

HEALTH INFLUENCERS AND OTC SELF-MEDICATION AMONG YOUNG ADULTS: A NARRATIVE REVIEW

Saanvi Mehta^{1*}

^{1*}Independent Researcher - Alpha MD 315, Balgovind Wadi, New Prabhadevi Road, Prabhadevi, Mumbai – 400025

ABSTRACT

Young adults often use social media to find health information. Health influencers are now common sources of advice about symptoms, medicines and self-care. This can improve access to information. It can also expose users to unsupported claims, paid promotion and inappropriate medicine use. This narrative review examines how influencer content may affect over-the-counter (OTC) self-medication among young adults. The paper takes in consideration the policy implications within the Indian subcontinent to review the rules and guidelines in relevance and fast changing context.

This paper unpacks the patterns of information-seeking young adults on digital health, rise of health influencers on social platforms and the opportunities and risks linked to influencer-driven communication. From a policy point of view, the paper examines Indian regulations on medicines, advertising, consumer protection and professional conduct addressing emerging regulatory gaps.

Direct evidence of changes in OTC medicine use remains limited. Clearer rules for digital promotion, better disclosure of paid content and stronger digital health literacy may help young adults make safer decisions about OTC medicines.

KEYWORDS: Social media influencers; over-the-counter medicines; self-medication; young adults; pharmaceutical policy; digital health communication; digital health literacy.

1. INTRODUCTION

Social media now plays a substantial role in how health information is created, shared and discussed. Platforms such as Instagram, TikTok, YouTube, Facebook and Reddit have evolved very rapidly from their original purpose of social networking and entertainment to become important sources of news and health-related content. This shift is evident in the United States where approximately 61% of adults search online for health-related information and 39% use social media platforms for this purpose. Healthcare institutions have followed suit; for instance, roughly 45% of Norwegian and Swedish hospitals maintain a presence on LinkedIn, while 22% of Norwegian hospitals utilize Facebook for health communication. The demographic of these social media users leans heavily towards the younger population, primarily falling between the ages of 11 and 34 years (Moorhead et al., 2013). Young adults are increasingly turning to these platforms just by quickly searching to learn about symptoms, medicines, nutrition, fitness and general well-being because of their accessibility and engaging content formats (Moorhead et al., 2013; Farsi, 2021). Although patterns of platform use have changed considerably since those studies were conducted we see that over time there is an increasing influence of social media which is changing rapidly.

Within this evolving digital environment, health influencers have become increasingly important sources of health information. Through social media, they can influence how followers understand health information, evaluate treatment options and make everyday decisions about medicine use (Engel et al., 2024; Rubinelli, 2025). Health influencers differ in their qualifications and reasons for posting. Some are doctors, pharmacists, nurses or dietitians. Others are patients, fitness creators, wellness coaches or celebrities. Research on influencer communication reports mixed effects on health-related attitudes and behavioural intentions (Kaňková et al., 2025). There still remains a gap in research to know if posted content has changed buyer attitudes towards OTC medication.

Ventola (2014) has flagged concerns about healthcare professionals' use of social media that it is not the strongest source for perceived authenticity and influencer credibility. These recommendations often extend beyond lifestyle advice to influencing specific healthcare decisions, including the use of over-the-counter (OTC) medicines and dietary supplements. Some studies have found an association between digital information and self-medication. In an Indian community survey, 56.8% of 300 respondents obtained self-medication information from media sources. These sources included searching on Google, Instagram and television (Ephrem et al., 2022). The sample included several age groups, so it was not limited to young adults. A survey of 330 university students aged 18–29 in Pakistan also reported an association between social-media health information and self-medication (Baig et al., 2025). Neither study established that social media or influencer content caused the use of specific medications. This is where the gap in understanding “influenced consumers” remains unfilled.

Among young adults, self-medication commonly includes painkillers, antibiotics and other medicines used to manage minor symptoms, although reported products and prevalence vary considerably between studies (Siva et al., 2025). Vitamins and dietary supplements are also used for perceived health maintenance and nutritional support (Bailey et al., 2013). Responsible self-medication can support self-care, but inappropriate use can cause adverse reactions, interactions, incorrect treatment and delays in seeking professional advice (WHO, 2000).

The COVID-19 pandemic further accelerated this trend. During lockdowns and restricted access to healthcare services, social media became an important medium for public-service information (PSI/PSA) about disease prevention, home remedies and vaccinations. A systematic review covering 14 countries estimated a pooled prevalence of COVID-19-related self-medication of 44.9%. Antibiotics were reported as self-medication agents at 79% of the included studies and vitamins at 64% (Ayosanmi et al., 2022). Social media platforms further aided the rapid spread of misinformation. This “re-sharing” of content by influences on what the World Health Organization described as an infodemic, in response to which they published a competency framework to help health institutions develop the workforce and skills needed to monitor information, respond to misinformation and strengthen long-term infodemic-management capacity (World Health Organization, 2021b).

Existing reviews have largely examined social-media health communication, health influencers and self-medication as separate areas (Moorhead et al., 2013; Chen & Wang, 2021; Baracaldo-Santamaría et al., 2022; Kaňková et al., 2025). To our knowledge, few reviews have brought these areas together to consider how influencers may shape OTC medicine use among young adults and what policies are regulating this use.

2. Digital Health Information-Seeking Among Young Adults

Young adults use and have access to multiple mediums of online sources when looking for health information. A scoping review of 32 studies found that search engines and social media were the two main entry points. Government and other trusted health websites, online health portals, forums and online communities were also used (Stifjell et al., 2025).

Health information on social media may be found deliberately through actively searching or by chance while randomly browsing. Recommendation systems affect this process because platforms select some of the content shown to users and repeatedly engage with such content. Lim et al. (2022) studied 165 Australian young adults aged 18–24 years in the year 2017. Participants used YouTube to search for advice and instructions. It was noticed that they also encountered videos recommended from their earlier searches. Facebook often exposed them to posts, advertisements and group content while they were scrolling. Instagram was used mainly for fitness and wellness content in forms of short and quick content. Some participants checked several YouTube videos or used Google when they could not find the information they needed. If these findings came from one Australian sample and raises the question, of what impact do these platforms have on the Indian diaspora?

Social media is also used for purposes other than answering a specific health question. In a systematic review of 544 papers, Chen and Wang (2021) found that members of the public used social media to seek and share health information, receive support through online communities and record or share health related activities. Though this review examined the general public rather than young adults alone, it still provides background on social media use and the influence in the community.

Easy access to information does not mean that the information is reliable. Social media content may be unreferenced, incomplete, informal or based mainly on personal experience (Ventola, 2014). Zhang et al. (2015) reviewed 165 studies that evaluated online consumer health information. These studies assessed the quality of the content posted online which includes its accuracy and completeness, as well as the design of the website or platform. The review found that information quality differed across health subjects and websites and remained a concern. This further takes us towards what are the policies that is controlling uniformity in information sharing and in preventing the spread of misinformation.

3. Health Influencers as Emerging Health Communicators

Once health content appears in a search result or social media feed, users must decide whether to trust the person posting it. Health influencers differ in their training, experience and reasons for posting. Kaňková et al. (2025) reviewed 116 empirical papers on health-related influencer communication. The studies reported both positive and negative effects on followers’ attitudes and behaviours. However, the evidence did not show that all influencers or all forms of influencer content have the same effect.

Patient influencers are one group within this wider category. Willis and Delbaere (2022) describe patients who share information, personal experiences and support related to an illness or its treatment based not on professional education. Some patient advocates also work with pharmaceutical companies or health brands to promote products or services due to popularity or as brand ambassadors. Their lived experience may help other patients understand treatment issues or understand procedures. However, a commercial relationship may affect what is discussed and how it is presented. Unlike traditional health education, influencer communication is rarely presented as formal advice. Instead, health messages are woven into everyday life it may look like an informal and exciting “selling” of vitamins appearing alongside a morning routine. Even skincare products may be introduced during a daily vlog as “get ready with me” bits and recommendations for supplements may accompany fitness or travel content. This style of communication makes health information feel familiar and relatable but may not be suitable for all.

This is where commercial content also becomes difficult to separate from personal advice. Willis and Delbaere (2022) note that influencer marketing can blur the boundary between paid promotion and other public statement health communication. They also report that its effect on medical decision-making remains unclear supporting the claims made by Kaňková. They also identified sponsorship and lack of credibility as reasons to question the information being shared (Pfender & Bleakley, 2024). This distinction matters when considering OTC self-medication. A change in attitude or intention is not the same as buying or using a medicine.

4. Influence of Social Media on OTC Self-Medication: Opportunities and Challenges

Trust becomes important when health information leads to a decision about medicine use. In this review, self-medication refers to choosing and using a non-prescription medicine for a self-recognised symptom without consulting a prescriber. The WHO (2000) describes responsible self-medication as the appropriate use of safe, non-prescription medicines for self-recognised symptoms. It can help people manage minor conditions and may reduce demands on healthcare services. However, incorrect diagnosis, unsuitable doses, prolonged use and drug interactions can cause harm (Hughes et al., 2001). A content analysis of 220 TikTok videos about sinusitis reported differences in information quality. Among educational videos, 46.7% of those posted by non-medical influencers were classified as truthful. The equivalent figure for videos posted by medical professionals was 83.7% (Dimitroyannis et al., 2024). The study assessed the quality of the information. It did not examine whether viewers used medicines after watching the videos. Algorithms can also increase the reach of unreliable content after it begins circulating (Denniss & Lindberg, 2025).

The available evidence therefore presents both an opportunity and a risk. Social media can provide useful medicine education, but it can also expose users to unsupported claims, incomplete information and promotion that is not clearly identified. Current studies support an association between digital information and self-medication, but they do not establish a causal link between viewing an influencer's post and using an OTC medicine. This distinction is important for policy implementation. Regulations must address information quality, commercial disclosure and the responsibility of content creators without assuming that every influencer post leads directly to inappropriate medicine use.

5. Pharmaceutical Policy and Regulatory Implications: Strengthening Governance of Influencer-Led OTC Self-Medication in India

As we progress, it is necessary to review the regulations and how medicine promotion has moved onto social media faster than the relevant Indian rules have been updated. Existing frameworks regulate medicines, advertising, endorsements and professional conduct, but they do not always state how their requirements apply to influencers or platform-based promotion (Advertising Standards Council of India [ASCI], 2025; Central Consumer Protection Authority [CCPA], 2022; Department of Pharmaceuticals, 2024).

The Drugs and Cosmetics Act, 1940, and the Drugs Rules, 1945 form the main legal framework for drug regulation in India. Medicines listed in Schedules H, H1 and X cannot be sold by retail without a prescription from a registered medical practitioner (Central Drugs Standard Control Organisation [CDSCO], 2024). These schedules regulate the sale and labelling of prescription medicines. They should not be described as the main legal source for regulating drug advertising. The current framework also does not provide a separate general category of OTC medicines, although the creation of such a category has previously been considered by the Drugs Consultative Committee (CDSCO, 2017, 2024). We see a rise in food influencers who have been encouraging viewers to read the labels before purchasing a product. This seems necessary even in purchasing medicines where the rate of reading the pamphlet even for repeated users.

Medicine advertising is addressed through other instruments. The Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954 prohibits advertisements for certain diseases and misleading advertisements relating to drugs. However, it does not expressly address influencer sponsorship, disclosure labels or the responsibilities of social media platforms. The Consumer Protection Act, 2019 and the CCPA's 2022 guidelines provide additional protection against misleading advertisements and endorsements. Endorsers are required to exercise due diligence, and the CCPA may order a misleading advertisement to be changed or discontinued and may impose penalties (Central Consumer Protection Authority [CCPA], 2022; Government of India, 2019).

Table 1. Indian bodies relevant to influencer-led medicine communication

Body or framework	Role	Remaining issue
CDSCO and state drug regulators	Regulate drug approval, quality, labelling and sale.	No separate general OTC category or specific influencer guidance.
Department of Pharmaceuticals and UCPMP 2024	Regulate pharmaceutical marketing by companies and those acting on their behalf.	Influencers and platform recommendation systems are not specifically named.
CCPA	Acts against misleading advertisements and endorsements.	Paid promotion can be difficult to identify when presented as personal experience.
ASCI	Provides disclosure and qualification rules for influencers.	It is a self-regulatory rather than a statutory body.
NMC and PCI	Set professional standards for doctors and pharmacists.	Existing rules give limited detail on sponsorship and social media activity.

Note: ASCI (2025); CCPA (2022); CDSCO (2017, 2024); Department of Pharmaceuticals (2024); Government of India (1940, 1954, 2019); Medical Council of India (2002); National Medical Commission (2023); and Pharmacy Council of India (2015). The final column presents the authors' interpretation of the gaps in the cited frameworks.

Professional regulation also requires careful interpretation. The NMC's 2023 Professional Conduct Regulations were held up. The Indian Medical Council Regulations, 2002 were made operative again until further notification (National Medical Commission, 2023). The 2002 code prohibits doctors from using their names, photographs or professional positions to endorse medicines and commercial products. The Pharmacy Practice Regulations, 2015 address professional conduct,

patient counselling and safe medicine use. They do not set out detailed rules for pharmacists who promote or discuss medicines through sponsored social-media content (Pharmacy Council of India, 2015).

Based on these gaps, clearer guidance is needed on when influencer content is treated as pharmaceutical advertising, what evidence is required for OTC medicine claims and who is responsible when such claims are misleading. A defined process for referring complaints between CDSCO, state drug regulators, the CCPA and ASCI would also help avoid uncertainty. The NMC and PCI could provide more specific guidance for doctors and pharmacists who discuss or promote medicines online. These are recommendations arising from the present review rather than requirements already contained in the cited regulations.

6. Future Research Directions and Emerging Challenges

Most studies examine online content, attitudes, intentions or self-reported behaviour. They do not show whether influencer exposure causes young adults to use OTC medicines (Kaňková et al., 2025). Indian studies should measure actual medicine purchase and use. Longitudinal and experimental research could examine medicine selection, dosage, duration of use and decisions to seek professional advice.

Willis et al. (2023) interviewed 26 patient influencers who discussed prescription medicines and chronic conditions. The findings cannot be applied directly to OTC self-medication. Similar research is needed on non-prescription medicines. Studies should also examine whether sponsorship labels help young adults identify advertising and whether these labels change trust or medicine-related decisions.

AI-generated or altered health content requires separate study. Propfe and Seifert (2026) used detection software to examine semaglutide posts. The software assigned an average probability of AI modification of 61.9% to the Instagram material and 51.6% to the TikTok material. These values indicate possible modification rather than proof. The study also concerned a prescription medicine. Future research should examine whether users recognise AI-generated or altered medicine content and whether disclosure labels affect trust.

Sponsored content requires similar attention. Influencer posts may combine personal experience with paid promotion, making the commercial purpose less obvious. Existing research has called for closer study of influencer compensation, disclosure practices and the effect of these disclosures on audiences (Willis & Delbaere, 2022; Willis et al., 2023). Studies should compare clearly labelled advertisements with posts that do not disclose a commercial relationship and assess whether young adults interpret them differently.

Future work should therefore focus on actual OTC medicine behaviour rather than general attitudes alone. Indian studies could compare healthcare-professional and non-professional influencers, paid and unpaid content, and different social media platforms. Researchers should also report the medicine involved, the type of influencer, the age of participants and whether the outcome was an intention or an actual behaviour. Consistent reporting would make studies easier to compare and would provide stronger evidence for future policy decisions.

7. CONCLUSION

Young adults encounter information about symptoms, OTC medicines and self-care through social media. Health influencers may affect attitudes and intentions, but direct evidence that their content causes OTC medicine use remains limited. The source, supporting evidence and commercial purpose of a post all affect its reliability. More recently, social media's patterns on self-medication has shifted to even home deliveries and services which include I V drip therapies. Such "at-home" services that are made available as trends within 30 minutes without understanding the needs of the patient are just simple examples of how the influencer mindset is also changing rapidly.

Influencer-led health communication should not be treated as entirely beneficial or harmful. Doctors and pharmacists can use social media to explain medicine use and correct false claims. In contrast, unverified recommendations and sponsored content may make it difficult for users to separate evidence from personal opinion or advertising. The effect of influencer content therefore depends on the source, the information provided and whether commercial relationships are clearly disclosed.

The literature reviewed indicates that influencer content can affect medicine-related attitudes and intentions. Direct evidence showing that this exposure causes young adults to use OTC medicines remains limited (Kaňková et al., 2025). Studies based in India are also limited. Future research should examine actual medicine use, compare healthcare-professional and non-professional influencers and use designs that can measure changes over time. Research is also needed on how users respond to AI-generated or altered health content.

India already has rules covering drug sales, pharmaceutical marketing, misleading advertisements, endorsements and professional conduct. However, no single framework covers the full process through which influencers discuss or promote OTC medicines. Clearer responsibilities are needed for pharmaceutical companies, influencers and social media platforms (Advertising Standards Council of India, 2025; Central Consumer Protection Authority, 2022; Department of Pharmaceuticals, 2024).

Social media should therefore be treated as part of the environment in which medicine decisions are made. Its educational value should be supported, while misleading promotion and unsupported medicine claims should be addressed. Clear regulation, reliable evidence and the involvement of qualified healthcare professionals can help young adults make safer decisions about OTC medicines.

REFERENCES

1. Advertising Standards Council of India. (2025). Guidelines for influencer advertising in digital media. <https://www.ascionline.in/social/wp-content/uploads/2025/04/ASCI-Influencer-Guidelines.pdf>

2. Ayosanmi, O. S., Alli, B. Y., Akingbule, O. A., Alaga, A. H., Perepelkin, J., Marjorie, D., Sansgiry, S. S., & Taylor, J. (2022). Prevalence and correlates of self-medication practices for prevention and treatment of COVID-19: A systematic review. *Antibiotics*, 11(6), 808. <https://doi.org/10.3390/antibiotics11060808>
3. Bailey, R. L., Gahche, J. J., Lentino, C. V., Dwyer, J. T., Engel, J. S., Thomas, P. R., Betz, J. M., Sempos, C. T., & Picciano, M. F. (2013). Why US adults use dietary supplements. *JAMA Internal Medicine*, 173(5), 355–361. <https://doi.org/10.1001/jamainternmed.2013.2299>
4. Baig, M. (2025). Social media use for health-related information and self-medication practices among youth: Cognitive dissonance perspective.
5. Baracaldo-Santamaría, D., Trujillo-Moreno, M. J., Pérez-Acosta, A. M., Feliciano-Alfonso, J. E., Calderon-Ospina, C. A., & Soler, F. (2022). Definition of self-medication: A scoping review. *Therapeutic Advances in Drug Safety*, 13, 1–14. <https://doi.org/10.1177/20420986221127501>
6. Central Consumer Protection Authority. (2022). Guidelines for prevention of misleading advertisements and endorsements for misleading advertisements, 2022. Department of Consumer Affairs, Government of India. <https://ccpa.doca.gov.in/guidelins.php>
7. Chen, J., & Wang, Y. (2021). Social media use for health purposes: Systematic review. *Journal of Medical Internet Research*, 23(5), e17917. <https://doi.org/10.2196/17917>
8. Denniss, E., & Lindberg, R. (2025). Social media and the spread of misinformation: Infectious and a threat to public health. *Health Promotion International*, 40(2), daaf023. <https://doi.org/10.1093/heapro/daaf023>
9. Department of Pharmaceuticals. (2024). Uniform Code for Pharmaceutical Marketing Practices (UCPMP) 2024. Ministry of Chemicals and Fertilizers, Government of India. <https://pharma-dept.gov.in/important-document/uniform-code-pharmaceutical-marketing-practices-ucpmp-2024-reg>
10. Devanaboyina, N., & Khatri, V. (2026). The influence of social media on dietary supplement use: A rapid review. *International Journal of Community Medicine and Public Health*, 13(6), 3133–3140.
11. Dimitroyannis, R., Fenton, D., Cho, S., Nordgren, R., Pinto, J. M., & Roxbury, C. R. (2024). A social media quality review of popular sinusitis videos on TikTok. *Otolaryngology–Head and Neck Surgery*, 170(5), 1456–1466. <https://doi.org/10.1002/ohn.688>
12. Engel, E., Gell, S., Heiss, R., & Karsay, K. (2024). Social media influencers and adolescents' health: A scoping review of the research field. *Social Science & Medicine*, 340, Article 116387. <https://doi.org/10.1016/j.socscimed.2023.116387>
13. Ephrem, A., Thomas, S. E., Ravindran, S., Safique, M., & Ali, K. M. M. (2022). A study to assess the effect of media in promoting self-medication use. *International Journal of Research and Review*, 9(9), 348–354. <https://doi.org/10.52403/ijrr.20220938>
14. Farsi, D. (2021). Social media and health care, part I: Literature review of social media use by health care providers. *Journal of Medical Internet Research*, 23(4), e23205. <https://doi.org/10.2196/23205>
15. Government of India. (1940). The Drugs and Cosmetics Act, 1940. India Code. https://www.indiacode.nic.in/bitstream/123456789/15278/1/drug_cosmetics1940-23.pdf
16. Government of India. (1954). The Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954. India Code. https://www.indiacode.nic.in/bitstream/123456789/19159/1/drugs_and_magic_remedies_act_1954.pdf
17. Government of India. (2019). The Consumer Protection Act, 2019. Department of Consumer Affairs. <https://consumeraffairs.gov.in/pages/consumer-protection-acts>
18. Haß, A. A., & Seifert, R. (2026). Pharmacological topics of interest for young people: Misinformation on TikTok is common. *Naunyn-Schmiedeberg's Archives of Pharmacology*, 399, 5903–5928. <https://doi.org/10.1007/s00210-025-04518-9>
19. Hughes, C. M., McElnay, J. C., & Fleming, G. F. (2001). Benefits and risks of self medication. *Drug Safety*, 24(14), 1027–1037. <https://doi.org/10.2165/00002018-200124140-00002>
20. Kaňková, J., Binder, A., & Matthes, J. (2025). Health-related communication of social media influencers: A scoping review. *Health Communication*, 40(7), 1300–1313. <https://doi.org/10.1080/10410236.2024.2397268>
21. Lim, M. S. C., Molenaar, A., Brennan, L., Reid, M., & McCaffrey, T. A. (2022). Young adults' use of different social media platforms for health information: Insights from web-based conversations. *Journal of Medical Internet Research*, 24(1), e23656. <https://doi.org/10.2196/23656>
22. Ministry of Electronics and Information Technology. (2021). The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021. Government of India. <https://www.meity.gov.in/static/uploads/2024/02/Information-Technology-Intermediary-Guidelines-and-Digital-Media-Ethics-Code-Rules-2021-updated-06.04.2023-.pdf>
23. Mor, J., Kaur, T., Menkes, D. B., Peter, E., & Grundy, Q. (2024). Pharmaceutical industry promotional activities on social media: A scoping review. *Journal of Pharmaceutical Health Services Research*, 15(4), rmae022. <https://doi.org/10.1093/jphsr/rmae022>
24. Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. (2013). A new dimension of health care: Systematic review of the uses, benefits, and limitations of social media for health communication. *Journal of Medical Internet Research*, 15(4), e85. <https://doi.org/10.2196/jmir.1933>
25. National Medical Commission. (2023). National Medical Commission Registered Medical Practitioner (Professional Conduct) Regulations, 2023. <https://www.nmc.org.in/rules-regulations/national-medical-commission-registered-medical-practitioner-professional-conduct-regulations-2023-reg/>

26. Pfender, E., & Bleakley, A. (2024). An elicitation study to understand young adults' beliefs about seeking health information from social media influencers. *Qualitative Health Research*, 34(3), 205–216. <https://doi.org/10.1177/10497323231208391>
27. Pharmacy Council of India. (2015). Pharmacy Practice Regulations, 2015. <https://www.pci.nic.in/pdf/42.pdf>
28. Pilgrim, K., & Bohnet-Joschko, S. (2019). Selling health and happiness: How influencers communicate on Instagram about dieting and exercise: Mixed methods research. *BMC Public Health*, 19, Article 1054. <https://doi.org/10.1186/s12889-019-7387-8>
29. Propfe, L. E., & Seifert, R. (2026). Misrepresentation of semaglutide in social media. *Naunyn-Schmiedeberg's Archives of Pharmacology*, 399(1), 815–832. <https://doi.org/10.1007/s00210-025-04403-5>
30. Rubinelli, S. (2025). Why health institutions must learn from social media influencers: A paradigm shift in health communication. *Journal of Health Communication*, 30(10–12), 630–633. <https://doi.org/10.1080/10810730.2025.2517385>
31. Sarhan, N., Schaalán, M. F., & El-Sheikh, A. A. K. (2025). Patterns and predictors of self-medication behavior of weight loss medications: A cross-sectional analysis of social media influence and role of pharmacist intervention. *Frontiers in Pharmacology*, 16, 1606566. <https://doi.org/10.3389/fphar.2025.1606566>
32. Siva, N., Jena, S., Swain, M., Ghosh, D., Reddy, N. V., Jothilal, V. N., & Mathias, E. G. (2025). Self-medication practices among adolescents and youth in India: A systematic scoping review. *Health Behavior and Policy Review*, 12(4), 1988–2001. <https://doi.org/10.14485/HBPR.12.4.1>
33. Stifjell, K., Sandanger, I., & Wien, A. H. (2025). Exploring online health information-seeking behavior among young adults: Scoping review. *Journal of Medical Internet Research*, 27, e70379. <https://doi.org/10.2196/70379>
34. Suárez-Lledó, V., & Álvarez-Gálvez, J. (2021). Prevalence of health misinformation on social media: Systematic review. *Journal of Medical Internet Research*, 23(1), e17187. <https://doi.org/10.2196/17187>
35. Topol, E. J. (2019). High-performance medicine: The convergence of human and artificial intelligence. *Nature Medicine*, 25(1), 44–56. <https://doi.org/10.1038/s41591-018-0300-7>
36. Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359(6380), 1146–1151. <https://doi.org/10.1126/science.aap9559>
37. Willis, E., & Delbaere, M. (2022). Patient influencers: The next frontier in direct-to-consumer pharmaceutical marketing. *Journal of Medical Internet Research*, 24(3), e29422. <https://doi.org/10.2196/29422>
38. World Health Organization. (2000). Guidelines for the regulatory assessment of medicinal products for use in self-medication. <https://iris.who.int/items/468d79f6-9788-4296-9bc9-68014166373d>
39. World Health Organization. (2020). Managing the COVID-19 infodemic: Promoting healthy behaviours and mitigating the harm from misinformation and disinformation. <https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation>
40. World Health Organization. (2021). Ethics and governance of artificial intelligence for health. <https://www.who.int/publications/i/item/9789240029200>
41. Yergaliyev, K., & Nurzhaubayeva, Z. (2025). The role of social media in influencing dietary supplement use among young adults in Kazakhstan. *European Journal of Public Health*, 35(Supplement 3), ckaf161.1477. <https://doi.org/10.1093/eurpub/ckaf161.1477>
42. Zenone, M., Kenworthy, N., & Maani, N. (2023). The social media industry as a commercial determinant of health. *International Journal of Health Policy and Management*, 12, 6840. <https://doi.org/10.34172/ijhpm.2022.6840>
43. Zhang, Y., Sun, Y., & Xie, B. (2015). Quality of health information for consumers on the web: A systematic review of indicators, criteria, tools, and evaluation results. *Journal of the Association for Information Science and Technology*, 66(10), 2071–2084. <https://doi.org/10.1002/asi.23311>