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Tobacco, nicotine and counter-marketing promotions using Instagram's branded content tool

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ABSTRACT

Background The social media conglomerate, Meta, has a policy prohibiting promotion of tobacco products, vaporisers, electronic cigarettes or other products that simulate smoking via their branded content tools. This study examines if branded Instagram posts comply with these self-regulatory efforts.

Methods We analysed the presence and content of tobacco/nicotine promotion, as well as counter-marketing, in a sample of 400 branded/paid partnership-labelled Instagram posts with tobacco/nicotine-related terms made between 31 July 2022 and 31 March 2023, gathered from Meta's CrowdTangle tool and classified by CrowdTangle as being in English.

Results Of the 217 active branded posts that mentioned or depicted tobacco/nicotine products, most promoted rather than countered the sale of such products (84.3% vs 15.7%, respectively). Posts originating from US Instagram users accounted for 42.6% of promotional content. After the USA, posts from Indonesia (19.1%), Pakistan (9.8%) and India (8.2%) were most frequent. Most posts were fully in English (74.9%). Posts featured hookah (39.4%), electronic nicotine delivery systems (ENDS) accessories (17.5%), ENDS devices and e-liquids (16.9%) and various types of cigars (15.3%). The majority of US posts promoted venues or events where tobacco/nicotine products were featured (71.8%). Almost half of all promotional posts (47.0%) were sponsored by tobacco industry accounts. Posts that encouraged cessation were primarily (47.1%) sponsored by non-government organisations.

Conclusion Despite attempts at self-regulation, paid partnership posts promoting tobacco and nicotine products are present on Instagram, especially posts promoting venues and events that feature tobacco and nicotine use. Self-regulation of this content shows limited success, suggesting a need for federal oversight and additional counter-marketing in social media settings.

INTRODUCTION

Social media platforms have begun adopting policies that restrict promotion and sale of tobacco/nicotine products.¹ In 2019, Meta Platforms Inc. (which owns Facebook and Instagram) prohibited branded content promoting 'tobacco products, vaporizers, electronic cigarettes, or any other products that simulate smoking.'^{2,3} As of June 2023, this policy did not prohibit advertising of non-tobacco nicotine products or tobacco use venues or events (see online supplemental table 1). Branded content is made by a creator or publisher in exchange for monetary payment or gifts.² Additionally, branded posts are required to use the platform's branded

WHAT IS ALREADY KNOWN ON THIS SUBJECT

⇒ Social media platforms self-regulate to require that branded posts include official sponsorship disclosures, and that such content does not promote tobacco products.

WHAT IMPORTANT GAPS IN KNOWLEDGE EXIST ON THIS TOPIC

⇒ Platform polices to require sponsorship disclosures may facilitate social media platforms fully identifying and removing tobacco content; however, this has not been explored to date.

WHAT THIS STUDY ADDS

⇒ Compliance with Instagram sponsorship disclosure policies does not ensure that posts are compliant with platform prohibitions on tobacco promotion in branded content.
⇒ Branded promotional content far outnumbers branded counter-marketing and cessation content on Instagram.

content tool, which places the label 'paid partnership with [brand]' on posts.

Branded posts allow sponsors to receive metrics about post performance, which sponsors can use to improve marketing tactics. Formal disclosure statements may also enhance credibility and increase purchase intent relative to informal hashtag-based disclosures.⁴⁻⁷ Although disclosures, particularly via platform tools, should 'facilitate enforcement' of prohibitions on tobacco content,⁸ enforcement practices remain an open question. Understanding how these tools are used for tobacco/nicotine product promotion, as well as the efficacy of current self-regulation, is critical to inform regulatory guidance, federal marketing restrictions and counter-marketing priorities.

The aim of this study was to discern if and how Meta's branded content tool is used for the promotion of tobacco/nicotine products on Instagram. We also explored the presence of counter-marketing messages and the promotion of cessation tools within branded content.

METHODS

Data collection

We gathered posts from Instagram using Meta's public insights tool CrowdTangle (<https://apps.crowdtangle.com>). The data collection start date was selected to ensure consistency in search data due to changes in how CrowdTangle handled



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Instagram videos made after 31 July 2022 (see online supplemental table 2). In April 2023, we downloaded a CSV file of publicly available Instagram posts that (1) used Meta's branded content tool (ie, included a paid partnership label); (2) were categorised by Meta as being in English; (3) were made between 31 July 2022 and 31 March 2023; and (4) had tobacco or nicotine product related terms in captions, hashtags or image text (see online supplemental table 2).

The search yielded 636 Instagram posts. Based on prior content analyses using manual coding,⁹ we selected a random sample of 400 posts for analysis and completed coding in May 2023. The study was exempted from Institutional Review Board approval.

Codebook development and analysis

We developed a content analysis codebook based on study aims, pilot coding of 15 posts and a consideration of prior content analyses of social media tobacco promotion.^{1 10 11} Posts were coded for user, sponsor and product information (see online supplemental table 3). Posts without mentions or depictions of tobacco/nicotine product(s) were excluded from further analysis. Locations were determined using geotags on posts, locations mentioned in posts, profile information and linked URLs. Followers and likes were gathered from CrowdTangle exports and manually recorded when missing.

To ensure coding reliability, two trained and independent coders coded a random sample of 50 posts, resulting in a Cohen's kappa average of 0.97 and all scores above 0.87, indicating strong reliability.¹² One coder coded the remaining 350 posts, with ambiguous posts discussed with the other coder as needed. Of the 400 post links, 47 were no longer active at the time of coding and 136 did not mention or depict tobacco/nicotine products in the context of promotion of use, sales or cessation (eg, posts promoting smoked meats, hot foods, or perfumes; posts promoting only cannabis vapes). Among the 217 remaining posts, 43 were recorded as having 0 likes because the user had turned on the hide likes feature. All of the remaining posts contained the information (eg, geotag, location mention, etc) needed for the coders to determine the country in which the user was based. For the sponsors mentioned in those posts, country was identifiable for all but nine accounts.

RESULTS

Of the 217 active relevant branded Instagram posts, 84.3% (n=183) were classified as promoting tobacco/nicotine product use or sales and 15.7% (n=34) as counter-marketing or cessation (table 1).

Tobacco and nicotine promotion posts

Among the 183 branded posts that promoted tobacco/nicotine product use or sales, 42.6% were made from US accounts. After the USA, posts from Indonesia (n=35), Pakistan (n=18) and India (n=15) were most frequent. Of all promotional posts, 74.9% were fully in English. Number of followers for promotional posts ranged from 157 to 10 133 637. The median number of followers per post was 54 158. For promotional posts with likes visible (n=144), likes ranged from 1 to 49 237 per post, with a median of 33. Posts originated with 117 unique account usernames, 59 of which were based in the USA (50.4%).

Posts most often originated from individual Instagram users who did not regularly post about tobacco/nicotine products (43.7%), other account types without explicit ties to the tobacco/nicotine product industry (23.5%) and tobacco/nicotine

product retailers (21.3%). Posts most frequently mentioned or depicted include hookah (39.34%), followed by ENDS accessories (17.5%), ENDS devices and e-liquids (16.9%), or cigars/small cigars/cigarillos (15.3%). Almost a third of posts (30.6%) promoted upcoming (as of the time of posting) events where tobacco/nicotine product use was featured or explicitly permitted (online supplemental figure 1), and an additional 14.2% promoted non-event-specific locations where tobacco or nicotine is used. Non-event-specific posts often took the form of individuals posting from a location that had sponsored the post (eg, hookah lounge, cigar bar) and reporting that they had enjoyed themselves. Of US posts, 71.8% promoted tobacco/nicotine products in the context of an event or use location, such as a nightclub with hookahs (see online supplemental figure 1). Posts that did not emphasise tobacco/nicotine product use locations or events most often focused on specific products (online supplemental figure 2).

With regard to the sponsor listed, 24.0% of posts were sponsored by tobacco/nicotine product retailers, 21.9% of posts by manufacturers, distributors or brands; 21.9% by other account types without explicit ties to the tobacco/nicotine product industry; and 21.9% by entertainment and dining venues. While named sponsors were often small vape brands or retailers, larger entities such as Velo, Vuse, FLVR Cigars and Casa Cuevas cigars were also present. Velo sponsored 20 posts, the majority through its Velo Pakistan campaign (see online supplemental figure 2). Nearly half (40.4%) of posts had US-based sponsors.

Counter-marketing and cessation posts

Among the 34 sponsored posts that engaged in counter-marketing or cessation promotion, 73.5% were made by US posters, with posts from India (n=5) being the next most frequent. Posts were almost entirely fully in English (91.2%). Number of followers for counter-marketing posts ranged from 2029 to 1 256 613. The median number of followers per post was 56 218. For counter-marketing posts with likes visible (n=30), likes ranged from 12 to 17 955 per post, with a median of 254. Posts originated with 33 unique accounts, 25 of which were US based (75.8%).

Posts most often originated with individual Instagram users who did not regularly post about tobacco/nicotine (70.6%) and other account types without explicit ties to the industry (26.5%). Among these accounts, media and news accounts were most prevalent. Posts most frequently mentioned or depicted ENDS devices and e-liquids (50.0%), smoking in general (44.1%) or cigarettes (11.8%). Nicotine replacement therapy was more rarely mentioned (17.7%), with posts instead including broad recommendations to 'stop smoking' or campaigns focused on prevention among youth.

With regard to the sponsor, 47.1% of counter-marketing posts had a partnership with a non-governmental organisation (such as Tobacco Free New York State and the Ad Council) and 29.4% with other account types without explicit ties to the tobacco/nicotine product industry. This included health food stores and supplement companies, in addition to Nicorette. More than two-thirds (73.5%) of posts had a US-based sponsor.

DISCUSSION

Despite Meta's 2019 prohibition of tobacco promotion in branded posts on Instagram, such content remained present in 2022–2023. This raises questions about the sufficiency of current approaches to this content. Although it can be challenging to fully remove tobacco online as retailers and users adapt phrasing to bypass algorithmically enforced prohibitions,¹³ the presence

Table 1 Tobacco, nicotine and counter-marketing posts made with the Instagram branded content tool

Variables	Tobacco and nicotine product promotion posts (N=183)		Counter-marketing and cessation posts (N=34)	
	n	%	n	%
User type				
Individual person-tobacco/nicotine product focused	8	4.4	0	0
Individual person-not tobacco/nicotine focused	80	43.7	24	70.6
Club/bar/lounge/restaurant where tobacco/nicotine is used	7	3.8	0	0
Tobacco/nicotine retailer	39	21.3	0	0
Tobacco/nicotine product manufacturer, distributor or brand	3	1.6	0	0
Non-governmental organisation	0	0	0	0
Government entity	0	0	1	2.9
Pharmacy	0	0	0	0
Other, tobacco/nicotine industry	3	1.6	0	0
Other, not tobacco/nicotine industry	43	23.5	9	26.5
Verified User	18	9.8	14	41.2
Country of poster				
USA	78	42.6	25	73.5
Outside the USA	105	57.4	9	26.5
Unknown/unclear	0	0	0	0
Image type				
Single image	98	53.6	24	70.6
Carousel, static	81	44.2	10	29.4
Carousel, with video	4	2.2	0	0
Language of post				
Fully English	137	74.9	31	91.2
Not fully English	46	25.1	3	8.8
Sponsor type				
Individual person-tobacco/nicotine product focused	0	0	0	0
Individual person-not tobacco/nicotine focused	9	4.9	0	0
Club/bar/lounge/restaurant where tobacco/nicotine is used	40	21.9	0	0
Tobacco/nicotine retailer	44	24.0	0	0
Tobacco/nicotine product manufacturer, distributor or brand	40	21.9	0	0
Non-governmental organisation	0	0	16	47.1
Government entity	0	0	3	8.8
Pharmacy	0	0	4	11.8
Other, tobacco/nicotine industry	2	1.1	0	0
Other, not tobacco/nicotine industry	40	21.9	10	29.4
Paid partner not specified by name	8	4.4	1	2.9
Country of sponsor				
USA	74	40.4	25	73.5
Outside of the USA	101	55.2	8	23.5
Unknown/unclear	8	4.4	1	2.9
Event and location promotion				
Tobacco/nicotine use event promotion	56	30.6	0	0
Non-event specific tobacco/nicotine use location promotion	26	14.2	0	0
Non-location or non-event-specific tobacco/nicotine product use promotion	101	55.2	0	0
Type(s) of tobacco/nicotine products mentioned or depicted				
Cigarettes	3	1.6	4	11.8
Cigars, cigarillos, small cigars	28	15.3	0	0

Continued

Table 1 Continued

	Tobacco and nicotine product promotion posts (N=183)		Counter-marketing and cessation posts (N=34)	
Smokeless tobacco	0	0	0	0
ENDS	31	16.9	17	50.0
ENDS accessories	32	17.5	0	0
Heated tobacco	0	0	0	0
Hookah	72	39.3	1	2.9
Nicotine replacement therapy	0	0	6	17.7
Non-combustible, tobacco/nicotine—other	20	10.9	0	0
Other tobacco/nicotine product	5	2.7	0	0
Unspecified/unclear/smoking	10	5.5	15	44.1

ENDS, electronic nicotine delivery systems.

of posts where a tobacco/nicotine product brand was explicitly in the paid partnership field suggests insufficient enforcement.

Existing regulations for tobacco/nicotine product promotion can rapidly become outdated as new promotional strategies and products arise.¹⁴ For example, Meta's policy on branded tobacco content is significantly more limited than its policy on paid advertising; the branded content policy does not explicitly prohibit promotion of nicotine products or tobacco use venues. Thus, it is unclear if the posts promoting hookah at bars, or the posts sponsored by nicotine pouch brand Velo, are prohibited. It is also notable that individual social media users represented less than half of the promotional posts. Retailers, entertainment venues and media organisations must also be considered as sources of exposure. Further, the cross-national nature of the content highlights the ways in which online promotions can 'leak across digital borders' and expose those in other nations.¹⁴

Finally, posts promoting tobacco/nicotine products significantly outnumbered counter-marketing and cessation posts. Previous studies have also shown that pro-vaping posts are significantly more prevalent on Instagram than anti-vaping posts.¹⁵ Limited use of counter-marketing partnerships signals a missed opportunity to reach teens and young adults on Instagram. This discrepancy was even greater for posts made outside the USA, lending further support to arguments for greater counter-marketing efforts in low-income and middle-income countries.¹⁶

Limitations

Some posts were deleted between the time of posting and data collection. Findings should not be interpreted as a measure of the volume of tobacco/nicotine product-related posts on Instagram. Additionally, we note that post engagement metrics can be unreliable due to bots and purchased likes and followers.¹⁷ Many accounts also had likes hidden, making numbers inaccessible both to CrowdTangle and manual review. Therefore, maximum and median like counts are likely underestimates. Future research is needed to more explicitly assess adolescent and young adult exposure to promotional posts with official paid partnership disclosures, as well as the impact of such disclosures. Data were also limited to what CrowdTangle indexed as public posts with branded content that used the English language. CrowdTangle does not offer complete coverage of Instagram accounts with fewer than 50 000 followers, so smaller accounts may be under-represented.¹⁸ Finally, we examined a single platform and future work is needed to discern the broader branded content and disclosure environment across social media platforms.

CONCLUSION

Our findings indicate that despite platform policies to restrict branded promotions of tobacco products, paid partnerships for tobacco/nicotine continue to be shared on Instagram. While self-regulatory approaches can be pragmatic, both social media platforms and the tobacco industry have shown themselves to be at high risk of non-compliance.^{19–21} Ongoing surveillance of tobacco/nicotine product marketing practices is needed to inform marketing restrictions, monitor compliance and protect people from predatory advertising.

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Supplementary Table 1. Meta Paid Advertising and Branded Content Policies Relating Tobacco and Nicotine Products

Meta Advertising Standards Policy (as of July 19, 2023)	<p>“Ads must not promote the sale or use of tobacco or nicotine products and related paraphernalia unless they are cessation products. Ads must not promote delivery devices such as electronic cigarettes, vaporizers, or any other products that simulate smoking, or are otherwise designed for use with tobacco or nicotine products.</p> <p>Ads can’t:</p> <ul style="list-style-type: none"> • Promote the sale or use of tobacco or tobacco-related products, including: <ul style="list-style-type: none"> -Cigarettes and cigars, smokeless tobacco, and pipe tobacco -E-cigarettes, vaporizers and heating devices for tobacco and nicotine, including vape pens and vape oils/cartridges -Nicotine pouches -Tobacco pipes, rolling papers, hookahs and filters -Hookah lounges and cigar bars • Promote the sale or use of products that simulate smoking, such as vapes, including products that don’t contain tobacco or nicotine • Portray consumption of tobacco or related products where the primary focus of the ad is tobacco usage • Promote tobacco brands <p>https://transparency.fb.com/policies/ad-standards/dangerous-content/tobacco</p>
Meta Branded Content Policy (as of July 19, 2023)	<p>“Certain goods, services, or brands may not be promoted with branded content. We prohibit promotion of the following... Tobacco products, vaporizers, electronic cigarettes, or any other products that simulate smoking.”</p> <p>https://help.instagram.com/1695974997209192</p>

Supplementary Table 2. CrowdTangle Search Performed on April 10, 2023

CrowdTangle search parameters*	Branded content only; English language; Date range: 2022-07-31 23:59:59 CDT - 2023-03-31 23:59:00 CDT
CrowdTangle search terms	Vape OR Vapes OR Vaping OR Vapor OR ecig OR ecigs OR e-cig OR e-cigs OR ecigarette OR ecigarettes OR e-cigarette OR e-cigarettes OR eliquid OR eliquids OR e-liquid OR e-liquids OR ejuice OR ejuices OR e-juice OR e-juices OR hookah OR hookahs OR shisha OR shishas OR cigar OR cigars OR cigarillo OR cigarillos OR cigarette OR cigarettes OR cig OR cigs OR smoking OR smokefree OR smoke-free OR tobacco OR tobaccofree OR Nicotine OR nicotinefree OR snus

* Due to a change in Instagram policy, all videos under 15 minutes were classified as reels and not supported in CrowdTangle. All Instagram video posts shorter than 15 minutes and created after July 31st, 2022 were thus unavailable in search results. Source: <https://apps.crowdtangle.com>.

Supplementary Table 3. Content Analysis Codes

Code Category	Subcodes/Definitions
Inclusion criteria	Any mention or depiction of tobacco/nicotine product(s) in the context of promotion of either product use or sales or of cessation (mutually exclusive). Posts without either were excluded from further analysis.
User type and sponsor type	Primary user type for the account that posted and the listed sponsor of the post (mutually exclusive): individual person with a tobacco/nicotine product focused account (at least two of the ten most recent posts included tobacco/nicotine products), individual who does not regularly post about tobacco/nicotine products, club/bar/lounge/restaurant where tobacco/nicotine products are used, tobacco/nicotine product retailer that sells products to consumers (assessed via examination of post caption, user information, and linked website), tobacco/nicotine product manufacturer, distributor, or brand that does not directly sell to consumers, non-governmental organization, governmental agency, pharmacy, other tobacco/nicotine product industry, other non-tobacco/nicotine product industry.
Country of origin for user and sponsor	Country of origin for the account that posted and the listed sponsor (based on location tags, post and profile information, and linked URLs).
Event and location promotion	Event promotion, location promotion, or no event or location promotion (mutually exclusive): Singular or reoccurring tobacco/nicotine events where product use is featured or permitted (e.g., “Hookahs and Honeys Saturdays”), non-event specific use locations (e.g., general promotion for a cigar bar), or posts that do not emphasize events or locations.
Product type(s) promoted	Product type(s) mentioned or depicted (not mutually exclusive): cigarettes, cigars/cigarillos/small cigars, smokeless tobacco, other non-combustible tobacco/nicotine product(s) (e.g., tobacco-free nicotine pouches such as Velo), electronic nicotine delivery systems (ENDS), ENDS accessories (e.g., cases for mods), heated tobacco, hookah, other tobacco and nicotine product(s) (e.g., humidors, rolling papers), unspecified/unclear tobacco and nicotine products (including broad mentions of “smoking” not tied to a specific product), and nicotine-replacement therapy.

Supplementary Figure 1. Sponsored Instagram Post from August 2022 promoting a hookah use focused event.



Supplementary Figure 2. Sponsored Instagram Post from March 2023 Promoting the Brand Velo.

