The Relationship between Anxiety Status and Cannabis Use among OEF/OIF Veterans: Somatization as a Moderator

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BACKGROUND

American veterans are vulnerable to high rates of anxiety and substance use. Notably, veterans with mental health challenges report higher rates of cannabis use than those without.

In the general population, anxiety often overlaps with a variety of somatic symptoms. However, less is known regarding the effects of both anxiety and somatization on cannabis use behaviors in veterans.

AIMS

1) Examine the relationship between baseline (Fall of 2020) anxiety screen and past 30-day cannabis use frequency 3 months later.
2) Examine whether baseline somatization moderates the relationship between anxiety and past 30-day cannabis use.

METHODS

Ads were placed on general and military-specific social media sites (Facebook, Instagram, RallyPoint, We Are the Mighty).

Veterans ages 18 to 40 and had separated from the Air Force, Army, Marine Corps, and Navy were eligible for the study.

Baseline online surveys were completed by 1025 veterans (M_{age} = 34.74, 75.1% male) and by 1006 at follow-up (98.14% retention).

MEASURES

Demographic and Military Characteristics

- Self-reported sex (male, female), race/ethnicity, and age
- Combat exposure: 11 yes/no items (e.g., engaging in hand-to-hand combat; range 0-12)

Anxiety

- Generalized Anxiety Disorder-7 (GAD-7)
- Anxiety symptoms in the past 2 weeks (range 0-24; probable Anxiety Disorder cutoff of 10)

Somatization

- Patient Health Questionniare-15 Somatic Symptom Severity Scale (PHQ-15)
- Somatic symptoms (e.g., stomach pain) in the past 4 weeks (range 0-30)

Cannabis Use

- Any cannabis use in any form (e.g. smoking, vaping, edibles) over the past 30 days reported at baseline and follow-up

ANALYTIC PLAN

Hierarchical negative binomial regression:
- Step 1: Covariates (age, sex, race/ethnicity, combat scale, baseline past 30-day cannabis use)
- Step 2: Main effects (anxiety, somatization)
- Step 3: Interaction (anxiety x somatization)

RESULTS

Final Model Predicting Cannabis Use Days in the Past 30 Days at Follow-Up

	IRR	95% CI
Age	1.03	[.99, 1.07]
Female Sex[a]	**.46**	**[.29, .74]**
Hispanic/Latinx race/ethnicity[b]	**2.40**	**[1.64, 3.52]**
African American/Black race/ethnicity[b]	1.51	[.88, 2.58]
Combat Scale	**1.12**	**[1.06, 1.19]**
Baseline Days of Past Month Cannabis Use	**1.18**	**[1.15, 1.22]**
Baseline Anxiety Screen	**6.75**	**[4.69, 9.72]**
Baseline Somatization	**1.30**	**[1.24, 1.36]**
Anxiety x Somatization	**.77**	**[.72, .82]**

Note: Bold variables represent those with CIs that do not include 1. IRR = Incidence rate ratio; CI = Confidence interval. [a]Male sex reference group. [b]White race/ethnicity reference group.
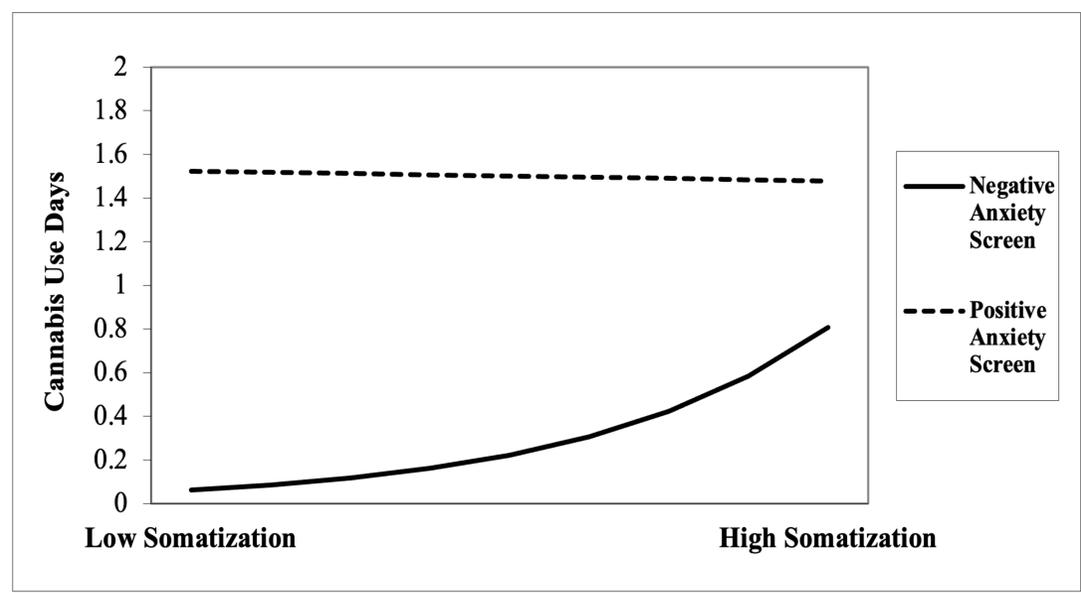
CONCLUSIONS

Those who screen positive for anxiety and those who screen negative for anxiety, but endorse high levels of somatization, may benefit from cannabis use prevention/intervention.

Clinical providers working with veterans should screen for anxiety and somatic symptoms and provide appropriate follow-up (e.g., discuss risks of cannabis use).

Future studies should assess the trajectory and severity of cannabis use in veterans with pre-existing mental health conditions and physical health complaints.