED-15)[46], and the Short Evaluation of Eating Disorders (SEED)[47]. However, validation studies are needed to determine the utility of these instruments in the context of GLP-1RAs and ED populations, and/or to develop new instruments specific to this context.

To further improve the precision of ED screening, operationalizing ED risk criteria was recommended by experts, as there is currently no established categorical classification for level of ED risk or the recommended course of clinical action for each risk level. A risk-stratification approach could categorize individuals by the presence and severity of ED concerns, guiding actions from routine monitoring and education in low-risk cases, to specialist referral and closer follow-up for moderate risk, and potential delay of GLP-1RA initiation pending urgent assessment in high-risk situations. This framework requires further development and validation before routine clinical use.

Monitoring

A small minority of experts critiqued the recommendation to

implement monitoring of ED risk after GLP-1RA initiation, due to the perceived burden, which may be disproportionate when considering the lack of empirical evidence on the topic. The current literature on GLP-1RA-mediated ED risk is largely based on case reports, though consensus was achieved for this recommendation due to the clear theoretical risk to ED populations[28-30,48].

Similar to screening, exploring stratification by risk is suggested, in which intensity of monitoring should be adjusted based on clinical factors (e.g., baseline ED risk, emergent psychopathology, rate of weight loss, ED type), and the clinical setting (e.g., essential core monitoring in general practice vs. more comprehensive monitoring in specialist clinics). Future work is needed to operationalize ED risk criteria (e.g., maladaptive dietary restriction and weight loss), validate tools to identify ED risk, and develop treatment protocols for each monitoring outcome.

Educational materials

The concern for insufficient evidence of risk related to GLP-1RAs and EDs extended to the development of educational materials for prescribers and individuals taking these medications. However, the consensus suggests that standardized educational materials should be disseminated to provide balance for pervasive pharmaceutical marketing and the proliferation of misinformation on social media amid rising off-label use[49-51].

Evidence for the effectiveness of educational materials in health care remains mixed, and efforts are needed to develop effective resources to promote comprehensive care, health literacy, and reduced risks to GLP-1RA users[52-55]. Several recent recommendations on nutritional strategies for GLP-1RA treatment offer valuable insights to lead the development of dietary guidelines and related educational materials in ED contexts (e.g., nutritional monitoring and support to mitigate malnutrition/dehydration[56-59]).

Psychotherapy

Experts recommended evidence-based psychotherapies such as cognitive behavior therapy, per established clinical guidelines [60,61], for individuals with diagnosed EDs receiving GLP-1RAs, with the key exception that GLP-1RAs should be generally avoided in individuals with AN, atypical AN, and BN with marked dietary restraint and/or significant weight suppression.

However, some experts noted limitations related to access to psychotherapy in the context of GLP-1RA treatment. As per international guidelines, a stepped care model may offer accessible options to treat mild-moderate EDs (e.g., self-help, group psychotherapy, brief or focused psychotherapies)[62,63], addressing some access barriers noted by experts in disagreement[64,65].

Further, there is evidence to suggest that patient-centered treatment selection may enhance therapeutic outcomes. Research across diagnostic categories suggests that, when individuals select their own treatment from evidence-based options, drop-out is lowered, therapeutic alliance is strengthened, and some symptom-level outcomes are improved[66,67]. However, studies on this topic within ED populations are limited to date, and have mixed results[68,69].

Research directions

Epidemiological research on GLP-1RAs and EDs

To advance clinical care and fill the aforementioned gaps in clinical recommendations, several research areas were recommended by experts. First, epidemiological investigations on the relationships between GLP-1RA treatment and EDs are needed to clarify incidence, risk factors, and outcomes, including sub-clinical symptoms and population-level factors. Moreover, psychometric development and validation studies are needed for screening and monitoring ED symptoms/diagnoses in the context of GLP-1RA treatment.

Drug regulation

While a minority of experts considered regulatory investigations premature, the majority agreed that such studies are important, particularly in contexts with potential risks, such as "low-threshold tele-prescribing services". National registers for outcome tracking, such as the US National Cardiovascular Data Registry, are suggested to inform regulatory initiatives and contribute to large-scale predictive analyses[70].

Further, online analyses of predatory marketing (e.g., artificial intelligence-driven social media scans) may contribute to risk awareness, although there are concerns regarding data biases and causality gaps[71].

BED clinical trials

The majority of empirical evidence for GLP-1RA treatment in EDs is the result of preliminary studies in BED, with one phase 2 placebo-controlled trial currently underway comparing tirzepatide to placebo and lisdexamfetamine (NCT06847399). We recommend conducting clinical trials with long-term follow-ups and, beyond binge-eating episodes frequency, to measure psychological outcomes relevant to EDs (e.g., maladaptive dietary restraint and internalized weight stigma)[28,48]. The incorporation of physiological assessments, neurobiological measures, and genetic risk scores is also suggested.

With inconsistent GLP-1RA pilot data currently available in EDs, such clinical trials may help bridge empirical gaps for refining clinical guidelines.

Limitations

The Delphi consensus panel members were not representative of all experts, and participants had varying levels of involvement across different stages of recommendation development. Al-

though the 70% consensus threshold was selected based on commonly cited Delphi methodologies, no standardized threshold exists[72]. A higher threshold may have strengthened consensus by prompting additional rounds of rating and discussion.

In addition, these recommendations may not be applicable to every clinical scenario, due to individual variability, provider burden, and practice constraints. Health care professionals should exercise clinical judgment. Importantly, the recommendations focus on GLP-1-based medications. Novel non-GLP-1 weight-loss compounds are in development, and future research will need to examine their mechanisms of action and potential roles in ED onset or relapse.

The recommendations presented herein may change as new evidence emerges regarding relationships between weight-loss pharmacotherapies and EDs. Therefore, as emphasized by the consensus panel, ongoing work is needed to validate and update these recommendations and the corresponding clinical and research practices.

CONCLUSION

The current Delphi consensus provides a series of expert-informed clinical and research recommendations for the use of GLP-1RAs in ED contexts. The recommendations focus on screening, monitoring, education, and psychotherapy, as well as epidemiological and regulatory research, and advanced clinical trial design in BED.

These recommendations are expected to evolve alongside emerging evidence, aiming to promote the weighing of potential benefits against risks in the use of GLP-1RAs in ED populations.

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