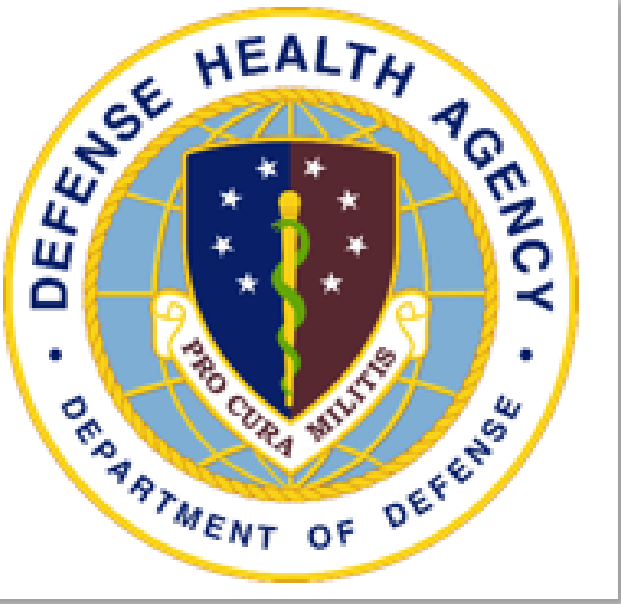




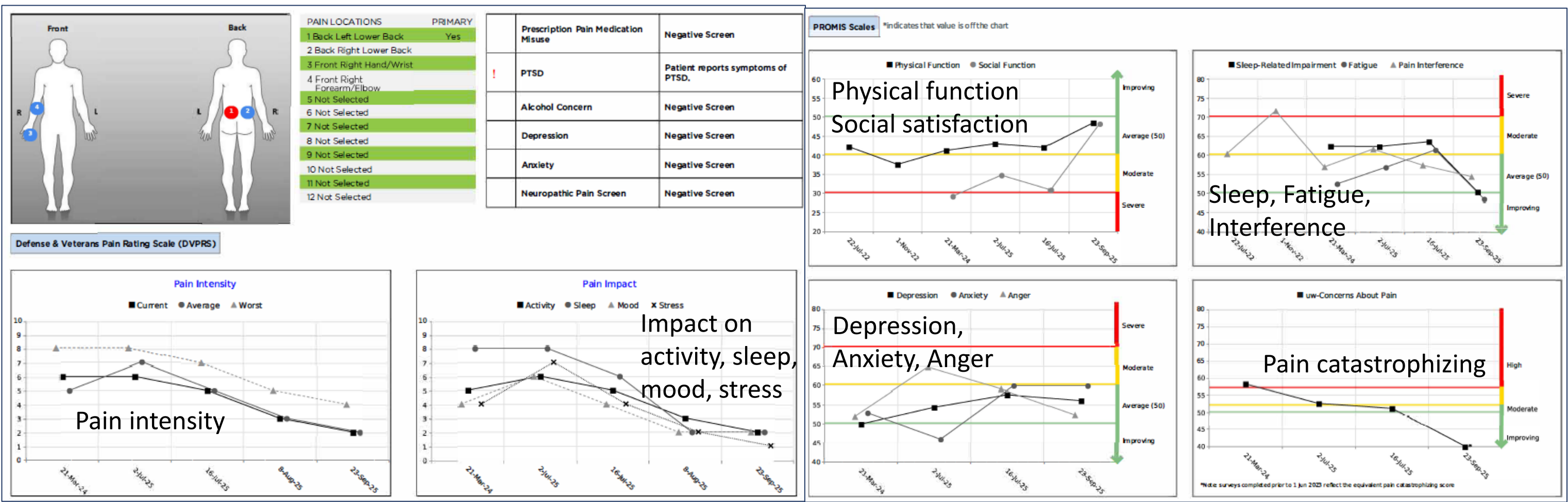
Effectiveness of Complementary and Integrative Health Therapies among Service Members with Chronic Pain



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Background

- Chronic pain is the leading cause of military medical disability and reduced readiness among active-duty Service Members (SMs)
- Conventional pain therapies (medications, injections, physical/occupational therapies, psychological approaches) are often inadequate to return SMs to duty
- Defense Health Agency pain management policy endorses
 - Complementary and Integrative Health (CIH) pain therapies
 - Chiropractic, acupuncture, massage
 - Pain Assessment Screening Tool and Outcomes Registry (PASTOR)



Objective

Among SMs referred to Military Health Service (MHS) pain specialty clinics, determine whether those who received CIH pain therapies reported greater improvement in pain impact than those who did not.

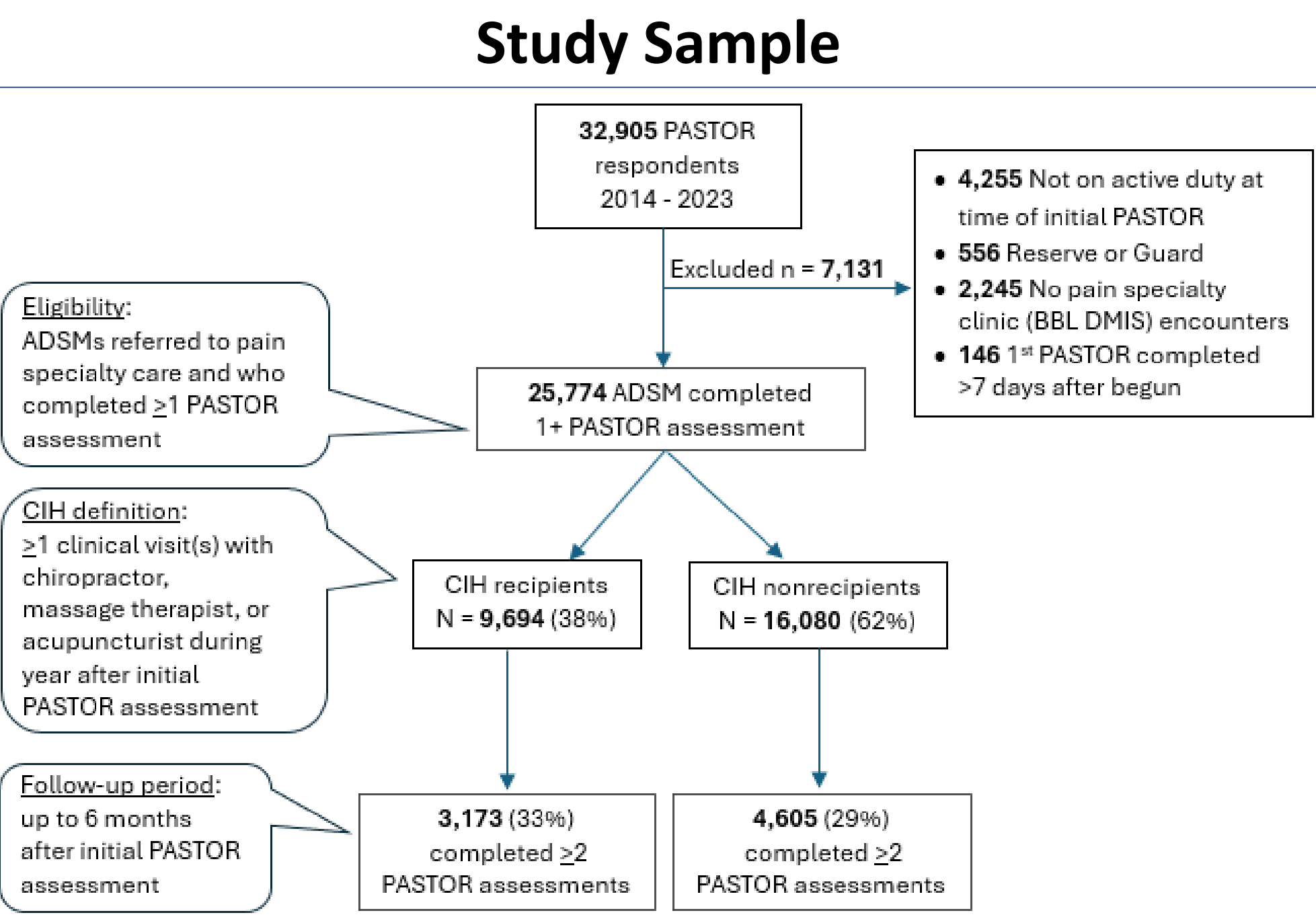
Methods

Study design: retrospective quasi-experimental design with weights to address confounding using PASTOR data collected from SMs referred to MHS pain specialty clinics between 2014 – 2023

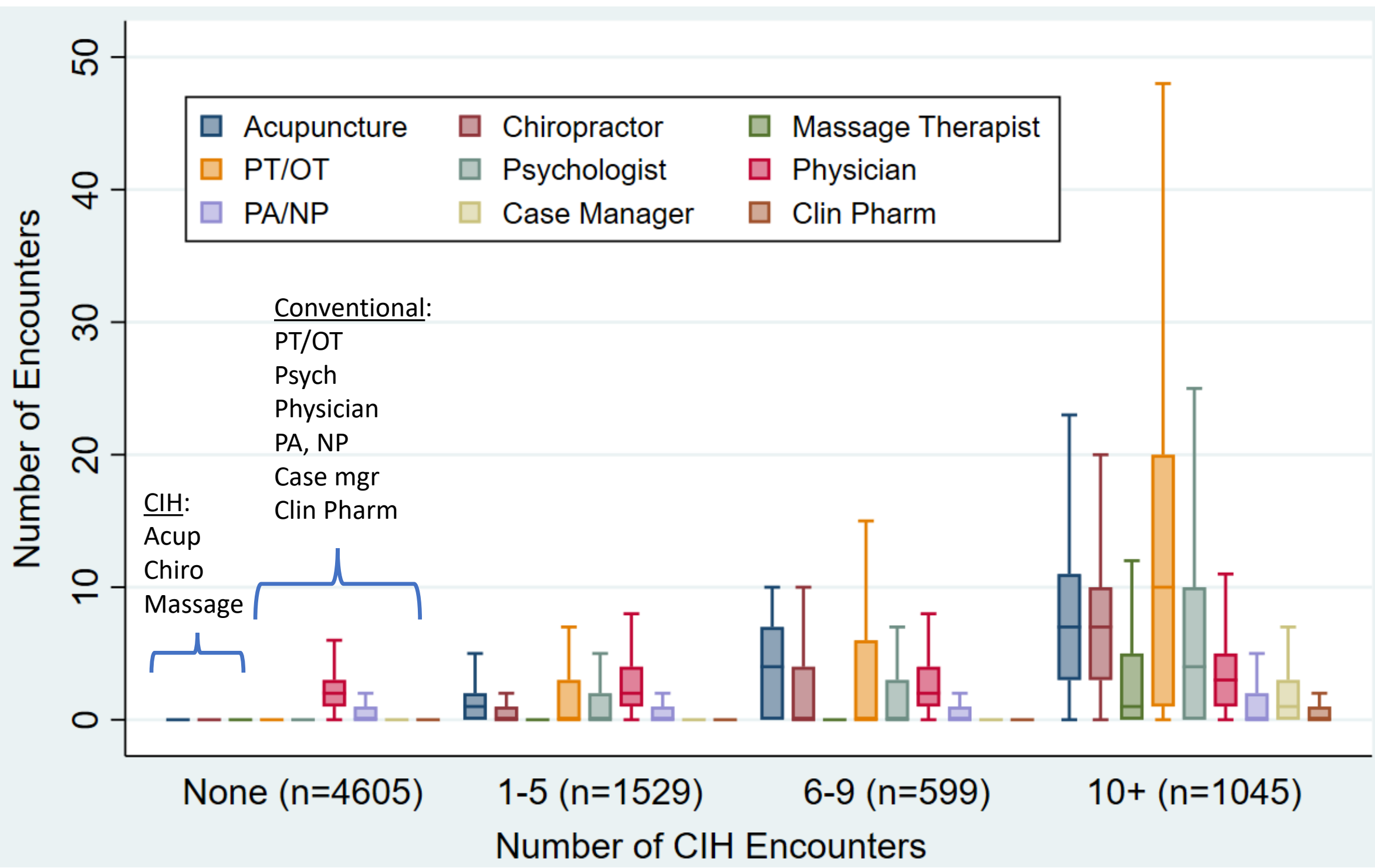
Primary outcome measure:

- NIH Research Task Force Impact Score, a composite measure
 - 7-day average pain intensity (0 – 10 scale)
 - Pain interference (4 – 20 scale)
 - Physical function (4 – 20 scale)
 - Overall score range: 8 (lowest impact) to 50 (highest impact)
 - Minimal Important Change = 3 points

Results



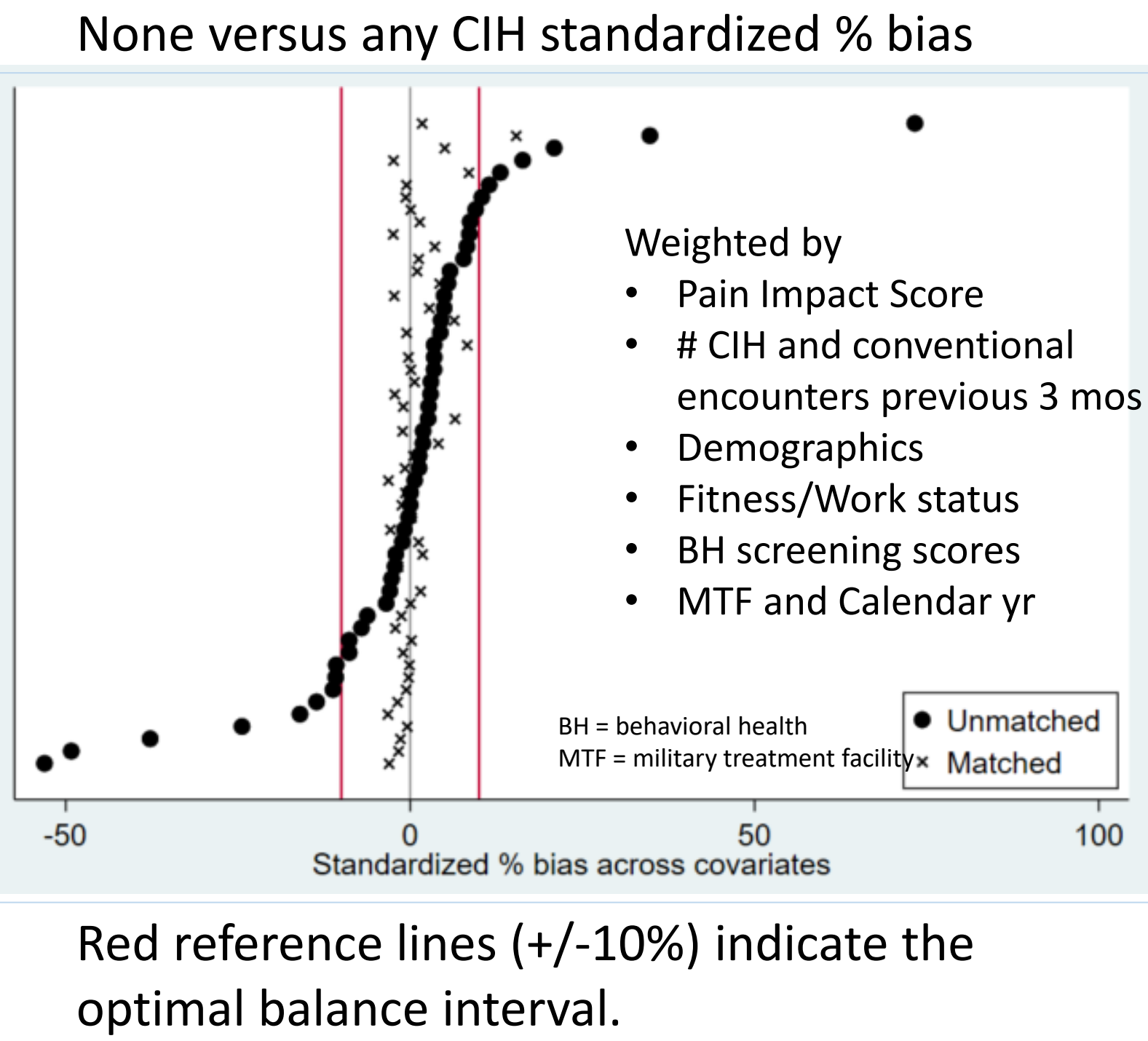
Number of Encounters in MHS Pain and Other Clinics with Different Provider Types by Level of CIH Dose, 2014 – 2023
N = 7,778 (3,173 CIH recipients + 4,605 CIH nonrecipients)



- Among the 4605 (59%) of SMs who had zero CIH encounters, most were seen only by a medical provider (physician, PA, NP) for pain condition(s)
- Among those exposed to CIH, a greater number of CIH encounters was associated with greater number of PT/OT, psychologist, case manager and clinical pharmacist visits as well

Statistical Analysis

- Propensity weights to balance covariates to match the treated population using generalized boosted modeling
- Mixed effect regression with random intercepts for each site
- Propensity weights for all 4 levels of CIH exposure also showed acceptable balance



Change in Pain Impact Score 1 – 6 months after Baseline

CIH Exposure Level	Estimated mean Posttreatment Change in Impact Score	SE	P-value
No CIH vs Any CIH encounters, unweighted	-0.13	.19	.48
No CIH vs Any CIH encounters, weighted	-0.64	.28	.019
Level of CIH exposure, weighted			
1 – 5 CIH encounters	-0.32	.19	.087
6 – 9 CIH encounters	-1.89	.46	<.001
10+ CIH encounters	-1.39	.38	<.001

- Estimated posttreatment mean Impact Score was significantly lower in SMs with at least 6 CIH encounters
- All models adjusted for baseline Impact Score and follow-up interval, with random intercepts for each clinic

Conclusion and Next Steps

- This study supports the integration of CIH approaches into conventional pain care
- Compared to no CIH exposure, 6 or more CIH encounters were associated with greater improvement
- Next step: evaluate impact of CIH care on military medical readiness outcomes (fitness test pass rates, medical disability rates)

