Dr. Goldsmith: Hey, everyone. Thanks for joining us today. I’m Lizzie Goldsmith. I’m a primary care doctor and a core investigator at the Minneapolis Center for Care Delivery and Outcomes Research in the VA Healthcare System. And colleagues listed here, and I will be discussing today a systematic review that we recently completed on implementation of evidence-based psychotherapies for chronic pain and chronic mental health conditions. And here we go. Okay, so the full report is available on the Health Services Research and Development Research website as of November 2021.   
  
And some disclosures. So this presentation and the report that it concerns we prepared by the Evidence Synthesis Program Coordinating Center here in Minneapolis instructed by Dr. Duan-Porter who is also here with us today as well as Dr. Wilt and funded by the Department of Veterans Affairs, VHA, and HSR&D. As always, the statements in this presentation are those of the authors or the speakers and should not be construed as an official position of Department of Veterans Affairs or the US government. And no investigators have any affiliations or financial involvement that conflict with material presented to disclose. Some acknowledgements.   
  
So the topic of our systematic review that we’ll discuss today was requested by the VA Health Services Research and Development Pain/Opioid CORE which strives to enhance collaboration and accelerate health services research related to pain, especially non-drug interventions for chronic pain opioid prescribing and opioid use disorder. And we’d like to thank the experts in our technical panel who offered guidance in this report from start to finish. The objectives of this didactic part of the presentation where I present out report structure and some findings, our hope is that by the end of this element of the discussion, we will be able to recognize the consolidated framework for implementation research or CFIR.   
  
To summarize barriers and facilitators of evidence-based psychotherapies for the treatment of chronic pain. Highlight a few results from implantation evaluations of psychotherapies for chronic pain and chronic mental health conditions. And to explain some implications of this evidence synthesis for research policy and practice. And our discussants will have great perspectives on this. Motivation for this report. We all know that chronic pain is bad and is prevalent. Chronic pain comprises the of the top five causes of disability in the United States and contributes to other disabling conditions such opioid use disorder.   
  
Famously about ten years ago, chronic pain was estimated to affect at least 100 million US adults and to cost more than 600 billion dollars in treatment and lost productivity. And research since has suggest the prevalence has continued to increase. We know that United States military veterans have a higher prevalence of chronic pain conditions as compared to US civilians, which is associated with higher levels of psychological distress. And we also know that people with chronic pain have higher prevalence of mental health conditions including post-traumatic stress disorder/PTSD, depression, anxiety, and insomnia. So this is an important problem. And we also know that nondrug therapies are first line for chronic pain.   
  
Here is a selection from the VA Department of Defense guidelines for treatment of chronic pain from 2017. You can see an algorithm that’s suggested for providers to follow. And very early on in the process, the recommendation is to obtain a biopsychosocial assessments and work with folks on self-management, realistic expectations, and implementation of nondrug therapies, and non-opioid therapies for chronic pain including physical, psychological, and complementary integrated treatments. We’ll be talking about three psychotherapies that have demonstrated evidence for efficacy and effectiveness in chronic pain. This is the portion of the presentation where I give very brief introductions that will not do justice to the complexities of these therapies, but they are cognitive behavioral therapy, mindfulness-based stress reduction, and acceptance and commitment therapy. So some brief points for folks among us who like me, may not have been as familiar with using these therapies or applying them in clinical practice.   
  
So cognitive behavioral therapy/CBT is often credited to develop mentally to a United States psychiatrist Aaron Beck in the 1960s. It was developed for depression but has been adapted to treat many conditions including anxiety, substance use disorders, eating disorders and more ever sense. It has roots in behavioral and cognitive psychology approaches developed decades earlier. And arguably in philosophies for a millennia earlier like stoicism. Some key principles include the idea that problems relate to unhelpful ways of thinking and behaving and that these can be changed and are better coped with by identifying and reevaluating unhelpful thoughts and behaviors as part of the change process. And a few of the proposed mechanisms by which CBT helps with chronic pain include decreased catastrophize and increased self-efficacy for pain management.   
  
Mindfulness-based stress reduction on the other hand has roots in mindfulness and meditation practices that have evolved across cultures and across time. Mindfulness-based stress reduction itself or MBSR refers specifically to a structured format that was adopted in the 1970s and 1980s by Jon Kabat-Zinn. He was a US researcher, actually a molecular biologist at MIT who developed an interest in meditation stress reduction after studying with Zen practitioners and Thích Nhất Hạnh. He started a stress reduction clinic at the University Massachusetts Medical School 1979. Developed components of a structured MBSR practice that he then helped bring to a higher profile in the US healthcare system. And meditation and mindfulness have become a part of popular culture as evidence in the plethora of cheerfully colored mindfulness quotes available on the internet such as this one. Some proposed mechanisms by which MBSR may help with chronic pain include increasing mindfulness and ability to be present nonjudgmentally to difficult thoughts and emotions, which can lead to increased pain acceptance and higher quality of life.   
  
And somehow, I got myself off the ability to change slides. Then there is acceptance and commitment therapy or ACT. This is credited to psychologist Stephen Hayes and colleagues. It’s part of a larger family of behavioral and cognitive therapies. A core unit of analysis in ACT is action, which each action is understood in reference to its context. Thoughts are as with CBT and others in behavioral and cognitive therapies other approaches within that family thoughts relate to specific emotions and behavioral events. But in situational contexts, and the context give rise to the relationship between thoughts, emotions, and actions. And that contextual nature is a clinical focus of ACT. That some argue was left out of some cognitive models.   
  
This image is the hexaflex, which not all psychologists will agree is definitive for ACT but does lend itself well to a brief presentation. And you can see that a key principle is psychological flexibility, which can be achieved in part to the six constructs. And we can see that some elements are shared with principles and practices of CBT and MBSR. The idea of self as context, noticing your thoughts, so cognitive diffusion. Observing your thoughts without being ruled by them. Being present. Focusing on the here and now. Acceptance. Be willing to experience difficult thoughts. So there some shared psychological principles between these three therapies. And key differences in how those principles are operationalized, what is prioritize for clinical focus of the therapies conducted, roles and actions of a therapist, facilitator, then the patient. All of which relate to the components of interventions that we’ll discuss today in our implementation synthesis.   
  
We know that all three of these therapies in various forms on have evidence to support their effectiveness for chronic pain. And for that reason, Veterans Health Administration has developed national initiatives to improve uptake of these therapies including specific efforts focused on CBT for chronic pain in 2013. But uptake remains limited in practice, and so the development of our report was part of what was motivated by a desire to increase use of these effective therapies for chronic pain. So key questions for our systematic review included these and others. We’ll focus today on two components of this larger report. For CBT, MBSR, and ACT we asked, what our patient provider and system level barriers and facilitators for treatment uptake for chronic pain? And what is the effect of implementation strategies tested to date to increase uptake for both chronic pain and chronic mental health conditions of these therapies?   
  
Our search strategy included keywords and subject headings for the EBPs of interest for chronic pain, veterans, and barriers and facilitators when we search the list of database and also explored expert suggestions and referrals. Our selection criteria included adults with chronic pain or mental health conditions being treated by these eligible therapies. The necessary outcomes related to barriers and facilitators to uptake or implementation and/or to implantation. We’ll discuss relevant frameworks in a few minutes. We concluded a small set of non-US countries that had comparable economic cultural and public health contexts and health systems with qualities comparable to the VHA. We excluded pain and pain therapy in acute care settings or due to active medical treatment such as radiation. We excluded therapies for which active movements was a key component of effectiveness as far as evidence would suggest. We also excluded settings like hospice or end-of-life care and articles with design such as reviews and editorials.   
  
We rated quality. Quality was rated by two reviewers independently using evidence supported methods of rating quality for quantitative and qualitative studies. And two reviewers abstracted data on participant characteristics and setting, data sources and analytic methods. And in the case of qualitative studies, independently coded results. Now the ways that we coded results for barriers and facilitators of uptake of these evidence-based psychotherapies for chronic pain will merit a little more discussion. We coded and categorized the findings through best framework synthesis. Employing the consolidated framework for implementation research or CFIR. So what are these, the terms written in bold here? For those of us whom these are unfamiliar, let’s take a step back and discuss implementation and framework synthesis of it.   
  
So many of us in clinical practice have frequently heard that it takes an average of 17 years for research evidence to reach clinical practice. And this number 17 years comes from studies of a range of interventions including pharmaceuticals and technological innovations. Estimating an average time lag of 17 years from research demonstrated efficacy to broad implementation and clinical practice measuring at different time points of the process. But this convergence around a conceptual average time lag of 17 years hides the complexities that are the real stories of how the interventions meet clinical settings and how change happens in a complex system. So implementation and implementation science are efforts to understand how that change happens and make that change happen as smoothly as possible. So I’ll attempt a very brief intro to the concept of implementation and one key typology within it. The consolidated framework for implementation research.   
  
So for any intervention, any health intervention that we wish to spread, there will be core components that are essential to the effect of the intervention and can’t and shouldn’t be changed if want to spend intervention to multiple context. And there will also be an adaptable periphery. Components of the intervention that are context dependent that depend on those relationships between the core components and the environment in which it is set. And these components can and often should be changed. So more straightforward components of the adaptable periphery can include things like design and packaging components of the intervention. Or communication materials around the intervention, but there are other additional components potentially of the format for example of intervention itself that can be adapted and maybe should be.   
  
And then this intervention with its core components and adaptable periphery is situated in the context for example in this case of clinic. So there will be individuals who are involved in directly or indirectly with implementing the interventions such as therapists who conduct the intervention. Or primary care providers who refer people to the intervention and they will have their own knowledge and beliefs around it or self-efficacy in doing their components of the work and other characteristics. Those individuals function within an inner setting maybe a clinic or hospital that will have its own structural characteristics, its own culture with norms, values, assumptions and other components that affect how it works and how this intervention fits in.   
  
And then that clinic or hospital with those individuals in this intervention will situated within an outer setting possibly a health system within a patient population that will have certain needs and resources and certain awareness of those needs and resources, different policy and incentives and other characteristics. And then all of these and all of us exist in time. So elements of implementation of intervention adoption over time, planning, engaging with stakeholders, carrying out or executing the implication of the intervention.   
  
Reflecting and evaluating all this will take place over time in cycles. And so the consolidated framework and implementation research looks at all of these domains. Outer setting, inner setting, individuals involved, intervention characteristics, process and create a typology of constructs that are relevant to treatment uptake within those different subdomains from published evidence to date that looks at how interventions are adopted over time. And its use as an organization tool so that observations that are made about how mentation moves forward can best be assessed and applied in order to improve uptake in the future.   
  
So I’ll move right ahead to this area. So the consolidated framework for implementation research has these five key domains that we outlined and also subdomains within each of these. And each of these topics; intervention source, evidence strength and quality, relative advantage, adaptability and so on within intervention characteristics. And then specific subdomains within each of the other four domains have all been shown to be relevant to uptake of interventions in context over time. And so this offers a typology that we can use to synthesize evidence in the way that we synthesized findings in our articles reviewed. Now sometimes the framework that we used fits most of the data but not all. Sometimes in the process of creating a synthesis and systematic review, we identify constructs that are not easily…that don’t easily fit into the framework that we use.   
  
So in our best fit framework synthesis approach, after defining the review question, systematically identifying the relevant studies and frameworks, extracting the data, and assessing study quality; we code evidence from the studies into that a priori framework. In this case CIFR. And then if needed, we create new themes by performing secondary thematic analysis on any evidence that doesn’t fit into that framework, and those themes and constructs to our framework, describe then. And so this is the best fit framework synthesis that we took to apply CIFR to our synthesis and add additional themes to help our data best fit synthesis. So having explained that framework as best I could briefly, we’ll jump in now to what we found.   
  
So we screened over 1,200 citations, remove duplicates, then screened over 7,000 abstracts excluded almost 7,000. Reviewed the full text of over 500 articles. And these were independently reviewed by two investigators. And over 400 were excluded due to ineligibility. Mostly but either because of assessing an intervention that was not one of evidence-based psychotherapies of interest. Or not reporting any outcomes that were relevant to barriers, facilitations, or implementation strategies. If we’re doing the math, you can see that 67 articles would therefore be included, and they were discussed in the full report related to all of the key questions. With respect to barriers and facilitators of evidence-based psychotherapies for chronic pain, there were 20. And those will be the focus of this presentation today. Oh, and I’m sorry Rob. I don’t know how to make the animations appear.

Rob: I apologize. Animations won’t work in this format.

Dr. Goldsmith: Okay. Then there will be some areas where all the results will not show. Is there any option for pursuing [overlapping conversation]?

Rob: The way that we have to do it is that you would have to share these slides from your computer. Are you able to do that?

Dr. Goldsmith: Sure.

Rob: Okay.

Dr. Goldsmith: I’m sorry about that.

Rob: You should be able to click share at the bottom or….

Dr. Goldsmith: Sorry everyone. Coffee break. I’ll go to share.

Rob: And you want to have the…share the file. So just navigate to the PowerPoint file. And then put that in slide show mode. And then you’re going to need to swap display settings. Exactly. I can see your cursor.

Unidentified Female: In the presenter view.

Dr. Goldsmith: Yep, I had to swap it.

Unidentified Female: Okay.

Dr. Goldsmith: Okay, can folks see it now?

Rob: No, we’re still seeing presenter view.

Unidentified Female: Still presenter view.

Dr. Goldsmith: How about now?

Rob: No. I don’t know why it’s not showing.

Dr. Goldsmith: Swapping. Sorry everyone.

Unidentified Female: Do you want to just turn the presenter view off? You can do that if you back out of the show.

Dr. Goldsmith: Sure.

Unidentified Female: You see it’s over here. Yep. There you go. Perfect.

Dr. Goldsmith: Are you all seeing what we need to be seeing now?

Unidentified Female: Yep. You’re at acknowledgments.

Dr. Goldsmith: Let me see if I can pick up where we left off. Sorry about that. Well, if we can’t do the presenter view, the animations won’t work.

Unidentified Female: They should work. It shouldn’t take presenter view to the animations. Go ahead and try it.

Dr. Goldsmith: I did. Okay, switched something. Are you all able to see the slides now?

Rob: Yes, that looks good.

Dr. Goldsmith: Okay. Hooray. Thanks for your patience. I apologize for that. Alright, so we’ll pick up as best I can where we left off. So in terms of article characteristics, so we can see that we identified 13 articles that addressed cognitive behavioral therapy for chronic pain. Five articles that just in MBSR for chronic pain and four that addressed acceptance and commitment therapy for chronic pain. And to call out some specifics, you can see that CBT studies were mostly a…CBT was mostly assessed within randomized clinical trials. ACT studies were all assessed within clinical trials. CBT studies were conducted mostly within the US with over half of those within VA and MBSR was all within the United States and mostly non-VA.

Rob: Lizzie I’m sorry. You need to resume the slideshow. For some reason it got out of slide show mode. There you go.

Dr. Goldsmith: Are you seeing it now?

Rob: Yes.

Dr. Goldsmith: Great. And then with respect to therapy format, MBSR and ACT were entirely in group format and all in person. Whereas the CBT studies involved a format that was majority individual therapist and patients. And three of the individual therapies, but none of the group CBT approaches were telehealth. This is a good time to note that our search took place, published materials through March 2021, so largely did not include implementation barriers and facilitators results of published studies containing therapies conducted after the C change to telehealth that accompanied COVID. Did the slide change?

Rob: Sure did.

Dr. Goldsmith: Great. So we can see here the consolidated framework for implementation research. The domains and the subdomains. We can see that within these five domains previously mentioned, two of those domains are now greyed out. Inner setting and process. And that is because we did not find any results in our included studies that presented barriers, facilitators, implementation data in these domains. And that may be explained by the fact that most of these studies were conducted within effectiveness RCTs that were not pragmatic in the sense that they were not designed to include the clinic or hospital setting processes or clinic focused or a larger system focused sense. Many RCTs involved distribution of the therapy through their own trial infrastructure. So we found results related to intervention characteristics, outer setting, and characteristics and individuals.   
  
And then of most of the study is 18 of the 20 that we found that address barriers and facilitators of these therapies were of patient level findings and most of them involved either quantitative or qualitative assessments of patient level characteristics. And so the framework that we adapted CIFR, required the addition of a couple of subdomains in order to address a few of the themes that came up in those patient level findings. So within intervention characteristics, there where are findings related to group dynamics and to patient therapist dynamics specifically for CBT the latter. And we’ll talk more about what those themes that we added mean.   
  
And then within the concept the domain of outer setting. There were themes related to patient knowledge and beliefs and then other patient attributes. And greyed out now you see other elements of intervention characteristics, outer settings, and characteristics of individuals, meaning individuals involved in implementation of intervention that we did not find. So because he had very few studies including provider level characteristics, we did not find much in our synthesis related characteristics of individuals implementing these interventions for chronic pain.   
  
So here we see ultimately the domains and subdomains of CFIR within which we found results. And we’ll get into some of those more specifically now. So first of all, a theme that we added as a subdomain for CFIR for our synthesis within outer setting was patient knowledge and beliefs. This comprised attitudes and value placed on the intervention as well as familiarity with facts and principles related to the intervention. And we can see that there’s mostly qualitative investigations of patient knowledge and beliefs if we consider qualitative studies to be this blue circle and mixed method studies to be this green square. This is our attempt to show you kind of visually the frequency of different types of study designs. And quantitatively, there were some assessments of the relationship of treatment acceptability according to patients or their responses to the pain stages of change questionnaire and how that related to attendance of sessions. And those are the yellow quantitative triangles. Those were all studies of CBT.

Rob: Lizzie, you’re out of slideshow mode again. Oh, there you go.

Dr. Goldsmith: Yes, that will happen unfortunately. We can discuss it later. Other patient attributes also is a broad construct that includes other personal traits such as tolerance ambiguity, motivation, priorities, competence, capacity, also includes demographics and other patient characteristics that do not fit under other CFIR subdomains. And here we can see that in contrast, most of these were assessed through on quantitative approaches and most results that we found were related to CBT. So these were mainly quantitative regressions looking at quantitative or categorical indicators of types of pain conditions that folks had. Types of pain treatments they previously experienced or age or other demographics of patients as predictors in quantitative models of numbers of sessions attended.   
  
And with respect to more detailed findings barriers and facilitators for uptake of these therapies for chronic pain within the 13 articles related to cognitive behavior therapy. And within the domain of intervention characteristics, a single study of GPs or general practitioners in United Kingdom found that GPs were interested in culturally relevant CBT for South Asian patients. They felt that would be more likely to be effective. For CBT interventions that had materials related to self-management, some patients found that these materials helped them understand principles and prompted use of skills outside the sessions.   
  
But others found that these materials can be repetitive and unclear and sometimes found case studies of folks with chronic pain to be dispiriting. There was one among our included articles that was one cost-effectiveness analysis of CBT and MBSR in a health system in Washington within a randomized controlled trial. And within this one study, CBT was cost effective for improving quality of life and was not significant different from usual care in healthcare utilization or productivity losses. And within patient therapist dynamics, patients appreciated therapist for empathic consistent reliable care. And only CBT had the individual format of therapy that would be described within patient therapist dynamics.   
  
Within the five articles addressing mindfulness-based stress reduction or MBSR, patients also found that recordings and handouts were helpful in adapting routine for home use. Patients wanted sessions to be held in a quiet uncrowded and consistent space. Recall that these are all group sessions. And having a crowded or inconsistent space or ambient noise was a barrier to participation or to attendance. With respect to group dynamics, patients appreciated social support from the group, talking with people with similar experiences. They found that structure and control by the facilitator was important to keep folks on task and to keep the content relevant to mindfulness. And within the four articles related to ACT or Acceptance and Commitment Therapy, the only findings related to intervention characteristics were within group dynamics. Patients appreciated the nonjudgmental atmosphere, support from other participants, and hearing different perspectives from other group participants that allowed them see their own expenses with pain from new angles.   
  
With respect to barriers and facilitators for uptake of CBT and MBSR and ACT for chronic pain within the domain of outer setting for the studies of cognitive behavioral therapy within patient’s needs and resources, there was one study in which there was a note for needed for culturally specific care and therapy that is within patient’s primary language. Some participants in telephone CBT noted that this format increased accessibility and eliminated some barriers related to time and geography. Some did find that pacing skills were difficult to use at home. Within patient knowledge and belief, some participants found that CBT increased understanding of their own pain triggers. But some patients did find it difficult to accept the idea of a mental health treatment for what they perceived as a physical condition. And this idea of acceptability of treatment and the treatment principles was generally predictive of session attendance. With respect to stages of change, adherence was also related to this in ways that we explain further in the report.   
  
In terms of other patient attributes, so the main signals that were found were that more severe pain interference at baseline, higher pain catastrophize, and in some cases opioid use were sometimes related to lower attendance quantitatively. This was true in some but not all studies. And overall, patient demographics and those quantitative regressions previously discussed were generally not related to attendance. Within the MBSR studies among patient needs and resources, some participants found that time commitment and responsibilities having to be at a group session at a specific place and time and in additional physical pain during some seated meditation were obstacles to participating. And folks found that online and shorter sessions might eliminate some of these barriers.   
  
Some patients had feedback on the therapy itself. They wished for increased focus on how to control pain. There was concern about the practice of meditation increasing pain and sometimes desire for more movements. And then with respect to other patient attributes similarly to with CBT, some studies found that higher baseline pain interference was associated with less frequent attendance of MBSR sessions. But patient demographics were generally not related to attendance. And of note, some referring providers had a concern that for some patients, religion or spirituality might be a barrier to participating in meditation or within MBSR. But in that same study when patients were asked, they did not see their religion or spirituality as relevant to practice of MBSR.   
  
Within studies of ACT, some patients did find some of the sessions too demanding from a cognitive emotional and/or physical perspective. With respect to knowledge and beliefs, some had a fear of causing damage and those who had a focus on a search for a specific pain diagnosis or cure were more likely to have limited engagement with the ACT therapy process. Some participants also found that the competent didn’t seem relevant to pain or that acceptance or mindfulness, which is a component of ACT were controversial concepts in their own processing of chronic pain. But some participants did find psychological factors in pain helpful and available studies it was difficult to trace the mechanisms or the characteristics by which folks who felt engaged and folks who didn’t could be differentiated. In terms of other patient attributes within these ACT studies, patients who did not attend sessions did not differ in pain location intensity. We didn’t have interference data on these studies or distress. And once again, patient demographics were generally not related to attendance in those quantitative regressions.   
  
So in summary, we found that barriers and facilitators to use of CBT, MBSR, and ACT for chronic pain focused on patient level findings. And accordingly, we adapted the consolidated framework for implementation research to expand our patient centered subdomains for evidence synthesis. Some shared facilitators across these three therapies were a good match between patient knowledge and beliefs about pain and the evidence-based secondary psychotherapy principles involved as well as positive group or patient therapist dynamics. Some shared barriers across these therapies included variable patient buy in to therapy rationale and competing responsibilities for patients. And one article did show that CBT and MBSR for chronic pain were cost effective for improving quality of life.   
  
Some additional key findings related to barriers and facilitators for chronic pain. So patient demographics were generally not related to EBP attendance were quantitatively assessed. And of note, demographic variables that were included such as race, ethnicity, sex, and gender were often not clearly defined in the study presentation. And no studies assessed the role of cultural and social factors within patients views or their experiences of evidence-based psychotherapies. We also found that EBPs included had widely variable formats in terms of the elements of sessions, the structure of session, the length number and spacing. And as mentioned, all articles that assess MBSR or ACT involved in-person group therapy. While most articles assessing CBT involved individual therapy either by telehealth. which was the minority of included studies or in-person. While all ACT and most CBT studies were within randomized controlled trials that were not pragmatically designed to incorporates real-world clinical structures. So this limits the assessment of factors related to inner setting process and generally adaptation through these results.   
  
Looking at the time, we have a few minutes I think for me to get briefly into some key findings from further implementation evaluations. So we did in order to find some information that may be translatable from evidence-based psychotherapies for chronic mental health conditions to evidence-based psychotherapies for chronic pain, we looked for implementation studies of CBT, ACT and MBSR for either chronic pain or chronic mental health conditions. And we found 12 that were conducted within large integrated health systems. Eight of which were within VHA, four were national initiatives. Seven of these…there were ten studies to…there are 12 studies of 10 data sets and 7 of those data sets were within initiatives focusing on CBT for depression or anxiety and one of ACT.   
  
And then there was one study of CBT for chronic pain and one for insomnia. And implementation strategies which we don’t have time to get into in detail that were included were at education and training, audit and feedback, and facilitation. And we adapted through best fit framework synthesis another framework that’s relevant implementation, RE-AIM, which relates to Reach Effectiveness Adoption Implementation and Maintenance. And I’ll give you some brief findings here. So with respect to reach and I think I can find a better way to do this given the technical difficulties. So with respect to reach, number of proportion of representativeness of individuals who are willing to participate in an intervention and reasons why or why not. We found very few results and none from VHA studies.   
  
With respect to effectiveness. This relates to the impact of an intervention on important outcomes, symptoms, quality of life. Asked the question, how do I know if the intervention is effective? And within these 12 studies or 12 articles relating to 10 studies, we identified moderate to large improvements in symptoms related to depression, anxiety, pain, insomnia whichever condition was the focus and in function. So as expected, these treatments were effective in context where measured. Adoption addresses the number proportion representativeness of settings and providers who are willing to use an intervention. Adoption asks the question; how do we develop organizational support to deliver the intervention? And for the most part where assessed, providers who are trained according to these of implementation initiatives did use the therapies.   
  
Implementation within the setting of RE-AIM refers to provider fidelity to core components of the intervention and consistency of delivery as well as to the time and cost of the intervention. It can include adaptations to the adaptable components of the intervention and to implantation strategies. And where assessed, trained providers were found to be competent in terms of fidelity to the core components of the therapy and consistency, but there were ongoing barriers to use including provider demands on time and patient level barriers of the types that we discussed with respect to chronic pain. And then finally maintenance which reflects the extent to which the intervention becomes part of practice after the implantation phase or intervention…the implementation strategy is complete. There were limited evidence in the available articles on this. Where studied, providers were in fact to some extent using the evidence-based psychotherapy for 3 to 12 months after training. But again, faced those barriers to use related to their own time constraints and other demands and to patient level barriers.   
  
So what are some of our recommendations for future research? There is a need to examine provider and system level barriers and facilitators for CBT, MBSR, and ACT for chronic pain using comprehensive frameworks that relate to implementation to allow better translation to practical implementation in the field. And in clinical practice settings that account for those inner setting process and other components that differ from the RCT environment. There is need to evaluate patient level factors that contribute to variation in treatment effects and in treatment uptake for EBPs for chronic pain in order to identify targets for future effectiveness and future implementation work. And there’s need to evaluate patient level sociocultural and demographic factors including sex, gender, race, and ethnicity accurately and with clear analytic purpose. Recognizing demographic indicators as limited proxies for sociocultural experience.   
  
With respect to policy and practice, there is a need to support evaluation of provider and system level factors in implementation readiness within health systems. This could include local needs assessments focused on matching of strategies to existing or needed resources. There is a need to evaluate outcomes for alternative evidence-based psychotherapy delivery formats. Individual versus group therapy, brief versus longer treatment durations, and where appropriate support is needed for increased options for session formats. Similarly, there’s need to evaluate outcomes for telehealth versus in-person EBP delivery especially since the C change is already underway and where appropriate to support increased options for both formats and scheduling flexibility. And there is a need to develop and disseminate tailored patient facing resources to increase awareness and buy-in.   
  
So as noted, any intervention has core components which are essential to effectiveness or efficacy and can’t/shouldn’t be changed and adaptable periphery which is context dependent and can and should be changed. And the result of our review also makes us realize that finding the difference between these two is where the rubber meets the road and adopting the periphery where needed to help interventions be taken up in the context where they belong is the hardest part. And so I’d like to turn it over to our discussants to consider some of the implications for research, for policy, and for practice. And I’ll hand off to Dr. John Porter to introduce our discussants today.

Dr. Porter: Thank you. And I see that we do have a couple question, which we will get to at the end. But we’re very fortunate to have Dr. Murphy and Dr. Heapy as well as several members of that pain opioid CORE veteran engagement panel to provide additional perspective on these result to implication. Dr. Murphy is Director of Behavioral Pain Medicine as you see PMOP. And then Dr. Heapy is Do-PI of the Pain Opioid CORE. I think Dr. Murphy is going to go first.

Dr. Murphy: Hi. Yeah, thanks so much for having us today and for that excellent review. And I’m just going to speak really briefly and really I’m more excited to hear the people who are coming after me talk a little bit more about kind of again, this sort of implementation translation perspective that’s so important and what does this really mean both to veterans who are receiving or could receive this kind of care and then sort of at a systems policy level what does it mean about what we should probably be doing a little bit differently. And so the couple of big things really again from serving operations perspective, I’m with the Office of Pain Management and opioid safety and prescription drug monitoring.   
  
So my background really is very much focused on pain management as well as behavioral pain management. And so one of the things that this really highlighted was the need for more of a broad-based education campaign. What we learned after digging in a little bit deeper around some of these results is that veterans don’ necessarily hear about these kinds of treatments very often. It frequently comes from various types of providers. And so we really are thinking more about the need to frankly provide clearer education both to providers. And to patients about what these kinds of treatments are sort of in plain language both so that providers often prescribers in this case because we are speaking about pain management are the ones that we rely on to talk about these things.   
  
And so giving them maybe a better understanding and even some language about what these types of interventions are so that they do offer them and they offer them in a way that it sort of makes sense and is something that a patient may be interested in exploring further. But then also really thinking about…and I would highlight learning more about what these types of treatments are and really thinking about having veterans talking to other veterans about them. So whether that would be a campaign with videos. But one thing you certainly learning in clinical practice is that a lot of times people are much more interested in hearing it from a peer than they are from you even if you have the exact right language for it.   
  
And that just kind of underscores the second bullet here which is really a focus on wanting to figure out what’s the best way to talk about these kinds of treatments so that people not only understand what they are, but sort of keep their ears open and realize that these kinds of treatments are in fact foundational to effective pain management just like a lot of other treatments that we know that work very well. So that’s sort of what the takeaway was from sort of a top-down operation sort of things that we’re keeping in mind moving forward and brainstorming about. And so I’m going to hand it off to Dr. Heapy to give us her perspective and move us forward with the rest of this.

Dr. Heapy: Thank you Dr. Murphy. Hi everyone. Just a few things I wanted to say from a research perspective in terms of really trying to promote greater use of these evidence-based treatments especially as first line treatments. We know that they’re underused. So as Dr. Goldsmith mentioned, much of the work in this area has been around identifying patient barriers and we really need to think about understanding also clinician and system level barriers in order to effectively address the underutilization of these treatment. And when we think about hand in hand with identifying these barriers is developing implementation strategies that can help us increase the uptake of these interventions.   
  
And much of the work in this area in the past has been focused on pushing these interventions out to the patient. Increasing provider referral through academic detailing or education, increase training of providers. But another part of that is really if we think about this as a push pull relationship, us pushing out the information about these but also creating pull on the patient side. So how do we create interest on the patient side? And there’s emerging work in this area using self-referrals. So allowing patients to refer themselves to be very safe interventions, especially technology-based forms of these intervention. Direct outreach to patients. So identifying potentially eligible patients for electronic health record information and letting them know that these interventions are available potentially helpful to them and getting them an easy way to engage.   
  
And then as Dr. Murphy mentioned, engaging in some population-based education strategy to get the word out there. So similar to what pharmaceutical companies do and let patients know what’s available to them. We should be letting our patients know that these very effective interventions are available to them. Next slide. Now what I’d like to do is introduce some members of team opioid course Veteran Engagement Panel and to provide the veteran’s perspective on this report. Before I do, I just want to give a little very brief background on what the Veteran Engagement Panel is for context. The Veteran Engagement Panel is a group of veterans who partnered with the pain and opioid research community to provide their perspective and work with us as partners on our work. Everything from study development all the way to semination. They meet with investigators monthly to provide feedback. Next slide.   
  
This is our Veteran Engagement Panel. It’s made up of 12 veterans from across the country. They all have experience with chronic pain, opioid use, or \_\_\_\_\_ [00:49:46]. The come from diverse background, ages, geographic location. And 40% of them are female. They meet with us monthly to provide our perspective. And two of those veteran engagement panel members are going to provide their perspective for us today. I’m going to hand this over vet members Walan Chang and Rebecca Keller.

Walan: Well, thank you very much. Hi. My name is Walan. Thank you for inviting us to join this seminar today. Our veteran panel has the deepest appreciation for the work that you do and the positive impact that you have in our healthcare. For those of you who join the cyber seminar two weeks ago on Veteran and Family Centered Care, yes that was me talking about integrating the veteran perspective into project design. So you can imagine I’m very excited and proud of you for including the veteran voice today. I wanted to provide a little bit more depth about our feedback, so from here on out when you hear me say we, I’m talked about the 12 veterans on our panel. First, we do agree with doctors Murphy and Heapy that an education campaign is really needed for both providers and veterans. But as we are patients, we’re going to be focusing on the veteran perspective.   
  
We are group of 12 veterans as she said, we have diverse backgrounds, we’re scattered across the country, we all use different VAs so quite frankly, I was shocked during our meeting to find out that literally zero of us had heard of psychotherapy for chronic pain despite our backgrounds. It seems that it’s not that any of us were unfamiliar with psychotherapy because we knew about it from our own experiences, our professions, word-of-mouth, and even education campaigns but we understood psychotherapy to be for conditions like PTSD or depression. So we can take many guesses as to why this is the case, but essentially the bottom line is, if no one in our group knows about this type of treatment option, how many typical veterans would we expect to be able to know about this.   
  
So the second thing I want to bring up is that, the depth of the stigma around psychotherapy is quite frankly also very, very deep. This negative association begins with the word itself which many people associate with being shall we say soft, which is the opposite of many veterans’ self-image. So many veterans will literally or mentally walk away from the conversation once they hear that word. To provide care, I think the staff really needs to meet veterans where they are right now. Please, we ask that you consider finding more layperson friendly terminology. Terminology that will get veterans to stick around long enough to actually learn about how psychotherapy can improve their chronic pain. Veterans over the years have become more comfortable with terms like counseling or therapy and our group universally like those terms much better than psychotherapy.   
  
Finally, I wanted also to mention that there is an even steeper roadblock that’s caused by decades, decades of punitive actions against veterans who did attempt to seek care especially if the veteran held a security clearance. When I was on active duty there is an attempt to get people more help and reduce the stigma by enacting a policy that explicitly forbade psychotherapy for domestic violence as being grounds for pulling someone’s security clearance. But unfortunately. that really didn’t stop questions from leadership about someone’s fitness for duty. Despite how much time had passed, that perception of psychotherapy as being a career and are still remains deeply entrenched especially for those were no longer on active duty. So I’ve talk a little bit about our discussions and experiences and now would like to turn it over to Becky to talk about our recommendations.

Rebecca: Hi. Thank you very much. I feel it’s important that I reemphasize one point that Walan made here today and that is, that unlike many of our veteran cohorts across the VA, we the panel members are very vocal active and engaged in our own healthcare self-advocacy within the VA system. Yet as Walan has already stated, outside of kind of a research or background setting, not one of us was offered evidence-based psycho behavioral therapies in addition to the more traditional options. So this leads me really to that first important recommendation that the veteran panel can offer and that’s simply awareness. Without a dedicated focus on generating awareness in both providers and veterans, the use of these therapies such as CBT, MBSR an ACT across the VA medical system will continue to be underutilized. Yet it’s critical that if offered, the facilities have the capacity necessary to meet any new demands in a timely manner.   
  
As long as the capacity can be met, our veteran panel felt that generating awareness should be done broadly and multifaceted as possible. In general, we believe that the primary care provider relationship can play important role. Veterans generally build a very deep and trusting a participation with their healthcare provider and as open discussion can be initiated by the provider in terms of the destigmatizing that psycho behavioral therapies just by introducing them alongside more traditional options. Words matter instead. Instead of advertising or marketing programs such as labeling them psychotherapies, we do recommend using a more generic term like therapy or counseling at least initially in order to give clinicians the opportunity to open the door for further discussion or more treatment details.   
  
And while advocacy from the clinician is important, it’s also essential to leverage the power of peer support to provide outreach and influence within the veteran community. A therapy program that is validated by another veteran provides an immediate credibility that is not always available through a discussion with the clinical team. Chronic pain does not discriminate, and both in-person and virtual access is important to attracting the newly separated Operation Enduring Freedom veteran as well as veterans from prior conflicts that may be less comfortable using a smart phone or a computer. Mass mailings, telephone outreach, printed testimonials, social media, QR codes everything should be used as marketing options for the broadest reach. In summary, there are tens of thousands of veterans that are suffering from chronic pain and your important work holds the key to providing many of us richer and fuller lives, but only with the comprehensive plan for awareness outreach and capacity across the VA community. Our time is short, so I will end here.

Dr. Duan-Porter: Thank you so much Becky. That was excellent. And always best I think to hear it from the lived experience and perspectives of veterans. So I am Denise Duan-Porter. I just turned my video on. And I also help with this report with Dr. Goldsmith and had that privilege to talk with the vets about this a little bit earlier. There are a few questions. I know we’re going to run out of time. I think we have our contact information also on this slide, so please feel free to reach out to us. The report itself is quite large, so the one thing I want to say to you is that, we were only able to present a relatively important but small proportion of the overall report. As Dr. Goldsmith mentioned there were actually over 60 eligible articles and we focused on about a third of those as the most relevant to chronic pain.   
  
So Michael Castro has two questions that I’ll try to address relatively briefly. So first is about scope and you are correct. The scope was incredibly broad. So as an evidence synthesis project, it really looked at everything that dealt with barriers with the system, barriers for individual patients, providers all of those things that would affect whether you could have a service in the clinic and also whether patients or participants will be able to do these services or therapy. And then for studies that evaluated implementation effort, then those ones tended to be the ones that we also looked at whether the treatments were effective in that context in addition to any barriers. So it was incredibly broad, which was correct.   
  
But the next question is about, how many articles we started out with and how many we are basing our conclusions on. So I will say that the broad scope is why there were so many articles that were originally found by search, but it is very common to have search results because our search terms can only get so specific because of the limitations and classification of articles. And we always search with a goal of finding as many potentially relevant articles as possible. So we try not these two narrow of terms. It involves a lot of work in terms of determining what is relevant then, but I won’t tell you about that. But I will say that the number of studies itself is not indication of the limitation evidence. We do a lot of work to look at the studies, really do a systematic and rigorous data extraction method, as wealth the quality of the studies which we did not discuss in great detail today. That is where we rest the conclusions on.   
  
If you think about a clinical intervention like a medication, sometimes it only takes two or three very well-done large trials and that determines the state of that field. Like showing that \_\_\_\_\_ [00:59:51] prevents recurrence of heart attacks. You don’t need 20 well done studies. Sometimes you only need a couple at this point and probably did more than 20. And then of course, there were more articles in that original report. And then I just want to say I know we’re at the top of hour, so Lisa Glenn also had a question about treatment fidelity was determined.   
  
So those implementation studies, meaning that they made an effort to push out programs, had systematic ways of assessing clinician fidelity. Most often they involved recordings actually that the clinicians or providers needed to submit, and they were reviewed by experts. And they used different scales, which we have included in the full report if you are curious. A lot of those efforts were national VA efforts. And as you may know, some of those \_\_\_\_\_ [01:00:44] involved people who developed or were very key in rolling out these programs in VA. So that’s who was judging the clinician fidelity. Oh, there are more questions. I don’t Rob. Do you want me to continue or should we…oh, those are answers actually.

Rob: We can go over by a couple of minutes it’s okay.

Dr. Duan-Porter: Yes. Absolutely thank you for the excellent discussants. I’m reading Philip \_\_\_\_\_ [01:01:17]. Increasing uptake does not include access to care for veterans. So I would say that access is an issue may be in a broader community, but the VA has made a lot of efforts to have these therapies in clinics but what we’re seeing as we’re hearing is that the kind of demand and the uptake at the veteran level may be due to the lack of our efforts in actually communicating what is out there and why it’s beneficial. And also some of the barriers in terms of disincentives for people to use these treatment is limiting their use in the VA. I think I would agree with that. So in the VA I think we have these services often, but their use is not great. And of course…the studies we found, many of them did not directly address this in the VA study. They didn’t talk about this reach, the portion of actual…if veterans are using it and why not. I think those are all the questions. Thank you so much. Dr. Goldsmith, did you have any final words you wanted to share with everyone.

Dr. Goldsmith: Just many thanks to our discussants for offering much-needed perspective on next steps. And thanks for the opportunity to discuss today.

Rob: Well, thanks everybody. This has been a very interesting presentation. Attendees, thank you for sticking around. When I close the webinar momentarily, you’ll be presented with a short survey. Please do take a few moments and provide answer to his questions. We count on them to continue to bring high-quality interesting cyber seminars such as this one to you. And with that, I’ll just wish everyone a good day.