ASHES, Vol. 14(5) – Do people with mental health disorders want cigarettes more?

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People with mental health disorders are more likely to smoke than the general population and they experience more smoking-related health problems. They also tend to have less success in quitting. One reason for this could be that people with mental health disorders might have a greater desire to smoke and might value cigarettes differently. This week ASHES reviews a study by Samantha Farris and her colleagues that looked for differences in levels of desire to smoke among individuals with and without mental health disorders, across a range of cigarette prices.

What was the research question?

Do smokers with a mood/anxiety or substance use disorder (SUD; aside from tobacco) differ in their desire to smoke under different economic situations compared to smokers without a mental health diagnosis?

What did the researchers do?

The researchers invited 126 current smokers from the surrounding community who were participating in a different experiment to complete a number of questionnaires in-person at their lab. The participants completed a structured interview that determined their mental health diagnoses and answered questions about their smoking history. They then smoked one cigarette, waited an hour to induce cigarette craving, and completed the Cigarette Purchase Task (CPT). In the CPT, participants indicated how many cigarettes they would hypothetically purchase to smoke at that moment at a series of increasing prices. From this, the researchers calculated: 1) the number of cigarettes consumed at zero cost; 2) the maximum amount of money a participant was willing to spend on cigarettes;[1] and 3) how sensitive a participant was to an increase in cigarette price.[2,3] The researchers used ANCOVA to compare CPT results of people with different diagnosis status.

What did they find?

Participants with a mood/anxiety disorder diagnosis said they would smoke significantly more cigarettes if they were free compared to individuals without this diagnosis. Those with a SUD diagnosis also indicated a higher demand for cigarettes when they were free compared to those without SUD. Those with a SUD were also willing to spend significantly more money on cigarettes, and were less sensitive to price increases than people without SUD – that is, their demand for cigarettes did not decrease as much with an increase in price. See Figure.

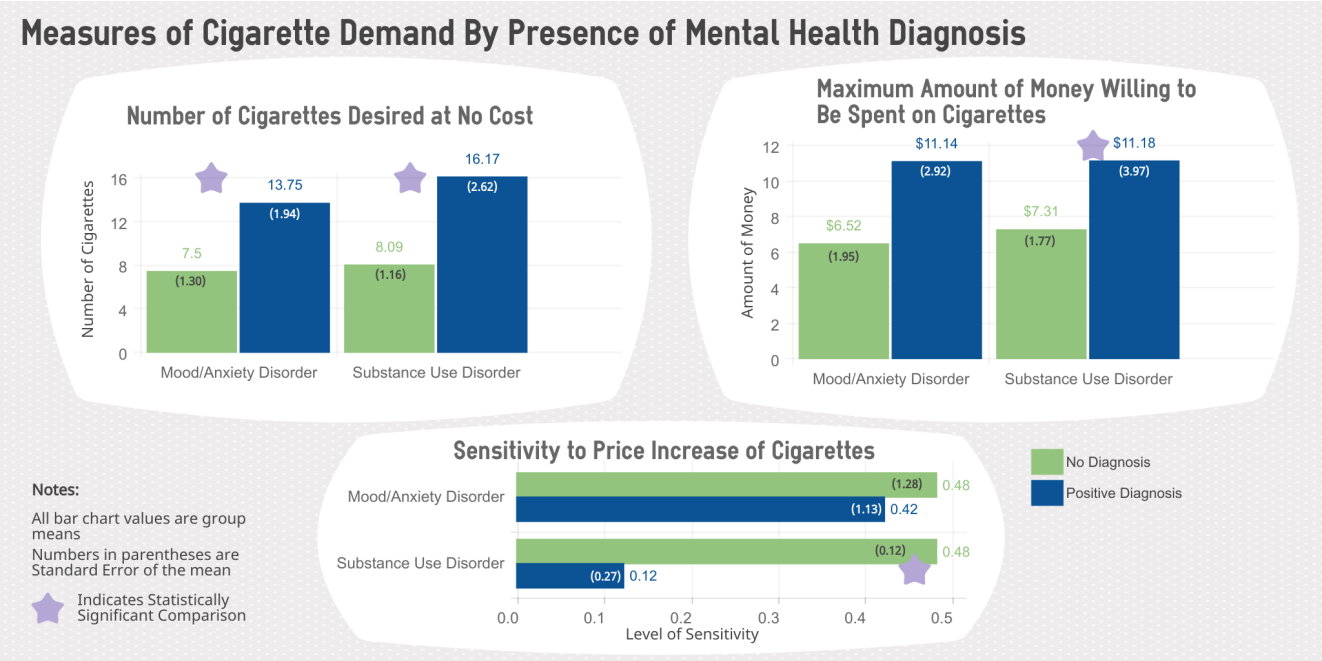

Figure. People with and without Mood/Anxiety or Substance Use Disorders were compared on a variety of indicators of cigarette demand. The results of these comparisons are summarized in a series of bar charts, with group means and standard error of means. Adapted from Farris et al., 2017. Click image to enlarge.

Why do these findings matter?

In addition to encouraging healthcare providers to pay more attention to tobacco use in individuals with mental health disorders, better understanding the factors that reinforce smoking behavior for people with mental health diagnoses is an important step in creating more tailored treatment interventions to tackle disparities in treatment outcomes. Furthermore, these findings suggest that simply increasing the price of cigarettes through taxes as a means of discouraging smoking might not be effective for people with mental health disorders, and could in fact result in a disproportionate economic burden on this population.

Every study has limitations. What are the limitations in this study?

The researchers recruited participants from a different experiment that excluded

individuals who said that they drank more than nine drinks a week, used illegal drugs, had an unstable medical condition, or were experiencing psychotic symptoms in their study. Although many participants in this study met diagnostic criteria for a mood/anxiety disorder or a non-tobacco related SUD, the aforementioned exclusion criteria might have had the effect of excluding individuals with the most severe expressions of SUDs or mood/anxiety disorders. This would mean that the current findings are not representative of the experiences of all people with mood/anxiety disorders or SUDs.

For more information:
Your First Step to Change: Smoking is a free, anonymous, web-based resource for anyone who is concerned about how smoking affects their life. For additional tools, please visit the BASIS Addiction Resources page.

— Rhiannon Chou Wiley

What do you think? Please use the comment link below to provide feedback on this article.

[1.] For example, if a participant said they would buy 200 cigarettes at 10¢ each but only 1 cigarette at $10 each, then their maximum amount of money spent would be $20 (200x$0.01), not $10 (1x$1).

[2.] For example, if the price of cigarettes doubled, would a participant halve the number of cigarettes consumed?

[3.] The researchers also calculated other metrics from the CPT, but comparisons between diagnostic groups were not significant. For brevity, they are not covered here.