

Pilot of a Novel Online Survey to Assess Risk-Benefit Profile of Pain Treatments

Iwanicki JL¹, Magtanong R¹, Amioka E¹, May KP¹, Black JC¹, Flarity K^{2,3}, Dart RC¹

¹Rocky Mountain Poison & Drug Safety – Denver Health, Denver, Colorado, US

²HQ Air Mobility Command, Scott AFB, Illinois, US

³Center for COMBAT Research, Aurora, Colorado, US

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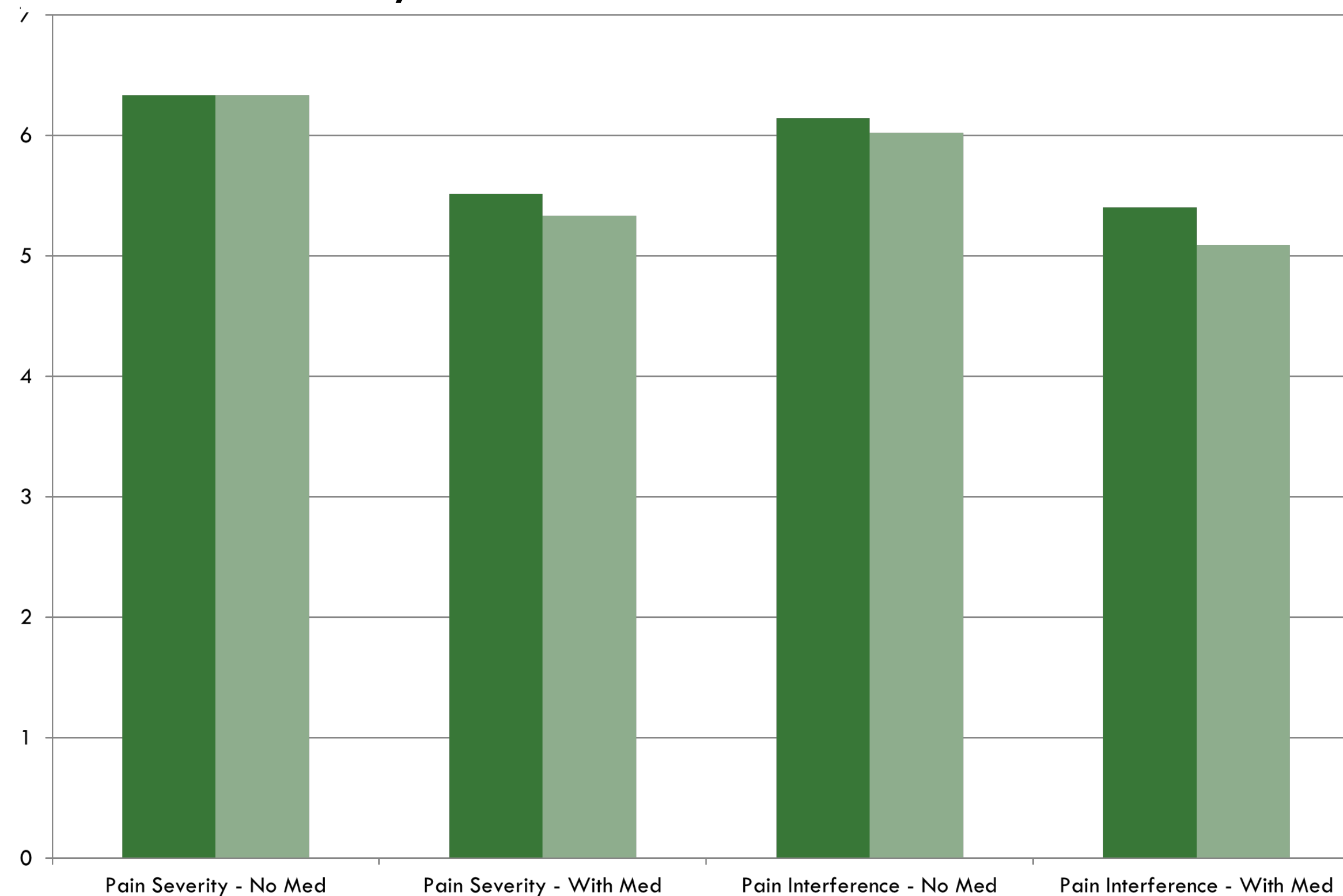
BACKGROUND

- Rates of chronic pain (pain lasting >3 months) and opioid use in United States warfighters returning from deployment are high.
- High risk for both oligoanalgesia and opioid use disorder (OUD) with reduced return to duty.
- Presently, no standardized metric exists to identify risk/benefit inflection points for opioid use in Service Members. Our study may facilitate early interventions and a customized approach to pain management.
- A method to identify the point when the risk of opioid treatment outweighs its benefits would allow safe, effective, tailored opioid therapy as well as early intervention when needed for OUD.
- Utilizing content validation methodology, we developed a pilot survey to evaluate pain, treatments for pain, and risks and benefits associated with these treatments.
- Objective: To examine feasibility of a self-administered survey evaluating overall benefits/risks associated with treatment of pain among active duty and veteran members of the military, guard, and reserves.

METHODS

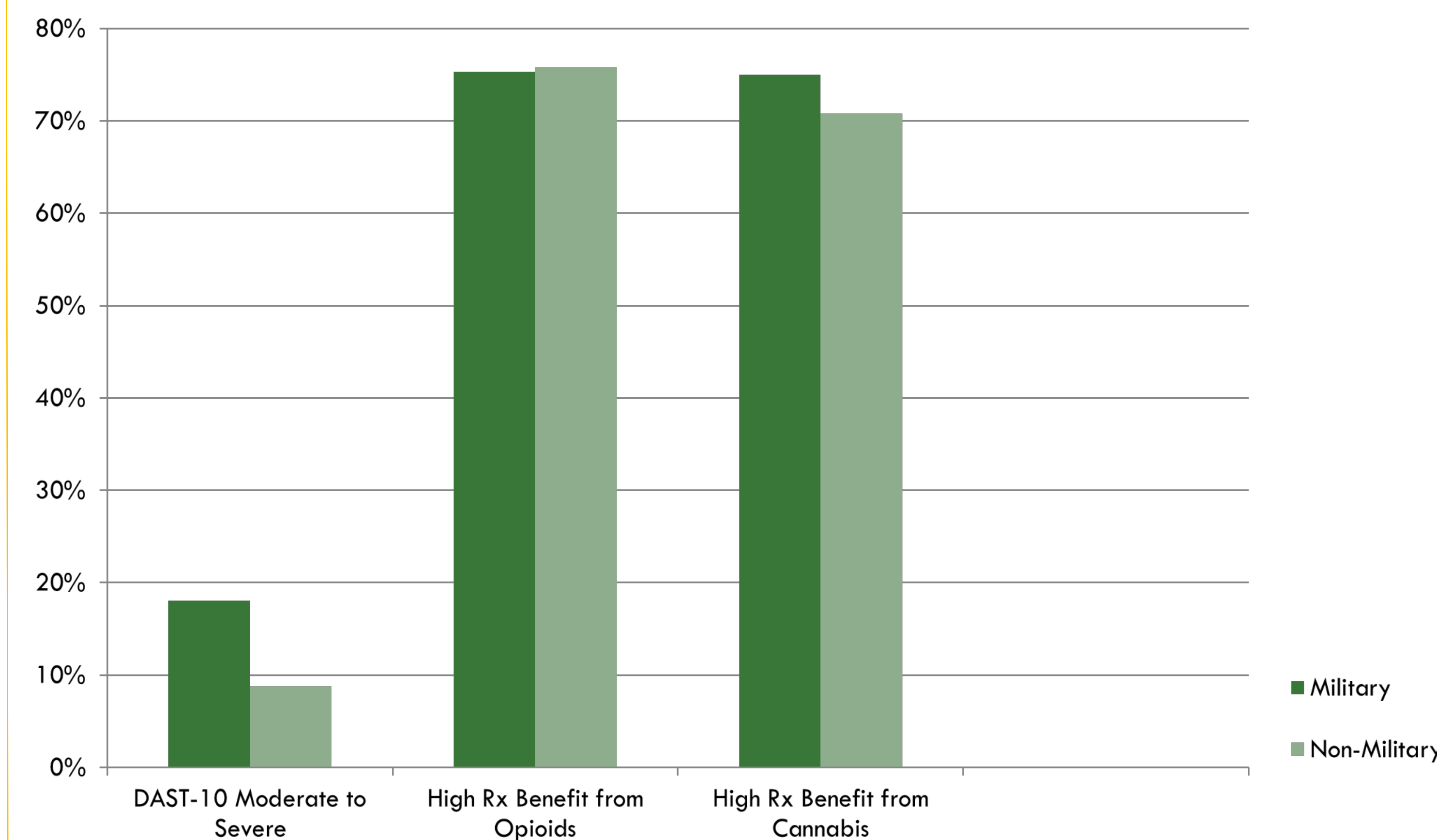
- Adult survey panel participants in the US were recruited to participate in the online PAINRx survey September-November 2018.
- Self-administered anonymous web-based survey evaluating benefits and risks associated with treatment of chronic pain.
- Descriptive statistics for demographics, chronic pain etiologies and treatments, risk (DAST-10) and benefit (modified Brief Pain Index) assessments are reported.

Figure 1: Comparison of Military and Non-Military: Pain Severity and Interference with Daily Activities with and without Medications



Age in years	
Mean (SD)	49.14 (13.06)
Median (IQR)	53 (37, 60)
Sex N (%)	
Female	74 (18.32%)
Male	330 (81.68%)
Region N (%)	
Northeast	56 (13.86%)
Midwest	94 (23.27%)
South	165 (40.84%)
West	89 (22.03%)
Race N (%)	
American Indian or Alaska Native	7 (1.73%)
Asian	5 (1.24%)
Black/African American	58 (14.36%)
Native Hawaiian or Other Pacific Islander	0 (0.00%)
White (Caucasian)	324 (80.20%)
Other	7 (1.73%)
Did Not Provide	3 (0.74%)
Hispanic N (%)	
Yes	45 (11.14%)
No	355 (87.87%)
Do not wish to provide	4 (0.99%)

Figure 2: Comparison of Military and Non-Military, Pain Treatment Risks and Benefits



RESULTS

- 4993 participants total, 404 (8.0%) self-identified as a member or former member of the military, guard, and reserves.
- Within military respondents, 81.7% male, 80.2% Caucasian, 14.4% African American, and 11.1% Hispanic (Table 1).
- 18.1% had a DAST-10 score indicating moderate to severe problematic substance use (Figure 1)
- 61.4% reported having chronic pain during their lifetimes.
- Among military respondents reporting chronic pain (n=248):
 - Musculoskeletal pain (25.4%), arthritis (18.2%), neuropathic pain (10.1%), and traumatic injury (7.7%).
 - Median pain severity without medication 6.33 out of 10 (SD 2.03), and severity with medication 5.51 (SD 2.25) (Figure 2).
 - Pain interference with daily activity without medication 6.14 out of 10 (SD 2.43), and with medication 5.40 (SD 2.57) (Figure 2).
 - 49.6% reported use of prescription medications for treatment of pain in past 12 months.
 - Treatment benefits greatest for opioid pain relievers and cannabis; 75.3% and 75% respectively reported >50% pain relief (Figure 1).

Compared to general population, military respondents had higher prevalence of chronic pain, higher mean DAST-10 score, higher mean pain severity, and higher pain interference with daily activity.

CONCLUSIONS

- Collecting data on chronic pain, risks, and benefits associated with therapies in active duty and veteran members of the military is feasible.
- Both chronic pain and risk for substance use disorder are high; further analysis will be conducted to identify latent classes of high risk/high benefit, high risk/low benefit, low risk/high benefit, and low risk/low benefit.
- Future longitudinal studies: identification of transitions from benefit-predominant to risk-predominant latent classes, with goal to tailor pain therapy for the active duty service member to potentially increase return to duty rates and increase our warfighters who are fit to fight.

DISCLOSURE

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