
Implementation Science at
Cohen Veterans Network:
The key to quality clinical practice with new veterans

by
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HEROIC
HONORABLE
DEDICATED
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Cohen Veterans
Network

I. Introduction

The Cohen Veterans Network's (CVN) mission is simple: We are here to provide exceptional mental health care and support services to veterans and their families. How we accomplish that mission, however, is somewhat more complicated. All mental health care providers are familiar with the barriers to offering both efficient and effective care, and especially when it comes to treating veterans with invisible injuries. Thus, providing evidence-based and patient-centered care to veterans and their families from varied ethnic, religious, and cultural backgrounds is a unique challenge by any standard. We believe that these challenges can be overcome; it is our duty to dedicate ourselves to our veterans' health and safety just as they dedicated themselves to ours.

This report will explain how CVN intends to fulfill this mission by applying the principles of implementation science (IS) throughout the network system to ensure excellent care for our clients. Administering, implementing, and monitoring high-quality organizational processes requires constant innovation, and constant innovation requires comfort and confidence with change. Change activities such as piloting a new evidence-based practice (EBP) or redesigning a report from our electronic health record (EHR) system require coordination at nearly every level of our network system. IS acknowledges the challenge of moving an organization through change processes and thus draws on theory from sociology, psychology, and other disciplines related to human agency and social behavior.

"CVN is in a truly unique position—we are growing quickly, and we are designing (and redesigning) our organizational processes as we expand. We are determined to remain agile and unencumbered by bureaucracy so we can test our assumptions and make adjustments in real time, and IS is the key to making that happen."

Crystal Shelton

Professor of Healthcare Innovation Carl May describes IS as “a social process of collective action” and the integrity of CVN's services indeed relies heavily on our network's ability to adjust and adapt in sync.¹ With each new challenge, we are cognizant of IS frameworks that will enable us to operate at the cutting edge of veteran mental health care.

Demand for funding and innovation in veterans' mental health has increased as a result of the wars in Iraq and Afghanistan. In recent years, we have seen strong improvements in both research and service delivery, and we intend to build on this foundation of knowledge. IS will keep our network nimble and experimental, helping to drive mental health care innovation even further. And, perhaps more importantly, IS will help us narrow the time gap between new research and improved practice. If we are successful in this effort, CVN will have the potential to reach more veterans with high-quality services than any other organization to date – and we will reset the quality standard again and again.



II. Implementation Science

What exactly is implementation science? In short, this emerging discipline investigates and evaluates methods that are intended to hasten, ease, and evaluate the implementation of research findings into routine clinical practice.² For example, we know that implementing EBPs as they emerge from the research realm will improve both the efficiency and effectiveness of clinical practice, however the journey from research into practice is historically prolonged and disorganized.³

It is not uncommon for twenty years to pass between the initiation of basic clinical research and its translation into clinical practice.⁴ However, utilizing implementation science can speed the transition, bringing advanced EBPs to ailing clients even in low-resource settings. Quickening this translational process in the veterans' mental health field has the potential to improve clinical outcomes and ease the immense suffering caused by post-traumatic stress disorder, mood disorders, and other common conditions that plague our veteran families.

As a young organization, we have a ripe opportunity to establish our practice using evidence-based IS theories and models. These IS models allow us to make research-powered decisions in our clinical practice, and make changes to our operational processes and organizational structure. An effective EBP dissemination, adoption, implementation, and evaluation process requires attention to the organization as a whole – from the individual clinician to the culture and structures they work within.⁵

To illustrate this translational process more concretely, consider the number of activities involved for an orthopedic surgeon to adopt a new evidence-based hip replacement procedure. The first ten items on their list might be:

1. Study the research on this new procedure.
2. Determine whether the new procedure is feasible and advantageous to patients in the practice setting.
3. Persuade the chief of surgery that the potential benefits of piloting a new technique outweigh the immediate costs.
4. Secure the financial resources to establish a study, learn and execute this new procedure.
5. Secure buy-in from the interdisciplinary surgical team for piloting the new procedure.
6. Redesign the operating room and source the tools required to execute the new procedure.
7. Master the new technique with the entire surgical team.
8. Develop a patient monitoring and evaluation (M&E) plan based on expected outcomes for this new procedure.
9. Train the department on the new M&E plan.
10. Continually analyze M&E data to report on formative and summative outcomes.



Now consider the complexity of that process if an entire department is adopting a new procedure or, closer to CVN's case, an entire network of hospitals is overhauling its hip replacement surgery protocols.

As you imagined this process unfolding, you likely noticed the myriad factors that could make or break its progress. IS pays special attention to clinician and stakeholder behavior as it relates to the successful implementation of EBPs, but it takes many additional variables into account.⁶ For example, factors like organizational decision-making processes, availability of resources, quality of EBP training, internal politics, and the competitive climate within the field will either support or obstruct change. And as noted previously, these individual factors occur within nested communities: The individual clinician, the CVN organization, the geographies where CVN clinics are located, the political environment around veteran's issues in the United States – these concentric networks continue in all directions. Implementation science was born to address the various factors exerting influence in every unique setting as we translate research to practice.⁷ As a result, there exist dozens of IS theories and operational models to accommodate the varying attitudes, cultures, and resources every organization faces on its journey to behavior change.⁸

III. Implementation Science and Mental Health

The example used to illustrate an EBP implementation process in the previous section is clearly not a CVN service offering – and far from it.

A hip replacement surgery deals with tangible structures in almost every sense. An orthopedic surgeon uses tools, repairs bones with visible fractures, and assesses outcomes by scope and endurance of physical movement (i.e., How many pounds of pressure a patient can rest on her new hip? How many steps she can take one week after surgery?).

The nature of our work at CVN is often less tangible, less concrete. We work with feelings and relationships that are constantly evolving and often difficult to identify. Where the orthopedic surgeon could confidently declare success or failure based on quantitative indicators, mental health professionals are often reliant on self-reported data and qualitative measures. Reliance on data of this nature requires rigorous research methodologies to achieve legitimacy.⁹ As a result, the medical community easily discredits mental health research lacking systematic methodology, which delays the field's confidence in – and motivation to transition to – EBPs.

Fortunately, as research and technology improved our understanding of mental health processes, it became clear that developing and testing standardized interventions was necessary to advance the field.¹⁰ As a result, the culture has gradually shifted, and clinicians are now expected to implement evidence-based treatment and evaluation plans.¹¹ However, relative to the biomedical establishment, translating research into standardized clinical practice is somewhat novel to the world of mental health care.¹² CVN and other organizations committed to using EBPs are actively contributing to the knowledge base on how to disseminate, adopt, implement, and evaluate gold standard interventions in mental health care.



IV. Implementation Science and CVN

Two primary goals drive CVN's commitment to IS. First, our mission is to deliver the highest quality mental health care to veterans and their families. Implementation science offers an evidence-based roadmap to achieve that mission given our unique challenges as A) a new direct-service organization, B) a mental health care provider committed to using EBPs, and C) a mental health care provider serving veterans coping with unprecedented trauma and stress, thereby demanding constant care innovation. Second, we are motivated by a desire to design a successful implementation model for CVN and our partners in this mission.

"In the most basic sense, IS is concerned with the question 'how do we integrate knowledge into a system as quickly and meaningfully as possible?'" said Crystal Shelton, CVN's Vice President of Clinical Programs. "Within our network, we utilize IS frameworks to promote the uptake of evidence-based practices, which can be incredibly complicated. Even when there is very compelling evidence for a given intervention, multiple procedural, cultural, and behavioral variables can obstruct the process of adopting a new EBP into practice. IS provides us with evidence-based models to design activities like how we schedule our clients, how we train clinicians, and how we communicate treatment options -- all variables that the research tells us can make or break adoption of a new EBP that will benefit our clients."

Shelton goes on to discuss how IS can bolster a new, ambitious and rapidly growing organization like CVN: "CVN is in a truly unique position—we are growing quickly, and we are designing (and redesigning) our organizational processes as we expand. We are determined to remain agile and unencumbered by bureaucracy so we can test our assumptions and make adjustments in real time, and IS is the key to making that happen. Learning how we can optimize our network to adopt new practice has far-reaching impact for the entire field of veterans' mental health."

Building an optimal implementation model for CVN is already a collaborative effort that draws on expertise from implementation scientists, other veteran health care organizations, and mental health clinicians. As we perfect our translational process, we will continue to consult with an interdisciplinary group of stakeholders to address implementation challenges and share best practices along the way.

The development and implementation of the network's electronic health record system is another example of how IS has informed our network-wide practices thus far. It is not yet standard practice to use electronic health records (EHRs) in behavioral health clinics, but CVN considers EHRs critical to our ability to collect and utilize data effectively.¹³ Our electronic health record system, MyEvolv by Netsmart, allows us to tailor our health records both to our clinicians' note-taking preferences and our data collection needs, making record keeping and data extraction a seamless experience for our clinical team. The EHR also provides insight into how CVN's policies and procedures are being carried out, enabling us to assess and adapt critical operational and administrative processes, as well.



"Our implementation of the EHR is unique," says Devon Collins, Vice President of Partnerships & Network Systems. "We are not simply translating tried and true policies and procedures into an electronic format but, instead, allowing the functionality of the EHR to inform development of those processes. After six months of learning and testing the system at our pilot clinic sites, we have identified best practices and established a quality standard for data collection at each point of the client experience. Our multi-site EHR paired with IS empowers us to iterate and standardize across the network, always decreasing burden on clinicians and increasing quality of care for our clients."

In short, IS gives us a roadmap to manage a comprehensive change process across administrative and clinical operations. From day one, it has helped us design policies and procedures to support our innovative, data-driven culture. Going forward, every time we decide to adopt or adapt our practice, it helps us identify and address the organizational variables that will affect implementation, design a roadmap for successful change, and develop a monitoring and evaluation plan to ensure fidelity to the new EBP.

The stages of implementation are loosely defined as:

Exploration and Adoption

This is the time to assess or explore the new practice or EBP relative to CVN's unique setting and CVN's unique client needs. The new practice should be assessed in terms of potential implementation challenges and opportunities, and adopted if the practice is both appropriate and advantageous by these measures.

Program Installation

Before any client experiences a change in practice, CVN has to put the structural supports in place to implement that change. Installation involves securing funding and resources, establishing new policies and procedures, and other operational processes.

Initial Implementation

Change is difficult as well as being exciting. In the initial implementation phase, the new EBP is up against high expectations despite potential insecurity, resistance, and fear on the part of the implementers. If CVN can learn from those challenges and adapt implementation accordingly, the new EBP is headed toward success.

Full Implementation

When a practice has become "normal" and an established part of an organization's clinical repertoire, it has achieved full operation.

Innovation

After a practice is fully operational, CVN can look to its data to answer questions about potential practice innovations. Any intervention should aim to improve client utilization and/or outcomes, or to ease implementation burdens for staff.

Sustainability

Both programmatic and financial sustainability affect the longevity and efficacy of any practice. Identifying and cultivating the implementation drivers of any program is critical to maintaining its success across staff, resources, and cultural change.¹⁴



As mentioned above, IS plays a critical role in helping us maintain fidelity to a new evidence-based intervention. In other words, IS gives us the template to evaluate how well we are applying the EBP in the beginning, middle, and end of the implementation process. Accurate client outcome evaluations depend on complete fidelity to the EBP – if we stray too far from established protocols, we lose the ability to assess the intervention’s value to our clients.¹⁵ IS and our EHR allows us to evaluate fidelity at any stage of implementation so that we can identify problems and correct course in real time, thereby preserving the validity of our EBP outcomes.

To offer a brief theoretical example: One month into implementation of a new PTSD intervention, our IS model recommends a brief chart review to ensure that clinicians are capturing the correct data in the adapted EHR fields. During that review, we notice that many clinicians are using a field to record data about the client’s mood rather than the client’s affect. This finding prompts us to review our training program and realize that the training module on this EHR field was unclear. Finding this error early allows us to A) retrain clinicians quickly, B) change the training module so new trainees will begin implementation with clear guidance, and C) trust this data point when we are ready to analyze client outcomes.

Recall that the specifics of any EBP implementation process, at CVN or elsewhere, are driven by multiple factors unique to the intervention, the setting, and the moment in time.

Implementation science does not advocate a one-size-fits-all model for the translational process. As our internal and external environments change, we will always consult with partners to adapt our IS models in service of CVN’s dynamic needs.

V. Closing

We are fortunate to be working in a moment when veteran mental health is making headlines – with that attention comes funding and resources that lead to much-needed innovation. However, as this paper articulates, the pipeline of new research presents challenges along with the opportunities. At CVN, we hold ourselves responsible for constantly mining that pipeline for the most appropriate and effective organizational processes, for managing our dynamic clinical practice efficiently, and for sharing valid process and outcome data with the field.

We are an organization striving for maximum impact, so we are constantly seeking balance between the old and the new, expertise and experimentation, tradition and innovation. We are determined that CVN’s progressive work will lead our clients to healthier and happier lives – that they will see and feel measurable change in their day-to-day experience thanks to our intervention. And we believe that implementation science will help guide us to achieving that success.



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