

Re: Effects of Abstinence Self-Efficacy and Outcome Expectancies of Tobacco Smoking on the Desire to Quit Among Saudi Women: A Cross-Sectional Mediation Analysis

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ABSTRACT

This letter offers commentary on Alanazi and colleagues recent analysis of desire to quit tobacco use among Saudi women, and suggestions for future studies.

KEYWORDS: Tobacco, waterpipe, self-efficacy, women

TYPE: Letter to the Editor

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To the Editor,

We read with great interest the recent paper “Effects of Abstinence Self-Efficacy and Outcome Expectancies of Tobacco Smoking on the Desire to Quit Among Saudi Women: A Cross-Sectional Mediation Analysis.”¹ This is a useful contribution, given recent increases in tobacco use by women in conservative Muslim societies. Evaluating theory-based determinants of tobacco use in this setting can help guide the development of culturally informed prevention and cessation programs. We would like to offer some comments about this paper that may stimulate future work.

Alanazi and colleagues combined cigarette and waterpipe smokers in their analyses. This is understandable, given sample size limitations, but may have obscured important product-specific pathways influencing desire to quit. For example, compared to cigarette smokers, waterpipe smokers are much less likely to want to quit, have greater self-efficacy for quitting, and have different outcome expectancies such as perceived difficulty in quitting.² Other tobacco-specific factors, such as the much greater social stigma attached to cigarette compared to waterpipe smoking for women in conservative societies,^{3,4} also are likely to produce distinct causal pathways to desire to quit. Additionally, the authors acknowledge that nicotine dependence, which was not assessed, may impact the strength of observed associations. Combining cigarette and waterpipe smokers is likely to have exacerbated this problem, because dependence is less common and possibly not as strong a deterrent to quitting among waterpipe compared to cigarette

smokers^{2,5,6}. Knowing the prevalence of cigarette vs. waterpipe smoking in this study would help judge the seriousness of this conflation of tobacco products, and future studies should enroll larger samples of cigarette-only, waterpipe-only, and dual users so that causal pathways to quitting can be compared.

As acknowledged by the authors, the use of cross-sectional data to infer causal pathways is a major limitation. Abstinence self-efficacy is modeled as a mediator of the effect of outcome expectancies on desire to quit. However, self-efficacy can be both a cause and a consequence of smoking behavior and perceptions⁷⁻⁹ and the directionality of this causal path has implications for developing effective intervention targets. Future studies should conduct bidirectional longitudinal mediation analysis, separately for cigarette and waterpipe smoking, to sort this out.

Related to the description of path models, we believe there may be reporting or typographical errors. The numbers in the figure do not match with the descriptions in the text. For example, text in Results reports that the direct effect of the negative consequences constructs on the desire to quit was significant (standardized beta = $-.012$, SE = $.0027$, 95% CI = $-.065$, $.041$) but this number is not evident in the figure. Similarly, there is inconsistency between the figure and text in the reporting of other models in both direct and indirect effect, making it difficult to interpret the results.

Despite these limitations, we believe this paper makes a useful contribution to understanding the growing problem of



tobacco use among women from conservative societies, and we hope that it will inspire larger, longitudinal analyses of theory-driven causal modeling of determinants of specific types of tobacco use, including both cigarettes and waterpipe

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