

Evaluating strategies to reduce the effects of pro-e-cigarette social media posts in young adults

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Abstract

Objective. Examine how sponsorship disclosures and nicotine warning labels (NWLs) affect responses to pro-e-cigarette Instagram posts among Mexican young adults. **Materials and methods.** In a 2 x 2 online experiment, Mexicans aged 18-24 (N= 699; 53% users and 47% non-users of cigarettes or e-cigarettes who were susceptible to future use) were randomly assigned to view one of four Instagram posts: 1) control, 2) disclosure-only, 3) NWL-only, or 4) combination. Participants reported susceptibility to e-cigarettes, positive expectancies, and risk perceptions. Outcomes were analyzed via logistic regression (ref=control). **Results.** Compared to the control, participants exposed to the NWL alone or combined were less likely to be curious to try the e-cigarette (OR= 0.54, 95%CI 0.35,0.83; OR= 0.54, 95%CI 0.34,0.84), try it if offered by a friend (OR= 0.59, 95%CI 0.39,0.90; OR= 0.55, 95%CI 0.36,0.85), or expect to enjoy use (OR= 0.64, 95%CI 0.42,0.97; OR= 0.65, 95%CI 0.43,1.00). Risk perceptions did not differ; disclosures had no effect. The disclosure-only condition (vs control) increased willingness to try e-cigarettes among people who currently smoked or were susceptible to smoking ($\beta = 0.84, p < 0.05$). **Conclusion.** NWLs, but not sponsorship disclosures, reduce Mexican youth susceptibility and positive expectancies toward e-cigarettes.

Resumen

Objetivo. Examinar cómo las declaraciones de patrocinio y las etiquetas de advertencia sobre nicotina (NWL, por sus siglas en inglés) afectan las respuestas a publicaciones a favor de los cigarros electrónicos en Instagram entre adultos jóvenes mexicanos. **Material y métodos.** En un experimento de 2 x 2, conducido en internet, se asignó al azar a jóvenes mexicanos de entre 18 y 24 años (N= 699; 53% usuarios y 47% no usuarios de cigarros o de cigarros electrónicos susceptibles de consumir en el futuro) a ver una de cuatro publicaciones en Instagram: 1) control, 2) sólo declaración de patrocinio, 3) sólo NWL o 4) combinada. Los participantes reportaron su susceptibilidad a los cigarros electrónicos, expectativas positivas y percepciones de riesgo. Los resultados se analizaron mediante regresión logística (referencia: control). **Resultados.** En comparación con el grupo control, los participantes expuestos únicamente a la NWL o a la NWL combinada fueron menos propensos a sentir curiosidad por probar los cigarrillos electrónicos (RM= 0.54, IC95% 0.35,0.83; RM= 0.54, IC95% 0.34,0.84), a probarlos si un amigo se lo ofrecía (RM= 0.59, IC95% 0.39,0.90; RM= 0.55, IC95% 0.36,0.85), o a esperar disfrutar su uso (RM= 0.64, IC95% 0.42,0.97; RM= 0.65, IC95% 0.43,1.00). Las percepciones de riesgo no mostraron diferencias; las declaraciones de patrocinio no tuvieron efecto. Las declaraciones de patrocinio (vs control) aumentaron la disposición a probar los cigarrillos

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Keywords: electronic cigarettes; social media; marketing; warning labels; nicotine

electrónicos entre las personas que actualmente fumaban o eran susceptibles a fumar ($\beta = 0.84$, $p < 0.05$). **Conclusión.** Las etiquetas de advertencia sobre nicotina, pero no las declaraciones de patrocinio, reducen la susceptibilidad y las expectativas positivas hacia los cigarros electrónicos entre los jóvenes mexicanos.

Palabras clave: cigarros electrónicos; redes sociales; mercadotecnia; etiquetas de advertencia sanitaria; nicotina

Around the world, youth e-cigarette use is an increasing public health concern,¹ with use being more prevalent than for cigarettes in many countries.² E-cigarettes expose young people to nicotine and harmful chemicals that can impair neurodevelopment and respiratory health.³ While long-term effects remain uncertain,^{4,5} research consistently links e-cigarette use to subsequent smoking and drug use.⁶ Social media further amplifies this trend by embedding e-cigarette use into youth culture, normalizing it, and appealing directly to younger audiences.⁷

Marketing on social media shapes youth perceptions by fostering positive attitudes toward e-cigarettes, encouraging experimentation, and increasing intentions to use.^{8,9} The tobacco industry employs diverse strategies to maximize its reach on social media, including heavy use of influencer marketing. Influencers—users with large followings whose endorsements are perceived as authentic and relatable—embed e-cigarette promotion in their personal profiles within lifestyle narratives, masking commercial intent while increasing product appeal.¹⁰ Because consumers often trust user-generated content more than overt advertising, this strategy is especially persuasive.¹¹

Regulatory frameworks have consistently lagged behind the rapid evolution of social media. Authorities in several countries, including the United States' (US) Federal Trade Commission (FTC), the United Kingdom's Advertising Standards Authority, and Germany's Medienanstalten, have called for stronger oversight of sponsorship disclosures.¹² In the US, the FTC requires influencers to disclose sponsored content, including tobacco promotions,¹³ while the Food and Drug Administration (FDA) further mandates nicotine warning labels (NWL) in e-cigarette advertising.¹⁴ As part of Meta's (the parent company of Instagram, Facebook, WhatsApp, among others) broader governance framework, Instagram prohibits influencers and advertisers from using branded content tools to market tobacco, e-cigarettes, or related products.¹⁵

In Mexico, the marketing and sales of e-cigarettes are banned; however, no specific regulations currently govern influencer-produced content, despite multiple legislative and policy initiatives aimed at establishing such oversight.^{16,17} Nevertheless, the global reach of social media and challenges around regulating content allow e-cigarette promotional material to circulate in Mexico.¹⁸ A systematic monitoring study found that all e-cigarette marketing posts in Mexico originated from retailer accounts, and 93% of those posts directly encouraged the purchase of e-cigarettes,¹⁹ and that Instagram was among the leading platforms for tobacco marketing exposure.²⁰ Furthermore, exposure to e-cigarette advertising, especially on social media platforms, has been linked to more positive perceptions of e-cigarette use among Mexican adults.²¹ Mexican adolescents' self-reported exposure to e-cigarette content via social media is high and associated with e-cigarette use,²² which is now more common than smoking.² These findings suggest that digital culture and influencer marketing are contributing to the normalization, positive perceptions, and growing use of e-cigarettes among Mexican youth. The Pan American Health Organization (PAHO) has similarly warned that digital marketing of novel nicotine products threatens tobacco control progress in the Americas, underscoring the need for stronger enforcement of online advertising bans.²³

Evidence from other countries suggests that NWLs can influence perceptions among youth and young adults, although the magnitude of these effects varies. Findings from the Youth Tobacco Survey showed that self-reported exposure to NWLs on e-cigarette packaging increased perceived susceptibility to nicotine addiction and quit intentions among current users, but did not reduce harm perceptions or use intentions among nonusers.²⁴ A meta-analysis of experimental studies, primarily among adults, further indicates that NWLs strengthen beliefs about the addictiveness of e-cigarettes while reducing use intentions.²⁵

Two experimental studies of NWLs in pro-e-cigarette Instagram posts have shown modest but promising effects, especially among young adults. One experiment with mostly non-e-cigarette users found that NWLs combined with cessation links reduced susceptibility and positive expectancies, while NWLs alone had weaker effects and did not influence intentions to use e-cigarettes.²⁶ Another experiment with young adults and adolescents who did and did not use e-cigarettes found that NWLs reduced ad and product appeal among young adults, but not adolescents, suggesting stronger effects among older participants.²⁷

The potential role of sponsorship disclosures in mitigating the effects of pro-e-cigarette social media posts appears more complex. In an online experiment with youth and young adults, including both current and non-current e-cigarette users, the authors found that financial disclosures alone increased positive attitudes towards post and products among young adults but not among youth, raising concerns that disclosures may inadvertently enhance appeal.²⁷ In another online experimental study among young adults who have ever used e-cigarettes, researchers found that neither clear (e.g., “#sponsored”) nor ambiguous (e.g., “#sp”) disclosures affected brand attitudes or use intentions.⁸ Taken together, these findings suggest that disclosures may have minimal to no positive effect and may even backfire.

To clarify these inconsistencies, further research is needed to examine how disclosures and NWLs shape responses to pro-e-cigarette content. The present study investigates the influence of sponsorship disclosures and NWLs in pro-e-cigarette Instagram posts among Mexican young adults who either use or are susceptible to use nicotine tobacco products. Outcomes included susceptibility to use, positive expectancies, and risk perceptions, providing evidence to inform the development of consistent international standards to counteract pro-e-cigarette messaging on social media.

Materials and methods

In December 2024, we recruited 699 young adults aged 18-24 years in Mexico from a national non-probability online panel for marketing research (Qualtrics). Eligibility required current (i.e., past 30 day) use of cigarettes or e-cigarettes ($n=370$) or susceptibility to use either product in the future ($n=329$).

For each product, we asked three questions: (1) intention to use within the next 12 months, (2) willingness to try if offered by a friend, and (3) curiosity about trying. Responses were rated on a 4-point scale from 1= “Definitely not” to 4= “Definitely yes.”^{28,29} Participants

were classified as susceptible if they answered any response other than “Definitely not” on at least one item.²⁸

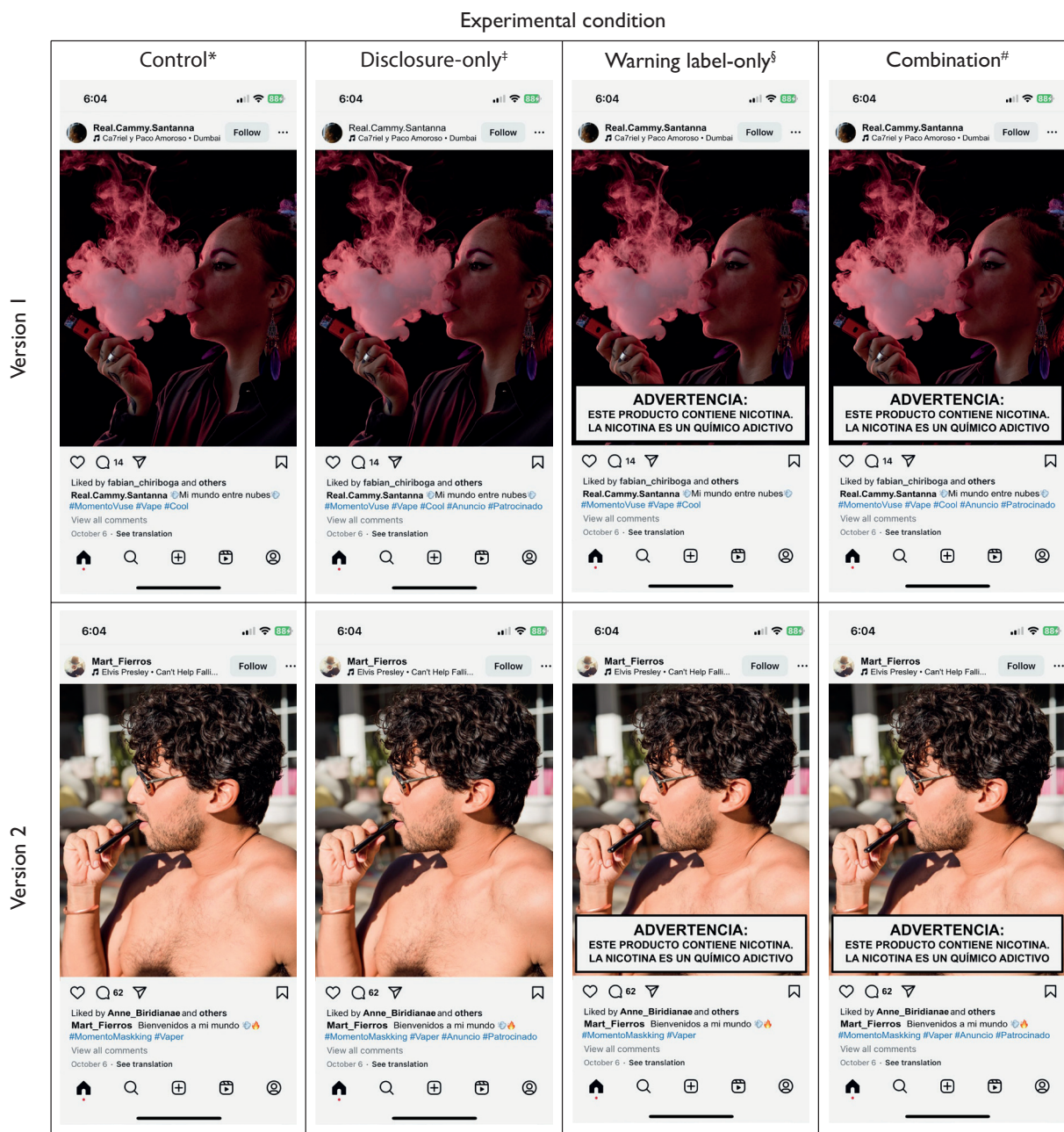
All study procedures were approved by the [redacted for peer review] Institutional Review Board. Informed consent was obtained from all participants, who received standard compensation (e.g., points redeemable for e-gift certificates).

Study procedures

Using a 2×2 between-subjects design, we randomized participants to view a simulated pro-e-cigarette Instagram post in one of four conditions: (1) “control” (i.e., a standard promotional post with no sponsorship disclosure or nicotine warning label), (2) “disclosure-only” (i.e., in-text sponsorship disclosure), (3) “warning label-only” (i.e., NWL), and (4) “combination” (i.e., NWL and sponsorship disclosure).

In the control condition, participants viewed content matched for format and promotional features but without any disclosure or warning, reflecting typical e-cigarette marketing on social media (figure 1). The sponsorship disclosure featured a Spanish-language translation in-text hashtags (i.e., #ad and #paidpartnership, figure 1), which are widely recognized indicators of sponsored content on social media platforms. These disclosures were embedded directly within the post text. The warning-label condition featured a Spanish-language translation of the US FDA-mandated nicotine warning statement: “WARNING: This product contains nicotine. Nicotine is an addictive chemical,” presented in black-and-white text at the bottom of the post, consistent with labeling requirements for e-cigarette packaging (figure 1) and similar to warnings for e-cigarette products in other countries.

For each experimental condition, we created two posts, each with a different young adult influencer, one male and one female. The imagery of the posts also differed by the context (i.e., outdoors or indoors) and how they interacted with the product (i.e., holding the e-cigarette only or holding it while exhaling aerosol clouds; see figure 1). Each post featured a young adult influencer promoting an e-cigarette brand, accompanied by a brand hashtag (i.e., #MomentMasking or #MomentVuse), two e-cigarette-related hashtags (i.e., #Vape or #Cool), and a short caption reflecting the post’s style (i.e., “Welcome to my world” or “My world among the clouds”, figure 1). Participants were randomized to view one of two posts in their assigned experimental condition to reduce potential confounding from using a single stimulus per condition.³⁰ Randomization involved balanced allocation to ensure



* Control: #e-cig brand.

† Only in-text sponsorship disclosure: #ad and #paidpartnership.

‡ Nicotine Warning Label (NWL): "WARNING: This product contains nicotine. Nicotine is an addictive chemical."

Combination: NWL and sponsorship disclosure.

FIGURE 1. EXPERIMENTAL CONDITIONS AND VERSIONS OF PRO-E-CIGARETTE POSTS TARGETING YOUNG ADULTS AGED 18-24. MEXICO, 2024

approximately equal distribution of current cigarette or e-cigarette users and susceptible non-users across experimental conditions.³¹

Measures

While their assigned Instagram post was displayed, participants were asked questions about susceptibility, expectancies, and risk perceptions. *Susceptibility* was assessed with two questions capturing openness to use: “Are you curious to try the product shown in the post?” and “Would you try the product shown in the post if one of your friends offered it to you?” These items were adapted from standard measures of susceptibility to cigarette and e-cigarette use (see above),^{28,29,32} and linked questions to the promotional post.

Positive expectancy was measured with one question reflecting anticipated enjoyment: “Do you think you would enjoy consuming the product shown in the post?” This measure is based on expectancy-value models of substance use, which emphasize expected pleasure as a key factor in experimentation.^{33,34} Finally, *risk perceptions* were assessed with two questions addressing perceived addictiveness and health risks: “Do you think you could become addicted to this product?” and “Do you believe this product could be harmful to your health?” These indicators are consistent with prior work examining risk perceptions as predictors of tobacco-related behaviors.^{35,36}

All items were rated on a 4-point scale ranging from 1= “Definitely not” to 4= “Definitely yes”. For analysis, responses to each question were dichotomized into “No” (i.e., Definitely/Probably not) versus “Yes” (i.e., Probably/Definitely yes).

Analysis

We computed descriptive statistics for baseline sex, age, tobacco product use, and susceptibility by experimental condition. Separate logistic regression models were fitted for each of the five dichotomized variables: curiosity and accepting friend offers to use it (susceptibility), would enjoy using it (positive expectancy), addictiveness and harmfulness (risk perceptions), with experimental condition as the predictor and the control group as the reference. Odds ratios (ORs) and 95% confidence intervals (CIs) were estimated, and statistical significance was evaluated using two-sided tests at $\alpha = 0.05$. Models were reported unadjusted, given randomization. To assess the robustness of the primary findings, we also adjusted analyses by sex, age, and user type, producing results consistent with the primary findings (detailed results available from the

corresponding author upon request). To assess whether effects varied by user type, we estimated models that included interaction terms between experimental condition and user type, grouped into three mutually exclusive categories based on use and susceptibility; effect modification was evaluated using joint Wald tests. All analyses were conducted in Stata 18.5 (StataCorp LLC, College Station, TX, USA).

Results

Participants ($n = 699$; table I) were, on average, 21 years old ($SD = 2.1$), and 62% were female. Just over half (53%) reported using either cigarettes or e-cigarettes in the past 30 days, with 27% of the sample reporting dual use of both products, 24% reporting exclusive cigarette use, and 2% exclusive e-cigarette use. Also, 36% did not currently use either product but were susceptible to both, 8% were susceptible to cigarettes only, and 4% to e-cigarettes only. Participants were evenly distributed across conditions (27% control, 24% disclosure-only, 26% warning label-only, and 23% combined), and participants' sociodemographics or nicotine product use characteristics did not differ across conditions.

Susceptibility to e-cigarette use

Compared with the control group, participants exposed to warning label-only and combined conditions were significantly less likely to express curiosity about trying e-cigarettes (warning-label only: $OR = 0.54$, 95% CI 0.35, 0.83; combined: $OR = 0.54$, 95% CI 0.34, 0.84) or willingness to try if offered by a friend (warning label-only: $OR = 0.59$, 95% CI 0.39, 0.90; combined: $OR = 0.55$, 95% CI 0.36, 0.85). No significant differences were found for the disclosure-only condition relative to the control (figure 2).

Positive outcome expectancies

Participants in the NWL only were significantly less likely to report anticipated enjoyment of the featured product compared to the control group ($OR = 0.64$, 95% CI 0.42, 0.97). In the combined condition, participants also reported lower anticipated enjoyment ($OR = 0.65$, 95% CI 0.43, 1.00), although this effect was only marginally significant ($p = 0.052$). The disclosure-only condition did not differ significantly from the control (figure 2).

Risk perceptions

None of the experimental conditions significantly affected participants' perceptions of addiction risk or health harms compared with the control group (figure 2).

Table I
SOCIODEMOGRAPHIC CHARACTERISTICS, TOBACCO PRODUCT USE, AND SUSCEPTIBILITY
AMONG YOUNG ADULTS AGED 18-24. MEXICO, 2024 (N= 699)

Variable	Condition					p-value*
	Control (n= 186, 27%)	Disclosure-only (n= 169, 24%)	Nicotine Warning Label-only (n= 181, 26%)	Combination (n= 163, 23%)	Total (n= 699)	
	n (%)	n (%)	n (%)	n (%)	n (%)	
Sex						0.624
Female	116 (62)	107 (63)	105 (58)	105 (64)	433 (62)	
Male	70 (38)	62 (37)	76 (42)	58 (36)	266 (38)	
Age (mean, SD)	21.6 (2.1)	21.6 (2.0)	21.6 (2.1)	21.5 (1.9)	21.6 (2.1)	0.985
Tobacco product use and susceptibility						
Participants who currently use either product						0.244
Exclusive current smoker	38 (20)	44 (26)	50 (28)	35 (21)	167 (24)	
Exclusive current e-cigarette user	3 (2)	2 (1)	3 (2)	7 (4)	15 (2)	
Dual user	56 (30)	43 (25)	44 (24)	45 (28)	188 (27)	
Participants who do NOT currently use either product						0.117
Susceptible to only cigarettes	20 (11)	11 (7)	11 (6)	11 (7)	53 (8)	
Susceptible to only e-cigarettes	12 (6)	4 (2)	5 (3)	4 (2)	25 (4)	
Susceptible to both products	57 (31)	65 (38)	68 (38)	61 (37)	251 (36)	

* Note: p-values were estimated using the chi-square test for sex, Fisher's exact test for tobacco product use and susceptibility, and regression analysis for age.

Interaction between condition and use and susceptibility

No significant interactions were observed for curiosity ($p=0.49$), enjoyment ($p=0.17$), perceived addictiveness ($p=0.55$), or perceived harmfulness ($p=0.53$), but a significant interaction was observed for willingness to try if offered by a friend ($p=0.046$). Stratified analyses showed that among people who currently or were susceptible to smoke, the disclosure-only condition increased willingness to try e-cigarettes if offered by a friend compared to control ($\beta=0.84$, $p<0.05$). Reduced willingness to try was observed both among exclusive e-cigarette and dual users in the combined condition ($\beta=-1.54$, $p<0.01$), as well as among youth susceptible to use e-cigarettes or both products in the NWL condition alone ($\beta=-1.08$, $p<0.05$).

Discussion

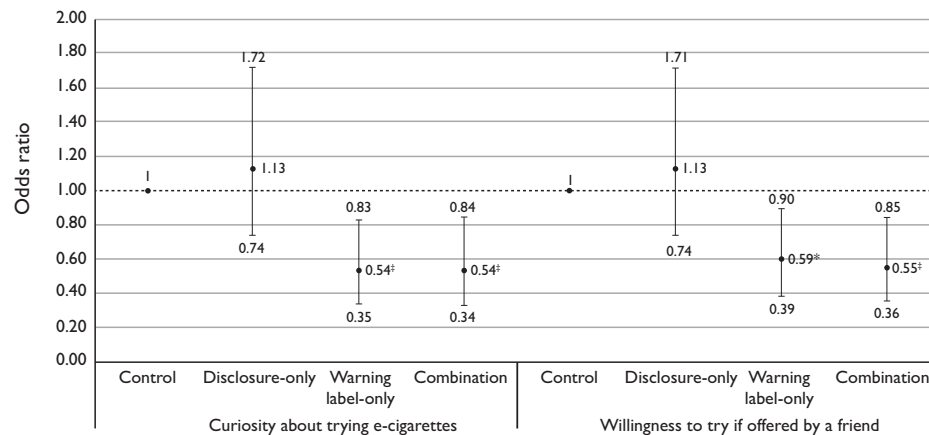
This study found that NWLs, whether presented alone or alongside sponsorship disclosures, reduced susceptibility to trying e-cigarettes and lowered positive outcome expectancies among young adults in Mexico.

Sponsorship disclosures alone had no effect, and neither disclosures nor warnings influenced risk perceptions. There was some indication that, among cigarette users and those susceptible to smoking, the disclosure-only condition was associated with greater willingness to try e-cigarettes if offered by a friend.

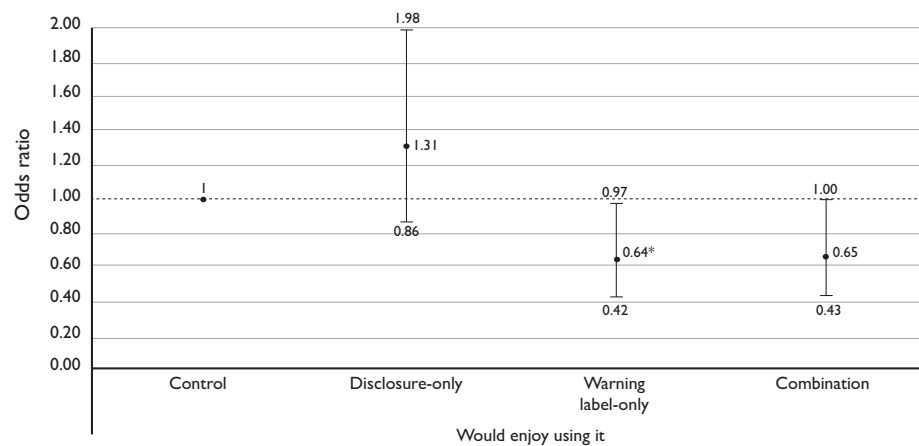
Text-only NWLs, in particular, consistently reduced both susceptibility and positive expectancies. These findings are consistent with prior experimental evidence indicating that NWLs can diminish the appeal of e-cigarette advertisements and reduce openness to product use, particularly in young adult populations.²⁶ This pattern suggests that NWLs primarily function as a protective cue on social media for young adults, reducing curiosity and experimentation rather than reshaping underlying perceptions of harm, while offering more limited protection for younger audiences,²⁷ for whom it may be necessary to find strategies that reduce exposure to e-cigarette content in the first place (e.g., filters).

The limited effect of text-only NWLs on risk perceptions may stem from the highly persuasive nature of social media. Pro e-cigarette Instagram posts often use vivid, emotionally charged visuals and social approval cues that can overshadow simple textual warnings.³⁷

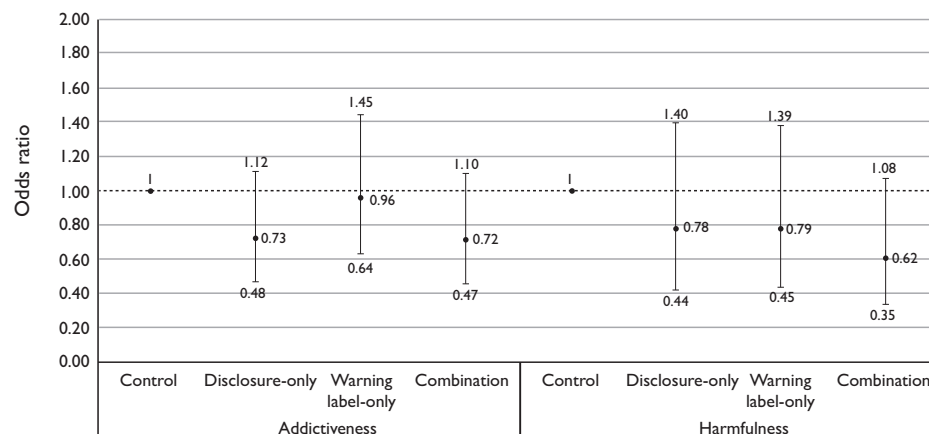
A. Effect of experimental conditions on susceptibility to e-cigarette use



B. Effect of experimental conditions on positive expectancy



C. Effect of experimental conditions on risk perceptions



* $p < 0.05$; [‡] $p < 0.01$.

FIGURE 2. EFFECT OF EXPERIMENTAL CONDITIONS ON SUSCEPTIBILITY TO USE, POSITIVE BELIEFS, AND RISK PERCEPTIONS AMONG MEXICAN YOUNG ADULTS (N= 699). MÉXICO, 2024

Research shows pictorial warnings capture more attention and evoke stronger reactions than text alone.³⁸ Thus, adding imagery to e-cigarette NWLs might enhance their effectiveness. Future research should test whether pictorial warnings on social media can not only reduce susceptibility but also shift risk perceptions, especially with highly visual, persuasive pro-e-cigarette content.

Warnings that highlight health risks of e-cigarette use, not just their addictive potential, may also be needed. A recent meta-analysis found that text-only warnings emphasizing health harms were more salient, evoked stronger negative emotions, and increased intentions to quit compared with addiction-focused warnings, though the latter were uniquely effective in reinforcing beliefs about addictiveness.²⁵ Future studies should test whether combining both types of content within a single warning or rotating warning content with each type yields additive or synergistic effects on risk perceptions. Indeed, regulators should consider multiple e-cigarette warnings with different content, as is done for cigarettes, both to convey the range of risks and to enhance engagement with warning information, as specific warning content may resonate more with some consumers than others.

In our study, sponsorship disclosures alone did not significantly affect participant responses, whether presented in isolation or alongside NWLs. This aligns with prior research showing that disclosures can increase recognition of influencer posts as advertising and reduce engagement intentions but do not change brand attitudes, brand use intentions, or e-cigarette use intentions.²⁷ Financial disclosures are also less effective than NWLs in reducing positive product perceptions,⁸ and commonly used hashtags (e.g., #ad, #paidpartnership) are often overlooked. By contrast, platform-generated banners (e.g., Instagram's "Paid partnership with [brand]" or TikTok's "Includes paid promotion") are more prominent and standardized, and have been shown to reduce perceived influencer trustworthiness and engagement (e.g., likes and comments).¹² In this study, sponsorship was disclosed using in-text hashtags, which may underestimate the impact of more salient platform-generated indicators. As such, platform-generated disclosures may represent a more promising strategy for reducing the appeal of e-cigarettes among youth.

Although platforms regulate branded content, enforcement is inconsistent. Under Meta's policies, Instagram prohibits the promotion of tobacco and e-cigarettes through branded content tools,¹⁵ yet empirical evidence documents widespread violations.^{39,40} Similarly, Mexico's General Law on Tobacco Control bans all forms of tobacco advertising and sponsorship,⁴¹

but weak enforcement and content loopholes limit its effectiveness.²⁰ Reducing youth exposure requires stronger enforcement, including systematic monitoring of digital marketing, closing regulatory loopholes, and consistent implementation of comprehensive advertising and sponsorship bans in line with WHO Framework Convention on Tobacco Control guidelines.⁴²

Sensitivity analyses suggest that sponsorship disclosures may backfire among people who smoke or are susceptible to smoke, increasing willingness to try e-cigarettes when offered by a friend. One possible explanation is that disclosures signal transparency and legitimacy, thereby enhancing perceived credibility—particularly among individuals with favorable attitudes toward nicotine and interest in alternatives such as e-cigarettes. This effect may be amplified in social contexts shaped by peer norms and personal influence.^{27,43,44} Consistent with this possibility, prior experimental evidence shows that young adults exposed to pro-e-cigarette social media posts containing only a financial disclosure reported more positive attitudes toward the ad and the product compared with those exposed to NWL or combined disclosures and warnings.²⁷ However, that study did not find differences by cigarette and e-cigarette use status, highlighting the need for further research to examine how source credibility cues and peer norms may operate differentially across user groups.

Several limitations should be noted. First, the use of a non-probability online sample of Mexican young adults limits generalizability; additionally, because participants were recruited through a national online panel and state-level geographic information was not collected, we were unable to assess geographic variation within Mexico. This study was not powered to detect small differences between conditions or heterogeneity of effects across subpopulations; as such, null findings and stratified analyses by user type should be interpreted cautiously. Still, including both current users and susceptible non-users captured a group at elevated risk for future e-cigarette use. Second, brief, controlled exposures—and the absence of formal attention or manipulation checks—may not fully reflect their effects in real-world social media interactions. However, the use of realistic, influencer-style Instagram posts enhanced ecological validity, and the naturally occurring variability in attention reflects how young adults typically engage with social media content. Attention checks were also incorporated into the survey to ensure overall data quality. Additionally, random assignment with two stimulus sets per condition strengthened internal validity by minimizing participant and stimulus biases. Third, the study examined only the FDA-required

nicotine addiction warning. Future research should test alternative formats and health harm warnings, though focusing on a widely implemented message enabled a clear assessment of its effects under current regulatory standards outside social media platforms.

Overall, this study offers timely experimental evidence that NWLs can reduce young adults' susceptibility to e-cigarettes in social media contexts, while sponsorship disclosures alone have limited influence. The findings support adopting prominent digital health warnings for online content as a core tobacco control strategy, alongside the need to actively promote and monitor compliance with social media companies' advertising policies, strengthen enforcement mechanisms, and establish national digital health regulatory frameworks in Mexico. Together, these approaches may help reduce exposure to pro-e-cigarette content and limit industry influence in digital environments.

Declaration of conflict of interests. The authors declare that they have no conflict of interests.

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