

ASHES, Vol. 6(8) - The role of affect in the relationship between vulnerability to depression and smoking behavior

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Research suggests that a substantial portion of college students smoke to alleviate symptoms of depression in particular (See: [ASHES Vol. 2\(10\)](#) and Morrell, Cohen, & McChargue, 2010) and to reduce negative affect in general (See: [ASHES Vol. 5\(7\)](#)). However, much remains to be learned about the potential moderating and mediating influences of the relationship between depression and smoking behavior. This week's ASHES reviews a study that examined the association between vulnerability to depression (i.e., history of depression or anhedonia) and smoking and potential moderating (i.e., gender) and mediating (i.e., negative affect reduction expectancy) variables among college students (Morrell, et al., 2010).

Methods:

- Morrell and colleagues used a convenience sampling strategy to survey 1,214 introductory psychology students.
- The researchers provided students with course credit for participating.
- Survey measures included the following: demographics; smoking behavior; 2 items regarding depression/anhedonia; and 3 items regarding [negative reinforcement expectancies](#).
- The research team conducted separate hierarchical binomial logistic regression to test the following hypotheses:
 - That gender would moderate the relationship between vulnerability to depression and smoking behavior
 - That the relationship between vulnerability to depression and smoking behavior would be mediated by negative reinforcement expectancies.

Results:

- Approximately 25% of male and 30% of female students reported a history of depression.
- Vulnerability to depression predicted smoking behavior in women (OR = 2.4, 95% CI = 1.6 - 3.5), but not in men (OR = 1.1, 95% CI = 0.7 - 1.8).
- As the Figure shows, among women this relationship between vulnerability to depression and smoking behavior was mediated by negative affect reduction.

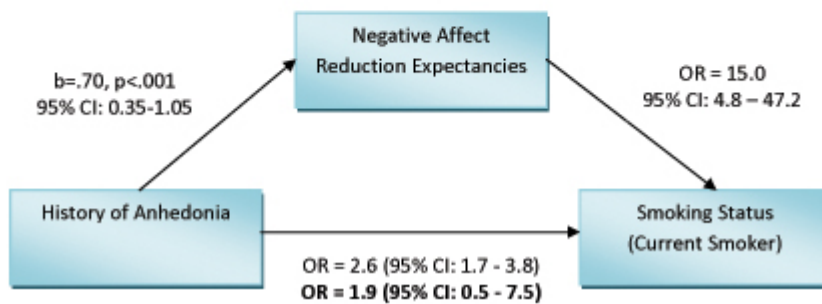
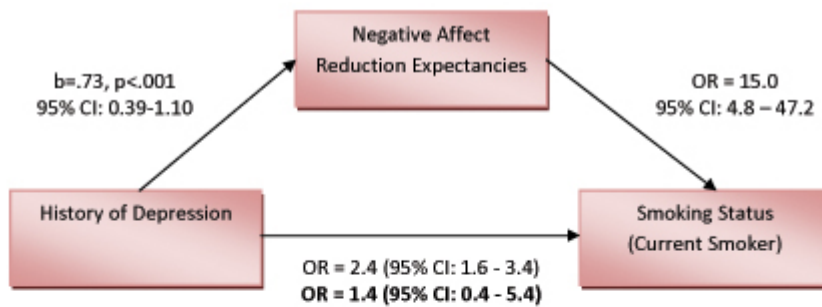


Figure. Negative affect reduction expectancies as a mediator of the relationship between vulnerability to depression and smoking behavior. Click image to enlarge.

Note. The results in bold indicate the relationship taking in to account the mediating factor.

Limitations:

- The cross-sectional study design makes it impossible to determine cause and effect.
- The results are subject to the biases associated with self-report.
- Due to the sampling procedure (i.e., convenience sample of undergraduate students) the results are not generalizable to all college students, those with depression, negative affect reduction expectancies, or smokers from the general population.

Conclusion:

The results improve our understanding about the relationship between depression

and smoking behavior among college students. University officials might target specific smoking prevention efforts toward affectively vulnerable female college students. These smoking prevention programs should guide female college students towards different options for alleviating negative affect (e.g. therapy, meditation, exercise). However, the results come with an important caveat: additional research is necessary to replicate the findings in this study with a stronger sampling procedure.

References

Morrell, H. E., Cohen, L. M., & McChargue, D. E. (2010). Depression vulnerability predicts cigarette smoking among college students: Gender and negative reinforcement expectancies as contributing factors. *Addict Behav*, 35(6), 607-611.

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