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NEWMARC PROJECT 6: Ecological Momentary Assessment of Emotion Regulation

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NEW MARC PROJECT 6: Ecological Momentary Assessment of Emotion Regulation

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Background and Aims

- The goal of this study is to systematically extend our previous research (previous MARC Project 6) by examining the role of alcohol and smoking on regulating emotional states in a clinical sample characterized by affective instability.
- BPD is a psychiatric disorder that is perhaps the prototype of emotional dysregulation (Linehan, 1993).
- Anxiolytic properties of alcohol decrease acute feelings of distress and may be negatively reinforcing (Sher, 1991; Sher & Trull, 2002; Trull et al., 2000).
- Tobacco use and, specifically among individuals with BPD, self-harm behaviors, may also be aimed at reducing negative affect.
- Alternatively, alcohol may serve as a positive reinforcer by increasing positive mood states (Sher, 1991).
- Specifically, the new Project 6 hypothesizes that individuals with borderline personality disorder (BPD) will be more likely to use maladaptive emotion regulation strategies (e.g., alcohol use, tobacco use, self-harm) to regulate negative emotion states than drinkers without BPD.
- Further, we wish to examine the use of alcohol to regulate emotions, how these efforts compare to other forms of emotional regulation observed in BPD (e.g., tobacco use, self-harm behaviors), and the effects of these regulation strategies on subsequent mood.
- It is expected that this project will help to clarify the nature of the high prevalence of alcohol dependence, nicotine dependence, and self-harm behaviors among individuals with BPD.
- Previous MARC Project 6 results showed that alcohol use promotes positive affect and reduces negative affect in participants without clinically significant affective disturbance.

Research Design and Methods

- Ecological momentary assessment (EMA; Stone & Shiffman, 1994) methods will be used to study the dynamic process of mood and the interplay between mood and self-regulatory strategies.
- BPD participants (n=75) who meet criteria for affective instability and have consumed alcohol on at least 4 occasions in the past month will be compared to community drinkers (n=75) without affective instability or BPD.
- Participants will complete several self-report measures related to personality, impulsivity, drinking, smoking, and traumatic events.
- Participants will carry a personal digital assistant or PalmPilot for 3 weeks. The PalmPilot surveys will consist of:
 - 1) 6 random prompts per day to assess mood and impulsivity
 - 2) Participant-initiated surveys after drinking, smoking, self-harm urges/behaviors, or certain life events describing the circumstances surrounding these events.
- Analysis of drinking/smoking/self-harm emotion regulation attempts will involve assessment of frequency counts across the days of measurement. As such, we are interested in detecting group differences in the relative counts of emotion regulation “attempts”.

Hypotheses

- Drinking episodes in BPD patients will be presaged by both positive and negative moods (as measured by random prompts); drinking in controls will be presaged by positive moods only; impulsivity will moderate these relations.
- BPD patients' drinking episodes will be associated with heavier consumption than controls; group differences will be moderated by both affective instability and by impulsivity. The relationship between negative mood and drinks consumed will be moderated by number of cigarettes in both groups (i.e., cross tolerance).

➤ Alcohol consumption's effect on mood will be characterized by both positive and negative reinforcement; smoking will attenuate the degree of reinforcement due to acute cross-tolerance effects in both groups.

➤ Negative post-drinking effects of alcohol on mood will be larger in BPD patients than controls because of additive effects of hedonic rebound effects of alcohol and negative affectivity in BPD patients.

Significance

➤ This study will provide important information about the role that emotion dysregulation plays in the etiology and maintenance of alcohol use disorders.

➤ Further knowledge about the relationship between smoking and self-harm in the context of alcohol use will be gained from this study, highlighting shared underlying mechanisms such as impulsivity.

References

- Linehan, M.M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford Press.
- Sher K.J. (1991). *Children of alcoholics: A critical appraisal of theory and research*. Chicago: University of Chicago Press.
- Sher, K. J., & Trull, T. J. (2002). Substance use disorder and personality disorder. *Current Psychiatry Reports*, 4, 25-29.
- Stone, A.A. & Shiffman, S. (1994). Ecological momentary assessment in behavioral medicine. *Annals of Behavioral Medicine*, 16, 199-202.
- Trull, T. J., Sher, K. J., Minks-Brown, C., Durbin, J., & Burr, R. (2000). Borderline personality disorder and substance use disorders: A review and integration. *Clinical Psychology Review*, 20, 235-253.

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