

STASH, Vol. 8(5) - Coping and co-morbidity: Patterns of substance use among people with mental health conditions

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Substance use disorders often co-occur with mental health conditions, such as depression and psychosis (Kessler, Chiu, Demler, & Walters, 2005). Increasingly, health care providers are developing integrated treatment plans to promote recovery from both substance use disorders (SUD) and mental health (MH) conditions. To facilitate this goal, some researchers have begun to examine reasons for use of particular substances among people with different MH conditions. This week's STASH reviews one such study (Thornton et al., 2012).

Methods

- The authors combined data from 5 randomized controlled trials conducted at the Centre for Brain and Mental Health Research at the University of Newcastle, New South Wales, Australia. Participants were 976 people with depression or psychotic disorder (59.9% male), ages 15 to 73 years ($M=38.03$, $SD=12.13$).
- Participants who used a substance in the past 6 months reported their reasons for using that substance.
- Different measures were used in different studies.
 - For alcohol and cannabis use, participants completed the Drug Use Motives Questionnaire (DUMQ; Cooper, Russell, Skinner, & Windle, 1992), which measures frequency of using substances for each of four motives: Social (e.g., to celebrate), Pleasure (e.g., to feel good), Coping (e.g., to forget worries), Illness (e.g., to reduce MH symptoms).¹
 - For smoking, participants used the Reasons for Smoking Questionnaire (RSQ; Pederson, Bull, Ashley, & MacDonald, 1996), which asks respondents to answer 'yes' or 'no' to a list of 14 possible reasons for smoking

- Participants in one study used free-response to report their reasons for using alcohol, tobacco, and/or cannabis.
- The authors re-coded responses to the RSQ and the free response survey using the 4 DUMQ motive domains. The primary dependent measure was frequency of reporting a particular motive for using a particular substance.²
- Separately for tobacco, alcohol, cannabis, the authors conducted a series of hierarchical logistic regression predicting motives from age (under 30 or 30+), gender, and diagnosis type (depression or psychosis).

Results

- People with psychotic disorders who smoked were significantly more likely than people with depression who smoked to endorse the Pleasure (odds ratio: 2.65; 95% CI: 1.37 - 5.12), Coping (odds ratio: 8.67; 95% CI: 3.48 - 21.63) and Illness (odds ratio: 14.07; 95% CI: 1.90 - 104.08) motives for smoking (Table 1). Across all participants, coping was the most commonly endorsed motive for smoking.
- People with depression who used alcohol were significantly more likely than people with psychotic disorders who used alcohol to endorse each of the four motives for their use (Table 1). Across all participants, alcohol was primarily used for Coping , followed closely by Social motives and Pleasure.
- Reasons for using cannabis did not vary by diagnosis type. The most frequently-reported reason for cannabis use was pleasure.

| | Social | Pleasure | Coping | Illness |
|---------------------------|--------------------|--------------------|--------------------|--------------------|
| Tobacco (n = 394) | | | | |
| Depression | 9.3% | 48.8% ^a | 74.4% ^b | 2.3% ^c |
| Psychotic disorder | 10.0% | 73.2% ^a | 96.6% ^b | 26.3% ^c |
| All patients | 9.9% | 70.6% | 94.2% | 23.7% |
| Alcohol (n = 631) | | | | |
| Depression | 81.0% ^d | 77.4% ^e | 87.9% ^f | 59.2% ^g |
| Psychotic disorder | 67.7% ^d | 61.1% ^e | 56.3% ^f | 17.7% ^g |
| All patients | 77.5% | 73.1% | 79.6% | 47.7% |
| Cannabis (n = 293) | | | | |
| Depression | 48.7% | 75.3% | 72.0% | 38.7% |
| Psychotic disorder | 48.6% | 82.5% | 59.4% | 29.4% |
| All patients | 48.6% | 78.8% | 65.9% | 34.0% |

Figure. Percent of patients endorsing each motive for substance use, separately by diagnosis and substance type, after controlling for age and gender. (Adapted from Thornton et al., 2012). ^a Odds ratio = 2.65, p=0.004, 95% CI = 1.37 - 5.12. ^b Odds ratio = 8.67, p=0.000, 95% CI = 3.48 - 21.63. ^c Odds ratio = 14.07, p=0.010, 95% CI = 1.90 - 104.08. ^d Odds ratio = 0.55, p=0.014, 95% CI = 0.34 - 0.88. ^e Odds ratio = 0.38, p=0.000, 95% CI = 0.24 - 0.60. ^f Odds ratio = 0.26, p=0.000, 95% CI = 0.16- 0.42. ^g Odds ration = 0.21, p=0.000, 95% CI = 0.13 - 0.35. Click image to enlarge.

Limitations

- The authors re-coded responses from different measures before combining them across studies. This process likely introduced error.
- This self-report study relies on the sometimes faulty assumption that people can accurately reflect upon their reasons for performing certain behaviors (Nisbett & Wilson, 1977).

Conclusion

Overall, this work is consistent with the self-medication hypothesis of substance abuse, which states that people use substances in part to relieve psychological

suffering (Khantzian, 1997). This new study suggests that people with depression and psychotic disorders differ in their reasons for using tobacco and alcohol. Compared to people with depression, participants with psychotic disorder were particularly likely to turn to tobacco to help them cope with their mental illness. Therefore, smoking cessation programs among this population will likely fail unless they provide an alternative method of coping with mental illness. On the other hand, people with depression were especially likely to drink alcohol to cope with their illness and for other reasons. Among those coping with depression, the perceived power of alcohol to relieve distress, provide pleasure, and facilitate social interactions will likely impede the success of alcohol treatment. At the prevention stage, it might be worthwhile to provide information about alternative coping strategies to people who are at risk for MH conditions.

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

References

- Cooper, M. L., Russell, M., Skinner, J. B., & Windle, M. (1992). Development and validation of a three-dimensional measure of drinking motives. *Psychological Assessment, 4*(2), 123-132.
- Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, Severity, and Comorbidity of 12-Month DSM-IV Disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*(6), 617-627.
- Khantzian, E. J. (1997). The self-medication hypothesis of substance use disorders: A reconsideration and recent applications. *Harvard Review of Psychiatry, 4*(5), 231-244.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review, 84*(3), 231-259.
- Pederson, L., Bull, S., Ashley, M. J., & MacDonald, J. K. (1996). Quitting smoking: Why, how, and what might help. *Tobacco Control, 5*, 209-214.
- Thornton, L. K., Baker, A. L., Lewin, T. J., Kay-Lambkin, F. J., Kavanagh, D., Richmond, R., Kelly, B., & Johnson, M. P. (2012). Reasons for substance use

among people with mental disorders. *Addictive Behaviors*, 37(4), 427-434.

[1] Participants who reported never using, or almost never using, a particular substance for a particular reason received a “no” code for that reason.

[2] During this re-coding process, independent coders reached consensus (i.e., 4 out of 5 raters agreed) for 72% of items.