STASH, Vol. 21(7) – Prescribed (or not): The relation between prescription opioid misuse and suicidality

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Harms from substance use and misuse include a broad range of negative outcomes related to school or work, mental health, and, in extreme cases, suicidality. In light of these risks, public health professionals must identify the factors that predispose individuals to such outcomes and work to lessen their impact. For example, one factor that has been underexplored thus far is the effects of polysubstance use. Of particular note are combinations of illicit drugs and prescription medicines like opioids, a commonly prescribed but often misused class of drug. Therefore, this week, STASH reviews a study by Seungbin Oh and colleagues that explored how different substance use patterns relate to suicidality.

What were the research questions?

(1) How does prescription opioid misuse relate to suicidality? (2) Does the use of additional substances alter this relationship?

What did the researchers do?

The research team analyzed data from the 2015-2019 administrations of the National Survey on Drug Use and Health, a large U.S.-based nationally representative survey of substance use and other related health behaviors. To be included in the analysis, participants must have 1) been between 18 and 25 years old, 2) completed all relevant sections of the survey relating to past year substance use, demographics and past year suicidality, and 3) displayed no signs of substance abuse or dependence.[1] This resulted in a final analytic sample of 36,892 young adults. The research team then used a series of logistic regressions to explore how substance use and misuse patterns relate to suicidality and suicide attempts.

What did they find?

Across the entire sample, 8.5% of participants reported suicidal ideation only and an additional 1.9% reported a suicide attempt in the past year. Participants who reported any substance use reported higher rates of suicidal ideation and attempt, although this varied between different substance use profiles. For example, among those who reported *any* illicit drug use, 11.90% reported suicidal ideation while 2.68% reported a suicide attempt. Among those who reported misusing prescription opioids, these rates increased further to 13.95% and 4.13%, respectively. Notably, those who reported combinations of prescription opioid misuse and other illicit substance use were at even higher risk for suicidality. For example, those who reported prescription opioid misuse and the use of one illicit drug were 3.31 times more likely to have attempted suicide compared to those who did not use substances (See Figure).

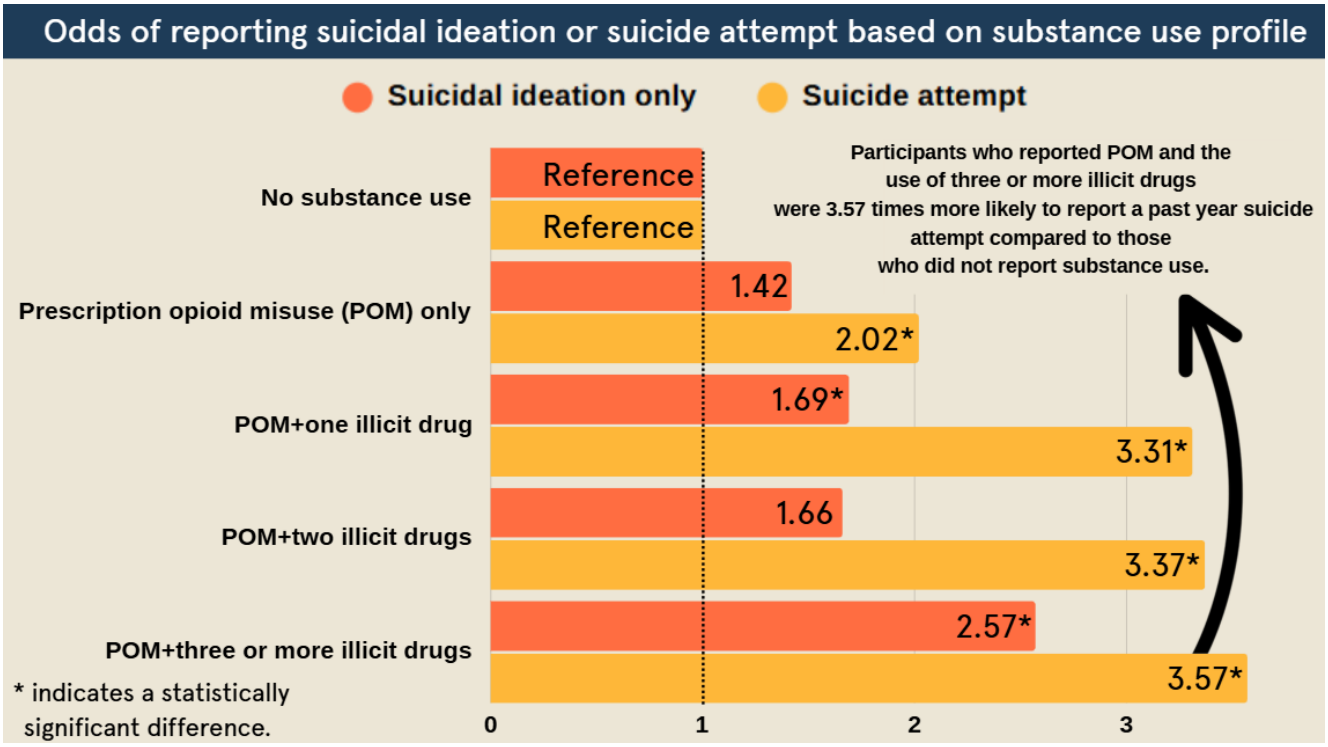

Figure. Displays the odds ratios of reporting suicidal ideation or a suicide attempt based on substance use profile. Odds ratios can be interpreted as having an X times more likely odds of reporting an outcome. For example, participants who reported prescription opioid misuse only had 1.42 times higher odds of reporting suicidal ideation compared to those who did not report substance use. * indicates a statistically significant difference. (Click image to enlarge.)

Why do these findings matter?

These findings provide insight into who may be at risk of suicidality and other forms of self-harm. The finding that prescription opioid misuse relates to elevated levels of suicidality suggests that those who misuse opioids should be targeted for

suicide-prevention messaging. Furthermore, this study underscores the need for specialized interventions meant to address co-occurring issues. Suicidality and substance use present significant dangers to the individual but often present due to unique circumstances. Specially tailored programs such as integrated outpatient cognitive behavioral therapy however, have shown promise.

Every study has limitations. What are the limitations in this study?
The data for this study was cross-sectional in nature so it is impossible to say whether substance use preceded suicidality or vice versa. This study also classified substances based on federal legal status rather than more relevant characteristics like drug type. This classification may obfuscate the relationship between substance use and suicidality. To illustrate, while the main analysis collapsed all illicit substances into one category and found increased suicide risk based on the number of comorbid substances used, other analyses suggested large variations in suicide risk based on the type of comorbid substance (e.g., cannabis compared to heroin).

For more information:
Individuals who want to learn more about opioids and the opioid crisis may benefit from visiting the National Institute on Drug Abuse. Others who want to learn more about reducing or eliminating their opioid use should visit the CDC webpage on opioids. Additional resources can be found at The BASIS Addiction Resources page.

—John Slabczynski

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1. Abuse and dependence are defined according to DSM-IV classifications.