

How are Recovery-Supportive Cognitions and Behaviors Associated with Positive and Negative Affect?

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Introduction

- Negative affect among individuals in recovery from substance use disorders has been strongly associated with relapse (Marlatt, 1996; Ramo & Brown, 2008; Sliedrecht et al., 2019).
- Few interventions are designed specifically to improve mood during recovery and little is known about the effect on mood of incremental, recovery-supportive cognitions and behaviors (IRSCB), such as wishing others well or writing a gratitude list.
- In this study, 81 individuals in addiction completed surveys for 30 days assessing 17 different past 24 hour IRSCBs and current-moment mood assessed via the Positive and Negative Affect Schedule (Watson et al., 1988).

Study Procedures

- The parent study was a randomized controlled pilot investigation of the impact of a novel journaling intervention (Positive Peer Journaling, PPJ, Krentzman et al., 2022) on recovery behaviors, well-being indicators, and treatment outcomes.
- All study activities took place remotely during COVID-19.
- Treatment and control data were combined for the current study.

Incremental, Recovery-Supportive Cognitions and Behaviors (IRSCBs)

In the past 24 hours...

- A I felt able to get things done
- B I realized that more good things than bad things were happening
- C I realized that there is a lot I am grateful or thankful for
- D I did something enjoyable
- E I took a step toward one of my goals
- F I spent social time with people who supported my recovery
- G I remembered to do something important
- H I did something to help another person in recovery
- I I thought of people in need and, in my mind, I sent them good wishes
- J I stopped to think over the past day
- K I directly wished someone well, in person or by phone, text, or internet
- L I made a list of at least one thing I wanted to do that I'd find pleasurable
- M I checked in on someone I care about and asked how they were doing
- N I wrote down things I wanted to get done in the near future
- O I thought about things I am grateful for or thankful for, but didn't write them down
- P I went to an AA or other mutual aid meeting
- Q I wrote a list of the things I am grateful or thankful for

Response Format

4 = definitely yes; 3 = leaning toward yes; 2 = not sure; 1 = leaning toward no; 0 = definitely no

The Positive and Negative Affect Schedule (PANAS)

Positive affect (feeling interested, active, 10 items) and negative affect (feeling irritable, scared, 10 items) were assessed via the PANAS instrument (Watson et al., 1988).

Setting and Sample (N=81)

- Recruitment from 3 addiction treatment centers in the upper Midwestern USA
- 53% female; age (M=39, SD=11); 26% BIPOC
- 63% household income < \$15,000
- Length of abstinence in days: (M=140, SD=188)
- Number of addiction treatment episodes: (M=6, SD=3)
- 43% of participants had a legal issue
- 95% had experienced trauma
- 46% most addicted to alcohol, 26% opiates, 24% amphetamines, 3% cannabis, 3% other

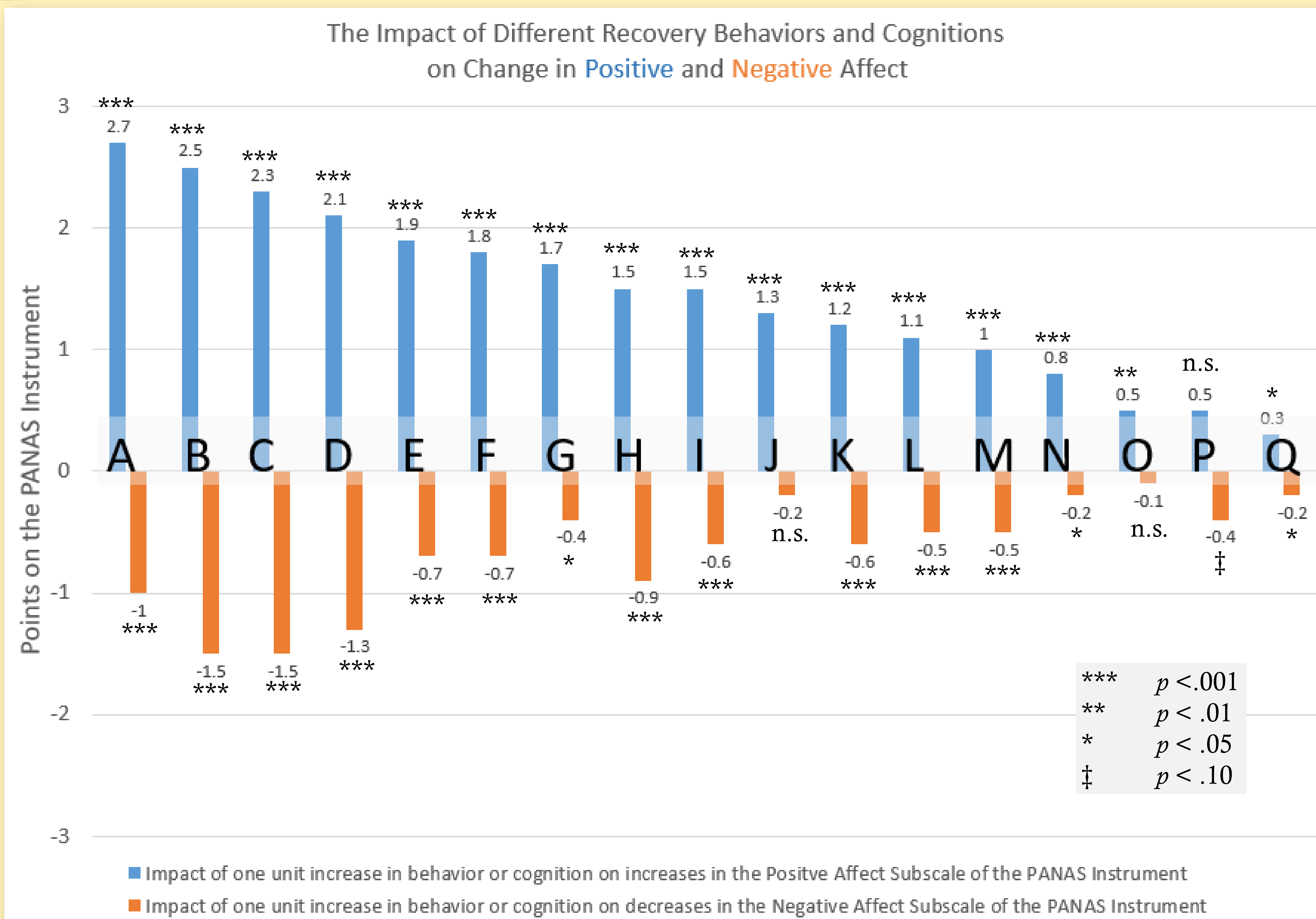
Research Question

What is the association between incremental, recovery-supported cognitions and behaviors (IRSCBs) enacted within the past 24 hours on current positive and negative affect?

Statistical Procedures

We ran 34 linear mixed models (each IRSCB predicting both positive and negative affect). Models allowed for random variation in intercepts and slopes. Time (in days) was nested within individuals. We used the MIXED command in SPSS 25 and maximum likelihood estimation with an unstructured covariance matrix. Since depression could be an outside factor influencing both IRSCBs and affect, we controlled for baseline levels of depression, assessed via the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). IRSCBs depicted in the bar graph below are sorted from most to least impactful.

Results



Discussion and Conclusions

- Multi-level models showed significant main effects of 16 IRSCBs on increased positive affect and significant ($p < .05$) main effects of 14 IRSCBs on decreased negative affect.
- IRSCBs had a stronger effect on increasing positive affect than on decreasing negative affect.
- The IRSCBs that had the strongest impact were "I felt able to get things done," "I realized that more good things than bad things were happening," "I realized that there is a lot I am grateful or thankful for," and "I did something enjoyable." These IRSCBs were associated with both a 2-3 point increase in positive affect and a 1-2 point decrease in negative affect.
- Results suggest that providers should reinforce pleasant activities and gratitude practices and help clients meet short-term goals.
- Attending a mutual-aid meeting in the past 24 hours was associated with improvement in positive and negative mood, but, surprisingly, these effects were not significant at $p < .05$.
- This study shows that IRSCBs have significant association with improved mood, which could protect against relapse.

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