Developing a PACT-Delivered Integrated Treatment for Veterans with Cardiovascular Conditions and Smoking or Risky Drinking

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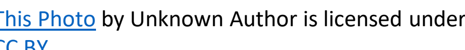
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Outline and Learning Objectives

- Learning Objectives:
  - Understand the critical gap that PACT and PCMHI can fill in moving Veterans toward greater readiness to change drinking/smoking
    - Describe how team-delivered care can benefit this population
  - Hear about my CDA project and the method/results of Aims 1 and 2
  - Identify key points during a CDA where pivots had to be made and understand mentorship choices during critical times
    - "Zooming Out"

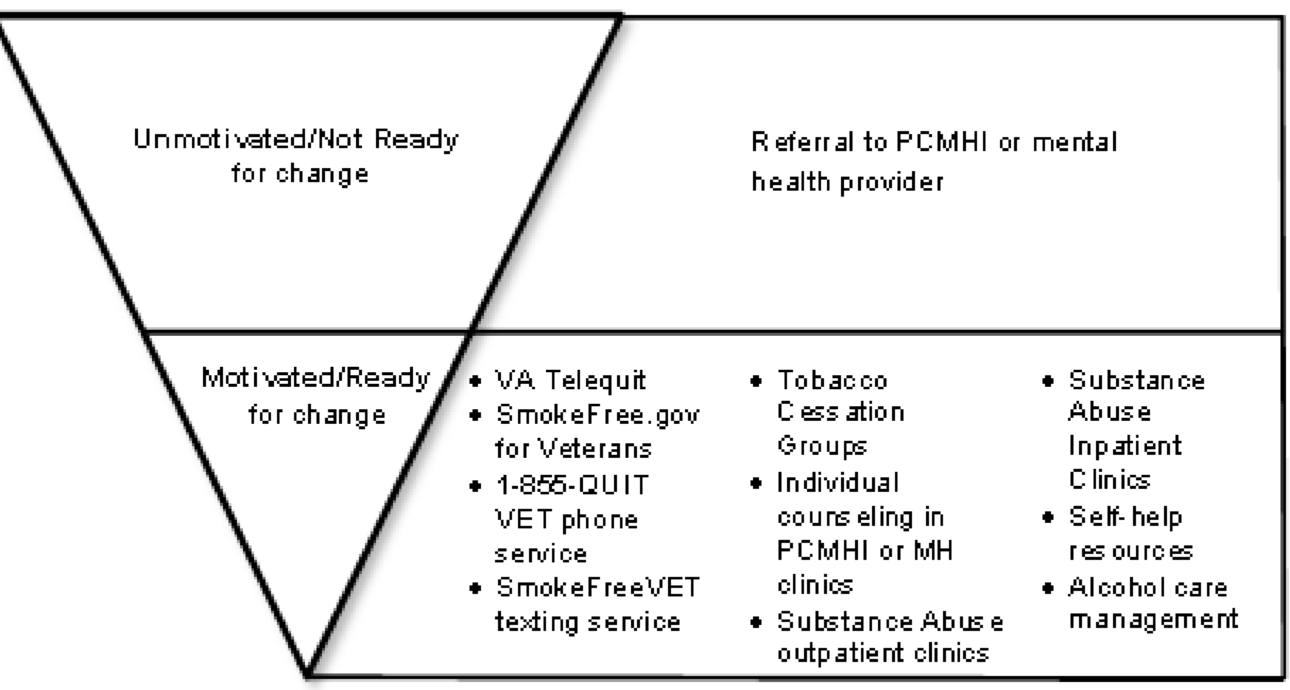
- Outline
  - Background work/rationale for CDA work
  - Brief Aim 1 findings
  - Aim 2 – process and findings
  - Directions for Aim 3 and future steps

Smoking and Hazardous Drinking are Prevalent among Veterans with CVDs

- 40-60% of PACT patients have a CVD[1]
- Substance use (drinking too much, smoking) exacerbate CVD and predict mortality and morbidity[3]
- In Western New York, my first pilot study suggested that 30.4% of primary care veterans with CVDs smoke or drink hazardously[2]
  - Large data pull of all veterans seen in primary care in a 3 month period

Not All Veterans Respond to or Utilize Current Available VA Interventions

- All patients screened annually for smoking/ drinking; positive screens trigger a brief intervention
  - Inconsistently provided and only modestly effective at producing behavior change[4-9]
- Many "higher level" of care options available; all require patient to be **motivated/ ready to change**



44% of patients said that they are very concerned about their CVD

Patients **not very motivated** to stop drinking/ smoking

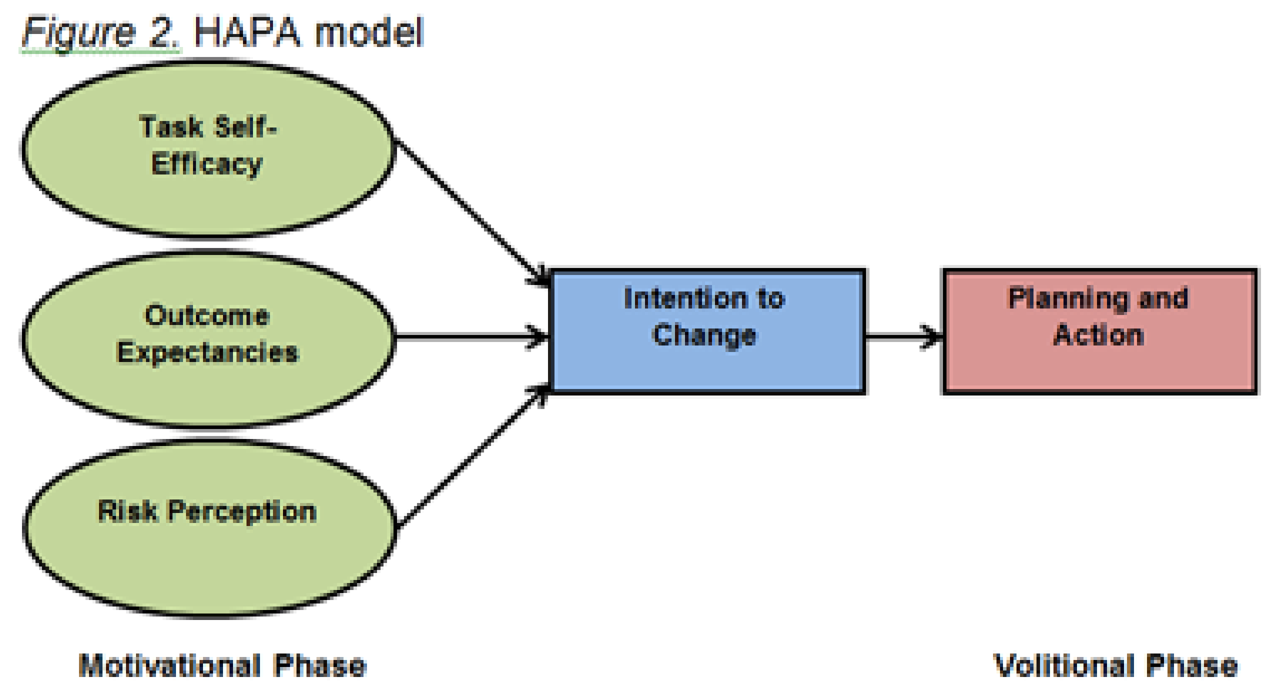
Main reasons: not motivated and behavior not causing a problem, lack of confidence

However, they are concerned about health problems known to be worsened by drinking smoking like a CVD

=possible lack of personalized information/ education?

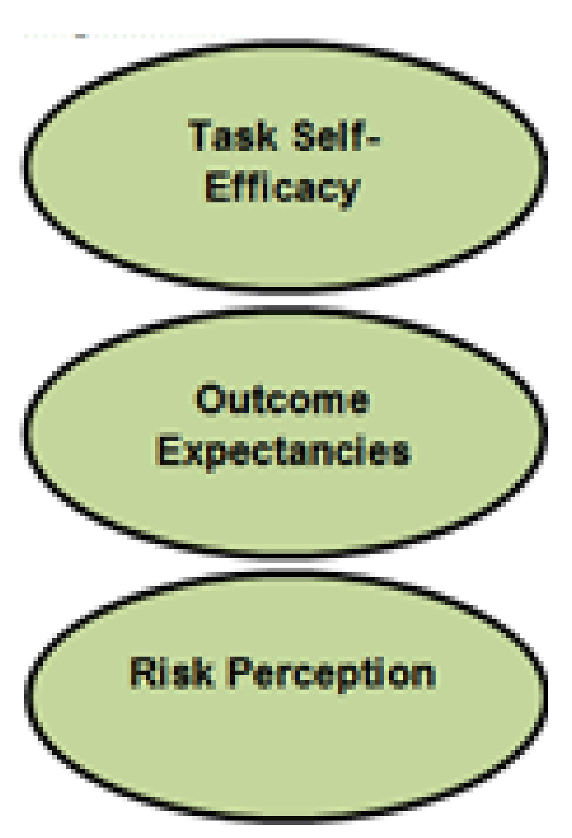
Gass, Funderburk, Maisto, 2021

Behavior Change is a Process Affected by Intention to Change[11-18]



In meta-analytic work intention to change has been shown to lead to a small-to-medium likelihood of behavior change (Cohen's *d* = 0.36[17]).

Interventions can Increase Intention to Change



Interventions that increase awareness of the target behavior through assessment (e.g., **self-monitoring**) strategies have been gaining a strong evidence base[18]

Personalized education on risks and outcomes by providers and behavioral experts can help to increase patient clarity about what to expect[19,20] and their individual health risks associated with the behavior[20].

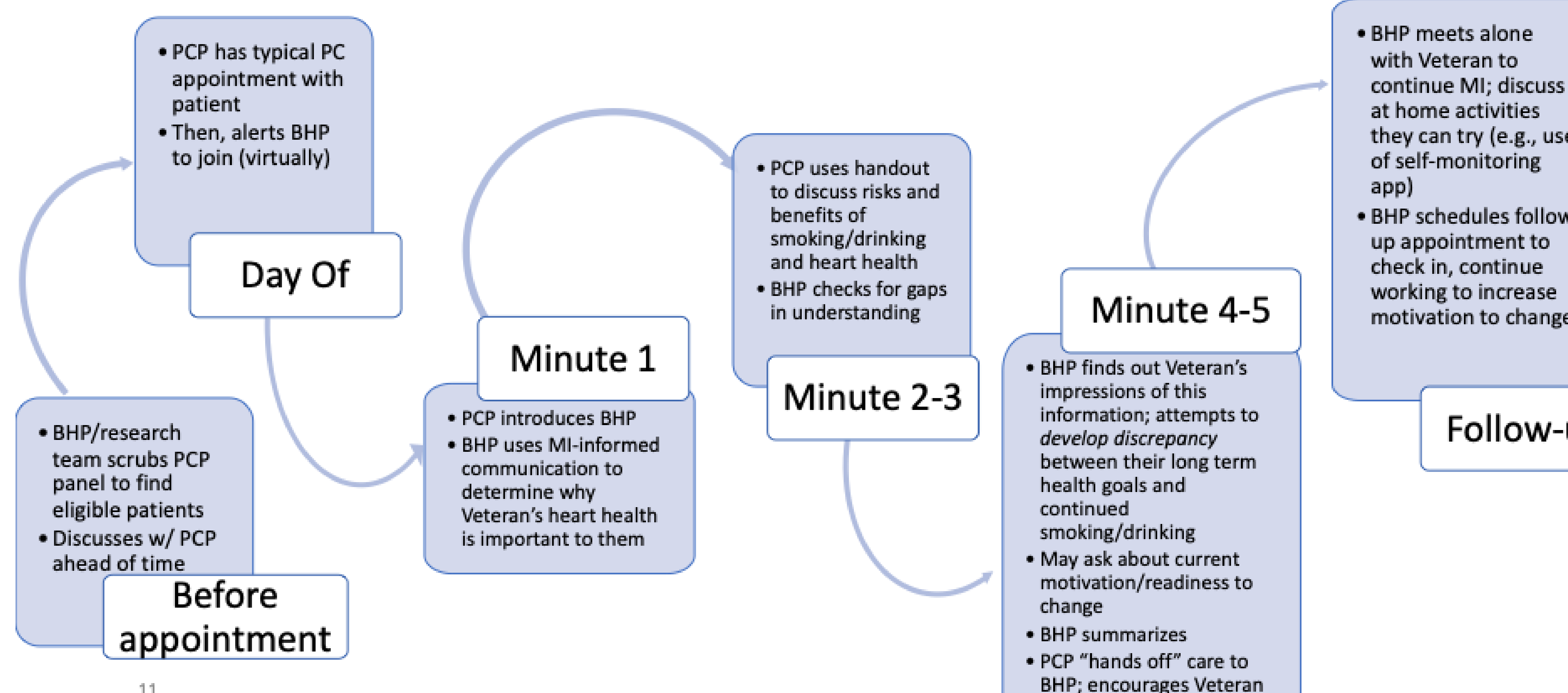
Using the Primary Care Team May Maximize Intervention Potency

- PACT reaches more Veterans, but…
  - PCPs only able to spend ~15 minutes with patients[21]
  - PC appointments have multiple competing demands[22]
  - PCPs report less comfort with behavioral/motivational interventions [23]
- PC-MHI providers embedded in PACT have opportunity to bring higher intensity interventions into PACT
- But we don't want to lose the PCP in the conversation
  - PCPs and nurses are credible and trusted sources of personalized medical information[24]
  - PC patients report benefitting from ongoing relationship[25]

The Answer - A Conjoint Appointment?

- Conjoint appointments include a medical provider + a non-medical provider (e.g., PCMHI) who meet with a patient together
  - Interdisciplinary, multi-faceted, 2 experts in the room
  - Great for chronic medical conditions w/ behavioral components
- Have been researched in patients with chronic pain[1], mental health diagnoses[2], and others; has been shown to improve PCMHI referral acceptance, patient satisfaction, provider satisfaction
  - Increase odds that patient will follow-up with PCMHI
  - Prevents lost-to-referrals
- Though useful, may be underutilized[3]
- A previous study (Gass, Funderburk, Edelman, Maisto, in prep) suggested that a primary barrier to engaging in conjoint appointments is a lack of protocol/clear guideline on using them
  - Time was also a barrier

How could a conjoint appointment address barriers to changing in this patient population?



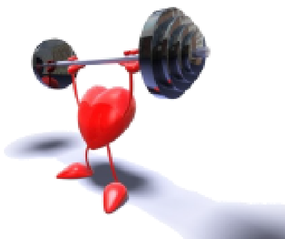
Career Development Award

- This research aims to refine and evaluate an educational/self-monitoring intervention utilizing a conjoint appointment for Veterans with CVDs who smoke or drink hazardously who have not responded to standard PC
- **Aim 1.** Qualitative interviews aimed to (a) refine the intervention materials and (b) examine preferences, barriers, and facilitators of engaging in conjoint appointments
  - Local stakeholders (6 PCPs/nurses, 3 PCMHI)
  - National PACT/PCMHI leaders
  - National stakeholders (15 PCPs/nurses, 10 PCMHI),
- **Aim 2.** Open trial of the intervention (N=6)
  - Using real PACT patients with upcoming appointments
- **Aim 3.** Pilot trial (N=40) to evaluate feasibility and acceptability and provide preliminary outcome data for the intervention

The Intervention – CARE-PACT

- Cardiovascular disease and substAnce Risk Education – delivered in PACT (CARE-PACT)
- Three components
  - Brief conjoint appointment in PACT between PCMHI, PCP, and patient where handouts are used to facilitate personalized education about drinking or smoking and the patient's CVD (MI-based communication) with handoff to PCMHI
  - Optional use of self-monitoring app on their smartphone for 4 weeks
    - Quantity/frequency, cravings, context of use
  - 2 booster calls/sessions w/ PCMHI during that time
- Designed to **increase readiness to change**

If/When You're Ready to Quit Smoking, Here is How it can HELP YOUR HEART:



Within 20 minutes of quitting…

- Heart rate drops by 5-10%
- Blood pressure drops

Within 1-2 weeks of quitting…

- Heart rate drops to your normal level

Within 2 weeks to 1 month…

- Risk of heart attack and stroke begin to decrease KEY POINT

Within 1 year…

- Excess risk of coronary heart disease *cut in half!*

Within 5-10 years… KEY POINT

- Risk of heart disease *same as a nonsmoker!*

Altogether, quitting smoking can increase the lifespan by reducing risk of stroke, heart attack, and other negative heart events

Age doesn't matter—even quitters in their 80s increase their lifespan!

Study 1a – September 2019-March 2020

- Formative qualitative interviews with stakeholders (i.e., local PACT providers, PCMHI providers, and national PCMHI leadership)
- 6 PCPs, 3 PCMHI providers, 3 PCMHI experts
- Brief (i.e., 30-minute) interviews based on Integrated Promoting Action on Research Implementation in Health Services (iPARiHS) implementation domains (evidence, context, and facilitation/function)
- Used to improve CARE-PACT protocol in the following ways:
  - Improving handouts and including specific “Key Points” to cue PCPs to share certain information with Veterans
  - Having handoff to PCMHI include elements of a typical PCMHI encounter (including SI screening, brief functional assessment)
  - Making conjoint appointment briefer
  - Developing protocol for chart scrubbing to identify patients

Planned to start Aim 2 in summer 2020

-Local halt on human subjects research
-Local slow-down of IRB
-PCMHI/BH appointments all moved to virtual format
-Most PACT appointments moved to virtual format

Pivot Point – Wait it out or change CARE-PACT?

- Early in pandemic, thought about just waiting for return to normalcy and picking up then
  - Submitted a small pilot grant looking at a virtual intervention
  - Focus on papers, presentations
  - Mentored to consider adding a virtual option

- CARE-PACT not designed to be virtual
- Logistical/technological/infrastructure barriers
  - Summer 2020 – developing solutions to these barriers, submitting IRB amendment to add virtual arm
  - Increased Aim 2 (open trial) sample size to 12
- IRB, other delays, pushed start of recruitment into fall 2020

Zooming out – a word from my mentor on the pivots, delays

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Zooming back in – we started participant recruitment in November 2020

- Quickly learned that the recruitment strategy was cumbersome; time-consuming
- And then another wrench in the plan…

I was pregnant and due April 2021

Changes/Preparation for my Leave

- Despite starting recruitment, did not have first participant until January 2021
- Implemented some changes to recruitment strategy
  - Use of data pull to identify potential participants
  - Wording of recruitment letter/screening materials
  - Recruited more providers
- With maternity leave impending, added a site

Zooming out – a word from my mentor

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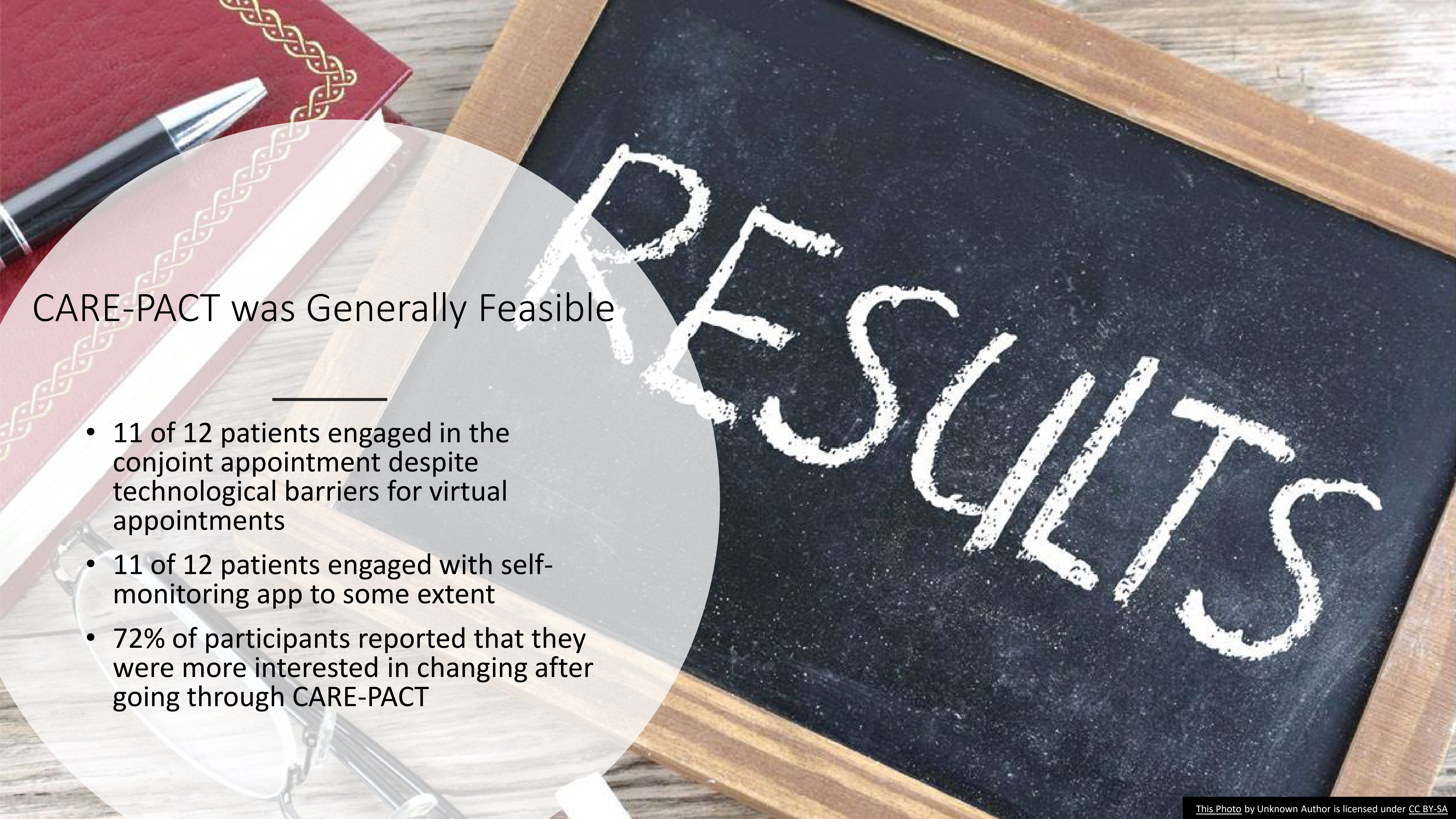
Zooming back in – Aim 2

- 12 Veterans, male, 92% white, 63.9 years (SD=9.9)
- Readiness to change drinking/smoking ranged from 1-8
- Drinkers: Drank 10-30 of the past 30 days, ranging from 3-10 drinks per occasion
- Smokers: Smoked 28-30 of past 30 days, 5-40 cigarettes

- From two VAMCs, working with 5 PACT providers
- 7 virtual, 5 in-person appointments
- 11 of 12 provided final feedback data

Assessments

- Completed two qualitative interviews with some quantitative questions to provide feedback on CARE-PACT, based on PEACE framework
- Feasibility, acceptability, helpfulness, overall impressions
- Rated on 1-5 scale several items, including:
  - How helpful different parts of intervention were
  - Satisfaction with intervention parts
  - Feasibility
- Qualitative data analyzed using Rapid Qualitative Analyses



CARE-PACT was Generally Feasible

- 11 of 12 patients engaged in the conjoint appointment despite technological barriers for virtual appointments
- 11 of 12 patients engaged with self-monitoring app to some extent
- 72% of participants reported that they were more interested in changing after going through CARE-PACT

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CARE-PACT was moderately helpful and highly satisfactory

	Mean	Median	SD	Mode
Satisfaction with PACT conjoint appointment	4.7	5	.67	5

Rapid Qualitative Analyses of
Feedback Regarding Conjoint Appointment:

(1) informative and insightful

(2) person-centered and showed care for the patient

(3) a good way to introduce PCMHI

(4) easy/simple

Pivots/Changes to CARE-PACT as we Prep for Aim 3

- Inserting adaptation into the app questions - will receive different questions and followups depending on readiness to change level

- Adding health information to app and boosters to be provided if patient desires (to reinforce information learned during conjoint appointment)
  - Health Reminders

- Being more flexible/responsive to high readiness to change

General Aim 2 Conclusions

- CARE-PACT is generally feasible – the conjoint appointment and self-monitoring are feasible and acceptable
- In a sample smokers and/or drinkers with variable levels of readiness to change, 72% found that CARE-PACT made them consider changing
- The conjoint appointment format is highly satisfactory, good way to bring PCMHI into conversation
- Research w/in a PACT can be challenging
  - Frequent reminders
  - Need to show value
  - Working with whole PACT, not just provider

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Career Development Considerations and a Word on Flexibility

- In a grant application, things are presented as black and white, but they may not be – flexibility is key
- Through process of Aims 1 and 2, mentored to consider how the CDA will set up different MERITs
    - Different options for this
- Lesson from mentors – we have to adapt

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