Contextualizing Fidelity: Assessing Adherence to Evidence-Based Core Components and Associated Factors in a VA National Quality Improvement Program

by

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Abstract

Background: High-risk patients, or complex care patients with high multimorbidity, contribute to the majority share of healthcare cost at Veterans Affairs (VA) Hospitals and are at an increased risk for poor health outcomes. At the VA, primary care teams are best geared to treat high-risk patients and prevent high hospital utilization and poor outcomes, but currently do not use practices that target this population. The RIVET QUERI program is a national quality improvement program aimed at increasing uptake of evidence-based practices designed for high-risk patients.

Aims: This study evaluates fidelity to a RIVET evidenced-based practice (EBP), the care assessment and care plan tool, as well as the number of unmet needs discovered through use of the tool. This study contextualized fidelity by describing the patterns of use of the tool amongst implementing sites, and the context in which these patterns take place.

Public Health Significance: EBP fidelity is a vital component of evaluating intervention and implementation studies and can also be used as an early process outcome. The data from this study provides study leaders with information about the setting in which high fidelity occurs. This information will be used to guide future implementation efforts of this tool.

Methods and Results: RIVET EBP data was collected through VA electronic health data and analyzed through descriptive statistics. Contextual factors were collected through a clinician survey administered at the start of implementation and analyzed through descriptive statistics.

Conclusion: Sites in the RIVET QUERI program demonstrated high EBP fidelity (80-90%), indicating some early success of implementation. Sites were organized into two different patterns of use- 'complete use' and 'variable use' sites. 'Complete use' sites, which were characterized by more comprehensive use of the tool, found more unmet needs in the patients that were assessed.

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Preface

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1.0 Introduction - The Problem

The Veterans Administration (VA) Healthcare System has a problem- the majority of their healthcare costs are due to a small percentage of patients who require complex care and have significant multimorbidity (Zulman et al., 2015). People with significant multimorbidity, like the Veterans at the VA, are often labeled as 'high-risk' patients as they are at higher-than-typical risk of being hospitalized (Zulman et al., 2015), for death (Jani et al., 2019), and are more likely to report lower health-related quality of life scores (Brettschneider et al., 2013). Zulman et al. (2015) demonstrated this relationship between healthcare costs and multimorbidity by examining VA patients' aggregated healthcare usage and chronic condition prevalence. The authors found a positive association between the number of chronic conditions and the average number of healthcare visits for primary care, specialty care, and ER visits. When examining costs for both a healthcare system and at the patient level, emergency department visits are more costly than primary care visits. Primary care visits have been associated with cost-savings for patients, while emergency department visits often incur more costs (Gao et al., 2022; Ho et al., 2017). This is the problem facing the VA- how do they lower high-cost healthcare utilization and most importantly poor health outcomes for these complex care patients?

The solution for this dilemma might lie in utilizing primary care. Primary care has long been considered a foundational component of any well-working healthcare and has been shown to improve population health (Shi, 2012). Not only does primary care cost less for healthcare systems and patients, but it's also a vital component of preventative healthcare. In a study conducted by Hostetter et al. (2020), patients who had one or more primary care visit a year were much more likely to receive preventative healthcare, like immunizations, colonoscopies, and mammograms.

At the VA, these high-risk patients receive the majority of their care from assigned primary care teams known as PACTs (patient-aligned care teams). Due to their contact with patient population, the efficacy of primary care providers in improving health outcomes through preventative care, and the cost-saving benefits, PACTs are in an optimal position to intervene and prevent these high-risk patients from poor health outcomes and high hospital utilization (Chang et al., 2015; Ho et al., 2017). Modeled after the Patient-Centered Medical Home model (PCMH), PACTs are team-based primary care charged with improving Veterans' health through coordinated care, Veteran collaboration, and increasing access to care in and outside of the primary care setting (Rosland et al., 2013; U.S. Department of Veterans Affairs, n.d). While the implementation of the PACT model throughout the VA has led to overall improvements in quality of care and patient experience, outcomes for the most complex patients have not improved, mirroring experiences with PCMH implementation in other U.S. health systems (Nelson et al., 2014; Schuttner et al., 2020; Rosland et al., 2018). Unfortunately, few PACTs use care practices (population health management tools) that target this population of patients, which is where the RIVET QUERI Program was designed to bridge the gap (McGowan et al., 2023).

1.1 The Program - RIVET QUERI

The High-RIsk VEterans (RIVET) Quality Enhancement Research Initiative (QUERI) is a national implementation program operating within several VA healthcare facilities across the United States. This implementation science program is evaluating two different evidence-based quality improvement strategies while implementing two different evidence-based practices targeted to high-risk, complex patients in the primary care setting.

The VA is the largest integrated hospital system in the U.S., serving Veterans across the United States and its associated territories. Due to the large service area, VA hospitals in different regions of the country can differ in their work processes. For example, the VA has a "hub and spoke" model of care, where patients are typically treated outpatient at smaller "spoke" clinics, and then transferred to large "hub" medical centers when more advance care is needed. These "spoke" clinics are often located in rural areas and differing work processes, like internal instances of electronic medical records (EMR), between "hub" and "spoke" have been known to create issues in care coordination for patients (Burke et al., 2018). In addition to issues with the EMR, Burke et al., (2018) found that resource availability varied between rural clinic sites and urban clinic sites, which then influenced clinic actions to meet patients' needs. It is in these diverse settings where high-risk patients are cared. To meet not only the need of high-risk VA patient population but also the unique barriers and setting of the clinics in which they receive their care, the RIVET QUERI program choose two evidence-based practices that have been shown to aid high-risk patient but are also adaptable enough to fit into the unique work processes of diverse VA sites.

1.1.1 The Evidenced-Based Practice - Comprehensive Assessment and Care Plan Tool

The Comprehensive Assessment and Care Plan (CACP) tool is an evidence-based practice designed to identify and meet the needs of high-risk Veterans within a primary care setting. The tool assesses various domains of health including whole health, healthcare utilization, social needs, functional assessment, care preferences and learning barriers, cognitive impairment, behavioral health needs, and advance care planning needs Once unmet needs are identified by the tool,

clinicians are then given actionable steps to meet the need that can be incorporated into the patient's care plan (see Appendix A for CACP RIVET Tool).

The CACP was primarily based on the Comprehensive Geriatric Assessment (CGA), which is a common tool used with older adults (ages 55+) to identify medical, social, and functional needs and create a plan to address those needs (Parker et al., 2018). Use of the CGA has been shown to improve the health outcomes of older patients. In a meta-analysis of randomized controlled trials, patients who received the CGA were more likely to be alive and living at home at six and 12 months after the intervention compared to patients who were not assessed with the CGA (Ellis et al., 2011).

While many domains of the CGA were included in the CACP, others were not, as they were not appropriate for a high-risk Veteran population of all ages. In their place, modifiable health risk factors commonly seen in this population were added. Several social determinants of health, which are modifiable and non-modifiable factors that are derived from how people live, age, work and play, have been found to influence the health of Veterans (World Health Organization, n.d.). Certain factors, like housing and financial instability, have been associated with poor mental health outcomes (Kamdar et al., 2023). A study looking at food insecurity amongst Veterans using VA healthcare, another modifiable health risk, found 24% of their sample reported food insecurity which was higher than the national average (Wang et al., 2015). The authors also found within their sample that food insecurity was associated with poorer control over chronic illnesses like hypertension, HIV, and diabetes. Considering this research, additional domains that assessed similar modifiable health risks were added to the CACP (Table One).

Table 1 RIVET CACP Domains

RIVET CACP Domains	
CGA Domains	**Modifiable Health Risk Domains**
Functional Assessment	Healthcare Utilizations
Cognitive Impairment	Social Needs
Advanced Care Planning	Care Preferences
Behavioral Health	Learning Barriers

The CACP was designed with two populations in mind: the target patient population- high-risk Veterans- and the clinicians who may use the tool. The VA often uses the Care Assessment Need (CAN) score to identify high-risk patients. The CAN score is a predictive tool using patient demographics and clinical characteristic to determine likelihood of death or hospitalization (Nelson et al., 2019). This score has been shown to accurately capture Veterans with high multimorbidity- the target population of the CACP and the scales from which it's derived. The second population that was considered while designing the CACP was PACT clinicians. The CACP was designed to be flexible and adaptable for the clinician; it can be used by any clinician who works with primary care, like a PACT RN, social worker, or pharmacist.

Additionally, the composition of the CACP allows for flexibility at the time of the assessment. There are eight different domains that the clinician can complete with the patient, and the clinician is *not required* to complete each domain with every patient assessment. The CACP, if completed in full, can take up to an hour, which can be difficult when time is in short supply for clinicians. Clinicians who manage large panels that consists of more complex psychosocial patients, like many VA primary care clinicians, experience more time pressure, which can adversely affect patient outcomes (Prasad et al., 2020). The flexibility in the assessment allows

clinicians to tailor the tool to their workflow and allows them to skip redundant questions based on the patient's previous health history. What is not known, though, is if this flexibility in the assessment has any effect on patient outcomes and fidelity to the assessment.

1.2 The Evaluation - EBP Fidelity

Fidelity, defined by Proctor et al. (2011), is "the degree to which an intervention was implemented as it was prescribed in the original protocol or as it was intended by the program developers." Fidelity can be assessed in any type of intervention that intends to create change; for example, treatment fidelity refers to interventions enacted on target populations to create behavioral changes and is typically evaluated in efficacy studies like clinical trials (Bellg et al., 2004), while implementation fidelity refers to fidelity to the strategies to promote uptake of an intervention during an implementation program (Stockdale et al., 2020). Fidelity can also be used to assess the degree to which implementers adhere to an evidence-based practice. Fidelity to an EBP in an intervention study can demonstrate external validity and the 'dose' of an intervention that creates the intended change while maximizing use in real-life scenarios (Bauer & Kirchner, 2020; Kim et al., 2016). Assessing fidelity to an intervention during an implementation study is especially important when it is first introduced to inexperienced users or in a new setting. EBPs have the most impact if used as intended, and assessing fidelity allows researchers and service providers to determine if they are correctly using the instrument, and course-correct if not. In a 2008 review by Durlak and DuPre, the authors found that programs that did not follow interventions as intended demonstrated poorer outcomes compared to those that closely followed the intervention. In this sense, high fidelity is an early process outcome that can in turn suggest

better health outcomes from the use of new practices (Bond & Drake, 2020). Assessing EBP fidelity in the RIVET QUERI program is important due to the design of the study; it will not only indicate whether the tool is working as intended, but it will also allow the study leaders to determine what levels or patterns of fidelity lead to the most patient impact.

Achieving high fidelity has long been tied to the implementation of core components of an intervention (Fixsen et al., 2005). The core components of an intervention, defined by Fixsen et al. (2005), are the parts of an intervention that have been replicated in multiple studies and have been shown to add value- or produce a positive outcome for the target audience. There are three core components of the CACP: domains of the comprehensive assessment; development of a care plan; and communicating and monitoring that care plan with PACT team members. These core components represent the overarching goal and underlying theory of how the CACP impacts outcomes, and thus are broader than what is typically seen in efficacy studies. The broader components allow for more flexibility in assessing each component, which is useful as each implementation of the tool might differ due to the local context (Fixsen et al., 2005). The CACP core components and how they were operationalized for RIVET and this study can be found in Table Two.

Table 2 CACP Core Components and Operationalization

Core Components of the Comprehensive Assessment and Care Plan and Operationalization	
EBP Core Components:	Operationalization:
1. Domains of comprehensive assessment for high-risk patients	1. Completion of at least one domain of the CACP
2. Development of a care plan	2. Identification of unmet clinical need from CACP assessment
3. Communicating and monitoring care plan with PACT interdisciplinary team	3. Action taken by the clinician to resolve the unmet clinical need (i.e.: referral, medication change, note in electronic medical record).

While previous research indicates that high EBP fidelity can lead to better health outcomes, reaching that level when the practice is incorporated into real life scenarios can be difficult to achieve. Adaptations, which has been debated to be the 'opposite' of fidelity, are "changes made to an intervention based on deliberate consideration to increase fit with patient or contextual factors at the system, organization, team and individual clinician level" (von Thiele Schwarz et al., 2019). Researchers have agreed that adaptations are a natural part of implementing an EBP and are often associated with individual or organizational barriers in real world settings (Moore et al., 2013; Carvalho et al., 2013). In a study examining implementation studies and the adaptations that occur, Moore et al. (2013) found that 44% of respondents implementing an EBP (out of a sample of 240), reported making an adaptation. The authors of this study then categorized each adaptation on three indices: fit (philosophical or logistical), timing (reactive or proactive). and valence (negative, positive, or neutral). After categorizing the adaptations, the researchers found that many of the

changes made to EBPs were due to logistical challenges, were made reactively when faced with those challenges, and resulted in changes that strayed from the EBPs' goals and theory. From this study, one may consider adaptations as something that can negatively impact implementation studies by decreasing fidelity. The opposite has also be said: adaptations can positively impact implementation studies like through cultural adaptations to reach more diverse patient populations (Barrera et al., 2017). It has been suggested in the implementation science community that fidelity and adaptation are at odds with one another, where adaptation can decrease effectiveness, but newer research indicates otherwise- that fidelity and adaptation can and should work together (von Thiele Schwarz et al., 2019). For example, current efforts have been made to understand how professional balance adaptations and fidelity, as well as developing a tool that would guide EBP users to make adaptations that are consistent with EBP core components (Hasson et al., 2023; von Thiele Schwarz et al., 2021). Presently, researchers aim to measure both adaptations (known as adaptable features) and fidelity (the core components) during implementation, as both can be indicators of success or failure (Guerin et al., 2023).

Fidelity has long been a dimension of the RE-AIM framework. RE-AIM (which stands for Reach, Effectiveness, Adoption, Implementation and Maintenance) was a framework developed two decades ago to facilitate the translation of scientific advances, especially in public health and with health behaviors, into practice (Glasgow et al., 2019). The implementation dimension of RE-AIM refers to fidelity to an intervention or implementation strategy from an organizational and individual level, any adaptations that occur during intervention use, and the associated cost of implementation. In a review by Glasgow et al. (2019) where the authors provide a historical summary of RE-AIM and future directions, authors suggested that future studies looking at

implementation outcomes (i.e.: fidelity) should investigate what patterns of fidelity occur and what factors contribute to high and low fidelity.

1.3 Study Aims

The RIVET QUERI program offers an opportunity to assess and contextualize fidelity of a unique EBP in a real-world setting. The CACP is being implemented by a variety of diverse primary care teams, all of which have differing work processes. It is inevitable that the CACP will be adapted as it is integrated into clinicians' workflow. The innate flexibility of the tool makes it prime for not only adaptations, but also for the possibility of differing patterns of use between sites. The rate and extent to which domains are completed on the CACP may give further insight regarding the effectiveness of the tool than fidelity alone. Overall, this QUERI program presents a unique opportunity to put into action the suggestions of Glasgow et al. (2019) to learn more about the context in which various rates of fidelity exist, and their contributing factors. Thus, the aims of this study are twofold:

1. Aim One is to assess each site's adherence to the first two core components (domains of the CACP and development of care plan) of the CACP (fidelity), and to investigate and define different patterns of use. As of this study, only the first two components can be assessed due to data availability.
2. Aim Two will use the patterns found in Aim One and examine several contextual factors that may contribute to more information about the settings in which these adaptations and patterns occur.

2.0 Methods

2.1 Participating Sites and Implementation Process

Sixteen VA primary care clinics across the United States participated in the RIVET QUERI program. Sites that agree to participate in the RIVET QUERI program were given the option to choose which one of two different EBPs to implement; out of 16 sites recruited, nine chose the CACP. All clinics participating in RIVET were randomly assigned to one of two evidenced-based quality improvement implementation (EBQI) strategies: individual consultation (EBQI-IC), or a learning collaborative (EBQI-LC). Both strategies are used for 18 months of implementation and consist of the same curriculum. Sites assigned to EBQI-IC participated in one-on-one meetings with the implementation facilitators, where the clinic's champions and RIVET facilitators could meet as frequently as needed. EBQI-LC is a structured set of monthly meetings where the implementation team facilitators met with several clinics' champions at the same time. The clinics in this strategy learn together and can provide suggestions and support for their fellow clinicians at different sites as they try to implement their respective EBP. At least two clinician champions were asked to participate during the 18-month long implementation period. The champions could be any type of clinician that had direct patient interaction while performing their work duties.

During implementation, champions in both EBQI strategies would engage in six to nine didactic sessions with the implementation facilitators learning about the CACP and how to integrate it into their workflow. The number of didactic sessions can fluctuate depending on how fast the site wants to implement the tool. Included in this 18-month period were three Plan-Study-Do-Act (PDSA) cycles which allowed champions to test out the tool and tailor it to their local

context. During implementation, sites were encouraged to try out and use the CACP during their PDSA cycles.

The clinics involved in the RIVET QUERI program varied in setting, type, and size. Both urban and rural sites were purposefully included in the program. VA primary care clinics can be located in various types of healthcare settings, including Community-based Outpatient Clinics (CBOCs) and clinics on-site with hospital facilities (VA Medical Centers; VAMC). For a full description of site characteristics included in the study, see Table Three. Before any quality improvement activities began, RIVET QUERI was deemed to be non-research activities by the VA Greater Los Angeles IRB and VA Office of Primary Care and registered in Clinicaltrials.gov (Clinical Trials ID: NCT05050643).

Table 3 Characteristics of RIVET Recruited Sites Implementing the CACP

Site	Location	Clinic Type	Unique Primary Care Patients assigned to Site	Rural/ Urban	EBQI Strategy
Clinic One	Ohio	VAMC	12,868	Urban	LC
Clinic Two	Indiana	CBOC	3,253	Rural	LC
Clinic Three	Kentucky	VAMC	15,710	Urban	LC
Clinic Four	Ohio	CBOC	4,855	Urban	LC
Clinic Five	Tennessee	VAMC	13,963	Urban	LC
Clinic Six	Kentucky	CBOC	4,441	Rural	IC
Clinic Seven	Texas	VAMC	26,047	Urban	LC

Note. EBQI- Evidenced-based quality improvement; IC- independent consultation; LC- learning collaborative; VAMC- VA Medical Center; CBOC- community-based outpatient clinic. This chart only includes sites recruited into RIVET and randomized to one of the two EBQI strategies.

2.2 Measures

Data for this study has been collected in a variety of ways. Each provider completed CACP assessment results in RIVET tool data that is available in the VA electronic health record (EHR) system. RIVET tool data include information about the patient and clinician who completed the assessment, at which facility this assessment was completed, and the date of the assessment. Each question within the assessment is associated with a specific RIVET tool data code depending on the patient's answer. Those individual answer responses (or RIVET tool data fields) are then organized into the eight domains of the CACP depending on the subject domain of the question (advanced care planning, behavioral health, care preferences, cognitive impairment, functional assessment, health care utilization, social needs, and whole health). Specific RIVET tool data fields that denote an unmet need of the patient is further organized into seven risk factor domains that represent actions the clinician can make at the time of the assessment to meet these needs. These seven risk factors groups include cognitive evaluation, health education, home health aide, medication adherence discussion, pain service, primary care mental health integration (PCMHI), mental health (MH), substance use disorder (SUD) referral, or social worker referral. A domain within the CACP or a CACP risk factor is counted when at least one RIVET tool data field for that patient is recorded. These counts, later organized into site percentages per domain/ risk factor, were then used to assess CACP fidelity, CACP need metric, and explore patterns of use.

RIVET tool data was collected from any site using the CACP, including those without direct involvement in the RIVET program. Sites not directly participating in RIVET, known as spread sites, are clinics that learned about the CACP tool from champions at participating RIVET sites. As part of an implementation project, the intention is not only to promote uptake of an EBP at the implementing site, but also to sustain use after implementation and spread the tool to other

clinicians and sites that may find it useful to their practice. Champions are encouraged to think and plan about spreading and sustaining CACP use during their PDSA cycles. Spread sites are included in the analysis of pattern of use (Aim One) but were excluded from the contextual analysis (Aim Two) as they did not have corresponding clinician survey data available.

Contextual factors included in this analysis were informed by the RIVET QUERI logic model (see Appendix B) and are associated with domains within the Consolidated Framework for Implementation Research (CFIR; Damschroder et al., 2009; Damschroder et al., 2022). CFIR is an implementation paradigm synthesized from implementation science literature that illustrates five domains that can influence implementation success. The five domains of CFIR include: the intervention, inner and outer setting, individuals involved, and the implementation process; under each domain are a number of associated constructs. CFIR is a comprehensive framework that can be used to develop and evaluate implementation projects (Damschroder et al., 2009; Damschroder et al., 2022). A complete table of the contextual factors analyzed, their data source, corresponding CFIR domain, and examples are available in Table Four.

Table 4 Contextual Factors Derived from the RIVET QUERI Logic Model

Factor	Definition	Data Source and Example	Scale	CFIR Domain
Perceived Availability of Services	The percentage of clinicians at a site who rated "ability to obtain/ refer" questions "good" or "very good." Questions asked about perceived availability of support services including pharmacists, social work, mental health (PCHMI), specialty services (e.g., oncology, cardiology), substance use disorder programs, and pain treatment services.	Clinician Survey "How would you rate the ability to obtain a consult form a Primary Care Health Integration (PCHMI) provider over the past three months?"	Likert 1-5, "Very Poor" to "Very Good"	Inner setting
Existing High-Risk Patient Management Practices	Percentage of clinicians at a site who rated "several times/ week" or "weekly" to three questions Questions asked about frequency of the high-risk patient panel management practices including PACT team huddles, PACT team meetings, using tool or templates for patients	Clinician survey "How often have you used the following practices to manage your VA High Risk primary care patients over the past 3 months-in-person or virtual "huddles" with PACT team members to discuss specific patients with upcoming appointments or active issues?"	Likert 1-5, "Several Times Per Week" to "Never"	Inner Setting
Time Available	Site level percentage of all primary care teams meeting staffing ratio of 3:1; 3 support staff to one full-time primary care physician (this includes physician assistants, nurse practitioners, and physicians)	VSSC PACT Compass Report "Pact22- % of Teams Meeting Primary Care Staffing Ratio of 3:1"	-	Inner Setting

Confidence in EBP use	Site level confidence in using EBP for high-risk patients % of clinicians rating "extremely" and "mostly" confident in using EBP	Clinician Survey "How would you rate your overall confidence in your ability to make a comprehensive care plan with your VA high-risk primary care patients?"	Likert 1-5, "Extremely confident" to "not at all confident"	Characteristics of Individuals
Confidence in High-Risk Care	Site level confidence in providing care for high-risk patients % of clinicians rating "extremely" and "mostly" confident in providing care	Clinician Survey "How would you rate your overall confidence in your ability to provide optimal care for your VA high-risk primary care patients?"	Likert 1-5, "Extremely confident" to "not at all confident"	Characteristics of Individuals

Note. PCMHI- Primary Care Mental Health Integration; PACT- Patient-aligned care teams; VSSC- Veterans Health Administration Support Service Central Capital Assets Database.

Contextual factor data was collected through baseline clinician surveys. These surveys were administered to primary care clinics at each site at the beginning of their implementation period. Survey eligibility is included in Table Five. Clinicians did not have to have direct experience with the CACP to be eligible to participate in the survey. Questions included in the survey assessed job organization and satisfaction, current tools and practices used for managing high-risk patients, confidence in caring for patients, confidence in using the CACP, primary care team functioning, and overall strain and satisfaction with care provided to high-risk patients. Where possible, survey items were sourced from other published surveys (tools and practices used to manage high-risk patients: Chang et al., 2018; job satisfaction: U.S. Department of Veterans Affairs, n.d.). Remaining items were generated specifically for this project. Surveys were administered through VA REDCap, where data was collected and managed (Harris et al., 2009).

Site and team level data regarding staffing and panel size were obtained using the PACT Compass Report maintained by the Veterans Health Administration Support Service Central Capital Assets Database (VSSC). Data in this report is updated monthly and is available to VA employees.

Table 5 Clinician Survey Eligibility Criteria

Inclusion Criteria	Exclusion Criteria
Currently working in at least one PACT team at the VA	Does not work on a PACT team
Clinician Type: - Physician - Physician Assistant - Nurse Practitioner - Registered Nurse - Licensed Practice Nurse, Licensed Vocational Nurse, Medical Assistant, Health Technician	Non-clinicians (e.g., administrative assistant) Clinical trainees (e.g., resident physicians)
Regularly provides patient care in primary care clinic	Does not provide direct patient care
Worked at the primary care clinic for >= 3 month	New hire (worked at the primary care clinic for less than three months)

Note. PACT- Patient-aligned care team.

2.3 Statistical Analysis

Aim One was evaluated with descriptive statistics using Microsoft Excel. All sites with CACP RIVET tool data were include in Aim One; this includes any spread sites (clinics who used the CACP without interaction with the RIVET implementation facilitation team). Sites were described using domain completion frequencies, plotting frequencies on bar charts, and standard deviations. Global CACP fidelity, which is a site's proportion of completed CACP domains over the total number of available domains, was calculated and parsed in to high (75-100%), medium

(25-75%), and low (<25%) fidelity sites due to skew in the data. Global fidelity was calculated as follows: for each domain in a site, the total number of completed CACP domains was calculated by summing together each patient that completed that domain in that site; the total number of possible domains available, was calculated by multiplying the number of total patients who complete the CACP by eight (represents the total number of CACP domains available); fidelity is then the ratio of total site level completed CACP domains over the site level total available CACP domains.

The CACP risk factors group was used to calculate the CACP identified need metric. A *need* in the CACP is defined as a RIVET tool data field that describes a patient's unmet gap of care that can be remediated by action taken by the assessing clinician. The clinician completing the assessment will be prompted by the CACP to complete a specific action that corresponds with that unmet need; for example, a patient without an advanced directive on file will prompt the clinician to refer the patient to social work. Not all RIVET tool data fields generated from the assessment will indicate a need for that patient; patients can complete a CACP domain without requiring additional health interventions. The CACP identified need metric describes the percentage of patients at a site who completed the CACP and had an identified need at the time of assessment. To calculate the need metric, the total number of risk factor groups for each patient was summed together. This number is then divided by the total number of patients who completed the CACP at that site and multiplied by 100. The resulting percentage indicates how many patients from this site who completed the CACP had an unmet need and could be helped by the assessment.

The descriptive statistics and the fidelity measure were used to define possible patterns of use amongst sites implementing the CACP. This information was be used to construct qualitative pattern descriptions. Aim Two used the categories of pattern use to look at common themes

between the contextual factors of sites (Table Four). Due to the small sample size of each category of pattern of use and probable lack of power to detect any difference, the contextual factors will be used to further summarize and describe the sites. Contextual factors were dichotomized into two response options due to the significant skew in the data. Confidence in EBP, Confidence in High-Risk Care, and Existing High-Risk Patient Management Practices factors were reverse coded before being dichotomized.

3.0 Results

3.1 Aim One

At the time of analysis, there were twelve VA primary care sites that had used the RIVET CACP tool and generated RIVET tool data. Of those sites, seven were RIVET implementation sites; five were spread sites. Two spread sites were not included in the evaluation due to the low number of completed CACP assessments (each site had one assessment). Overall, the final analytic sample included ten clinics- seven RIVET implementation sites and three spread sites. The number of patients that completed the CACP varied widely between sites (range: 1-114 patients, $M = 29.7$, median = 17.5).

Domain Use

All sites' CACP use was first examined as one group. On average, the functional assessment domain was completed the most compared to other domains (nine out of ten sites). On average, the whole health domain was the least completed domain, followed close behind by the behavioral health and advanced care planning domains. When looking at the risk factor group data, for all ten sites, pain treatment services were the most frequently found unmet need amongst patients who completed the CACP; medication adherence risk factor was the least frequent unmet need (six out of 10 sites). The results for domain use can be found in Table Six.

Table 6 CACP Domain Counts and Percentages

Sites	Total Assessments	CACP Domains % Completed							
		Advanced Care Plan	Behavior Health	Care Preferences	Cognitive Impairment	Functional Assessment	Healthcare Utilizations	Social Needs	Whole Health
Across All Sites	355	85.6	86.2	88.7	85.1	98.9	93	94.1	82
Clinic One	18	22.2	33.3	55.6	27.8	100	50	77.8	66.7
Clinic Two	17	94.1	94.1	100	100	100	100	100	94.1
Clinic Three*	4	-	-	-	-	100	100	75	100
Clinic Four	32	62.5	100	53.1	28.1	87.5	84.4	65.6	75
Clinic Five	114	93.8	86	98.2	99.1	100	93	96.5	64
Clinic Six*	11	-	-	-	-	100	100	100	100
Clinic Seven	9	87.5	75	100	100	100	87.5	100	100
Clinic Eight**	34	100	97	100	100	100	97	100	97
Clinic Nine**	45	100	97.8	100	97.8	100	100	100	86.7
Clinic Ten**	72	98.6	100	100	100	100	98.6	100	100

Note. **Dashes indicate the domains unavailable to clinicians at the time of the assessment.**

*** These sites had a truncated version of the assessment until January 2024. Only half of the assessment was completed, as these were the domains available to clinicians until the full tool was made available. Fidelity and Need were manually corrected to omit the domains that were not available.**

**** RIVET spread sites.**

Global CACP Fidelity

Overall, none of the sites had achieved a Global CACP percentage less than 50%, with a majority of sites (seven out of 12) achieving at least a 90% fidelity score. Two distinct patterns of use emerged from plotting the CACP RIVET tool data. Six out of the twelve sites were categorized as 'complete use' and were characterized by near total use of the CACP with very little skipped domains and a standard deviation less than one, indicating very little variability in completion of domains (means and standard deviations for each site are in Table Seven). The remaining three sites showed sporadic use of the CACP domains with high standard deviations. These sites were categorized as 'variable use'.

Global CACP fidelity and the CACP identified need metric gave further information about these two distinct pattern uses (see Table Seven for full descriptives). As expected, 'complete use' sites all demonstrated high global CACP fidelity, while 'variable' sites exhibited a mixture of both high and medium global fidelity. The CACP identified need metric did indicate some difference between the two groups; 'complete' seemed to identify higher need rates within the patients assessed compared to 'variable' sites.

Table 7 CACP Pattern of Use Descriptive Statistics

Site	Months Under Observation	Number of Assessments Available (as of 1/19/24)	CACP Global Fidelity % (M, SD)	CACP Need Metric %	Fidelity Group (Low, Medium, High)	Pattern of Use
Overall (all sites)	N/A	355	89.8 (211.3, 260.2)	60.3	High	N/A
Clinic One	23	18	54.17 (9.7, 4)	55.56	Medium	Variable
Clinic Two	23	17	97.79 (16.6, .5)	94.12	High	Complete
Clinic Three*	10	4	93.75 (3.7, .5)	75	High	Complete
Clinic Four	10	32	69.53 (22.2, 7)	43.75	Medium	Variable
Clinic Five	8	114	91.34 (104.1, 13)	56.14	High	Variable
Clinic Six*	8	11	100 (11, 0)	72.72	High	Complete
Clinic Seven	5	9	93.75 (7.5, .7)	87.5	High	Complete
Clinic Eight**	N/A	34	98.9 (33.6, .5)	73.53	High	Complete
Clinic Nine**	N/A	45	97.78 (44, 2)	57.78	High	Variable
Clinic Ten**	N/A	72	99.65 (71.7, .5)	56.94	High	Complete

*** These sites had a truncated version of the assessment until January 2024. Only half of the assessment was completed, as these were the domains available to clinicians until the full tool was made available. Fidelity and Need were manually corrected to omit the unavailable domains.**

**** RIVET spread sites.**

3.2 Aim Two

The analysis of contextual factors gave additional information about the two patterns of use groups. The contextual factors included in this analysis were chosen based on their ability to be either facilitators or barriers to the success of the RIVET QUERI study (see Appendix B for the associated logic model). Overall, 204 clinicians were asked to complete the baseline clinician survey; 83 clinicians completed the survey. Ten clinicians were removed from the sample: two clinicians were deemed ineligible; the remaining eight clinicians were removed for incomplete survey responses. Survey responses were considered incomplete if the respondent started the survey but didn't submit it. The final analytic sample was 73. These clinicians were then separated into their clinic sites. As a reminder, Aim Two looked at a smaller subset of sites compared to Aim One; due to the availability of clinician survey data, only sites that had direct implementation with the RIVET team were asked to complete the baseline clinician survey. Due to this smaller subset of sites available for analysis, descriptive statistics (in the form of percentages and counts) were used to compare the two groups. To aid comparison between the two patterns of use groups, the clinician survey item percentages were organized into three categories: very available/ frequent/ confident (100-75%), somewhat available/ frequent/ confident (74-35%), and not available/ frequent/ confident (<35%). This smaller subset of sites and their results are included below in Table Eight.

Time Availability

Time availability was represented by the percentage of PACTs at each site that were fully staffed. Out of the six sites included in this analysis, only two sites (Clinics Five and Two) had over half of the teams at the site that were staffed at the ideal ratio of 3:1. Fifty percent or less of PACT teams at the remaining sites were fully staffed at the 3:1 ratio (three support staff for every

full-time physician). Clinic Two was the only site that was fully staffed at 100% at the beginning of implementation. Time availability did not seem to be more prevalent in one group compared to the other.

Perceived Availability of Services

Clinicians at each site perceived the availability of support services rather differently. Service availability was determined by looking at the percentage of clinicians at each site who deemed their ability to obtain a consult or referral to a service as "good" or "very good." For all sites, a majority (>72%) of clinicians perceived the availability of the PACT pharmacist as readily available. Sites with a 'variable' pattern of use (Clinics Five and One) perceived getting a consult with VA or non-VA specialty care, SUD referral, or pain treatment service referral as somewhat available. 'Variable' pattern of use sites also found that consults with PCMHI to be very available (>75%). 'Complete' pattern of use sites had varied ratings and did not have a commonality within their perception of support service availability.

Existing High-Risk Management Practices

Most sites had at least one high-risk management practice that they used at least weekly. Huddles, which are brief meetings lasting no more than 10 minutes where PACT team members will discuss patient care, were the frequently used management technique overall sites (Na et al., 2023). Tools and templates, for all sites, was the least frequently used management practice (>=47%). Sites with 'variable' pattern use of the CACP had very frequent use of the huddles when managing high-risk patient care. No commonalities were seen in 'complete' pattern of use sites.

Confidence in High-Risk Care

Five out of the six sites were very confident that they would be able to provide optimal care to their high-risk patients. Clinic Five was only somewhat confident in their ability to provide

optimal care; interestingly, Clinic Five is also the site with the most uses of the CACP out of all other sites. Sites with a 'complete' pattern of use were all very confident in their ability to provide optimal care; there were no commonalities for sites with 'variable' pattern of use of the CACP.

Confidence in EBP Use

Five out of the six sites, overall, expressed that they were somewhat confident in their ability to use the CACP tool to create a comprehensive patient care plan. Clinic Four was the only site where clinicians were very confident in their ability to use the CACP. 'Variable' pattern of use sites was somewhat confident in CACP use, while there were not commonalities for 'complete' pattern of use sites.

Table 8 Pre-Implementation Contextual Factors Describing the CACP Pattern of Use

Sites	Pattern of Use	Global Fidelity (%)	Pre-Implementation Contextual Factors											
			Existing High-Risk Management Practices			Perceived Availability of Services						Confidence in…		Time Availability
			% of Frequent Use of Practices			% of Availability						% of Clinician who are Confident		% of Site Teams with 3:1 Ratio
			Huddles	PACT Meetings	Tools and Templates	VA Pharmacist	VA Social Work	VA PCMHI	Non-VA Specialty	SUD	Pain Services	Care to HR Patient	Using CACP assessment	Site Staffing Level at Beginning of Implementation
Clinic Two	Complete	97.79	66.7	33.3	0	100	0	33.3	66.7	83.3	66.7	83.3	66.7	100
Clinic Three	Complete	93.75	76.5	52.9	35.3	76.5	70.6	88.2	64.7	64.7	47	76.5	64.7	25
Clinic Four	Complete	69.53	100	62.5	37.5	100	100	100	75	75	62.5	87.5	87.5	50
Clinic Six	Complete	50	100	36.4	45.5	72.7	63.6	36.4	18.2	9.1	18.2	81.8	72.7	0
Clinic Five	Random	91.34	94.7	94.7	47.7	84.2	78.9	84.2	42.1	52.6	42.1	57.9	52.6	76.2
Clinic One	Random	54.17	81.8	54.5	27.3	77.3	54.5	81.8	50	63.6	54.5	72.7	68.2	50

Note. PCMHI- Primary Care Mental Health Integration; SUD- substance use disorder; HR- high-risk.

4.0 Discussion

This study aimed to assess and contextualize fidelity by primary care teams to a tool designed to improve the health of high-risk Veterans. Evaluating EBP fidelity during the middle of an implementation study can provide key insights into the success of the uptake of the tool and can be an early process outcome.

Overall, all sites demonstrated relatively high adherence to the first core components of the CACP. Global fidelity, which was the measurement of the first core components, for most sites was around 80-90% fidelity. Sites tended to use most of the domains available on the tool, even though clinicians were not required to. The second core component, which was measured by the identified need metric, did not have as high percentages compared to global fidelity. The identified need metric indicated the number of patients who completed CACP who espoused an unmet need. For the majority of sites, about 50-60% of patients who completed the CACP had unmet needs. This lower rate could be due to several reasons; one possible reason may be due to the type of patients that were assessed. The CACP is intended for high-risk patients, but this does not mean that all patients who completed the CACP fall within the qualification of high-risk (i.e.: including patients with a CAN score > 90^{th} percentile). Clinicians determine their target population while completing their PDSA cycle; if a site decides to focus on a clinical population that does not consider the patient's CAN score, like patients with a specific diagnosis, patients with lower CAN scores can be included in the identified need metric. Since these patients are at lower risk for poor health outcomes and healthcare utilization, they may not have many unmet needs that would warrant the use of the CACP. It's also important to consider that while high-risk patients as a population are at a larger risk for poor health outcomes, that does not mean that all patients within

this population may have an unmet need at the time of assessment. This could be another contributing factor to the lower rate. Alternatively, a lower identified need metric could be an indicator of a well-functioning primary care team. Due to the multiple reasons that may contribute to the lower need metric, a lower or higher rate is not a clear-cut indication of success or failure of use of the tool.

There were two different patterns of use that emerged from the data- 'complete use' and 'variable use' sites. 'Complete use' sites found more unmet need compared to 'variable use' sites. There could be many reasons as to why 'complete use' and 'variable use' sites find different percentages of unmet needs. 'Complete' sites finding more identified need conceptually makes sense; sites' approaching 100% global fidelity are asking the patients more questions than 'variable' sites, meaning there are more opportunities to find unmet needs. Alternatively, one could assume that 'variable' use sites may complete certain domains over others due to an unknown reason, which could be the assessing clinician's belief the domain won't discover an unmet need, previous information about the patient (i.e.: already service-connected), or lack of services available at the site for patients. Unfortunately, the underlying reasons leading to the patterns of use are not able to be elucidated from the current data. What the data does indicate is that more comprehensive use of the tool identifies more unmet needs than sporadic use of the tool, which will be important when future clinics implement the CACP.

When looking at use of the tool, there were a few standouts. Functional assessment was the most completed domain by clinicians- rarely was this assessment skipped. Functional assessment has long been associated with health and well-being; patients with chronic conditions like diabetes have been associated with poor functional status, and mental health symptoms have been found to impact functional health (Sheng et al., 2016; Ahroni et al., 1994). This association

between chronic illnesses, mental health, and functional health may have influenced RIVET clinicians when completing the assessment. Interestingly, assessing physical function may further help identify unmet needs and prevent poor health outcomes. Currently, the CAN score does not include a measure of physical function. In a study looking at CAN scores in patients with limited physical function, the authors found no relationship between physical function scores and CAN scores, meaning that using the CAN score alone might potentially missing a subgroup of patients who might be at an increased risk of hospitalization and death (Serra et al., 2019). The authors of this study suggested that clinicians trying to identify and care for high-risk patients look at not only the CAN score but also functional assessment to better target those at a higher risk. The high rate of completion of the function assessment domain may translate into decreased risk of hospitalization and death for high-risk patients.

The most commonly identified need across all sites was the need for pain services. Previous research has indicated that Veterans have a higher prevalence of pain compared to nonveteran populations. In a study conducted by Nahin (2017), the author found in a national sample that Veterans were significantly more likely to report severe pain related to their back, migraine pain, jaw, and neck pain compared to nonveterans. With this increased likelihood for pain amongst Veterans, it's understandable that pain would be the most common unmet need in those who completed the CACP.

The main strength of this study is the evaluation methods employed in determining CACP fidelity. The goal of an implementation program such as RIVET is to successfully implement the EBP at various VA primary care clinics and to enable clinicians to *spread* the tool to other similar clinics. As mentioned previously, assessing EBP fidelity is of great importance when first using a new tool, as it can help determine if the tool is being used correctly. Due to the lack of time

available for many clinicians, it's important that these analyses are rather easy and quick to complete, so as to not increase the burden on primary care clinicians. This may be even more important in the current climate; the VA recently announced cutting 10,000 employees, which may impact clinician and patient burden (Devine, 2024). EBP fidelity can also be used to inform ongoing implementation efforts and provide guidance on how to change implementation if a desired outcome may not be reached. For example. Swindle et al. (2022) classified implementation behaviors that related to levels of fidelity. In this study, those with behaviors related to lower fidelity at the beginning of implementation received an altered implementation plan later intended to increase fidelity. Since this current study is evaluating EBP fidelity while implementation is ongoing, the data collected in this analysis could be useful if implementors were interested in course-correcting.

This study does have its limitations. This is an interim analysis of EBP fidelity where a number of the sites are still working directly with RIVET facilitators and completing their PDSA cycles. The data presented here could very easy change within any site's next PDSA cycle. While this means that the data presented here will be out of date relatively soon, it is still worthwhile to complete, as it can elucidate information that may increase EBP fidelity and eventual major outcomes. Another limitation is the type of data included in this analysis- only quantitative data. A mixed method analysis may provide further information that is simply not able to be discerned from quantitative data. This study is further limited by reliance on descriptive data; no inferential statistics were used. While relationships between variables are unable to be made with the data presented, the descriptive data included in this study is still useful. Descriptive data often give contextual information, which was largely the aim of this study. Additionally, it may be inappropriate to conduct inferential statistics at this time; not only is data collection still ongoing,

but only two of the three core components could be assessed at this time in the study; inferential statistics may not provide a full picture of EBP fidelity or it's contributing factors.

There are clear future directions for this study. Future analyses of EBP fidelity and its contributing contextual factors should look at levels of fidelity related to patient outcomes. Are there any relationships between site-level patient outcomes like care coordination when a site demonstrates high reach and high fidelity? Additionally, the third core component of the CACP, communicating and monitoring care plan with PACT members, needs to be evaluated. Are patients with identified needs receiving additional care, and has this translated into differences in healthcare utilization?

Characterizing EBP fidelity is a critical element that can help determine if an implementation program is successful and can also be a tool to create change during the program if needed. In this study, we found that sites used the CACP in two distinct ways characterized by different levels of fidelity. Early evidence indicates that sites with more comprehensive use of the CACP found more patient need than sporadic CACP use. The CACP fidelity suggest some early indication of successful implementation, with many sites in the RIVET QUERI program demonstrating high fidelity.

Appendix A

	**Comprehensive Assessment for High-Risk Patients**

Instruction to PACT team: This assessment template can be used any time to capture any clinical information when the patient is assessed, whether it is by phone, in person, or at home. It may be used by any discipline. It may be used at any point in clinical care, whether it is for an initial assessment or after a VA or non-VA hospitalization. The purpose of the assessment is to remind clinical teams of important issues to assess and address and to assist teams with documenting issues found. Questions do not need to be asked in the order listed; in fact, some questions may be skipped if patient provided answers in an earlier question. None of the questions are mandatory. Most of the questions are directed towards the patient, although some are cues directed to the PACT team members (i.e., medication review, cognitive assessment).

1. **Whole Health**
2. **Healthcare Utilization**
3. **Social Needs**
4. **Functional Assessment**
5. **Care Preferences and Learning Barriers**
6. **Cognitive Impairment**
7. **Behavioral Health Needs**
8. **Additional Comments**

□ OPEN boxes = separate items
▪ CLOSED boxes = check all that apply
○ CIRCLES = forced choices
INDENTS Show the "drop-down" items that appear when the preceding box or circle is checked
[LINKED] Mandatory text box when linked item checked. Text and numbers entered into linked comment boxes can be retrieved for analysis. Numbers should be entered as numbers only; there is no limit on characters entered into text boxes.

Whole Health

Previous RIVET Whole Health responses (object) will drop into the note. *If there is no previous data or the Veteran's answers have changed the following questions can be asked:*

I'd like to start off by asking you some general questions about your goals.

□ What is it you would really like to be doing in your life? [Mandatory linked comment box]

□ What is getting in your way? [Mandatory linked comment box]

Healthcare Utilization

Now, I'd like to ask you some questions about the types of care you have been receiving recently.

□ *Auto-populate ER visits and discharges from past 3 months.*

- *Ask patient about reasons for ER visits and hospitalizations.* [LINKED COMMENT TEXT BOX]

[COMMENT FOR PROVIDER] Educate patient on appropriate ER visits and provide PACT contact information.

[COMMENT FOR PROVIDER] If patient left AMA, ask patient about reasons for leaving AMA. Consider smoking cessation treatment, consulting with the mental health, PC-MHI, or substance use provider.

□ Have you been hospitalized or received care from an ER outside of the VA during the past 3 months?
- ○ Yes
- ○ No

If yes, ask patient about dates and reasons for non-VA hospitalization or ER visit. [LINKED COMMENT TEXT BOX]

□ Have you seen any other physicians outside of the VA in the past 3 months (besides through CHOICE/MISSION)?
- ○ Yes
- ○ No

If yes, ask patient to describe reasons for each non-VA doctor or clinic visit including provider name. [LINKED COMMENT TEXT BOX]

□ May we obtain records from any of your providers outside of the VA?
- ○ Yes
- ○ No

□ Have you been admitted to a skilled nursing facility (SNF) or a rehabilitation program outside of the VA during the past 3 months?
- ○ Yes
- ○ No

If yes, ask patient about how many times and reasons for SNF or rehab [LINKED COMMENT TEXT BOX]

Social Needs

Now, I'd like to ask you some questions about your daily life.

□ Do you sometimes run out of money to meet your needs, such as paying for food, rent, bills, or medicine?
- ○ Yes
  If yes, describe needs. [LINKED COMMENT TEXT BOX]

  [COMMENT FOR PROVIDER] *Consider referring patient to SW if needs have not been met.*

  - ○ Veteran declines social work referral
- ○ No

□ Within the past 12 months, has lack of transportation kept you from medical appointments, meetings, work or from getting things needed for daily living? (check all that apply)
- ▪ Yes, it has kept me from *medical* appointments or getting medications
  [COMMENT FOR PROVIDER] *If yes, connect the patient to transportation resources or refer to social work.*
- ▪ Yes, it has kept me from *non-medical* meetings, appointments, work, or getting things that I need
  [COMMENT FOR PROVIDER] *If yes, consider referring them to social work for transportation resources.*
- ▪ Yes, but Veteran declines social work referral
- ▪ No transportation issues

Functional Assessment

□Does anyone live with you?

- Yes [LINKED COMMENT TEXT BOX]
- No

□Do you need help with transferring, bathing, grooming, dressing, toileting, or eating?

- Yes [COMMENT FOR PROVIDER] *Consider referral for a home health aide.*
  If yes, list needs. [LINKED COMMENT TEXT BOX]
  - Veteran declines home health aide referral
- No

□Do you have any trouble getting in and out of bed, doing laundry, getting groceries, or preparing food?

- Yes [COMMENT FOR PROVIDER] *Consider home safety evaluation, home health aide and/or homemaker referral)*
  If yes, list needs. [LINKED COMMENT TEXT BOX]
  - Veteran declines referral for further assistance at home
- No

If patient has chronic pain, ask the patient if they would like any of the following non-pharmacologic modalities:

- Complementary Integrative Health modalities (acupuncture, chiropractor, tai chi, massage, yoga, meditation)
- Physical therapy
- Durable medical equipment (heating pad, back brace)
- Comprehensive Pain Rehabilitation Program
- Cognitive Behavioral Therapy for Chronic Pain
- Veteran declines referral
- Not applicable

Review the medication list for when the patient last filled their medications.

□ *Are there red flags that might suggest medication adherence issues?*

- Yes

  [COMMENTS FOR PROVIDER] If yes, provide education about medications, assess for underlying reasons for medication nonadherence and consider referral for medication reconciliation

  - Veteran declines referral for medication reconciliation
- No

Care Preferences and Learning Barriers

Now, I'd like to learn more about how you interact with your health care system.

How often do you need to have someone help you when you read instructions, pamphlets, or other written material from your doctor or pharmacy? (SELECT ONE)

- Never
- Rarely needs help
- Sometimes needs help
- Often need help
- Always need help

[COMMENT FOR PROVIDER] *If "always need help" or "often need help" or "sometimes needs help," consider using teach-back method when making changes to patient's treatment plan and consider referring to health educator or pharmacist or dietician for more health education.*

□Veteran declines referral for health education

Cognitive Impairment

Now, I'm going to talk about some ways you improve the management of your health.

□ Do you experience any of the following: Asking the same questions over and over again, becoming lost in places you know well, not being able to follow directions, getting very confused about time, people, and places, and not taking care of yourself (e.g., eating poorly, not bathing, or being unsafe)?

- Yes

  [COMMENT FOR PROVIDER] *If yes, consider simplifying medication regimen, communicating with caregiver.*

  □ Coordinate same day visit with PC-MHI
  □ Refer to Home Health Care Agency
  □ Refer to HBPC
  □ Refer to Neurology
  □ Refer to Neuropsychology
  □ Refer to Social Work for self-care issues

  - Veteran declines referral
- No

Behavioral Health Needs

- *Auto-populate PHQ-2, PHQ-9, PTSD-PCL, Primary Suicide Screen.*
- *Are there any signs or symptoms suggestive of an untreated mental health/SUD?*
  - Yes
    - Coordinate same-day visit with PC-MHI
    - Refer to SUD program
  - Yes, but Veteran declines referral
  - No

- *Is the Veteran experiencing stress, feeling sad or depressed, or sharing a behavioral concern that would make it difficult to care for him/herself?*
  - Yes
    - Patient's mental health provider contacted
    - Refer to Mental Health
    - Coordinate same day visit with PC-MHI
  - Yes, but Veteran declines referral
- No

Advance Care Planning Needs

Finally, I'd like to talk with you about planning for the future.

- If you were to get very sick, is there anyone you trust to make medical decisions for you, and have you talked with this person about what is important to you? (Sudore 2010).
  - Yes
  - No/Do not know
- Do you have an Advance Directive on file at the VA? This is a document that helps the VA to know who your decision maker is and what your wishes are if you were too sick to speak for yourself.
  - Yes
  - No. Refer to Social Work
  - No, but Veteran declines referral to complete Advance Directive at this time

Additional Comments

[COMMENT BOX]

Appendix B

RIVET QUERI Logic Model: CACP

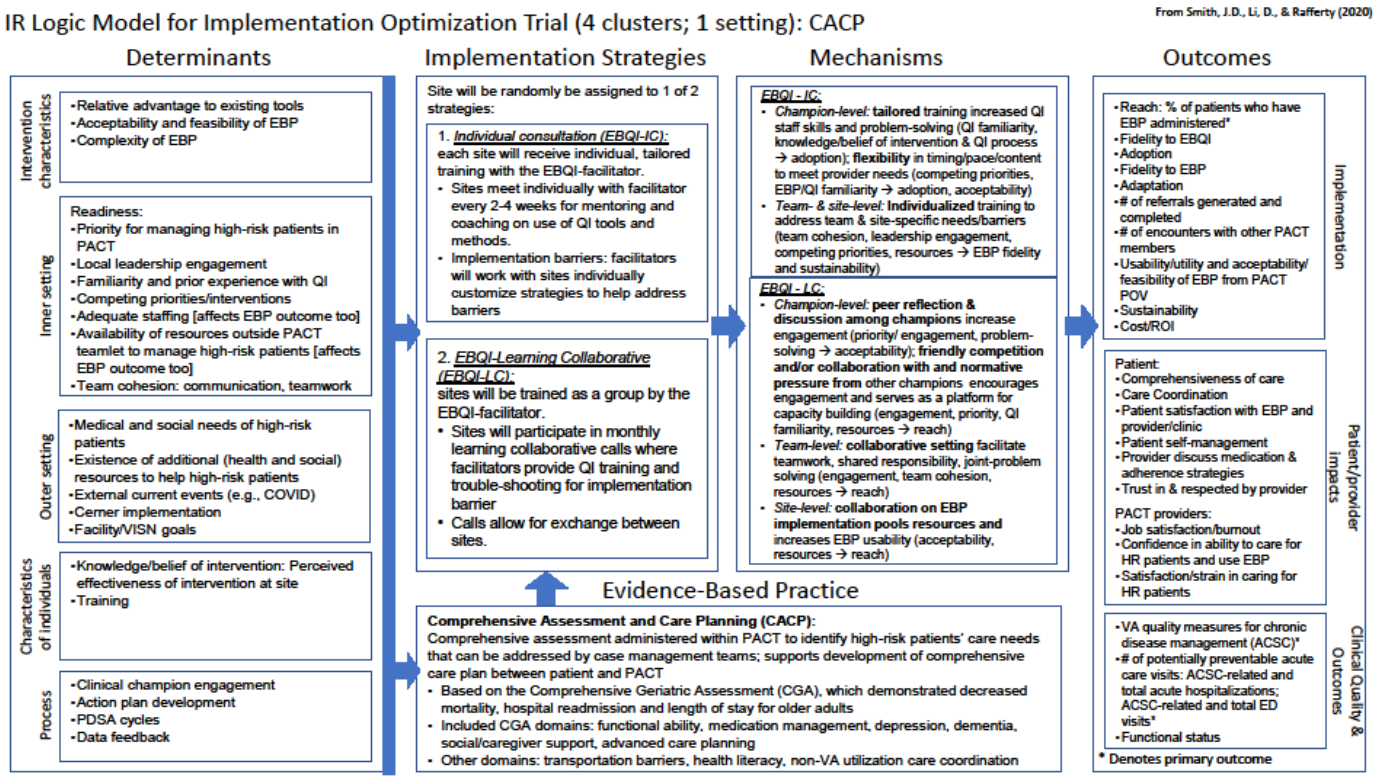

Figure 1

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