

A woman with dark hair tied back, wearing a red sweater and glasses, is shown in profile. She is smoking a cigarette and holding a white shopping bag. The background is a blurred outdoor setting with a metal railing.

A Social Media Intervention to address Cigarette Smoking and Heavy Episodic Drinking: A Pilot Randomized Controlled Trial

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Research on Addictions and Digital Interventions (READI) lab

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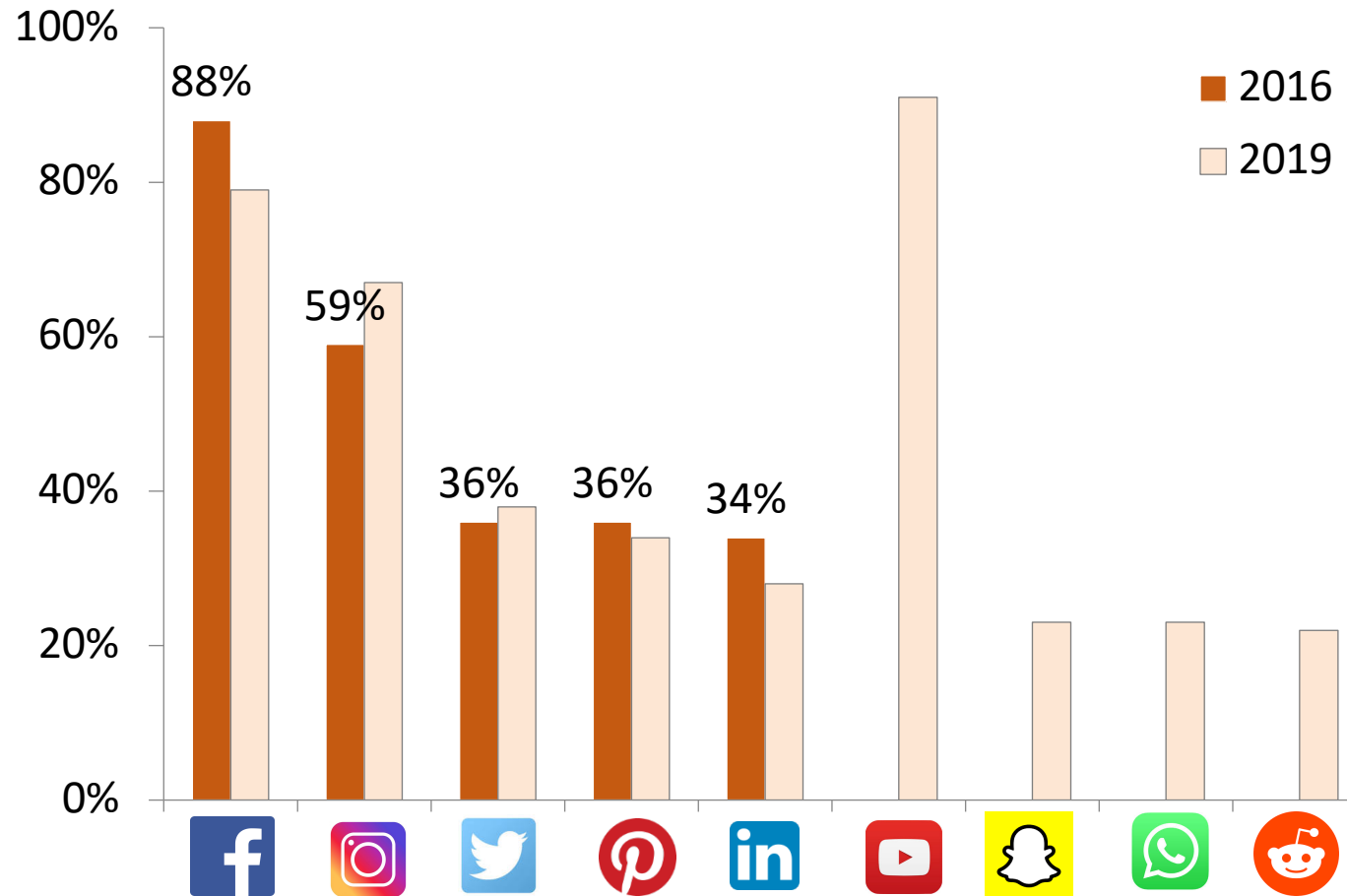
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Smoking cigarettes and drinking among young adults

- ~**20%** of young adults 18-25 report **past month cigarette use**
- Tobacco and alcohol are **often used simultaneously**
- **Co-occurrence of tobacco and alcohol use disorders** is most common among young adults
- Addressing tobacco and alcohol use simultaneously can lead to **better tobacco cessation outcomes**

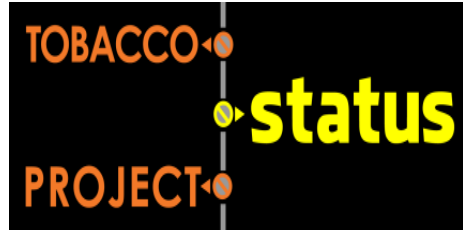


Social media use by young adults 18-29 in 2016 & 2019



Source: Pew Internet and American Life Project (2016 & 2019)

Intervention development



Formative work
to integrate
alcohol



ADDICTION

SSA SOCIETY FOR THE
STUDY OF
ADDICTION


Research Report

A randomized controlled evaluation of the tobacco status project, a Facebook intervention for young adults

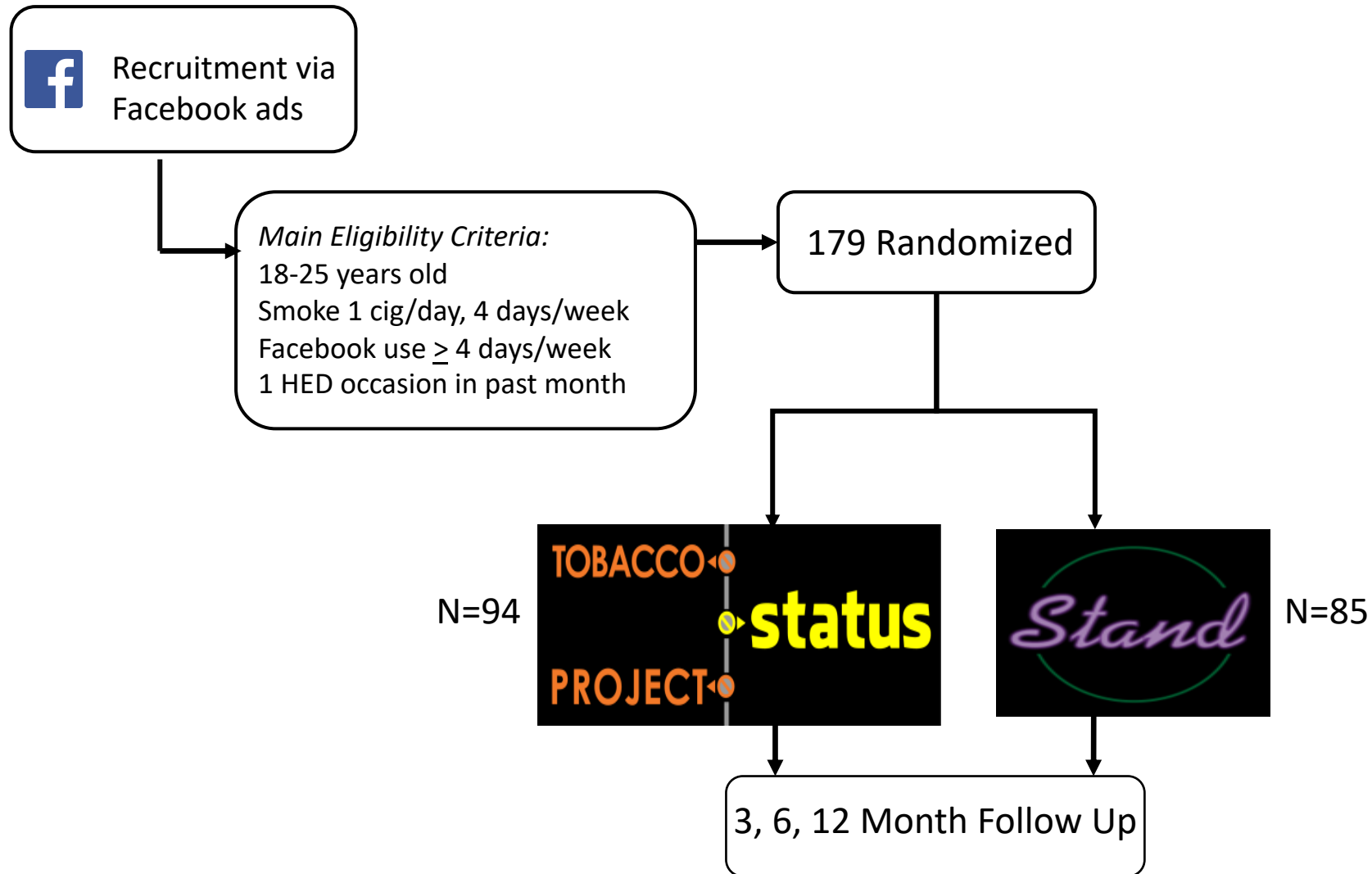
Danielle E. Ramo , Johannes Thrul, Kevin L. Delucchi, Sharon Hall, Pamela M. Ling, Alina Belohlavek, Judith J. Prochaska

Development of a social media-based intervention targeting tobacco use and heavy episodic drinking in young adults



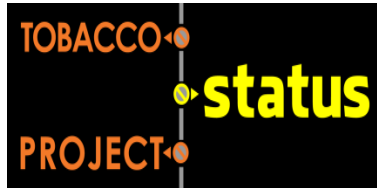
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Smoking Tobacco and Drinking (STAND) Study



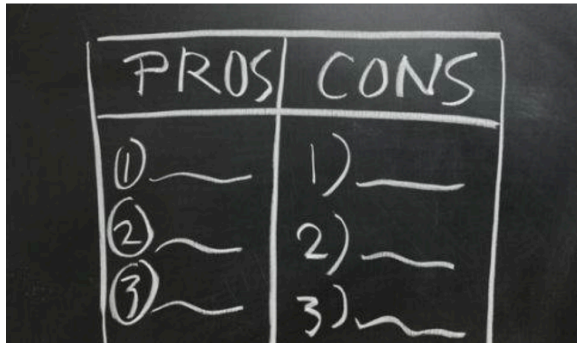
Intervention Components

Daily Posts for 90 days in private “secret” Facebook groups



Tobacco only content

23. Every decision has pros and cons, even stopping smoking. What are some pros to kicking cigarettes? Cons?



Tobacco & alcohol content



Clinical Practice Guideline

Treating Tobacco Use and Dependence: 2008 Update



Weekly “The Dr. Is In” live sessions (MI-focused)



14 days of nicotine patches



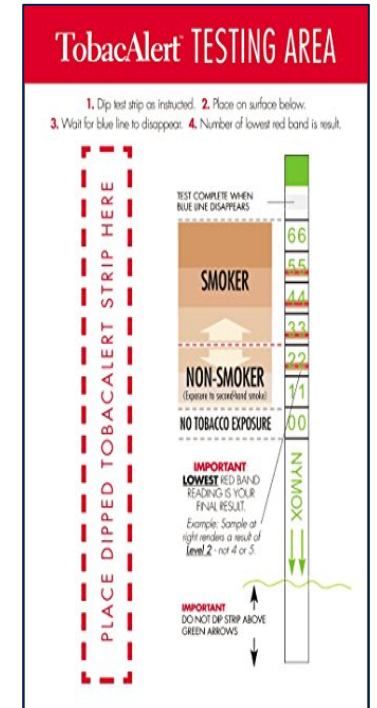
Methods: Measures

- Primary outcome

- Biochemically verified nicotine abstinence (cotinine exposure → yes/no)

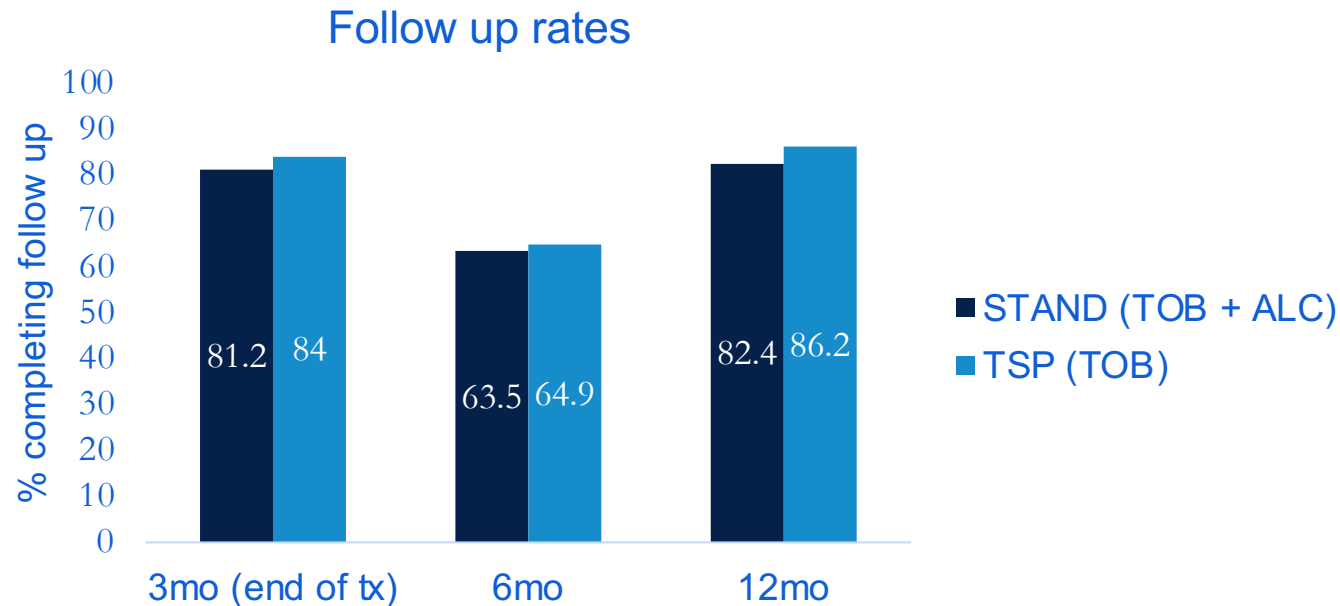
- Secondary outcomes (self-reported)

- 7-day abstinence (0 cigarettes in past week → yes/no)
- Reduced cigarettes smoked per week by 50% or more (compared to baseline → yes/no)
- Fagerstrom Test of Cigarette Dependence score (FTCD) (6 items → 0-10)
- Heavy episodic drinking (HED) days in past month (0-30)
- Usability and acceptability (8 items)

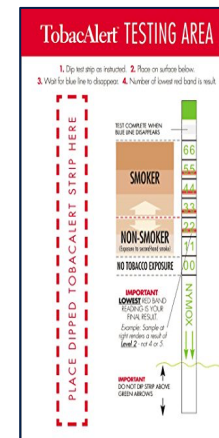
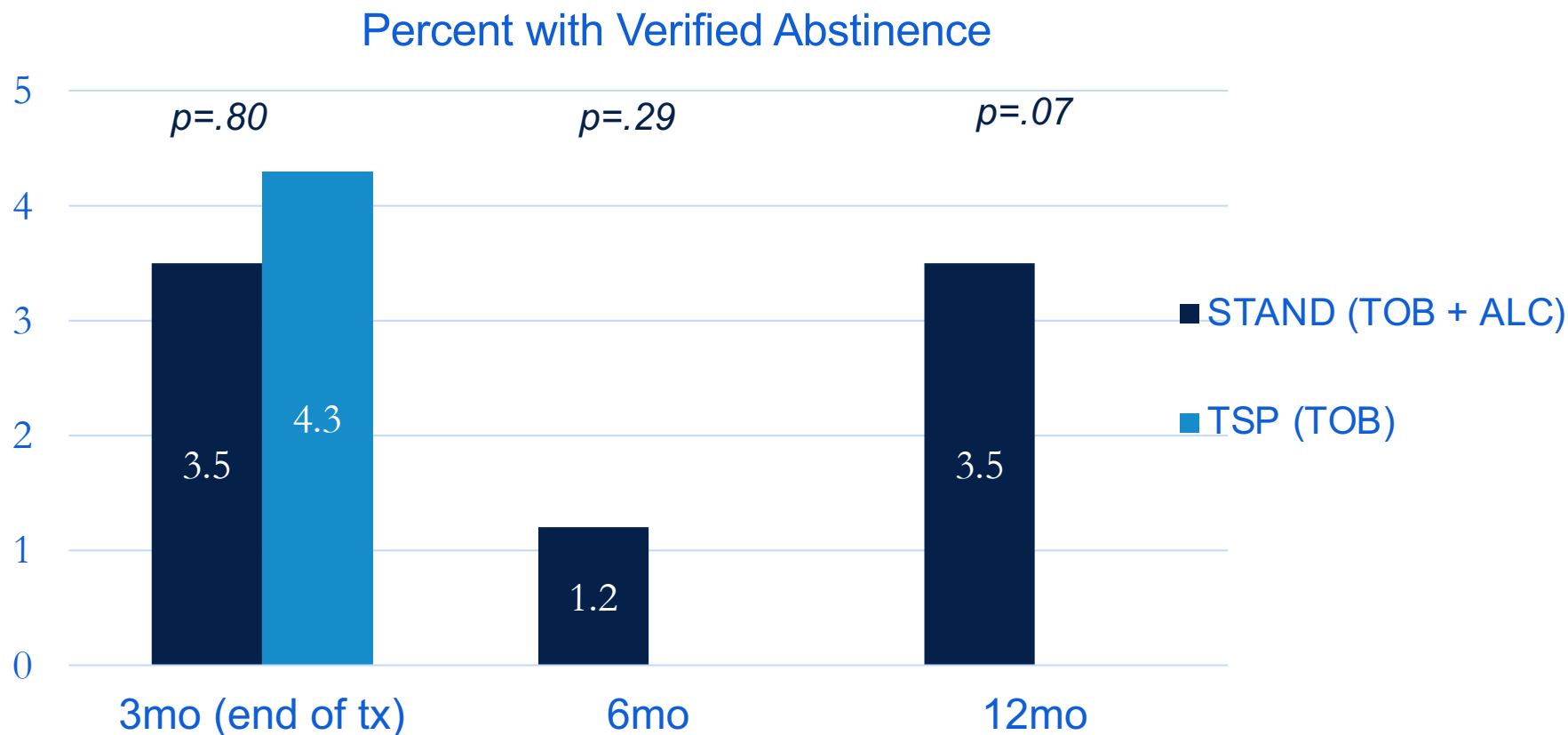


Results: Participant Characteristics ($N=179$)

- Mean age = 22.1 ($SD = 2.2$)
- 80% Non-Hispanic White, 3% Asian, 2% Black, 7% Native American, 5% Latinx
- 49.7% male, 40.2% female, 10.1% non-binary
- Mean cigs/day = 10.4 ($SD = 6.9$)
- 27.4% ready to quit in next 30 days
- Mean FTCD score = 5.7 ($SD = 1.8$)
- Mean HED occasions/month = 8.9 ($SD = 8.0$)



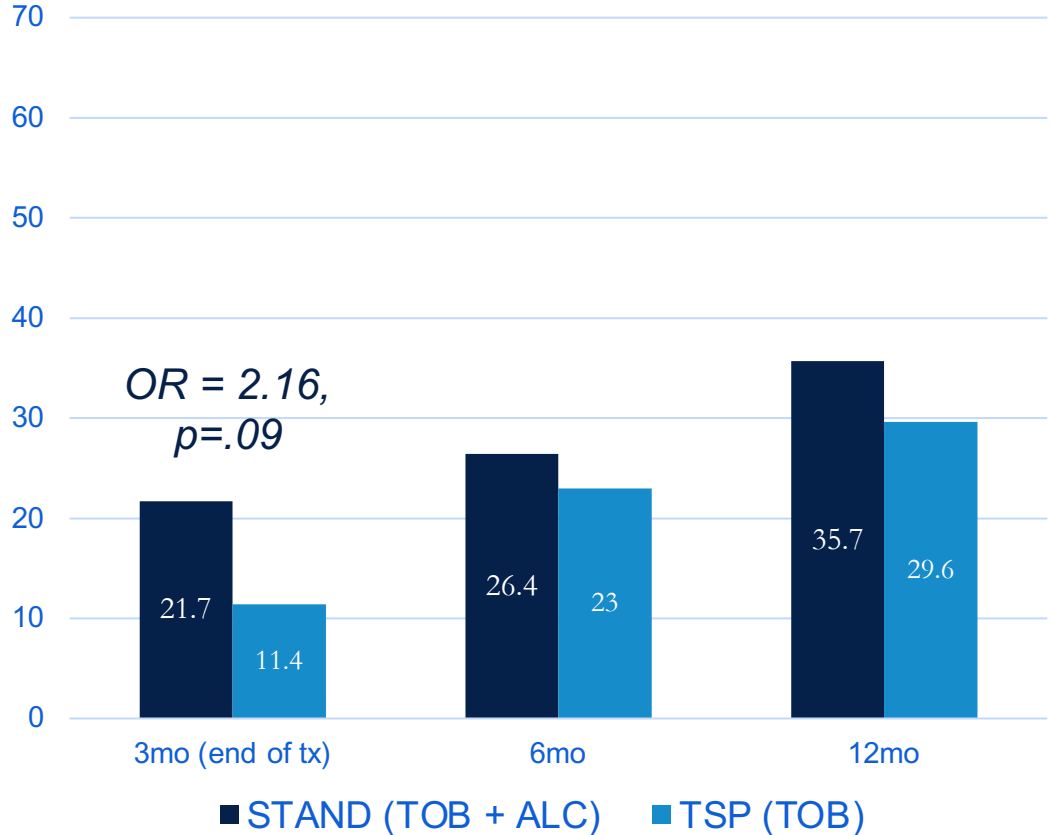
Results: Biochemically verified abstinence



(Missing self-report or cotinine test results treated as smoking)

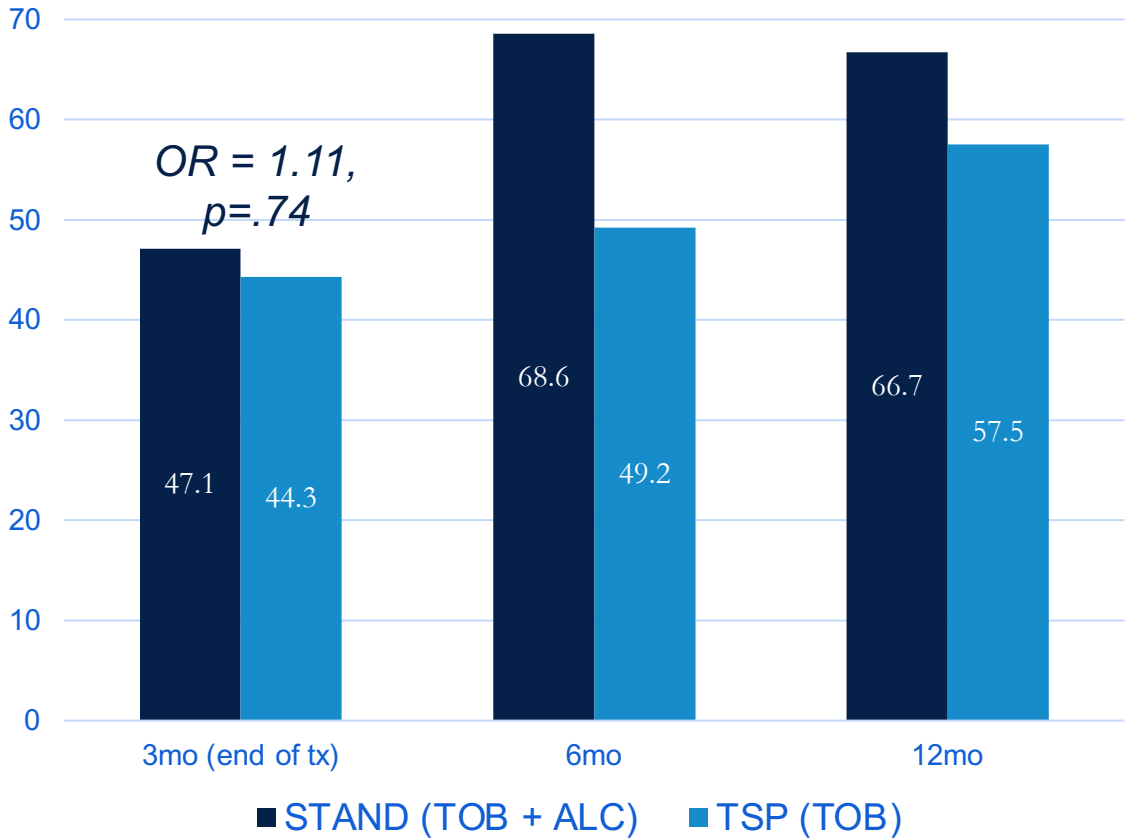
Results: Secondary outcomes

Percent Reporting Past Week Abstinence from Smoking



longitudinal AOR = 1.33, p=.33

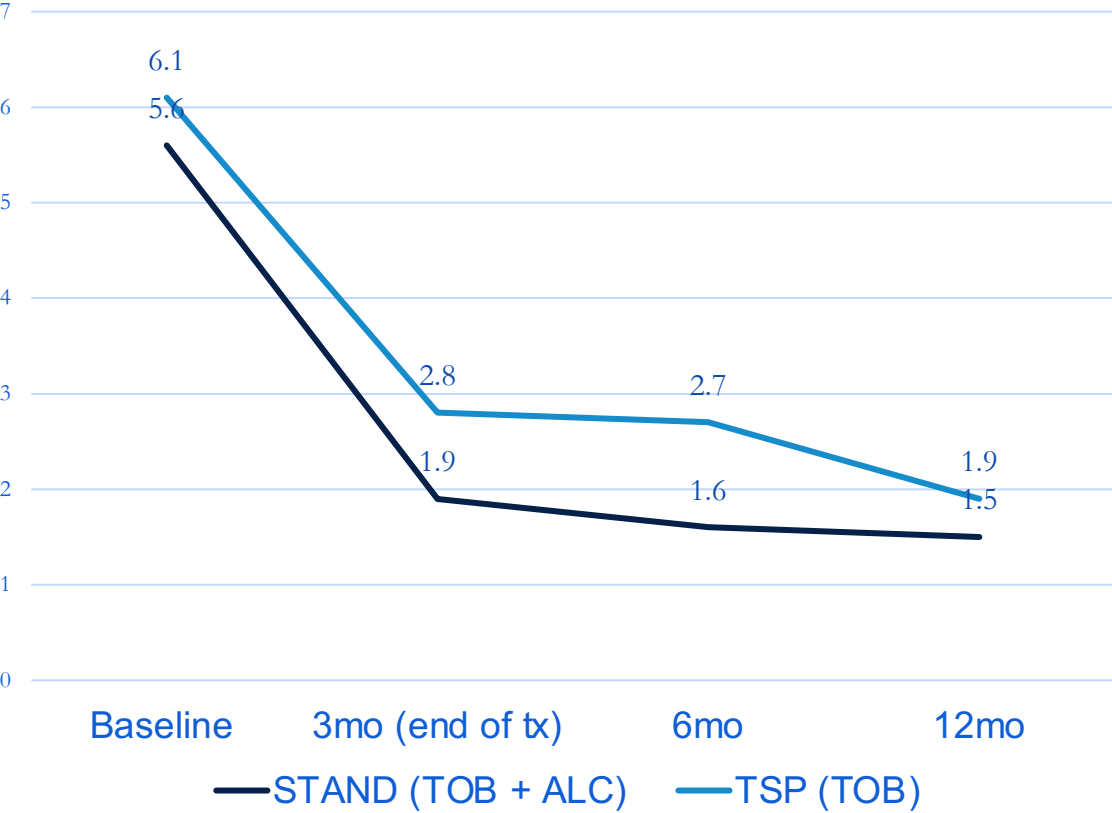
Percent Reporting at least 50% Reduction in Cigarettes Smoked per Week



longitudinal AOR = 1.38, p=.29

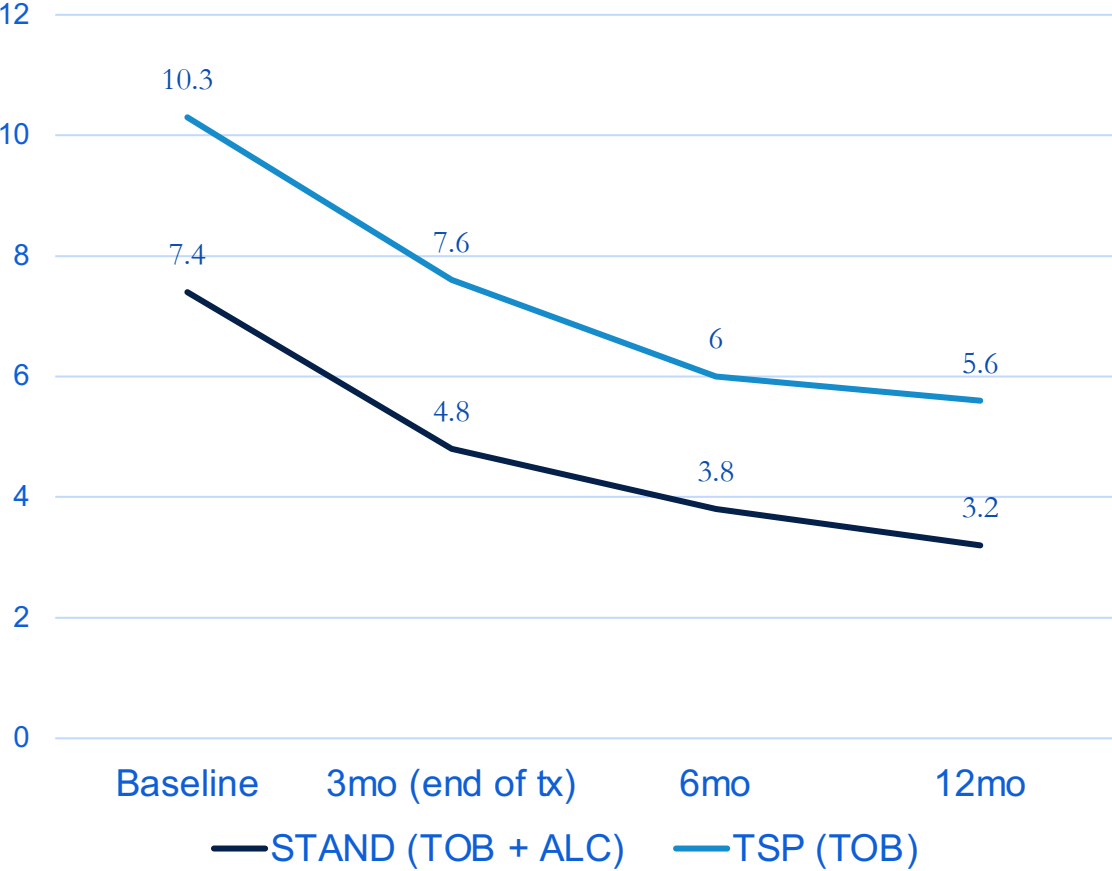
Results: Secondary outcomes

Mean Fagerstrom Test of Cigarette Dependence Score



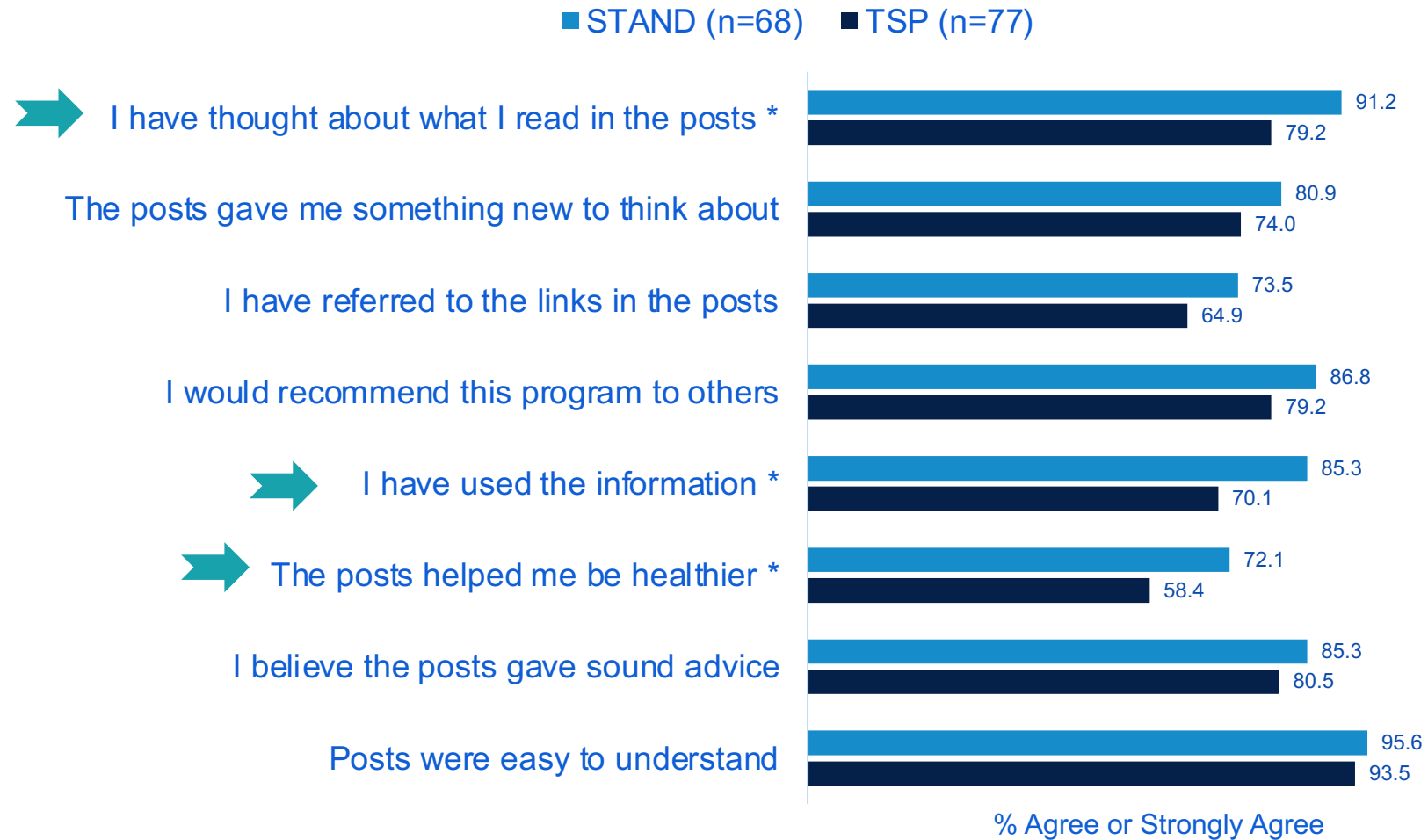
adjusted longitudinal adjusted $\beta = -0.19, p=.45$

Mean Days HED in Past Month



adjusted longitudinal adjusted $\beta = -0.79, p=.32$

Results: Usability and acceptability



Limitations/challenges & future research

Limitations/challenges	Future Research Design Implication
Cotinine test strips don't differentiate between smoking and vaping	CO monitors
Vaping e-cigarettes not explicitly addressed	Specify cigarette or nicotine use as targeted behavior, include more vaping content
Imbalance in conditions at baseline	Randomization stratifying on both targeted behaviors
Only Facebook	Consider other popular platforms (Instagram, Twitter, Reddit, WhatsApp, TikTok)

Conclusions

- Adding an alcohol component to a tobacco cessation social media intervention was **acceptable but did not result in significant differences** by treatment condition in cigarette smoking or alcohol use outcomes.
- **Participants in both conditions reported smoking and drinking less over time**, suggesting covariation in behavioral changes.

