Digital Platforms as Emerging Sources of Medical Information



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Social media now drives health trends worldwide, with Tiktok and Instagram reaching millions each day and shaping how people seek medical information. 1,2,3,4 Medical information previously available via a clinical visit is now accessible within seconds through trending videos, influencer endorsements, and algorithm-driven recommendations. 5,6 While the accessibility of information has empowered patients to become more engaged in their health, it has also created significant exposure to misinformation, unregulated products, and unsafe practices. 7,8

For Clinicians, this shift presents a dual challenge. On one hand, clinicians are encountering patients who arrive better informed, motivated, and eager to discuss new therapies. On the other, they must navigate a clinical environment where misinformation directly intersects with care decisions, particularly around highly publicized products such as GLP-1 receptor agonists for weight loss and counterfeit botulinum toxin marketed as low-cost cosmetic injectables. 11,12,13,14 By understanding the drivers of these trends and their clinical risks, clinicians can proactively guide patients toward safe, evidence-based care while addressing the equity barriers that shape access to treatment. 15

GLP-1 Receptor Agonists (semaglutide, tirzepatide)

GLP-1 receptor agonists including semaglutide (Ozempic, Wegovy) and tirzepatide (Mounjaro, Zepbound are among the most visible medications on social media because of their robust weight-reduction outcomes. 16, 17 The FDA has issued warnings about counterfeit and unapproved formulations marketed online, as well as safety concerns with compounded versions. 18 Some compounded products use semaglutide salt forms (e.g., sodium or acetate) that differ chemically from the FDA-approved active pharmaceutical ingredient, raising questions about potency and safety. 19 Reports of variable concentrations, inconsistent dosing, and impurities underscore the potential for underdosing, overdosing, or toxic reactions. 20, 21

Clinicians should advise patients to obtain GLP-1 receptor agonists exclusively from licensed pharmacies and discourage use of compounded formulations unless a documented shortage exists and compounding complies with state and federal requirements.²²

Suspected counterfeit or substandard products should be reported promptly to FDA MedWatch.²³

Counterfeit Botulinum Toxin Products

Cosmetic injectables such as botulinum toxin are increasingly marketed via social media, where 'before and after' videos, influencer endorsements, and discount promotions normalize cosmetic procedures and downplay associated risks. ²⁴ This environment has fueled demand for non-medical access, with patients seeking procedures at "Botox parties", unlicensed spas, or home settings. ²⁵

The CDC has reported multiple cases of systemic botulism-like illness associated with counterfeit botulinum toxin injections from nonmedical sources. ²⁶ Patients developed symptoms such as ptosis, diplopia, dysphagia, dysphonia, and progressive muscle weakness, with some progressing to respiratory distress requiring hospitalization and antitoxin therapy. ^{27,28,29} These presentations are similar to those of foodborne or wound botulism and require early recognition by clinicians ³⁰ A retrospective analysis further noted that more than half of cosmetic iatrogenic botulism cases were classified as moderate to severe, with nearly half requiring inpatient care. ³¹

Clinicians should emphasize to patients that counterfeit injectables pose life-threatening risks. Counseling points should include:

- Injections must be FDA-approved and obtained from legitimate distributors.
- Procedures should only be performed by licensed professionals in clinical settings. Suspiciously low prices or home-based services are strong indicators of counterfeit or diluted products.³²

Providers are encouraged to ask directly about cosmetic procedures obtained outside of medical offices and report adverse events to <u>WA state health department</u> or <u>FDA MedWatch</u>.³³

Equity Implications

Although social media has created a surge in demand for GLP-1 receptor agonists and cosmetic injectables, access is limited to those who can afford it and have the insurance to cover costs.⁴⁷ Patients with lower incomes, Medicaid coverage, or those from historically marginalized communities may have limited access to legitimate prescriptions, increasing the temptation to pursue unregulated compounded or counterfeit alternatives marketed online.^{48,49} This creates disproportionate risks for populations already facing barriers to obesity care and chronic disease management.^{50,51}

Similarly, counterfeit botulinum toxin is frequently advertised on platforms targeting younger and cost-conscious audiences, who may be unable to afford FDA-approved procedures from licensed professionals. Women and communities of color are often targeted by beauty and body-enhancement marketing, compounding inequities in health risk exposure. Significantly approximately advertised on platforms targeting younger and cost-conscious audiences, who may be unable to afford FDA-approved procedures from licensed professionals. Significantly advertised on platforms targeting younger and cost-conscious audiences, who may be unable to afford FDA-approved procedures from licensed professionals. Significantly advertised on platforms targeting younger and cost-conscious audiences, who may be unable to afford FDA-approved procedures from licensed professionals. Significantly advertised by beauty and body-enhancement marketing, compounding inequities in health risk exposure.

These disparities highlight the importance of patient-centered and culturally responsive counseling. Providers should acknowledge cost barriers openly, connect patients with legitimate assistance programs when available, and caution against unsafe alternatives.⁵⁴ Emphasizing safety, while avoiding stigma, may encourage patients to disclose use of unregulated products, allowing for timely intervention and harm reduction.⁵⁵

Clinicians can safeguard patients, promote equitable care, and strengthen trust by staying abreast of new social media trends, being ready to offer clear and evidence-based guidance and address the equity barriers that shape access to safe healthcare. ^{56,57,58} Evidence indicates that when accurate information is provided by healthcare professionals through social media channels, patient adherence and treatment outcomes improve significantly. ⁵⁹

Endnotes for this artical can be found on page 18

Additional Resources

- FDA MedWatch & Safety Reporting Portal: For reporting adverse drug or supplement events; educational webinars on counterfeit drugs (fda.gov/medwatch).
- Washington Poison Center: 24/7 consultation line (1-800-222-1222) and clinician/patient resources (<u>wapc.org</u>).
- Washington State Department of Health (DOH): Offers integrative health guidance, medication safety alerts, and continuing education (doh.wa.gov).
- Washington Medical Commission (WMC): Provides CME on safe prescribing, patient safety, and equity; reporting tools for unsafe practices (wmc.wa.gov).
- University of Washington School of Medicine CME: Accredited CME offerings in integrative medicine, toxicology, and prescribing (<u>uwcme.org</u>).
- Northwest Center for Public Health Practice (NWCPHP): Training in health equity, public health law, and emerging clinical issues (nwpublichealth.org).

New Educational Video Series on Physician Professional Boundaries Offers Free CME

The FSMB, the FSMB Foundation, and the AIM Foundation are proud to announce the release of a new, free educational video series designed to promote professionalism and ethical standards in medicine by exploring the critical topic of physician professional boundaries.

This innovative series, now available online, features concise, scenario-based videos depicting real-world challenges physicians may face in maintaining appropriate boundaries with patients. The series guides viewers through three common situations where boundaries may become blurred:

- Writing prescriptions for friends and family
- Pursuing inappropriate romantic relationships with patients, their guardians, or key third parties
- Conducting intimate examinations without clear communication and patient consent

More information about CME accreditation and this series can be found on the FSMB website.

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