U.S. Department of Veterans Affairs

Assisting providers in the reduction of benzodiazepine utilization in Veterans with Posttraumatic Stress Disorder using an Academic Detailing framework

Veterans Health Administration
Pharmacy Benefits Management
Academic Detailing Service

- Mark Bounthavong
- Sarah Popish

Disclosures and disclaimers

The authors have no relevant financial or nonfinancial relationships to disclose. During the development, analysis, and preparation of this presentation, the authors were employees of the US Veterans Health Administration, Department of Veterans Affairs.

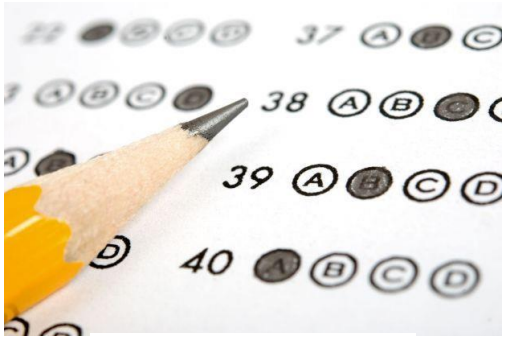
The views and opinions expressed in this presentation are those of the authors and do not necessarily reflect the official policy or position of any agency of the US government. Assumptions made within the analysis are not reflective of the position of any US government entity.

Outline

Introduction

Aims

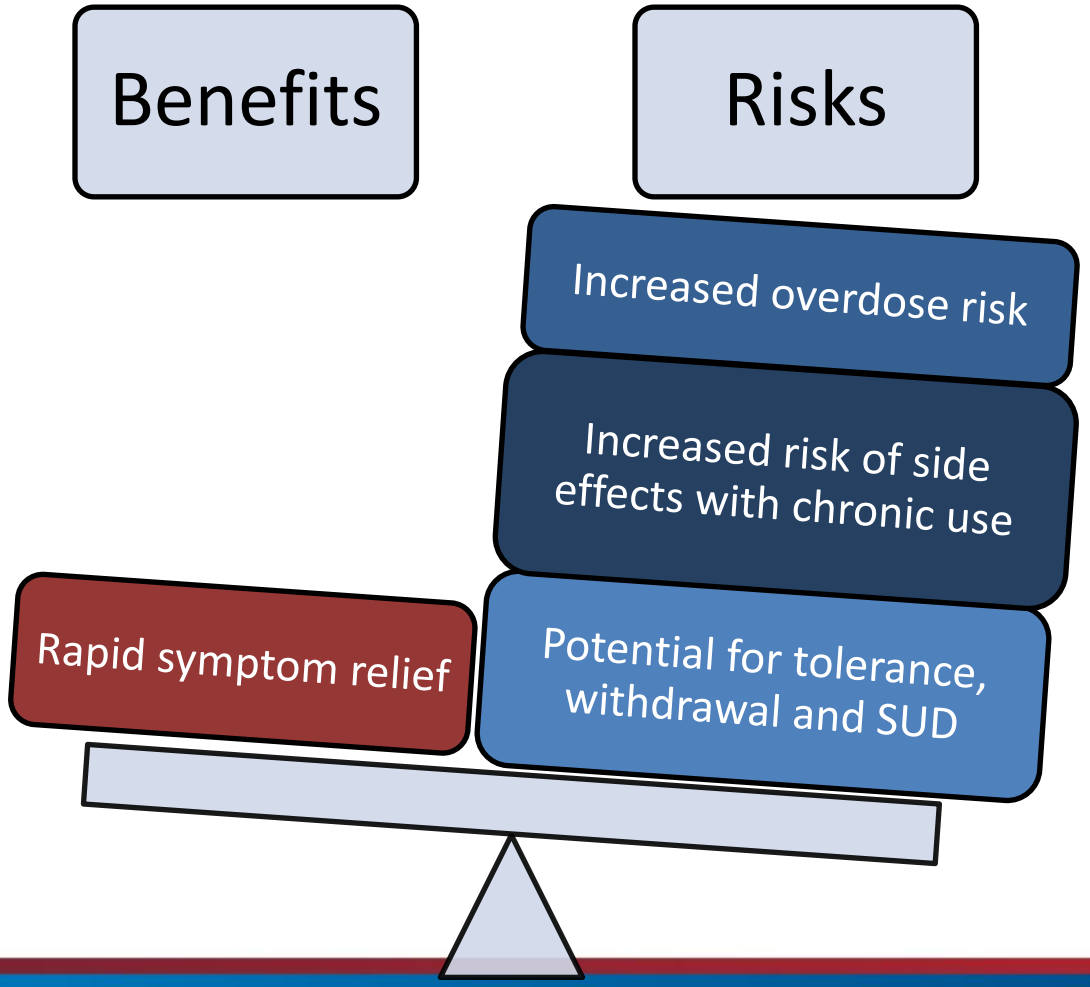
Approach



Results

Questions

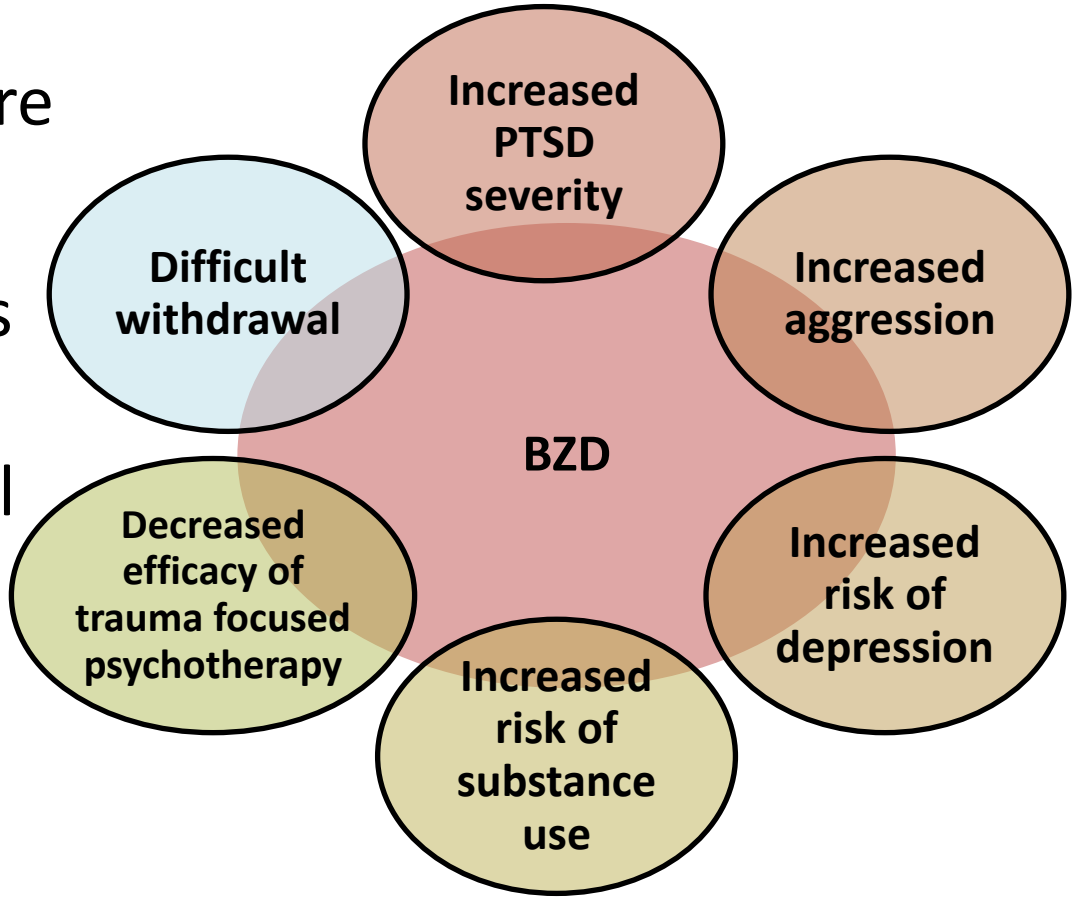
Potential risks often outweigh benefits



<u>High risk populations</u>

- Chronic respiratory disease
- Co-administered opioids
- Dementia
- Elderly (≥65 years)
- SUD
- Post-traumatic Stress Disorder (PTSD)

- Ineffective for treatment and prevention
- Any potential benefits are outweighed by risks
- 30% of VA PTSD patients had a prescription for benzodiazepines in fiscal year (FY) 2012



Guina J, et al., J Psychiatr Pract, 2015. 21(4): p. 281-303.
VA/DoD PTSD Practice guidelines, 2010.
Braun P, et al., J Clin Psychiatry, 1990. 51(6): p. 236–8.
Risse SC, et al., J Clin Psychiatry, 1990. 51(5): p. 206–9.
Elbogen EB, et al., Br J Psychiatry, 2014. 204: p. 368–75.
Shin HJ, et al., J Trauma Stress, 2012. 25(6): p. 649–56.

Academic detailing in reducing BZD use

- Lack of evidence to support AD in reducing BDZ prescribing in Veterans with PTSD
- Behavioral change interventions informed by theory have a higher likelihood of being effective
- Theoretical Domains Framework (TDF), developed using an expert consensus to simplify and integrate the various behavior change theories and to make the theory more accessible to and usable by other disciplines, was adapted for use by the ADS

Cane, et al. Implémentation Science 2012, 7:37

Aims

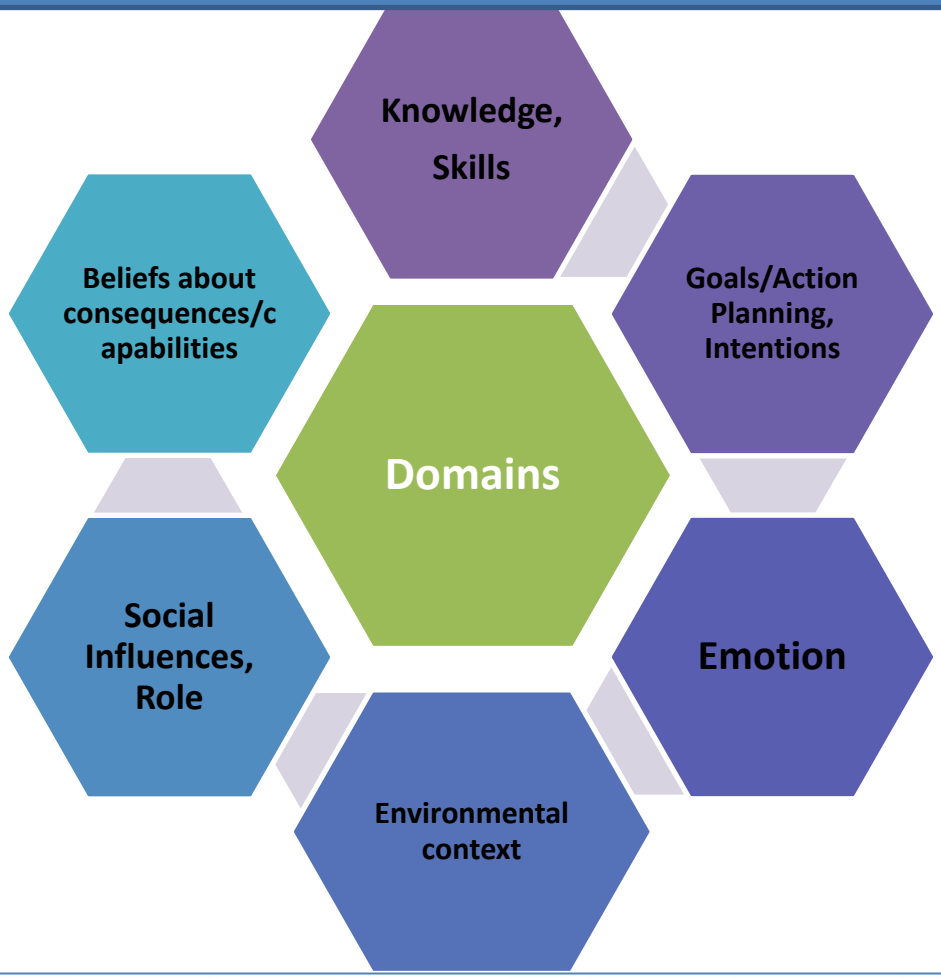
- Aim 1: To effectively and efficiently assess implementation problems in the field and inform AD resource development and training of detailers
- Aim 2: To evaluate AD's impact on aligning providers' prescribing behavior with clinical practice guidelines measured by the proportion of Veterans with PTSD receiving benzodiazepines

Aim 1: Informed detailing strategies

- Design: Randomized national survey distributed electronically based on a modified TDF
- Population: VA Providers who had prescribed benzodiazepines identified at 9 VHA facilities across 5 geographical districts in 2017
- The ADS survey included 24 items using a 7-point Likert scale (Strongly Agree, …, Strongly Disagree)
- 5 knowledge-based multiple choice questions to determine if there was a correlation between how the providers scored themselves on the knowledge domain

Theoretical domain framework

Figure 1. Modified Theoretical Domains Framework



Results

- In the survey analysis, a total of 953 BZD prescribers were selected from 9 geographically diverse facilities across VHA
- Response rate was 11.6% (n=111) of which 40.5% (n=45) were mental health providers, 39.6% (n=44) were primary care providers, and 19.8% (n=22) were categorized as Other

Table 1. Top 3 Domains by Provider-type	
Mental Health Providers	Role, Skills, and Knowledge
Primary Care Providers	Role, Intentions, and Optimism

Table 2. Domain versus knowledge-based question score	
1 point increase in “Role” domain score	94% higher odds of correctly answering question on at risk population and treatment discontinuation with BZD (95% CI: 1.13, 3.32)
1 point increase in the “Optimism” domain score	36% higher odds of correctly answering the designing a taper schedule question (95% CI: 1.02, 1.82)

Areas of need- primary care

- **Primary Care**
  - **Beliefs about capabilities**
    - Lack of confidence about tapering benzos in high risk Veterans if the Veteran isn't motivated to taper
  - **Skills**
    - Not trained to recognize when a benzo taper is warranted
  - **Environmental context**
    - Not enough time to calculate and recommend a benzo taper
  - **Goals/action planning/intentions**
    - No clear plan on how to taper benzos in high risk Veterans
    - No intention to discuss tapering a benzo with at least 1 patient in the next week
- **Mental Health**
  - **Social influences**
    - They believe that most people whose opinion they value would approve of them using benzos in Veterans with mental health disorders

Select strategies- primary care

- Data resources
  - High risk patient identification
  - Taper calculation
  - Mail merge for DTC

Benzodiazepines/ZDrugs

BZD Taper Calculator Version 2
EMPOWER Mail Merge
Report (Guide | Implementation)
Patient Report
Priority Panel Report

Please read: The below taper is newly generated each time from Week 1. This system is not intended for use in patients in mid-taper.

Taper Month	Prescription Data	Prescription Sig(s)	Total % Decreased
Month: 1	Diazepam 2 mg #252 Days Supply: 28	Take 10.5 tabs (21 mg) by mouth daily for 2 weeks	16
			16
		Take 8.5 tabs (17 mg) by mouth daily for 1 week	32
		Take 6.5 tabs (13 mg) by mouth daily for 1 week	48
Month: 2	Diazepam 2 mg #182 Days Supply: 28	Take 6.5 tabs (13 mg) by mouth daily for 4 weeks	48
			48
			48
			48

Select an agent to taper with

Diazepam

Select your available strengths

2 mg - Formulary - TAB

Evidence based interventions

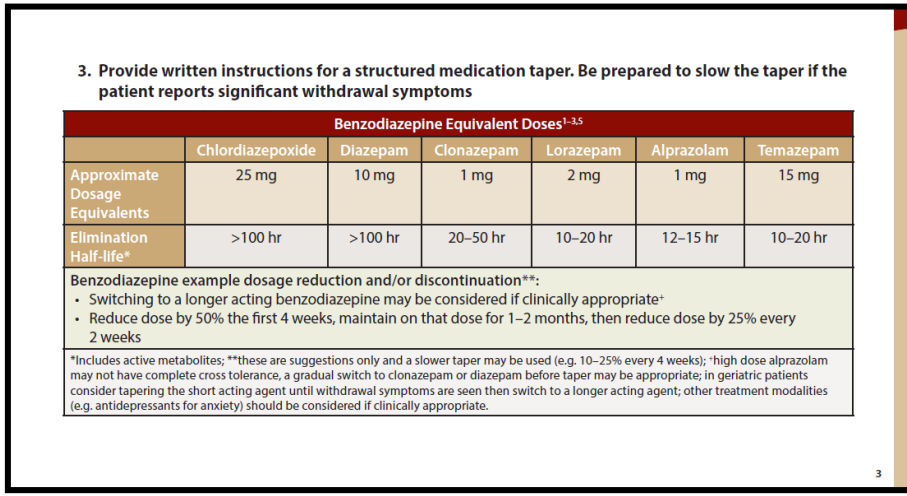
2–3 FOLD

INTERVENTIONS THAT INCREASE SUCCESS BY 2–3 FOLD

Brief Educational Intervention	☑ Medication review, consultation (risks/benefits), assessment of patient readiness, provision of a withdrawal schedule and education about benzodiazepine use
Direct to Consumer Patient Education	☑ Letters designed to promote cognitive dissonance (e.g. EMPOWER trial) ☑ Increases success of discontinuation by three fold
Augmentation	☑ Psychotherapy and/or pharmacotherapy aimed at addressing underlying pathology

Example academic detailing strategies

- Coaching AD on motivational interviewing
  - Who do they define as "high risk”
  - Skills to make conversation with the patient more successful
  - Elicit-provide-elicit (EPE)/ Feel Felt Found (FFF)
    - Discuss data about harms/risks
    - Discuss data around successful taper strategies
    - Share other successes and strategies used by their collogues
- Identify local champion(s)
- Resources developed to assist
  - Provider guide
  - Quick reference guide
  - Direct to consumer brochure
  - Patient education documents
  - Discussion guide



3. **Provide written instructions for a structured medication taper. Be prepared to slow the taper if the patient reports significant withdrawal symptoms**

Benzodiazepine Equivalent Doses[1-3,5]						
	Chlordiazepoxide	Diazepam	Clonazepam	Lorazepam	Alprazolam	Temazepam
Approximate Dosage Equivalents	25 mg	10 mg	1 mg	2 mg	1 mg	15 mg
Elimination Half-life*	>100 hr	>100 hr	20–50 hr	10–20 hr	12–15 hr	10–20 hr

Benzodiazepine example dosage reduction and/or discontinuation:**

- Switching to a longer acting benzodiazepine may be considered if clinically appropriate†
- Reduce dose by 50% the first 4 weeks, maintain on that dose for 1–2 months, then reduce dose by 25% every 2 weeks

*Includes active metabolites; **these are suggestions only and a slower taper may be used (e.g. 10–25% every 4 weeks); †high dose alprazolam may not have complete cross tolerance, a gradual switch to clonazepam or diazepam before taper may be appropriate; in geriatric patients consider tapering the short acting agent until withdrawal symptoms are seen then switch to a longer acting agent; other treatment modalities (e.g. antidepressants for anxiety) should be considered if clinically appropriate.

3

VA | U.S. Department of Veterans Affairs
Veterans Health Administration
PBM Academic Detailing Service

Provider Guide

Benzodiazepine Risks

Are You Aware of the Possible Risks from Taking Benzodiazepines?

There are more effective and less harmful treatments available for sleep, nightmares, PTSD, pain and anxiety.

Possible Risks

Feeling tired or drowsy

Memory and thinking problems

Depression, mood changes, irritability, anger

PTSD symptoms may get worse

- *Becoming dependent*
- *Withdrawal symptoms*

- *COPD and sleep apnea may get worse*
- *Pneumonia*

- *Car accidents*
- *You can be arrested for Driving While Impaired*

- *Unsteady walking*
- *Increased risk of falls, broken bones, or concussion*

- *Overdose - especially when combined with alcohol, strong pain medications (opioids), street drugs*

- *Birth defects*
- *Baby may need emergency care because of withdrawal symptoms*

How ready are you to make a CHANGE?

The deaths of Heath Ledger, Amy Winehouse, Michael Jackson, and Elvis Presley involved benzodiazepines

October 2016

IB 10-953, P96835

Discussing Benzodiazepine Discontinuation

1. Assess patient's willingness to discontinue or reduce the dose

Action	Provider Response
Express concern	"I would like to take a minute to discuss my concerns about (benzodiazepine name)."
Provide education on potential risks	"Because of your [age or other risk factors], I am now concerned that the use of (benzodiazepine name) may put you at increased risk for [relevant repercussion]."
Assess patient's readiness to begin taper process	"What do you see as the possible benefits of stopping or reducing the dose? What concerns do you have about stopping? What can we do together to help address these concerns?" If patient indicates no desire to change, provide information handout. "What would be a reason you might consider changing from (benzodiazepine name) to (name of recommended alternative)?"
Negotiate plan	"What changes are you willing to make to meet this goal?" "Would you be willing to talk to one of my colleagues to learn about options to support your changes?"

2. Agree on timing and discuss the symptoms that can occur with benzodiazepine taper

Inform patients	• Withdrawal is only temporary and not all patients will have symptoms • Slowly tapering will decrease these symptoms • Report distressing symptoms and if necessary adjust the rate of taper

3. Provide written instructions for a structured medication taper. Be prepared to slow the taper if the patient reports significant withdrawal symptoms.

Benzodiazepine Dosage Equivalents and Taper Schedules

	Approx. Dosage Equivalents	Elimination Half-life (hours)	Example Taper: Lorazepam 4 mg bid (Convert to 40 mg diazepam daily)	
Chlordiazepoxide	25 mg	>100 hr	Milestones: Week 2: ↓ dose by 25% Week 4: ↓ dose by 25% Weeks 5–8: Hold dose 1 month Weeks 9–15: ↓ dose by 25% every two weeks	Week 1: 35 mg/day Week 2: 30 mg/ day (25% of initial dose) Week 3: 25 mg/day Week 4: 20 mg/day (50% of initial dose) Weeks 5–8: Continue at 20 mg/ day for 1 month Weeks 9–10: 15 mg/day Weeks 11–12: 10 mg/day Weeks 13–14: 5 mg/day Week 15: Discontinue
Diazepam	10 mg	>100 hr		
Clonazepam	1 mg	20–50 hr		
Lorazepam	2 mg	10–20 hr		
Alprazolam	1 mg	12–15 hr		
Temazepam	15 mg	10–20 hr		

Shorter taper (e.g. 3 months): Reduce dose by 50% the first 4 weeks then maintain on that dose for 1–2 months then reduce dose by 5% every 2 weeks
Longer taper (e.g. 6 months): 10–25% every 4 weeks

Switching to a longer acting benzodiazepine may be considered if clinically appropriate; in geriatric patients consider tapering the short acting agent until withdrawal symptoms are seen then switch to a longer acting agent; high dose alprazolam may not have complete cross tolerance, and a gradual switch diazepam or clonazepam before taper may be appropriate; other treatment modalities should be considered (e.g. antidepressants for anxiety) if clinically appropriate.

1) Taylor D, *The Maudsley Prescribing Guidelines in Psychiatry 12th Edition*. 2015, West Sussex: Wiley Blackwell. 2) Veterans Health Administration, Department of Defense. VA/DoD practice guideline for the management of substance use disorders. Version 3.0. Washington (DC): The Management of Substance Use Disorders Working Group; 2015 January. 3) Vicens C., et al., *Comparative efficacy of two interventions to discontinue long-term benzodiazepine use: cluster randomized controlled trial in primary care*. Br J Psychiatry, 2014. 204: 471–9. 4) Vikander B., et al., *Benzodiazepine tapering: A prospective study*. Nord J Psychiatry 2010;64:273–82.

This reference guide was created to be used as a tool for VA providers and is available to use from the VA PBM Academic Detailing Service SharePoint Site: https://www.portal2.va.gov/sites/ad

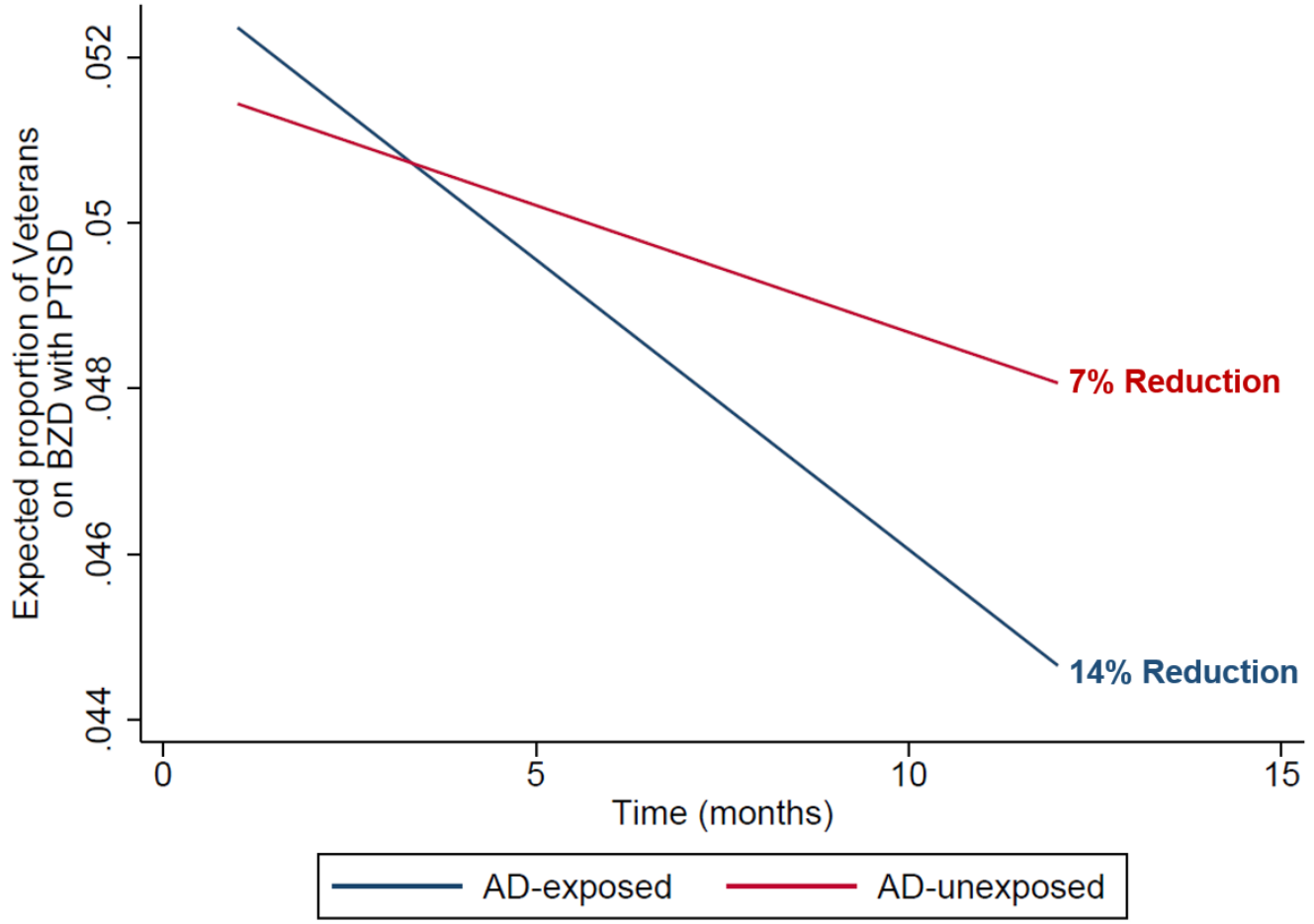
Aim 2: Program evaluation

- A retrospective, repeated measures cohort study evaluating academic detailing's impact on BZD in PTSD patients from October 2015 to September 2016.
- VA providers were included if they prescribed BDZ for patients with a PTSD diagnosis from October 2015 to September 2016
- Compared the rate of change in the proportions of Veterans with PTSD prescribed a BDZ between providers who received an AD outreach visit and providers who did not receive an AD outreach visit (difference-in-differences estimation)

Results

Table 2. Baseline demographic between providers who were exposed and not exposed to academic detailing.			
Variables	AD-exposed (N=274)	AD-unexposed (N=1,424)	P-value
Age (years), mean (SD)	54.8 (9.3)	53.8 (10.1)	0.110
Male, n (%)	182 (66.4%)	905 (63.6%)	0.365
FTEE, mean (SD)	0.97 (0.15)	0.94 (0.19)	0.001
Prior months worked, mean (SD)	136.0 (103.4)	132.0 (104.6)	0.559

Results: Greater reduction in ad-exposed group

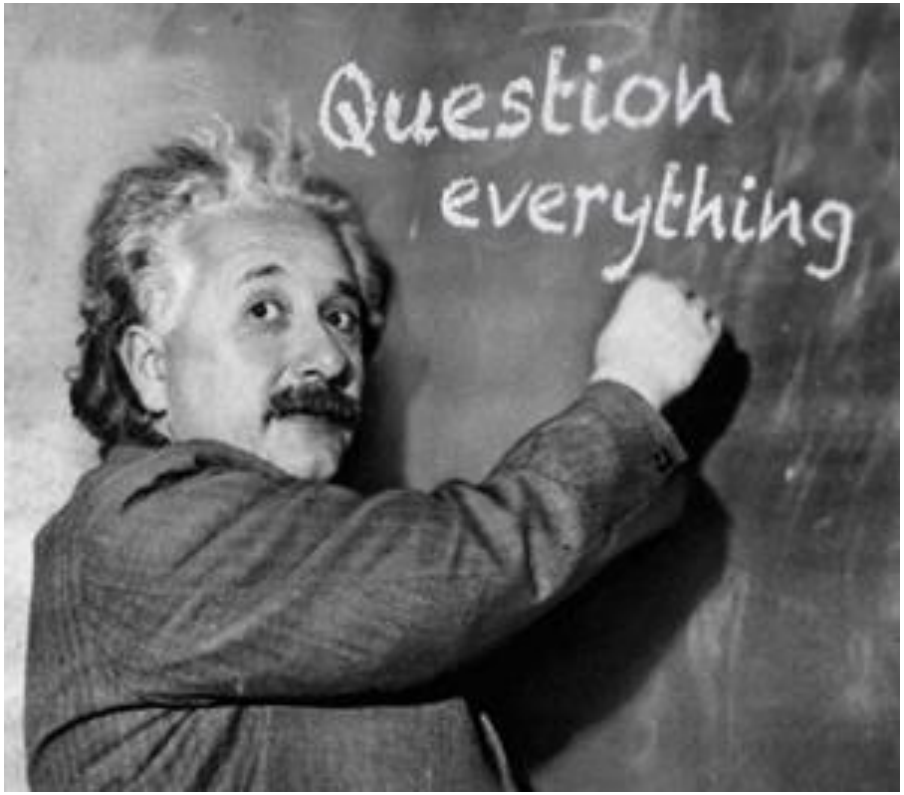


AD-exposed providers had a significantly greater rate of reduction in the proportion of PTSD Veterans with a BDZ from baseline compared to AD-unexposed providers adjusting for baseline characteristics (14% versus 7%, respectively; p=0.045).

Discussion

- We did not take into consideration quality of the academic detailing educational outreach, local policy, and barriers to implementation and adoption of academic detailing
- Further analysis will need to focus on elements that had the greatest impact on outcomes
- First empirical evidence to report on the positive association between academic detailing and a reduction in the proportion of patients with BZD and a PTSD diagnosis

Questions



Acknowledgements

Academic Detailing Service:

- Daina L. Wells
- Marcos K. Lau
- Michael A. Harvey
- Chad L. Kay
- Julianne E. Himstreet
- Melissa L.D. Christopher

Pharmacy Benefits Management:

- Virginia Torrise
- Michael Valentino

CONTACT

VACO PBM Academic Detailing Service

Email Us
PharmacyAcademicDetailingProgram@va.gov

VA PBM Academic Detailing Website
http://www.pbm.va.gov/PBM/academicdetailingservicehome.asp

Mark Bounthavong
Mark.Bounthavong@va.gov

Sarah Popish
Sarah.popish@va.gov

Appendix

$$\text{Proportion on BZD with PTSD diagnosis} = \frac{\text{Number of Veterans on BZD with PTSD diagnosis}}{\text{Total number of prescription unique with PTSD}}$$

AD-exposed providers had a 1% greater reduced odds of having BDZ compared to AD-unexposed providers across 12 months (95% CI: 0.01%, 2.0%)

Table 1. Survey Examples: Statements and Knowledge-based Questions	
I have experience tapering benzodiazepines.	Likert scale 1 = Strongly Disagree; 7 = Strongly Agree
When tapering benzodiazepines, I am usually optimistic for a successful outcome for my patient.	Likert scale 1 = Strongly Disagree; 7 = Strongly Agree
The idea of tapering benzodiazepines in some Veterans makes me feel worried, stressed, or afraid.	Likert scale 1 = Strongly Disagree; 7 = Strongly Agree
Which of the following medications would you consider first line for the treatment of PTSD?	a. Gabapentin b. Bupropion c. Buspirone d. Sertraline
Benzodiazepines are considered “relatively contraindicated” in which of the following disorders?	a. Panic Disorder b. Generalized anxiety disorder c. Post-traumatic stress disorder d. All of the above