

Disability Claims as a Pathway to Pain Treatment in Veterans: Screening, Brief Intervention and Referral to Treatment for Pain Management (SBIRT-PM)

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Disclosures

- Employees of VA and Yale University
- Research funding from NIH and VA
- Members of the NIH-DoD-VA Pain Management Collaboratory Coordinating Center (PMC3)
- The views expressed in this presentation are those of the authors and do not necessarily reflect the official policy or position of the Department of Veterans Affairs, the U.S. Government, or the PMC3



Partnership



- Compensation & Pension
- Addictions Treatment
- SUD Assessment
- VA Trial Methodology



- Motivational Interviewing
- Clinician Training and Fidelity
- Multisite Effectiveness Trials
- Implementation Science

C&P as an Intervention Opportunity

- Over half of post-9/11 Veterans treated at VA are service-connected for a musculoskeletal disorder. Comorbid substance misuse is common.
- In FY 2023, 1,453,400 awards were made for lumbosacral or cervical sprain
- 116,810 new lumbo/cervical claims awarded during FY 2023.
- Opportunity for early intervention.



Screening Brief Intervention Referral to Treatment-Pain Management (SBIRT-PM)

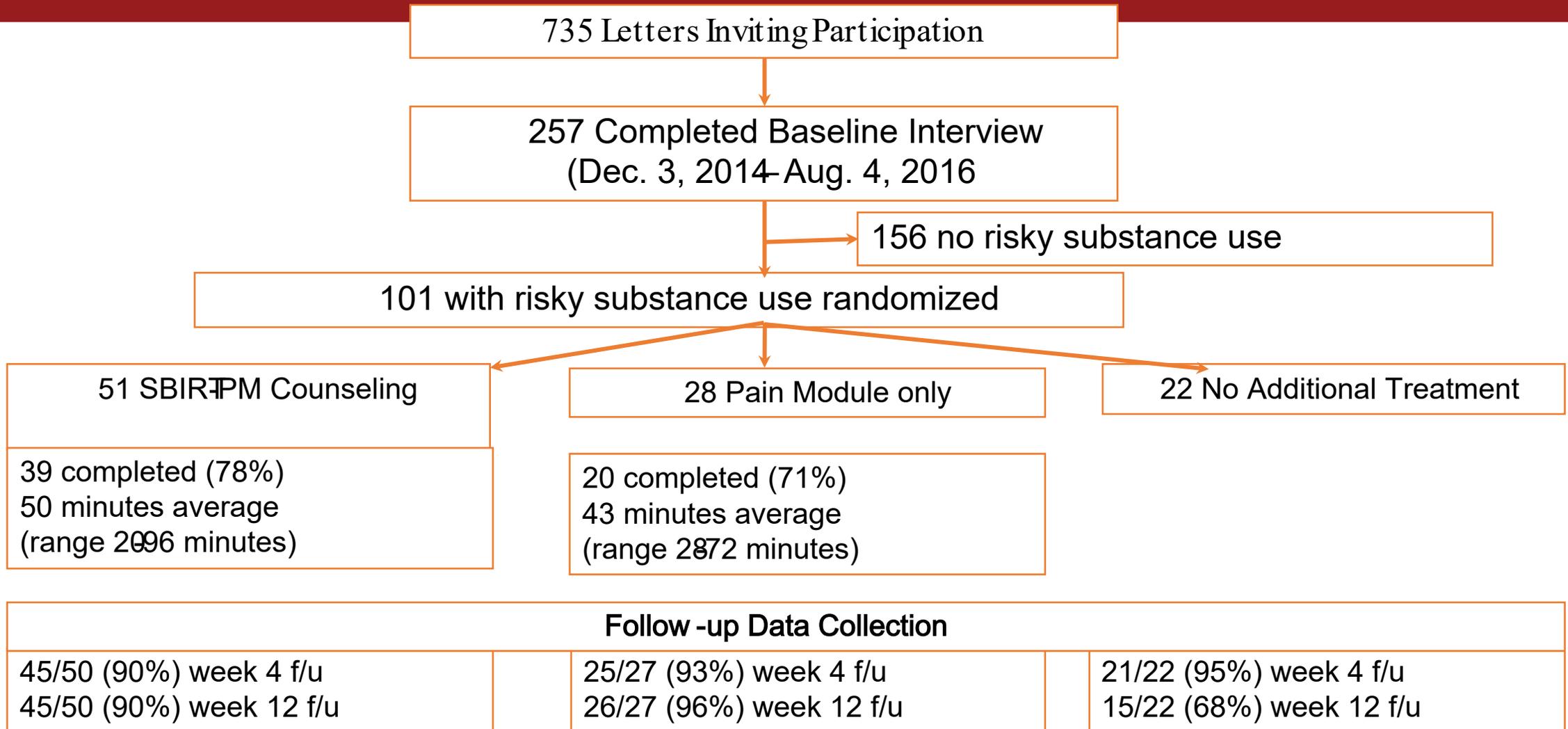
| Grant-type | Dates | Grant focus | Therapy Delivery | Key Investigators |
|----------------------|-----------|---------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| R34 | 2014-2017 | Therapy Development (efficacy) | Yale staff, post-doc (MacLean) | Anne Black, Will Becker, Robert Kerns, Carine Sakr, Ellen Edens, Ross McLean |
| UG3/UH3 | 2017-2024 | Pragmatic Trial (effectiveness) | Yale staff West Haven hub to 8 sites in New England | Site Investigators, Qing Zeng (NLP), Paul Barnett (economist), Kathryn Gilstad-Hayden (stats), Kristin Mattocks (qualitative interviews), John Sellinger (pain health psych) |
| UG3 (UH3 pending) | 2023-2028 | Implementation (hybrid) | VA MSWs and RNs in Military2VA Transition Care Program | M2VA leadership (Weede, Perez) and staff (Sullivan-Tibbs), Kristin Mattocks (qualitative interviews), John Sellinger (pain health psych), Gabriela Garcia Vassallo (patient simulations), Amos Turner (addiction), Ajay Manhapra (chronic pain), Ellen Edens (pain/addiction) Liam Rose (health economics) |

SBIRT-PM Counseling 1.0; In-person, single site

Key Features

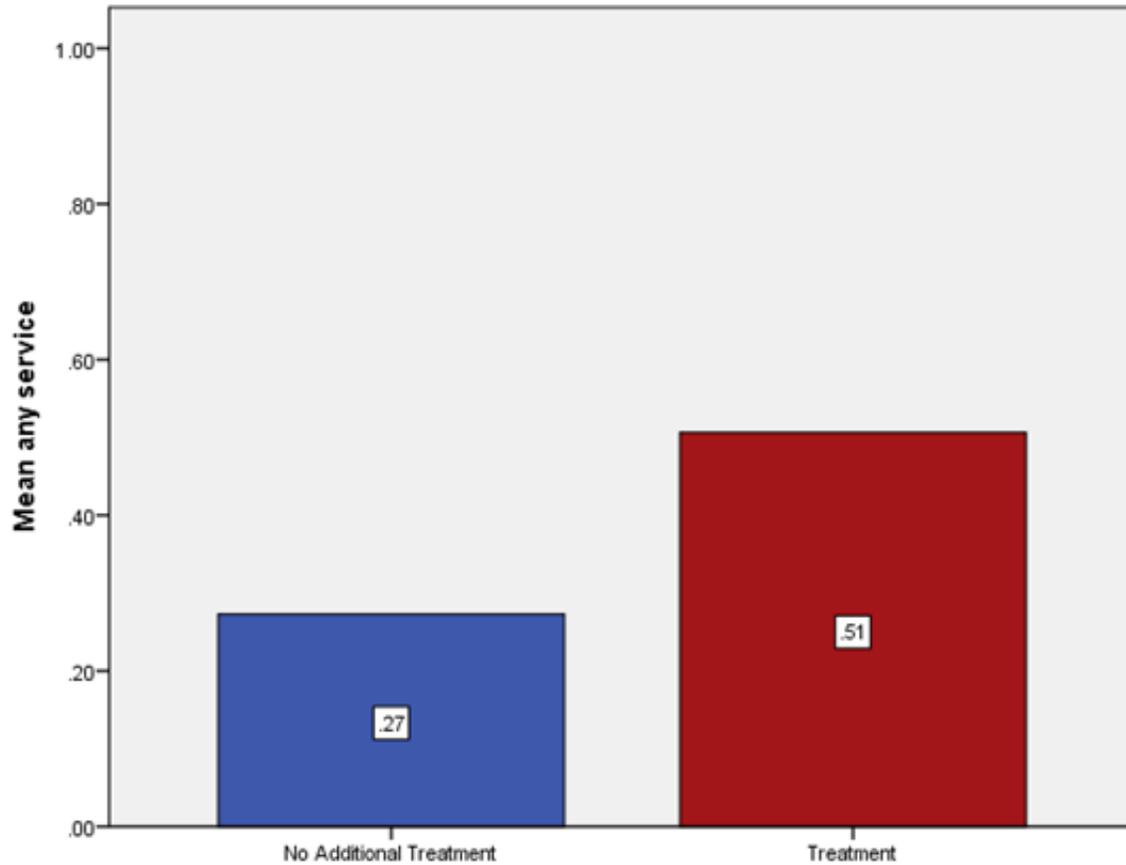
- Veterans contacted around time of C&P exam
- Motivational Interviewing-based counseling over 12 weeks
- First session delivered *in-person* (60 mins)
 - Inquire about pain and motivations for pain treatment engagement
 - Explain pain treatments at VACHS
 - Screen for risky substance use; brief intervention; referral to treatment (SBIRT)
 - Enhance motivation to engage in treatment
 - Develop change plan
- *One or Two brief* phone follow-ups (5-10 mins)
 - Enhance motivation and follow-up on change plan

Study Flow Diagram

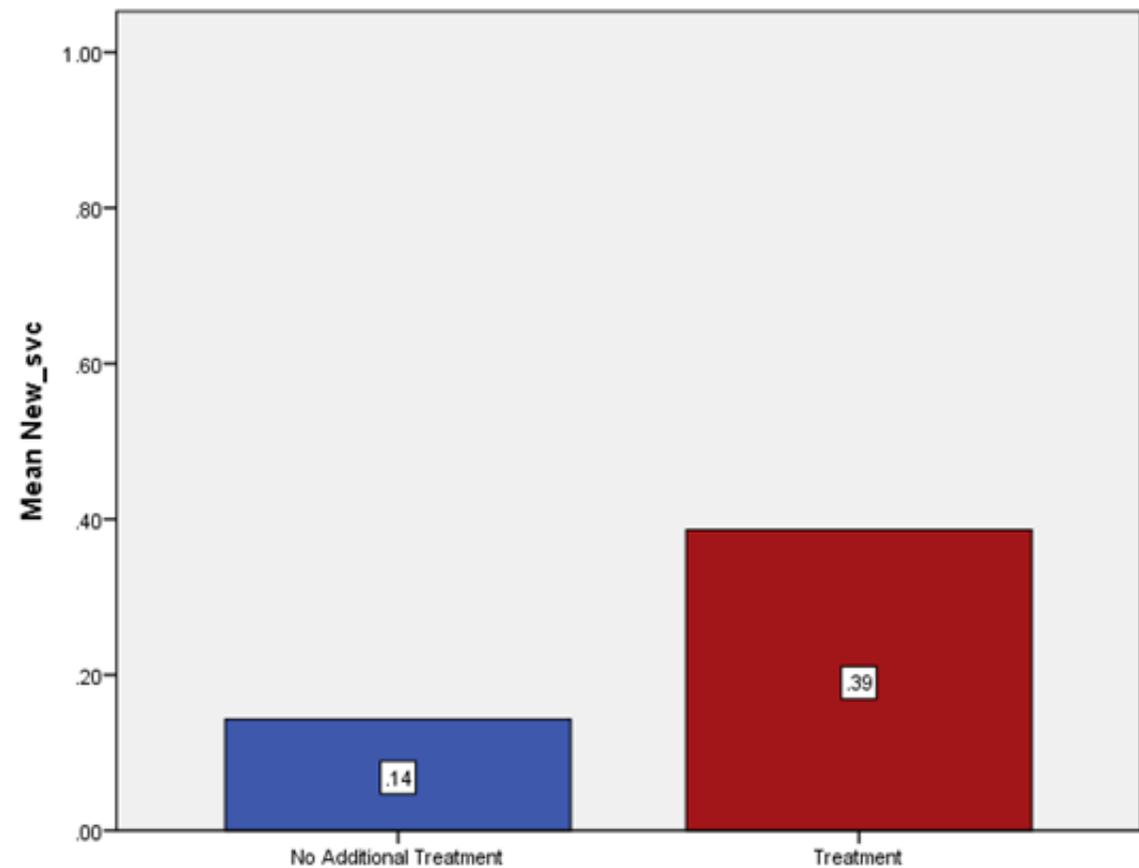


Study Results: Chart-Extracted VA Pain Treatment

Proportion engaged in treatment



Proportion newly-engaged in treatment



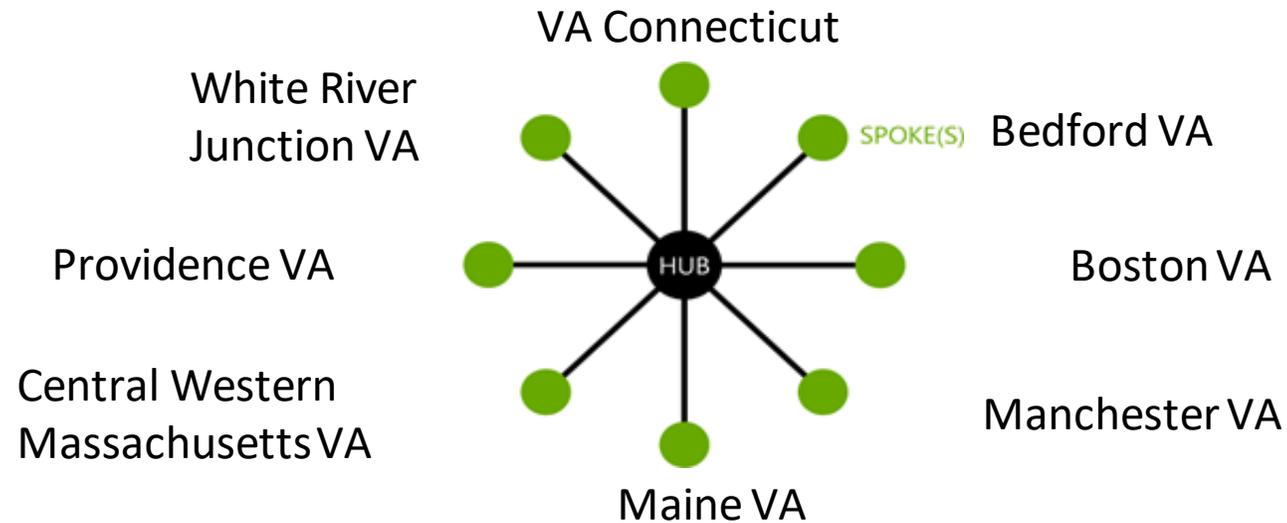
Findings from 101 Veteran RCT

- Veterans filing musculoskeletal disorder claims were hurting
 - Mean pain interference 5.0
 - 39% with risky substance use within 28 days
- Veterans were receptive to SBIRT counseling around time of C&P
- Counseling associated with
 - Less self-reported substance use
 - More use of VA pain services
 - No significant change in pain severity
- Implications
 - C&P as a gateway to treatment
 - Benefits of early intervention targeting pain and substance use

Scaling Up SBIRT-PM

VA often uses a hub-and-spoke approach to scale up innovations

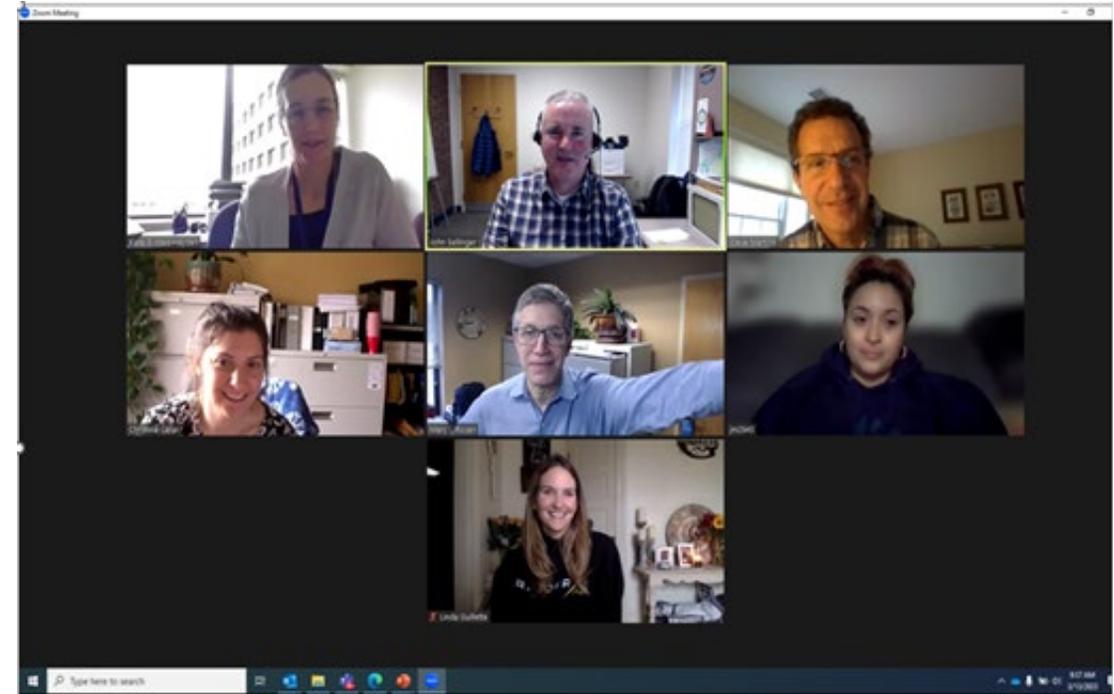
- Pragmatic
- Broad reach
- VISNs, Clinical Resource Hubs, and Centers of Excellence have hub-and-spoke configurations



Next Study: Pragmatic Trial in VISN 1

Investigative Team

- Marc Rosen & Steve Martino (Co-PIs)
- Kate Gilstad-Hayden (Biostatisticians)
- Christina Lazar (Project Director)
- John Sellinger (Co-I)
- Kimberly Ross & Lisa Navarra (SBIRT-PM Counselors)
- Linda Guillette & Jessenia Medina (Research Assistants)
- Paul Barnett (Consultant for Health Economics)



Pragmatic Trial in VISN 1 Partners

- Site Investigators
 - Tu Ngo (VA Bedford)
 - Diana Higgins & Nick Livingston (VA Boston)
 - Brad Brummett (VA Central Western Mass)
 - John Sellinger (VA Connecticut)
 - Brad Schimelman & Todd Stapley (VA Maine)
 - Alicia Semiatin & Jennifer Ault (VA Manchester)
 - Thom Reznik (VA Providence)
 - Carolyn Solzhenitsyn & Paul Holtzheimer (VA White River Junction)
- Comp & Pen/VBA: Cathy Popp, Glen Gechlik, Amir Mohammad
- VISN 1 MIRECC, Mental Health Clinical Trials Network, PRIME Center
- NCCIH/NIDA



Pragmatic Trial Study Aims

- Aim 1 - SBIRT-PM vs Usual Care
 - Primary outcome: Pain severity
 - Secondary outcomes: Number of nonpharmacological pain modalities used, pain interference, health-related quality of life
- Aim 2 - SBIRT-PM vs Usual Care
 - Primary outcome: Number of misused substances requiring intervention (measured by the ASSIST)
 - Secondary outcome: Severity of use for individual substances
- Aim 3 – SBIRT-PM vs. Usual Care
 - Cost-effectiveness and budget impact

Study Progress so far...

Recruitment/Enrollment

- After sending letters, we contact 64% of veterans by phone
- 8% of potential participants are randomized
- 1101 (100% of goal) have been randomized

Retention

- 12 week = 81%
- 36 week = 76%

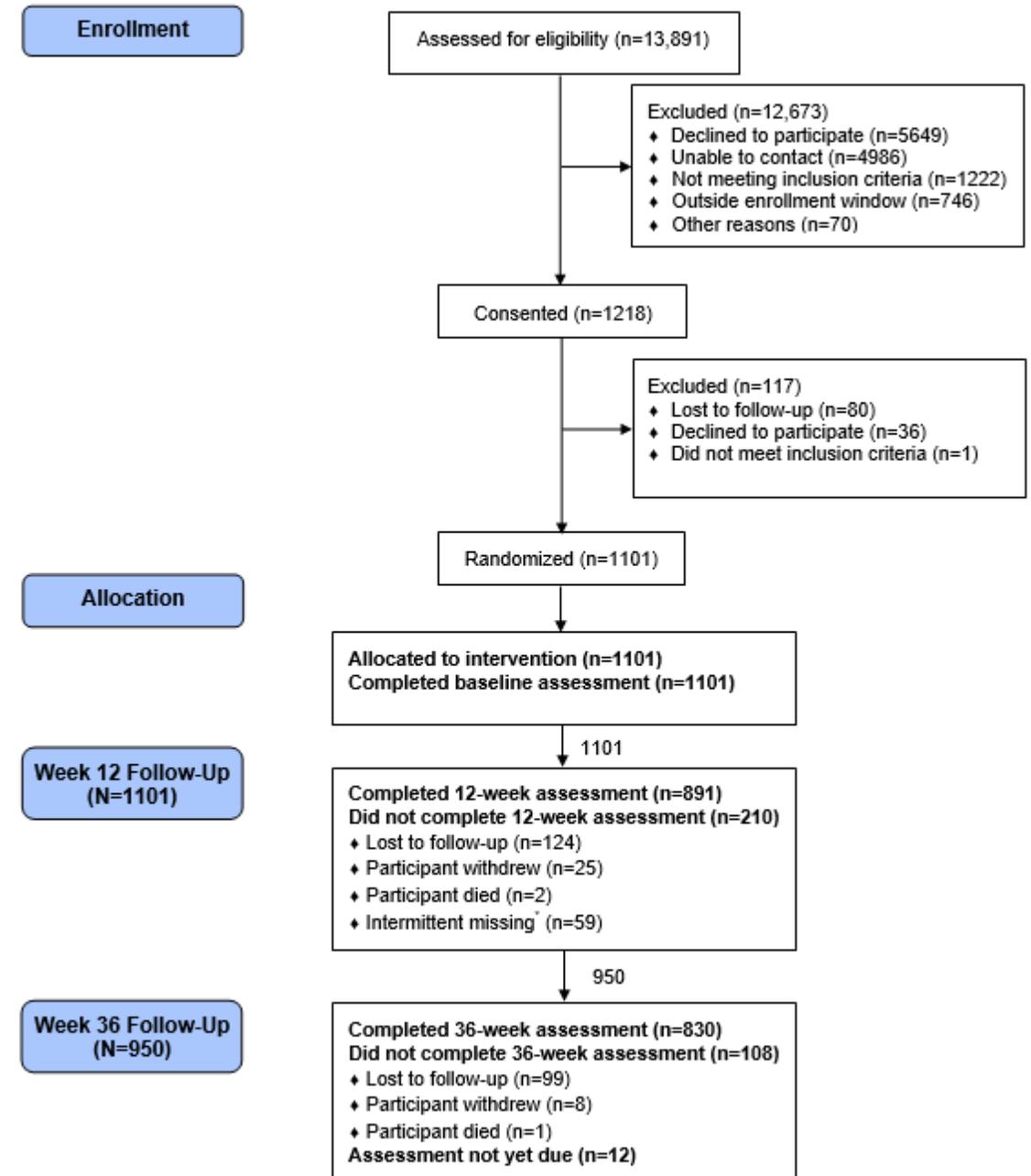
Counseling

- 86% allocated to SBIRT received at least 1 session
- 73% allocated to SBIRT received at least 2 sessions

Sample Characteristics

- 86% male, 79% white, 14% Hispanic
- 51% w problematic substance use
- Mean PEG = 5.7 (2.0 SD)
- 18% with suicidality on PHQ-9

Figure 3. CONSORT Study Flow Diagram

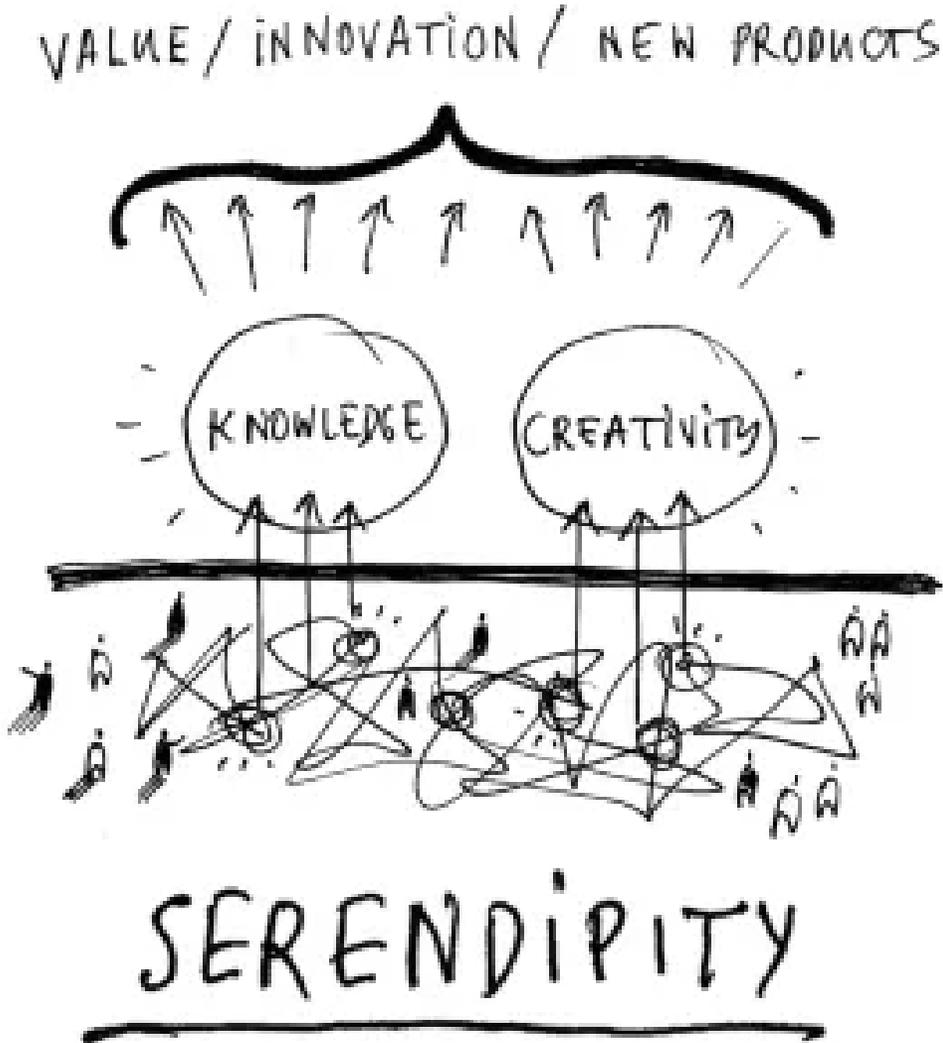


* Missing 12-week assessment but 36-week assessment completed or pending

Publications to date...

- Lazar, et al., *Counseling veterans with chronic pain during the COVID-19 pandemic: a secondary analysis of a randomized controlled trial.* Pain Medicine, 2022; 23 (8): 1434-144.
- Sellinger et al., *The Acceptability and Feasibility of Screening, Brief Intervention, and Referral to Treatment for Pain Management among New England Veterans with Chronic Pain: A Pilot Study.* Pain Practice, 2021 May 1.
- Martino et al., *Screening, Brief Intervention and Referral to Treatment for Pain Management for Veterans Seeking Service-Connection Payments for Musculoskeletal Disorders: SBIRT-PM Study Protocol.* Pain Medicine, 2020; 21: S110-S117.
- Rosen et al., *Access to Pain Care from Compensation Clinics: A Relational Coordination Perspective.* Federal Practitioner July 2020; 336-341.
- Mattocks et al., *Pain Care in the Department of Veterans Affairs: Understanding How a Cultural Shift in Pain Care Impacts Provider Decisions and Collaboration.* Pain Medicine 2019; 21: 970-977.

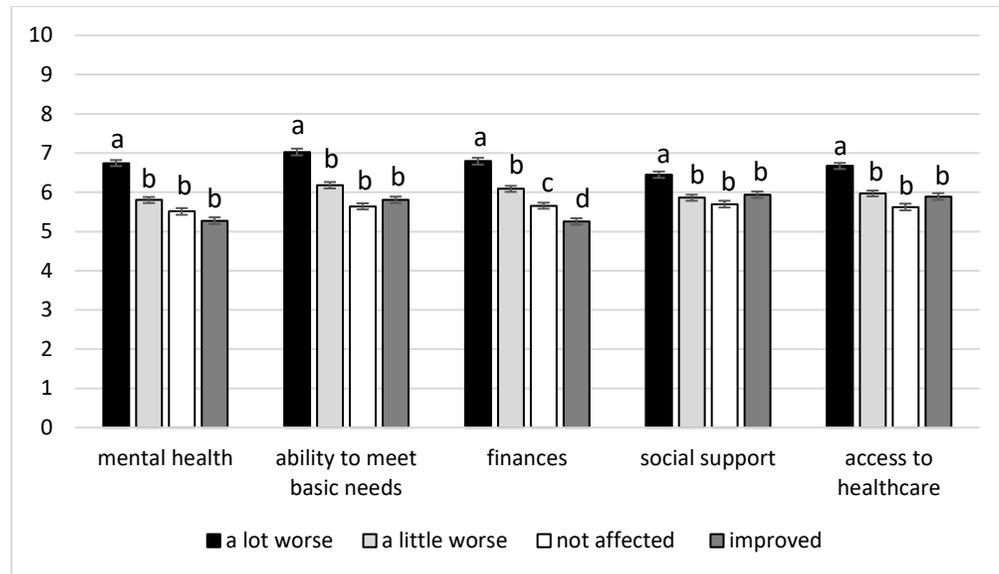
Other findings coming your way



Which patients with pain were most impacted by COVID-19?

COVID-19 impacts on different domains rated by 2333 Veterans from 4 pragmatic trials.
Veterans with higher PEG scores were more likely to have “a lot worse” impact in each domain.

Figure 3. Mean PEG score by response category for Covid questions



More pandemic impact on:

- Younger
- Black or Latino
- Female
- More educated
- Unemployed
- Screened positive for depression



Notes: PEG= Pain, Enjoyment of Life and General Activity scale; Scores range from 0 to 10 with higher scores indicating more severe pain. Results of post-hoc ANOVA Tukey-Kramer tests are shown with letters. Means not statistically different at $p < 0.05$ share a letter: those that are significantly different do not share a letter. Error bars show 95% confidence interval around mean PEG scores.

Sellinger JJ, Gilstad-Hayden K, Lazar C, Seal K, Purcell N, Burgess DJ, Martino S, Heapy A, Higgins D, Rosen MI.
“Impact of the COVID-19 Pandemic on Participants in Pragmatic Clinical Trials for Chronic Pain: Implications for Trial Outcomes and Beyond”



Do Veterans with Risky Substance Use (RSU) use Distinct Pain Treatment Modalities?



- Sample: Veterans (N=924) who filed service-connected benefit claims related to musculoskeletal conditions and rated their pain ≥ 4 on the Numeric Rating Scale
- Method: Self-reported use of 25 different pain services in the preceding 90 days. Recent Substance Use (RSU) was identified via ASSIST cutoffs and/or nail sample toxicology.
- Pain treatment utilization did not differ based on Risky Substance Use.
 - Destigmatizing finding
- Overall, the most commonly used modalities were:
 - Over-the-counter medications (71%)
 - Self-structured exercise (69%)
 - Non-opioid prescription medications (38%)

Pain Treatment Modalities Used by Whether Misused Substances

| | No Substance Misuse N=404 | Misuse of ≥ 1 Substance N=520 | P-value ¹ |
|--------------------------------------------------------|------------------------------|---------------------------------------|----------------------|
| Count of pain treatment modalities utilized, Mean (SD) | | | |
| Provider-delivered modalities | 1.1 (1.2) | 1.0 (1.2) | 0.224 |
| Self-delivered modalities | 1.6 (1.2) | 1.6 (1.3) | 0.975 |

Meshberg-Cohen S, Gilstad-Hayden K, Martino S, Lazar CM, Sellinger J, Rosen MI. “Do Veterans with Substance Misuse (SM) use Distinct Pain Treatment Modalities.”



Sensitivity, specificity and discordance with self-report of nail sample testing for alcohol and cannabis

- 707 of 1101 respondents mailed in nail clippings. Those with returned nails were disproportionately married, **white race**, older, and less depressed.
- False positive nails for THC-related problems were associated with being **African American**, **Hispanic**, and having had legal problems.
- Conclusions: Nail measures had low sensitivity and higher specificity. The groups who disproportionately submit positive nails/negative self-report could self-report inaccurately due to social pressures, have substance use patterns not captured by self-report, or have distinct drug metabolism.

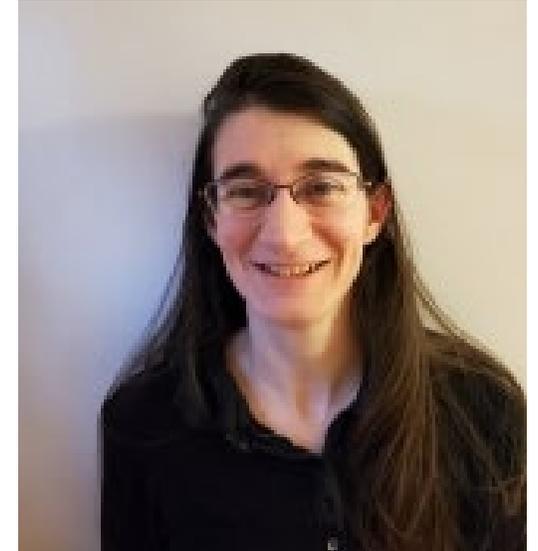


vs.



| | | Self-Report Risky Use on AUDIT-C | |
|-------------------|---|----------------------------------|-----|
| | | + | - |
| ETG \geq 8pg/mg | + | 123 | 57 |
| in nail sample | - | 122 | 387 |

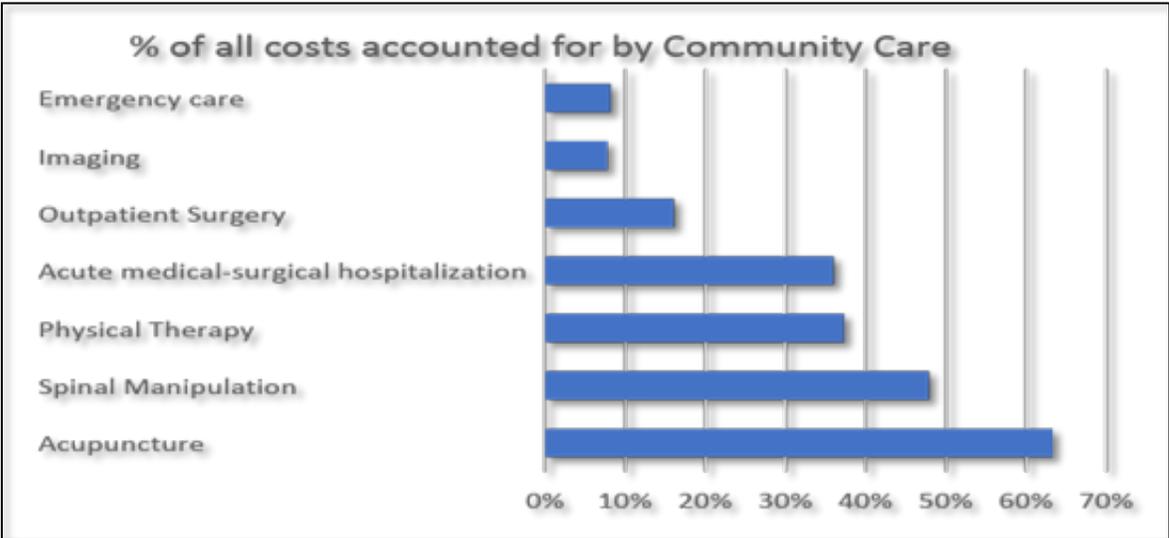
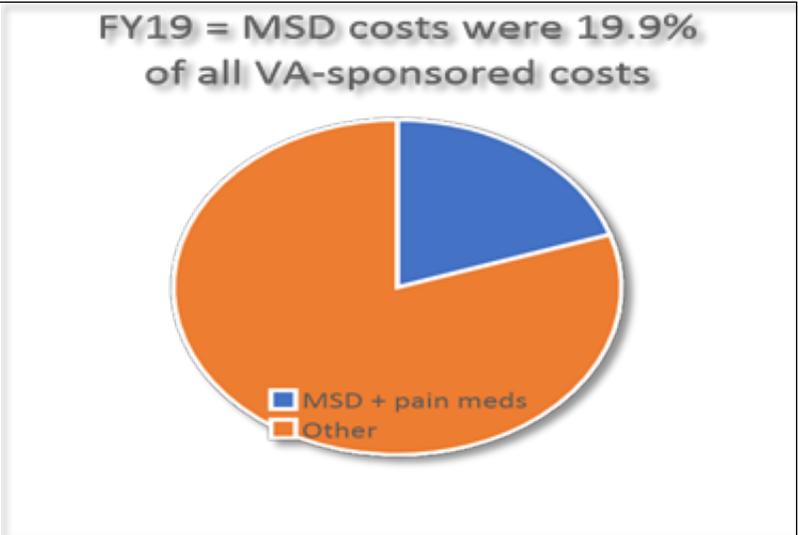
Sensitivity = 0.5, Specificity = 0.87



Morie KP, Gildstad-Hayden K, Martino S, Lazar CM, Rosen MI. "Sensitivity, specificity and discordance with self-report of nail sample testing for alcohol and cannabis."

High proportions of CIH costs are Community Care

- 1,068,327 Veterans had a request for a C&P examination for a back, neck, knee, or shoulder condition between 2000 and 2018.
- Most of them (799,836) received VA sponsored care in FY19. This care cost \$10.9 billion (mean \$13,615 per person).
- Community care was >35% of total costs for
 - Physical therapy
 - Spinal manipulation
 - Acupuncture



HSR&D Annual Conference. “VHA-sponsored Musculoskeletal Disorder (MSD) Treatment Costs: VA-delivered vs. Community Care”, Poster Presentation, Feb 8-10, 2023. Baltimore, MD.



Costs of care for MSD conditions

Annual cost of VHA provided services

| | Care for musculoskeletal conditions | All care | % of care for musculoskeletal conditions |
|---------------------|-------------------------------------|----------|------------------------------------------|
| Outpatient services | \$1,186 | \$6,567 | 18.1% |
| Outpatient pharmacy | \$436 | \$1,364 | 32.0% |
| Inpatient care | \$206 | \$2,299 | 9.0% |
| Total | \$1,828 | \$10,230 | 17.9% |

Back to the main attraction...



VA



Implementing SBIRT-PM in the VA

- Why a Hybrid Effectiveness-Implementation Study?
- Implement with whom? By whom?
- Design of Hybrid Effectiveness-Implementation Trial
- Implementation Strategy
 - Theoretical framework
 - Components of Strategy

Why an Effectiveness-Implementation Study?

- Target Young Veterans fresh out of the military
 - Each year about 200,000 personnel leave U.S. military service
 - 51% of those seen at VHA receive service-connected disability for an MSD
 - C&P is private...need VBA-VHA liaisons to reach Veterans with private C&P exams
 - Pragmatic trial participants
 - Averaged 39 years old
 - Most had re-filed MSD claims
- Have real VA clinicians deliver intervention instead of Yale-hired therapists
- Nationwide roll-out, not just VISN 1
- Sustainable roll-out not dependent on NIH \$
- Will it work if done this way?



Why an Effectiveness-Implementation Study?

- More need for outreach to Veterans at C&P
- More privatization of C&P exams.
- Best strategy to implement SBIRT-PM needs investigation



Implementation by Whom?

Poll Question:

Do you know about the Post-9/11 Military2VA (M2VA)
Case Management Program?

No

Yes

Implementation by Whom?

Answer: Military-to-VA (M2VA, OEF/OIF Coordinators)

- Every VHA medical center has a Post-9/11 Military to VA (M2VA) Team of social workers (mostly) and nurses
- M2VA contacts **all** separating service members and Post-9/11 era Veterans who are new to their VA health care system
 - Some separating service members get additional case management
- These case managers are uniquely situated to implement SBIRT-PM
 - No specific training in Motivational Interviewing, pain care, addiction
 - No specific organizational support for MI, pain care navigation
- M2VA national leadership wants them to learn SBIRT-PM



Implementation by M2VA needs Relational Coordination with other Partners

Military Treatment Facilities



Veterans with MSD-related C&P claims



M2VA Case Management

Primary Care Clinics and Providers

Pain Care Specialty Clinics and Providers

Addiction/Mental Health Clinics and Providers

Whole Health Educators, Champions, and Peers

Care in the Community Services

High Relational Coordination is when the arrows between workgroups have:

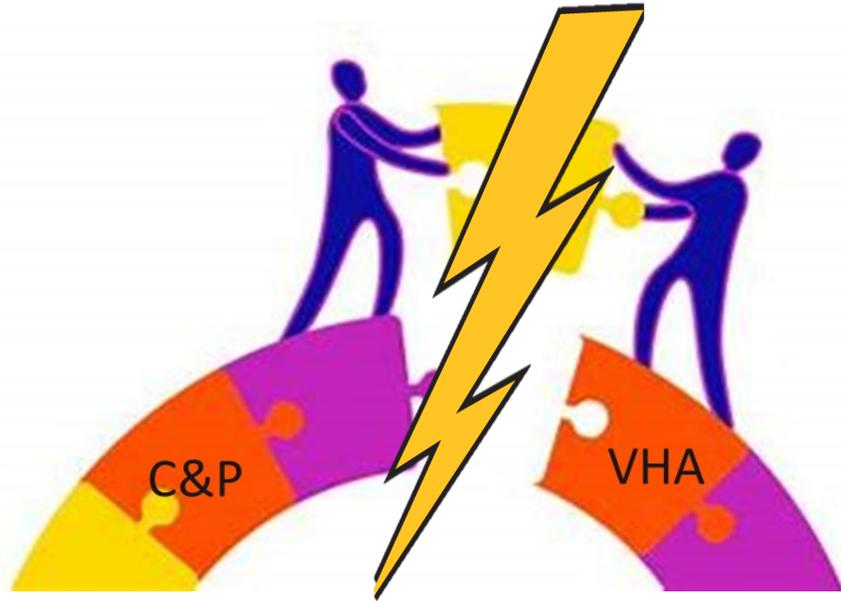
- Good Relationships
- Good Communication

Transitioning from Military to Civilian Life



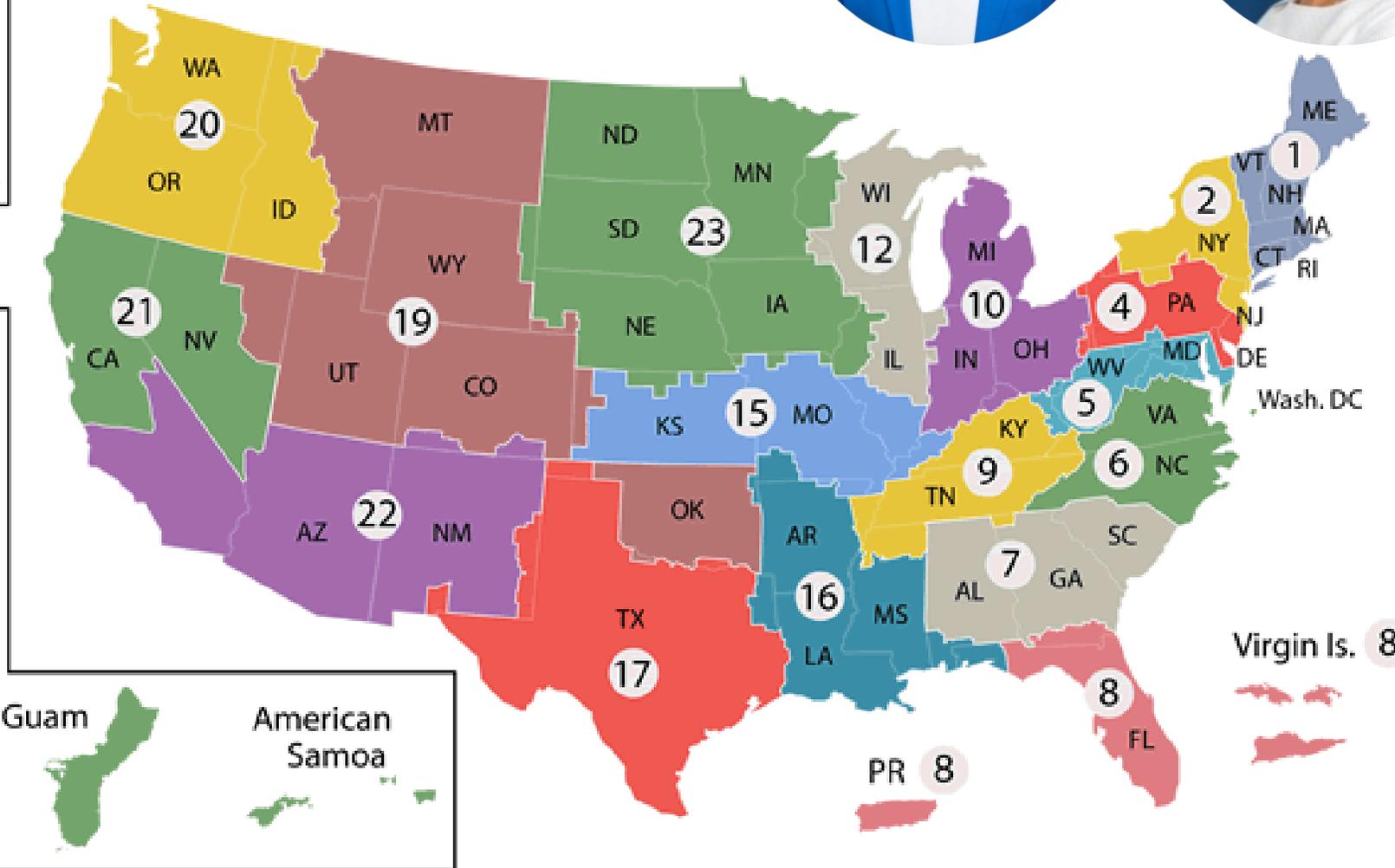
Veterans new to VA

Implementation by M2VA needs Relational Coordination with other Partners



- More privatization of C&P exams.
- More outreach to Veterans at C&P
- More involvement of M2VA Case Managers
- Requires more relational coordination

Who is Participating?



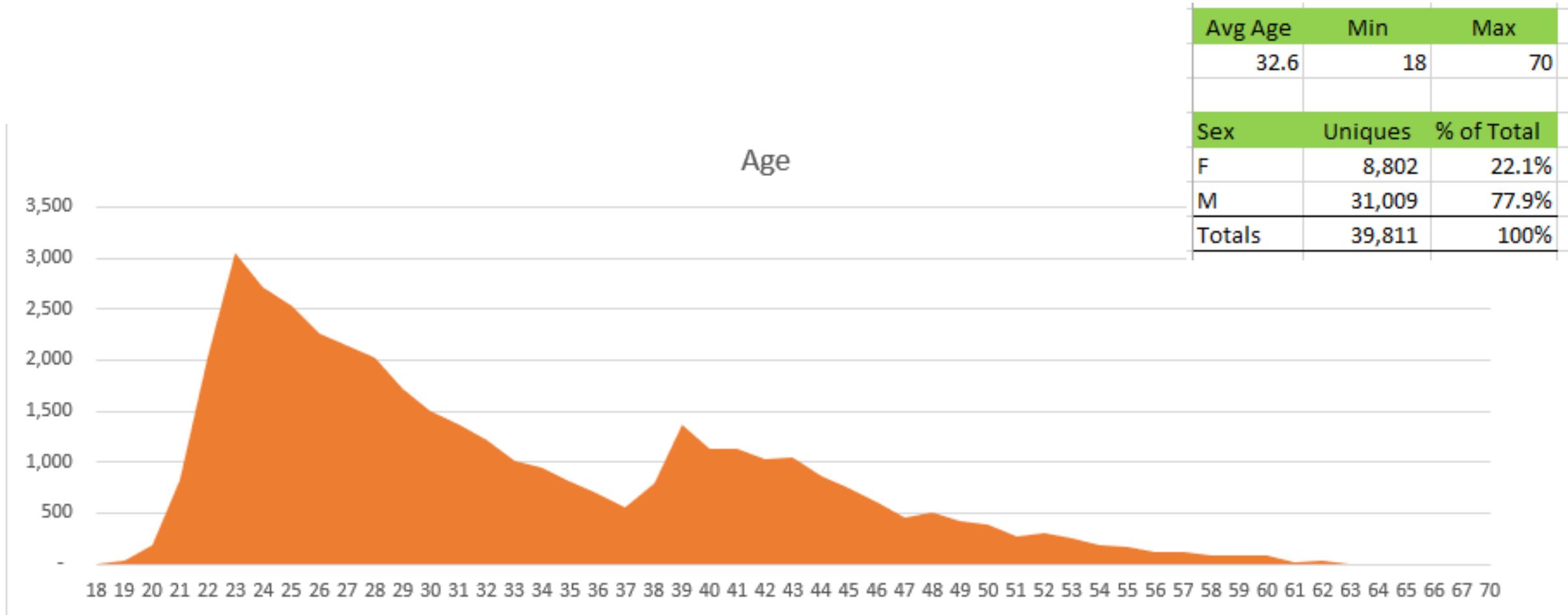
- Alaska VA
- Atlanta VA
- Columbia VA
- Durham VA
- Greater LA VA
- Hampton VA
- Illiana VA
- Long Beach VA
- Maryland VA
- North Texas VA
- Puget Sound VA
- San Diego VA
- Southern Nevada VA
- Texas Valley VA



Implementation by Whom? Partners

| Group | Comments |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| M2VA Leadership, Broader Transition Care Management Teams | Implementers. Operational Partners. Interface with numerous other DoD and VA groups |
| Primary Care | Pain care goes through primary care. Sites vary on how much they use M2VA input |
| Care-in-the-Community Programs | Pain care pathways vary by site, some sites provide care in the community instead of on-site |
| VHA Pain Care Apparatus | Recruiting PMOP coordinators to be internal facilitators. Research vs. Clinical Care role. |
| Research Community | Health Services Research, PRIME Center, MIRECC, Painiacs |
| Addictions | OIG report on need for OUD treatment in recently separated military personnel. Increase use of non-opioid pain treatments |
| Veterans | Veterans Engagement Board |
| VHACO Patient Centered Care and Cultural Transformation | Increasingly the pathway to complementary/alternative pain care |
| VBA Medical Disability Examination Office and Contracted Exams | Performance Analysis and Integrity provides C&P claimant lists. Case finding for intervention. |

Implement to whom? Age of Veterans with M2VA case management separated in the past year



Hybrid Effectiveness-Implementation Trial Study

- Implementation Clinical Trial components
 - Intervention: SBIRT-PM
 - Implementation Strategy: Implementation Facilitation
 - Theoretical Framework for Implementation: Relational Coordination
- Study Design:
 - 28 sites in 2 cohorts randomized to
 - SBIRT-PM Training or
 - SBIRT-PM Training plus Implementation Facilitation
- Hybrid Type 2 Effectiveness-Implementation Clinical Trial with **two primary** aims
 - Coprimary Aim: Determine effectiveness of an implementation strategy
 - Coprimary Aim: Determine effectiveness of a clinical intervention



Study Aims

- **Implementation Aim:** Training as Usual vs. Implementation Facilitation
 - Primary implementation outcome will be the proportion of participants who receive any SBIRT-PM (Reach).
 - Other implementation outcomes:
 - Proportion of case managers who receive training in SBIRT-PM and proportion of those trained who used SBIRT-PM with at least three participants (Adoption)
 - Integrity of case managers' use of Motivational Interviewing in SBIRT-PM sessions (Implementation).
 - Qualitative analyses of implementation process.
- **Clinical Aim:** Training as Usual vs. Implementation Facilitation:
 - The primary clinical outcome is the PEG measure of pain.
 - Secondary outcomes: ASSIST-3 measure of substance use (with biochemical verification of alcohol report using fingernails)
 - EHR-derived number of non-pharmacologic pain management services used
- **Cost Aim:** Cost-effectiveness and budget impact of implementation facilitation relative to training-as-usual

Training-as-Usual Group (virtual workshop and SP actors)

Virtual Experiential Workshop for M2VA staff

- Motivational Interviewing as “a way of doing what you do”
- Description of VA approach to pain care
- Screening for substance use
- Integrate motivational interviewing approach to address pain and substance use and engage Veterans in multimodal pain care/SUD services during M2VA encounters
- 8 hours over 2 days
- Multiple offerings across time zones



Training-as-Usual Group (virtual workshop and SP actors)

Post-Workshop Simulated Patient Encounters

- 8 cases involving recently separated Veterans with musculoskeletal disorders, service-connected ratings, chronic pain, and in some cases problematic substance use
- Cases vetted by the CORE Veterans Engagement Panel
- Hiring 8 Veterans who will be trained to enact the simulations
- Performance feedback from actors to case managers
- One baseline SP encounter following workshop followed by up to 7 follow-up SP practice encounters during 21-month implementation phase (opportunity once every 3 months)

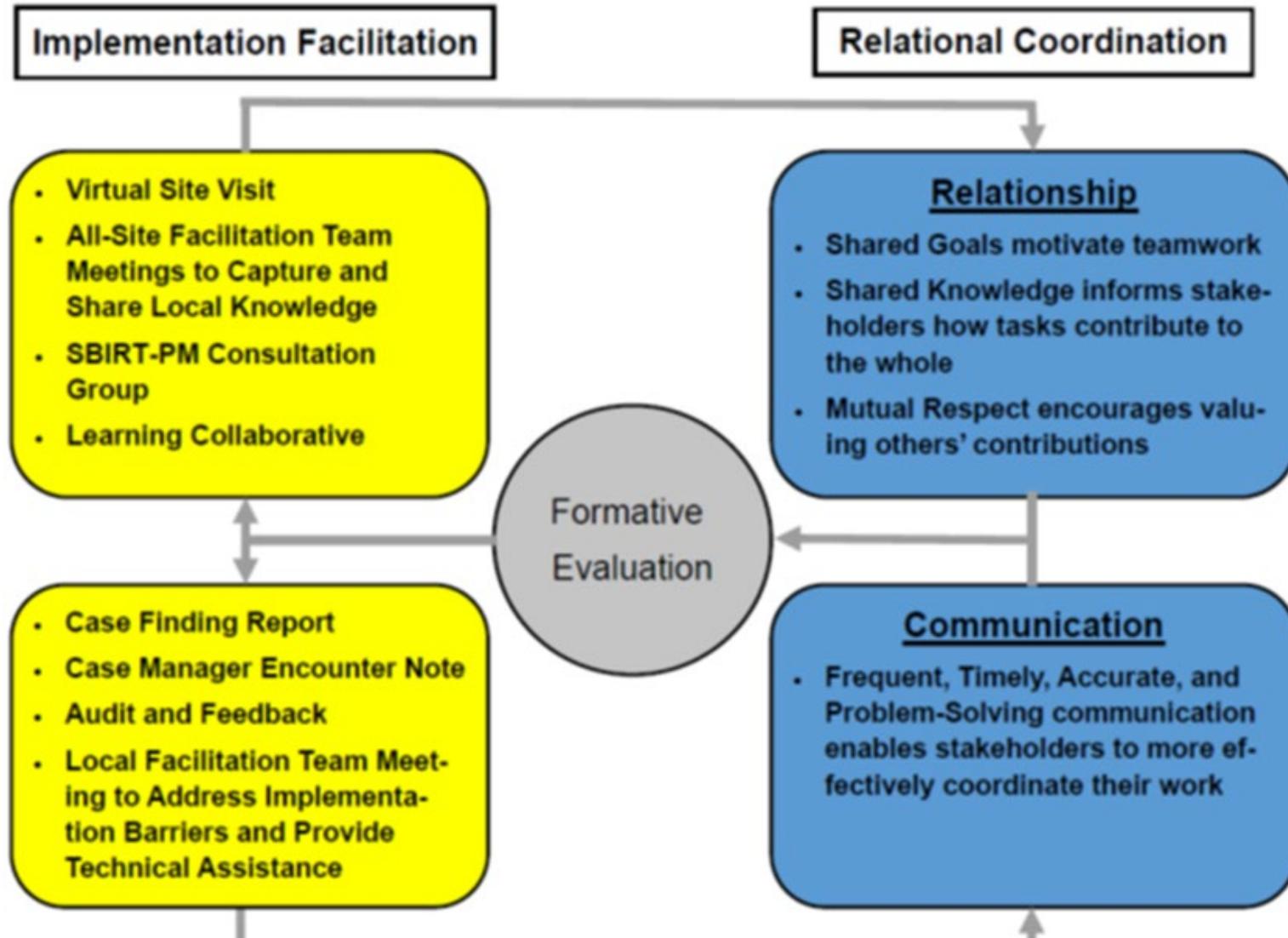
Training-as-Usual Group (SP case example)

Justin is a 25-year-old Coast Guard Veteran

- Left the military 11 months ago
- Worked as a Damage Controlman maintaining vessel systems
- Chronic pain resulted from an injury in 2018
 - A swell crashed into his cutter (boat) dropping him hard to the floor
 - Leg trapped in a door that crashed closed
 - Muscle injuries, no fractures
- Pain persisted
 - Briefly prescribed oxycodone but stopped due to side effects (light-headedness, constipation, and dry mouth)
 - Pain is 4/10 on most days but pushes to a 7 or 8 when taxed at work (contractor)
- Received a 50% service-connection rating for multiple musculoskeletal disorders involving his back, leg, and shoulder



Implementation Facilitation Guided by Relational Coordination



External Facilitation Team consisting of experts in pain care, addiction treatment, case management, implementation facilitation, and motivational interviewing.

Internal Facilitators ideally will be PMOP Coordinators at each site

Simulated patients call case managers for training sessions...



Maria Gabriela Garcia Vassallo, M.D.

LYSSN

Software Using Artificial Intelligence to Train M2VA Case Managers

Transcript 

[Open Note Support](#)

 Search transcript

TOPICS 

alcohol 25

health 22

case mgmt 13

relationships 12

show less 

work 10

drug 8

parenting 6

social 5

assessment 4

opiates 3

tobacco 2

 You had 4 empathic moments in this session! [< previous](#) [next >](#)

CASEWORKER | Hi steve.

PATIENT | All right.

CASEWORKER | And then thank you for talking to me today. So I want to tell you a little bit about the pain study and then we'll get talking you know about your pain. Um so um the saw when the counselors working on the pain study today what we're gonna do is we're gonna be talking about your pain. Um possibly pain services. Um and that if you decide that you may want to pursue services that that's something we can absolutely talk about. We're also gonna do a little bit later to go. I'm gonna do a substance use assessment. Um and that really is just to get a sense of you know if you you know use any substances and um always more specific questions about that legal call. Okay. Um we're gonna have four goals in total including today. And um and then um we will um and then we will um we will just continue the conversations around pain management at pain services.

VA



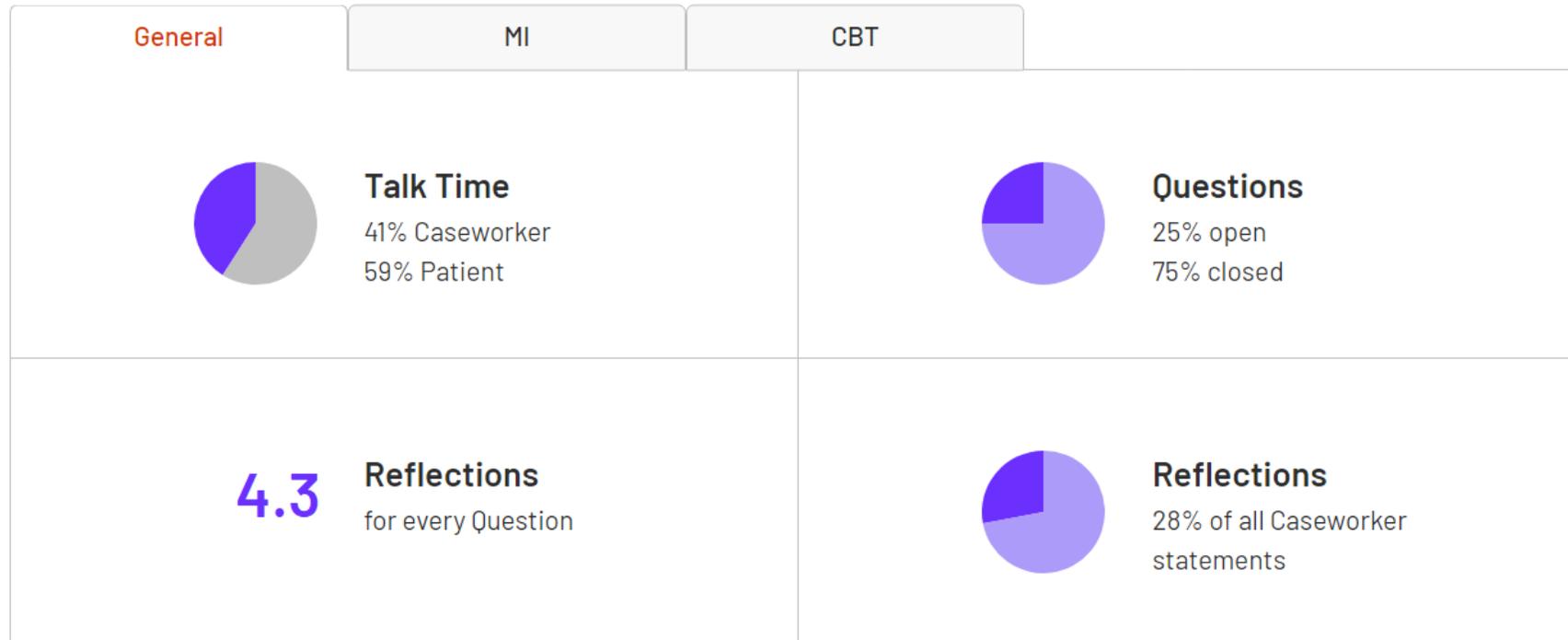
LYSSN

Software Using Artificial Intelligence to Train M2VA Case Managers

Transcript

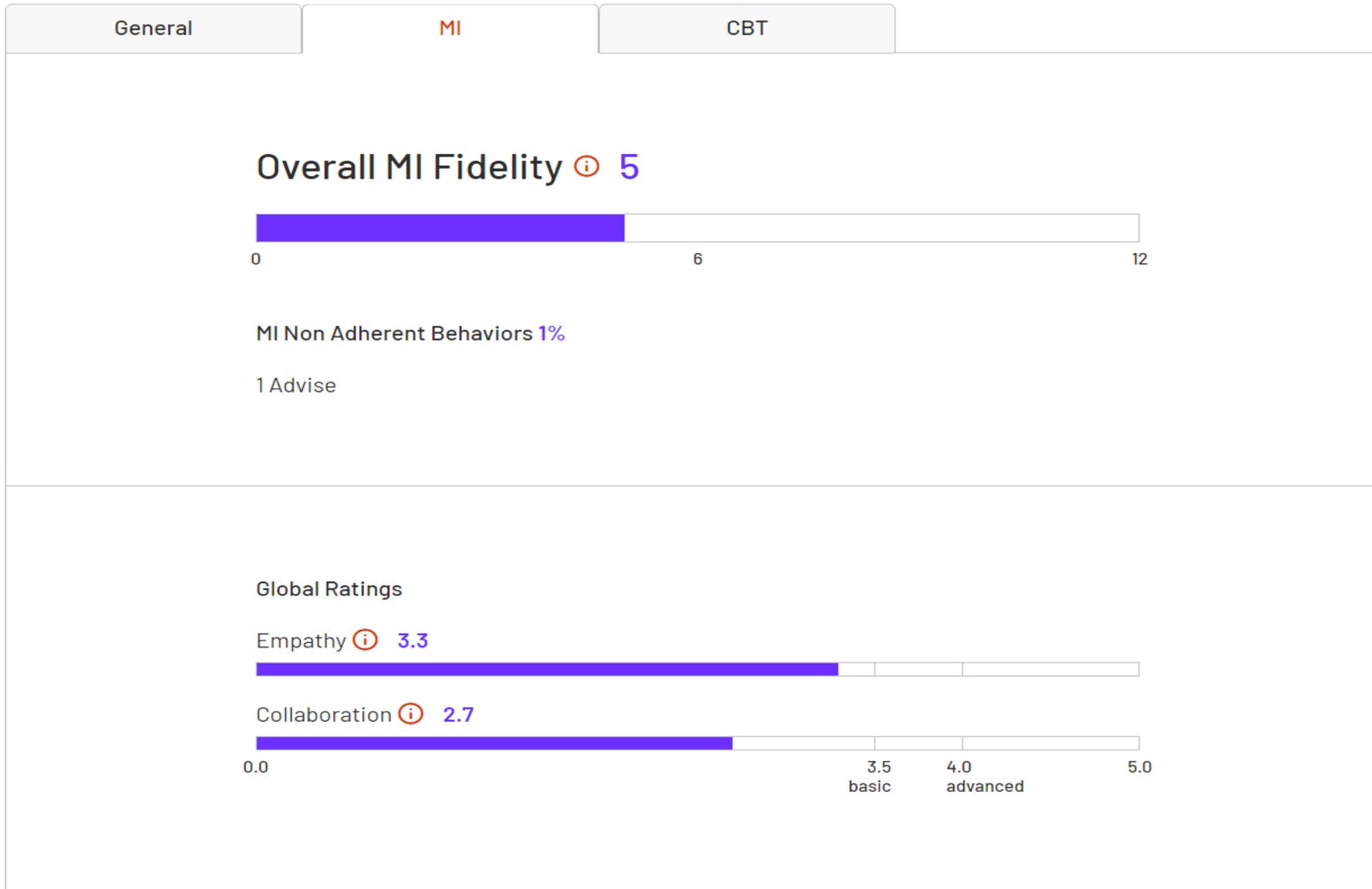


 Caseworker  Patient



LYSSN

Software Using Artificial Intelligence to Train M2VA Case Managers



Summary

- Veterans seeking compensation for MSD
 - Are numerous (half of post-9/11 VHA patients)
 - Have high pain severity and high rates of comorbidities
 - Usually attended proffered counseling
 - Appear to benefit from the counseling
 - More pain service use
 - Other studies have found benefits of MI and patient care navigation approaches
- Project combines quantitative and qualitative science and implementation work science work
 - Relational Coordination framework driving mixed methods formative evaluation and implementation facilitation strategy
 - Primary test is about effectiveness of implementation strategy
 - Controlled data: RCT data, costs of implementing SBIRT-PM under both implementation strategies
- Implementation work requires close work with key partners
 - NIH/NCCIH
 - VBA
 - Military 2VA Transition Care Managers
 - CORE Veterans Engagement Panel
 - Comp and Pen services
 - Primary Care
 - Pain care providers/PMOP
 - Addiction/Mental Health providers

Questions or Comments



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