Cyberseminar Transcript

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Series: Spotlight on Pain Management

Session: Caring for post-combat Veterans at the WRIISC (War Related Illness & Injury Study Center): Recommendations for management of chronic pain

Presenter: John Wesson Ashford, MD; Jennifer Jennings; Louise Mahoney

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Dr. Robin Masheb: Good morning everyone. And welcome to today’s Cyberseminar. This is Dr. Robin Masheb, director of education at the PRIME Center of Innovation at VA Connecticut, and I will be hosting our monthly pain call entitled Spotlight on Pain Management.

I would like to introduce our presenters for today. We have three of them. Dr. Wesson Ashford who is the director of the War Related Illness and Injury Study Center at the VA Palo Alto Healthcare System and clinical professor and senior research scientist at Stanford University and the VA Aging Clinical Research and Alzheimer’s Centers. Dr. Ashford has led studies of the illnesses and injuries afflicting deployed Veterans, including studies of Gulf War Veterans, chronic pain, and traumatic brain injury. We also have Dr. Jennifer Jennings with us. She is a board certified neurosurgeon at VA Palo Alto and is a neuropsychiatry fellow at the War Related Illness and Injury Study Center. Dr. Jennings previously served as the chief of neurosurgery of the Syracuse VA and a clinical associate professor at SUNY Upstate. Her research interests are in pain and traumatic brain injury. Finally, we have with us Louise Mahoney, who founded and manages the WRIISC Yoga Wellness Program that provides yoga classes to Veterans at the VA Palo Alto Healthcare System. She is a co-investigator on a recently completed VA-DoD funded study to explore yoga as a treatment for chronic pain in Veterans from Operation Desert Storm, Desert Shield. Her interest is in contributing towards the evidence base for yoga as treatment in medical settings.

Our speakers will be speaking for approximately 45 minutes and will be taking your questions at the end of the talk. Please feel free to send them in using the question and answer panel on your screen. If anyone is interested in downloading the slides from today, please go to the reminder e-mail you received this morning, and you will be able to find the link to the presentation. Immediately following today’s session, you will receive a very brief feedback form. Please complete this as it is critically important to help us provide you with great programming. And also to help us with the discussion and questions that might be related to policy, we’ll have Dr. Bob Kerns on our call. And now I'd like to turn this over to our presenters.

Dr. John Wesson Ashford: Louise, your turn. All right, is Louise on? Anyway, this is . . .

Louise Mahoney: Yes.

Dr. John Wesson Ashford: . . . Dr. Wes Ashford. Go ahead, Louise.

Louise Mahoney: Hi, Wes. Do you want me to go to the next slide?

Dr. John Wesson Ashford: Yeah.

Louise Mahoney: Okay.

Dr. John Wesson Ashford: So we’re going to be talking about the caring of Veterans who have mostly been in combat situations and their difficulties with chronic pain. First a little bit about who we are. The Post-Deployment Health Services, that’s PDHS, is part of patient care services of VA, and one of the operations that Post-Deployment Health Services runs is the War Related Illness and Injury Study Center, which is a center at three different sites. One is East Orange, New Jersey, one in Washington, DC, and the other more recently formed here, more recently being 11 years ago at the Palo Alto VA.

The WRIISC is a national post-deployment health program. It was established by a public law in 1998. It was specifically pushed by the Gulf War Veterans originally, but after careful evaluation of the VA as a whole, the thought was there really needed to be more of a focus on the problems of Veterans who have been deployed to combat situations. And so now the WRIISC is part of Post-Deployment Health Services and provides post-deployment health expertise to Veterans and their healthcare providers. We have clinical programs. We have an educational program, which would include this and risk communication. And we also do research on the problems that are afflicting the post-deployment Veterans. Recently the Post-Deployment Health Service War Related Illness and Injury Study Center has been designated as a VA-delivered foundational service, meaning that we are going to be expanding this particular program to try and help all Veterans who have been deployed to combat and have problems which have been difficult to understand or manage. Next slide.

This is just what our catchment areas are so that the New Jersey WRIISC takes the patients basically from the Northern and Eastern part of the United States. The Washington, DC, WRIISC sees patients from all over the South. And basically somewhere west of the Mississippi River around where the Rockies are, we see patients from the Western part of the United States here. We specifically see patients who are referred to us through the interfacility consult mechanism, so if you have a problem with a patient, you can go to set up a consult, and if you type W-R-I, you’ll immediately have the WRIISC consult mechanism pop up. And depending on where you are, your consult will be directed to one of these three sites, and we can try to help with particular problems that Veterans might have that have not been easy to understand or have been presenting as problems. So next slide.

The basic WRIISC model is that research, education, and clinical care all go together, that all medical care, modern medical care, is all based on establishing research and developing knowledge. A large part of that is educating the providers who are taking care of the patients about what that knowledge is and try to address the gaps in knowledge and see how the patients' care can be improved, and then that comes down to clinical care. And we actually see patients here. We also make recommendations for patients who have been referred to us and try to improve the clinical care of the Veterans. So that’s what our mission is. Next slide.

These are the problems in the Veterans who we actually see here. And here is just a sampling, and this is rather typical as it has been for at least the last 11 years I’ve been involved with this program. So these are the patients who have been seen at the California WRIISC site since fiscal year 2017 to present and those who are scheduled, so that’s of 152 Veterans. And you can see on the left there that over 50% of the Veterans who come in here report chronic pain as one of their top three problems. Cognitive problems, GI problems, respiratory problems, neurologic problems, and fatigue. But you can see even headache, and 18% of the patients present that as one of the top three complaints they have. And not included in here are some other types of problems such as GI problems. So pain is definitely one of the things that we see in the majority of our Veterans. And if pain isn’t one of the top three complaints, it’s frequently one of the other complaints that they’ve had as well. So we deal with a great deal of pain in our Veterans. Next slide.

So just to get down to the actual clinical issues, Dr. Jennings is going to present one of the cases that we’ve had here.

Dr. Jennifer Jennings: Good morning. So I'm just going to present one of our kind of typical patients that we see here. The 57-year-old American Indian male Veteran. His service era was in the Persian Gulf War from January to October of 2006. His PCP referred the Vet for complaints of exposure to gases, chemicals, sandstorm affected throat, and having a cough and shortness of breath. The Veteran’s top three concerns were respiratory, the throat closure and breathing problems; pain, stabbing pains that travel all over his body; and neurological problems such as general weakness, heat dysregulation, lightheadedness, Sjogren’s syndrome. His weight when we saw him was 215 pounds, up from 189 pounds after return from Iraq, with a BMI of 29.23. Next slide please.

So prior to joining the military, this Veteran was in excellent health, but then he had been put on a tactical critical response unit, and he was an active shooter instructor prior to joining the military at age 37 and had no chronic pain problems at that time. He had no problems in Navy boot camp and no medical problems the entire time between 1996 and 2005 when he was in the Navy. And he was on shore patrol; he was never on a ship. However, when he was deployed to Iraq in 2006, he had two traumatic brain injuries. He fell inside his Humvee during explosion and hit the left side of his head, shoulder, and his knee, and another person fell on him. He also fell out of a lower bunk after an explosion and hit his head on the cement, injured shoulder again and hip. And although he reports no loss of consciousness, he claims 24 hours of posttraumatic amnesia. He also had pneumonia in Iraq and was on light duty for about 10 days. And toward the end of the tour, he started developing a cough, possibly related to flying over areas of oil well fires. Since returning to the U.S., leaving the military immediately on return in October of 2006, his cough has gotten progressively worse. Intermittently he starts coughing. It’s a problem every day, usually several times, and he also gets laryngospasm and has difficulty breathing. He uses inhalers on occasion and has a nebulizer with albuterol. So next slide please.

So in an effort to characterize the pain unique to these particular Veterans, Dr. Ashford and the California WRIISC have devised a pain scale, which you can see on the slide here, which is more specific to these patients. And unlike the fibromyalgia scale or the Visual Analogue Scale, it lets the Veteran really specify the severity and the location of the pain that they have. Next slide please.

So in this particular patient, specific location and pain levels that were greater than 5, and most of these were due to the injuries mentioned before, were extreme shoulder pain on the left. And he had had surgery with impingement. Same with his right shoulder. He had moderate left upper arm pain, severe right lower arm pain, and moderate left upper leg, severe right hip, moderate right upper leg, moderate right lower leg, severe upper back or thoracic spine pain, and also complained of headaches. And remember he did have two traumatic brain injuries. Next slide please.

So the majority of our patients such as the one described previously have widespread joint pain or pain from injuries, but of interest is that the severe pain that most of our Veterans complain of is actually headache and back pain. In fact, axial skeletal pain is the primary severe complaint, which kind of leads into Louise’s presentation at the end of ours on yoga and why that’s a great interest to a lot of our Veterans. And next slide please.

So in order to start to use the scale universally, we are working on validating our pain matrix with respect to the accepted fibromyalgia scale. And we’ve done some initial statistical correlations which are promising, and we’re working on a paper at the moment. And I think Dr. Ashford is going to talk about chronic pain next.

Dr. John Wesson Ashford: Thank you very much, Dr. Jennings. So I mean just from looking at this slide before we go to the next one, the idea is that the fibromyalgia scale asks if you had pain of greater than a week in any particular region for the last three months. And we just felt that it doesn’t really capture the severity of the pain that people have in different regions. And so that’s why we developed this scale, the idea being that you can’t treat what you can’t measure. And I think the better job we can do of measuring the pain that Veterans have, the more we can then focus in on the pains that they’re having and help them with those things. So I would say that the first part of managing pain really is to understand what the pain problems are, being able to assess them as precisely as possible, see where they are, and then try to determine what the cause it, and then see if there is some way that understanding that cause can then lead to the next step. Of course there’s many different causes of pain, but usually it’s been traumatic pain in many of our Veterans. Although I will just say a little vignette that our Marines come in complaining of pain. In boot camp they put a hundred-pound backpack on them, make them run 10 miles and then walk 20, and then they come in complaining of pain in their ankles, their knees, in their hips, their shoulders, and their back. And it’s like, well, I get it. You really stressed your body, and there’s this overuse problem. You have chronic pain. Now the question is how we can help you manage that. And that’s what then we’ll talk about next. So next slide, Louise.

Pain is such a huge problem, and I don’t even have several slides to talk about how the narcotic use that has become rampant in our country is the leading cause of death now between the ages of 15 and 54 years old. It used to be motor vehicle accidents, followed by suicide and homicide, but now it’s become overuse of medications, particularly pain medications and particularly narcotics. And pain is a very significant national health issue, and our focus on this is entirely appropriate. The Institute of Medicine’s report in 2011, the total annual financial cost to the United States just due to pain accounted for $560 billion. That’s more than cancer, heart disease, diabetes combined, well more than Alzheimer’s disease. Chronic pain is one of the most frequently reported symptoms of Veterans, as we’ve shown you, returning from combat. As high as 19.2% of Veterans are complaining of chronic pain when they have come back from combat. And this is high compared with the prevalence of fibromyalgia in the general population, which is only about 2.1%. Next slide please.

So what causes chronic pain? So osteoarthritis, and this is particularly common due to overuse in our Veterans, ankle, knee, hip, back, shoulder pains. Headaches are very common, particularly after traumatic brain injury that we see. We get many patients complaining of migraines, and differentiating this from posttraumatic headaches is quite difficult because they are quite similar. A great deal of back pain we see. Back pain is one of the more common problems with mankind in any case, and we see it particularly with people who have been lifting heavy weights. I sometimes tease the Veterans. I say, well, when you went over to combat, did OSHA go with you, and they usually say no, they didn’t. And so OSHA would not let them lift more than, say, 50 pounds. And these Veterans, I had one Veteran recently come in saying he had 200-pound rucksack he was carrying everywhere with him, and the guy only weighed 150. So this is back pain we see.

Fibromyalgia is frequently diagnosed. There are specific criteria for fibromyalgia. The actual literal definition of fibromyalgia is muscle fiber pain, but when we see these Veterans from the Gulf War, it’s almost always joint pain that we’re seeing. There’s possible nerve damage from a variety of different toxins they’re exposed to, neuropathies. Many of the post-deployment cases it’s really quite unclear what’s causing these problems, particularly in the Gulf War Illness Veterans that have chronic pain. And the question is whether or not there’s some neuropathy due to some toxin they were exposed to. Some think it might be related to sarin nerve gas, others to pyridostigmine bromide tablets, or there could have been numerous other infectious factors that they could have been exposed to that would lead to some sort of chronic neuropathy leading to the chronic pains that they have.

We see a lot of irritable bowel syndrome, could be closely related to disruption of the autonomic nervous system. And we, of course, see many of these Veterans have injuries that have long since healed but are still providing residual pain. Next slide.

So chronic pain syndromes, and this isn’t to get too down deep in the weeds, but chronic regional pain syndrome is one of the diagnoses that we get. Reflex sympathetic dystrophy or causalgias, which is very much related to sympathetic nerve disruption, chronic pervasive pain syndromes. Some thought that after they have been exposed to things, it’s really not until they come back many times that the pains really even start developing, so this would be a tardive problem, tardive dysautonomia potentially. Next slide.

So basically when we’re trying to manage these pain problems, the first thing that we believe, our basic mantras, avoid narcotics, avoid tranquilizers, avoid central anticholinergic side effect drugs. There has been consideration even of using opioid blocking agents such as naltrexone, but one of the primary goals that we have to try treat these patients is not to get them addicted to narcotics and use narcotics only for acute pain. And really, long-term use of narcotics, if anything in our experience, seems to make the pains get progressively worse over time.

I think that antidepressant medications can be used. Those with anti-pain effects are mostly the drugs that have more of an effect on the norepinephrine system rather than serotonin system, so SNRIs as opposed to SSRIs. There are drugs with anticholinergic side effects such as nortriptyline and doxepin that can be very helpful and even stabilize the GI symptoms, but generally they can cause things like dry mouth and constipation and memory impairment. So the drugs without anticholinergic side effects are duloxetine and bupropion, and of course bupropion is particularly good if you’re trying to get them off smoking. It’s Wellbutrin. So anticonvulsant medications are also recommended frequently. Gabapentin which I don’t find quite so useful, but pregabalin I found a little more useful in the patients chronically. And that is a drug that is recommended for fibromyalgia, but probably similar underlying pain mechanisms regardless with respect to the muscles or the joints.

And there are numerous adrenergic agents, alpha and beta, that can be used for sleeping problems, which we see, and many of them, things like doxepin, are particularly good to help people sleep, as is melatonin. So next slide.

Really the issue when trying to manage chronic pain is you want to think about the long-term effects of any medication and how are you going to actually improve them over time. And so medications probably are, you’d rather avoid them if you can. If the pain is severe, then you go to medications, but we try to think about what are the non-pharmacologic treatments. And we very much are interested in trying to push exercise, low-impact exercise, non-exhausting exercise. But I think one of the things about exercise, it needs to be built up slowly, which is basically graded, gradually increasing exercise, even if you just start by increasing your exercise program by a minute or half a minute per day over a period of time and trying to increase it to the point that it’s tolerated. Swimming is particularly good. I've been trying to see whether or not we can Veterans interested in Masters Swimming Programs, and that’s something that we’re interested in developing more because pushing the limits of the ability to swim, there’s a major teaching adults to swim part of Masters Swimming at www.usms.org. So it’s a particularly good exercise, but there are many low-impact aerobic exercises.

Elliptical exercise machines are good, so they’re nonimpact. Stretching and resistance routines such Pilates. And then there’s a whole area of complementary and integrative medicine. And there are several excellent modalities that I think need to be looked at more carefully such as yoga and Tai Chi and massage therapy. And a lot of these are stretching exercises and back exercises, I think are really something that really needs to be emphasized in individuals who have chronic pain. Acupuncture is something that’s good, too, but there’s been difficulties getting acupuncture within the VA. And then the question about is it really just working through specific things, mechanisms that may not lead to long-term improvement. Next slide.

One of the things we have tried is repetitive transcranial magnetic stimulation. It’s a noninvasive brain stimulation mechanism that’s being used progressively more for chronic pain problems. The patients are awake. At this time, it takes about 20 minutes for a session, but there are some theta-burst routines that are being developed where the sessions may actually only take about six minutes. RTMS is an FDA approved treatment for depression, focusing on the left prefrontal cortex. And the question about whether or not motor cortex or frontal cortex is more important, we’re actively investigating that question. Next slide.

Just to show that there have been studies of repetitive transcranial magnetic stimulation in fibromyalgia patients showing that it does benefit patients. This is a study of left prefrontal cortex stimulation from Short, et al., in 2011.

And the next slide shows another evaluation that was done over a course of 25 weeks showing this had benefit for chronic pain. And the question is why is this beneficial for chronic pain? Does it reduce the pain and then allow people to then exercise more and then that decreases the pain chronically? But when dealing with chronic pain, the real issue really is to help the patients over a long period of time. Next slide.

So with all of these different modalities, we then recommend a variety of complementary and integrative medicine approaches. And Ms. Mahoney is going to talk about use of yoga for chronic pain.

Louise Mahoney: Well, thank you. Thank you for your attention. I’m going to start with what is yoga? Yoga, we all think of it as a mind-body practice, but yoga is also a complete holistic system for self-care and healing. And while it is a mind-body practice, working the mind and the body at the same time, the main purpose of yoga is to reduce suffering. The yoga that we see today was based on the Yoga Sutras of Patanjali, and he was believed to be somewhere around the two to three hundred BCE, and it’s basically a short little book of 195 aphorisms that are just chock-full of wisdom that provides the definition, the problem, and the solution to the problem. People study the sutras for years to try to decipher it. But at the heart of yoga as a treatment is its ability to draw on each individual’s innate capacity for self-regulation and for healing. Yoga enhances awareness of habits that can lead to suffering. So these are habits such as poor posture, shallow breathing, repetitive stress, and yoga helps to replace these habits that lead to suffering with habits that enhance health. So even a simple habit of remembering to lengthen the breath can have a positive impact on someone’s health.

In the yoga classes that we provide at the VA Palo Alto, we provide a very adaptive form of yoga. We use chairs. We use blocks. We use blankets. We use straps, walls, anything available to allow the Veterans to explore the use of yoga postures in the most comfortable way possible.

So we evaluate our program periodically, and I'm going to report on the last program evaluation that we conducted. So periodically we ask Veterans to complete a yoga satisfaction questionnaire, which is a 20-question anonymous survey, and the questions are related. We ask what their gender is. We ask their combat era. We ask about the quality of the teacher, the quality of the classroom, their past and present yoga usage, how many yoga classes they’ve taken, do they take class outside of the VA. We ask why they joined yoga, and we ask them if they’ve had any symptom improvement. And along with that, we have a 16-item matrix that has a number of different symptoms.

So we collected this satisfaction questionnaire during a two-week period back in 2015, and we collected this information from Veterans who come to the drop-in yoga classes that are held at the VA Palo Alto, from the classes that are provided from the CBOCs and Telehealth. And then we also collected it from the Veterans who attend yoga while in special inpatient mental health programs. We kind of put all of those together. So this isn’t a research study; it’s a program evaluation. And we collected questionnaires from 64 Veterans; 73% were male, 23% were female. And most were Vietnam era Veterans. We had a few younger Veterans and also even Korean War Veterans.

And this was published and you can find the publication. This is the report of the mean symptom improvement. So you’re taking the highs and the lows, and you’re finding the mean. And the blue bars represent those who had yoga in person, and the red bars represent those who took their yoga classes through the Telehealth program. And as you can see, there were really no significant differences in symptom improvement between the in-person classes and the yoga classes. So the scale is, I'm sorry that the mean improvement, the legend goes over the numbers, but 4.0 is about the highest that we saw, a little bit over the highest in the mean, but that means that they had some improvement in symptoms.

Now I wanted to look at this information in a different way, so we calculated the percentage of the Veterans who filled out the questionnaires who endorsed each symptom. And they had to, yeah, so they had to say that they had each symptom, and so that’s in the second column. So other pain in muscles, joints, and bones, 83% of the Veterans endorsed that they had that. Back pain was 67% endorsed that they had that symptom. And the energy level was just how we wrote it, but I would imagine that we could relate that to fatigue, so Veterans do report a lot of fatigue, and 72% of the Veterans reported a decrease in energy level. So pain was our most highly reported symptom. For those who reported pain, 85% either had some or complete improvement. For those who reported energy level, 83% reported some or complete improvement. So basically we only included those who reported either, who entered either a four or a five, either somewhat improved or completely improved, and that’s what we are showing here.

So symptom improvements in energy, depression, and concentration are also noteworthy because then the Hague [phonetic] survey that was, the last Hague survey that was done, only 32% of its VAs provided yoga for chronic fatigue, so we need to rethink the reasons that we offer yoga and think about those people who are experiencing fatigue might benefit from yoga.

One important note is that the yoga classes are taught by several different teachers, and the classes are not designed to target specific symptoms. They’re not designed specifically for pain, and yet yoga seems to help with a broad array of symptoms. And I think that we ought to consider yoga for the newly, I guess, named chronic multisymptom disorder that a lot of Veterans suffer with, particularly the Veterans of the Gulf War.

Another interesting fact is that 17% of Veterans endorsed other symptoms and 73% reported some or complete relief. And actually when I looked at the data more closely, it turned out that 55% reported complete symptom relief. So I'm really dying to find out what that other symptom was, and I hope to modify the questionnaires to encourage the Veterans to write it down. There is a place for them to write down what that symptom is, but they don’t seem to do that. So I want to know what is responding completely to yoga or what symptom responds to yoga.

So the other thing, we know that yoga helped, and we know that Veterans are referred to yoga very frequently, but they’re just not showing up. In our program, only about 35 to 40% of Veterans who are referred to yoga ever show up for their first yoga class. So we wanted to figure out what’s going on. We felt, well, maybe if we reached out to them and provided some assessments or questionnaires, they might be encouraged to attend. So we chose a particular start time, and from that start time, I actually had a volunteer do this, they called every Veteran that was referred to yoga, and we asked them to complete a couple of assessment forms. One was the Measure Yourself Medical Outcome Profile, which is very short profile. It’s meant to be provided by a clinician. It’s not a self-report. And they list their top symptoms, what they would like to improve. They also list an activity that they like to do and how their symptom impairs that activity. And we wanted to measure whether they, after, and they also they did the PROMIS-29 form. And so we wanted to find out if they attend, does calling them on the phone help them attend more frequently, and does yoga help with their self-reported symptoms.

And so this is the results for that. We actually had a total of, during this time period, a total of 311 referrals. And out of those 311, we were only able to reach 115 by phone. So this is the, the top table represents those who are referred, their age, their gender, and their age range. And then the left column represents their top reported symptom, so you can see that low back pain was the top symptom, and other chronic pain was the next mostly reported symptom. Stress and anxiety was 14, a number of 14 reported that, and then sleep. And then we also compared that to why the provider referred them. So the highest reason for providers to refer their patients to yoga is stress and anxiety. And I think that in society, I think yoga is thought to be more of a stress-reduction modality rather than a pain-reduction modality, although there’s been several very good published studies using yoga for chronic low back pain. But if you notice that only 18 were referred for low back and neck pain by providers, where 44 reported that they had that pain. So we’ll go on to the next slide.

So of the 115 that we were able to reach, only 11 actually attended yoga and completed their follow-up questionnaires. So we looked for symptom improvement for symptom one and two, improvement in the ability to do the activity that was important to them, improvement in a general feeling of well-being. And the scale for this one is zero to six, from zero being as good as it could be and six is as bad as it possibly could be. So basically 45% reported that their symptom one improved, 75% reported that their symptom two improved, but 100% reported that they were able, that yoga helped them do the activity that was important to them. And 36 reported an improvement in their sense of well-being, 27 reported that their sense of well-being got worse, and 36 no change.

So I think we are, I guess the take-home from this is that thinking about, sometimes we have to come up with a measurement tool that is appropriate for yoga. The one thing that we do know and that I hear all the time as a provider of yoga in the VA is what people can do since they have started yoga. One Veteran with shoulder problem told me that he can now put his hand in his back pocket, which he has not been able to do for seven years. Other people have reported that they were working in their garage, and six hours went by, and they have never been able to putter around in their garage for that long, but what they learned in yoga helps them. And I think some of it is also the postural awareness. And the stretching helps too. But that’s all I have to say. I think we’re going to have plenty of time for questions.

I just want to, this is our team that works with the WRIISC and at the Palo Alto VA, and I will turn it back over to Wes.

Dr. John Wesson Ashford: Thank you so much for that, Louise. And this I hope has given the audience a good feeling for what we’ve done in terms of trying to address pain. Clearly the anesthesiologists and the neurologists and many other disciplines have addressed pain using many different modalities and injections and things, and there’s many other ways to manage pain. But the question is really managing chronic pain and the difficulties that we have with it.

I did want to address one question that had come up from the audience, and I really appreciate this question being brought up, is we’re trying to develop a better pain scale. The reason that we developed the pain scale is that we were working with repetitive transcranial magnetic stimulation and trying to measure people’s pain. And we had the Brief Pain Inventory that would say, well, how much pain have you had in the last 24 hours? What’s your worst pain been on a zero to 10 scale or what’s your least pain been? And while we had a lot people saying that their pain was better, it wasn’t being well characterized by the numbers that we were getting. And we also got this complaint about, well, my pain is between a three and a four. Well, which is it? Is it a three or a four. And then sometimes the researchers would put in three and a half, and what were we supposed to do with that? And there has been some research on looking at a comparison of an analogue scale where you have like a 10-centimeter line, so you can really measure where a person sort of throws a dart at the line versus a number, and it turned out that actually asking people numbers provides a much more reliable measure of what their pain is from time to time.

So that was why we developed the pain matrix, so we could really get a handle on what the different areas were that different people were having. I think that it’s diagnostically helpful to see exactly where their pain is. And it gets the patients away from saying, well, I just have pain overall without thinking about, well, where are the pains and how can we address them specifically and help work with them. The question about does asking people more specifically about their pains medicalize it? And it seems to me that the patients that we’ve dealt with, and we followed several of our patients up with phone calls and seeing them occasionally in person over six months or a year or two years, that once they start having an idea about what their pain is and they can sort of conceptualize it more clearly, it gives them something they can focus on and work on. And I believe that overall a digital pain matrix has actually helped patients improve.

The patients definitely feel like their pain, that they’ve been heard, that there has been attention paid to their pain, and that it’s not just being sort of blown off as, well, okay, you just have chronic pain and it’s at this level. They really feel like they’ve been able to focus on what it is. And I think that even if you’re talking about the holistic approach to pain management, that everybody has a complex life, and I think that everybody at some point needs to focus a little bit more on their specific problems to work on them successfully.

But anyway, that is the major thing that we had to present today, and let me open it up to any other discussion that we would like to have on those issues.

Dr. Robin Masheb: Thank you to all the presenters. This was really wonderful. And thank you Dr. Ashford for taking on the first question that we had to tackle here, which I thought was a really interesting one. I was also curious, Bob Kerns is on the line, if he had any thoughts about this focusing specifically on specific pain sites versus the holistic approach to pain. I really like Dr. Ashford’s explanation of how they’ve used the pain matrix to be helpful. But I'm just curious about whether there’s other information out there in the literature on this topic.

Dr. Bob Kerns: So I think there are people in both camps as Dennis Turk often, can you hear me okay?

Dr. Robin Masheb: Yes, I can hear you great.

Dr. Bob Kerns: Yeah, Dennis Turk, one of our leaders in our field, has made a big point as thinking about differentiating people who are naturally, their natural tendency is to be lumpers versus splitters. Right? And I think in terms of the treatment of pain, of course there are treatments that are specific to certain kinds of conditions and would be inappropriately applied to others. In the area of complementary-integrative health approaches, including for example what was mentioned, yoga, there certainly is a view, I think, represented by the presenters today that this is reasonably applied to people more broadly, not just around pain but wellness more generally I guess.

Having said that, some would, I think, suggest though, that if you don’t pay attention to more specific conditions or at least differentiate, for example, pain that is primarily neuropathic in nature versus musculoskeletal in nature, that that may compromise the demonstrations of effects. And I think others might even break that down a little bit more. I think it was mentioned about differentiating chronic widespread pain, which is oftentimes an experience of people with, or Veterans with musculoskeletal injuries that seem to be pain presenting in more joints than muscles. I don’t know if that is exactly what was said, but something like that, versus fibromyalgia which is known to be more a problem with muscle pain, widespread muscle pain or diffuse muscle pain. And I think so people have in fact, I think, studied more specific conditions like low back pain or other kinds of specific sites of pain, maybe not with yoga but with other kinds of approaches in particular. And so I think this is an open question. But I was compelled by the presentation today about the historical roots of yoga, for example, and as a more general kind of way of being. And so I don’t know if the presenters have some more comments about that.

Dr. John Wesson Ashford: Okay, well . . .

Louise Mahoney: This is Louise, oh.

Dr. John Wesson Ashford: Go on, Louise, go on.

Louise Mahoney: I was just going to say that when you, I’ve been studying more deeply about the roots of yoga and the models of yoga for healing, and there is a model that really almost item for item represents the whole health model that the VA is now introducing into some pilot sites. So it’s very interesting to see that that stems with an ancient practice that’s very similar to the whole health model. Just wanted to throw that out there.

Dr. John Wesson Ashford: Well, let me just say from the medical model, usually is first you understand, then you diagnose, and then you treat. And there is an interesting vignette I can tell you about about two Marines that I had here recently, Veterans, who were both in Operation Desert Shield and Desert Storm, were both deployed to the Gulf at almost the exact same time. And one was in the First Marine Division, one was in the Second Marine Division. And the one who was in the First Marine Division, which went up more to the west, up a little closer to Iraq when they invaded Iraq and Kuwait in late February of 1991. The one who was on the west, up closer to where there was the sarin nerve gas plume, for example, and maybe a little farther into the actual country of the Persian Gulf there. When he came back, he developed this sort of chronic pain syndrome and sort of all-over pain, but mostly in joints still, but very similar to what we see in many Veterans of the first Gulf War. And when it’s accompanied by a variety of other symptoms, including irritable bowel syndrome and chronic fatigue, we identify this as, we use the common term Gulf War illness, although it is really not a very well-defined term.

The other Marine had been far to the east with the Second Marine Division, had actually not gone anywhere near Iraq, was really just around Kuwait and gone up through the, right along the coast and had gone into the airport there. And all of these are part of the stories and what I hear from these Operation Desert Shield, Desert Storm Veterans. And he had had more specific traumas to his shoulders and his back. And I think even had a bulging, partially herniated disc problem. And he had just as much pain as the other Veteran had, but it was a totally different character pain. And perhaps it was because he wasn’t exposed to the same toxicants, although they did get exposed to more oil well fire smoke when they were out on the east side there.

So these two Veterans, similar age, both Marines, both had had the same training. One had sort of this chronic widespread diffuse pain; the other had this more specific pain. And those are the types of Veterans we have to treat. And in any case, trying to then go through and say, well, exactly what is your pain like and understanding the characterization of the pain I think is a helpful first step to sort of say, okay, well you have widespread chronic pain, and we don’t know what it’s due to. You don’t have a specific osteoarthritis site that we can say this is what might be going on with you, while the other Veteran certainly did.

And then we tailored the treatment. And I would say that the treatments weren’t really spectacularly different from each other because in both cases we would recommend similar medications and we would recommend nonimpact exercises, and we would recommend things like yoga. So I don’t know if the treatment ends up becoming that different, but certainly we do take into account what the different types of problems are that they have and then try to help them to come to terms with them. In any case, if one pain is neuropathic and the other pain is osteoarthritic, then you have different mechanisms at play. And we don’t recommend long-term use of acetaminophen, Tylenol, because of the liver problems. And the problems with nonsteroidal anti-inflammatory drugs can damage the kidneys and lead to stomach ulcers, a variety of things. So we don’t recommend that these things be used chronically. Certainly for acute purposes, absolutely. But chronically the question is how we can help them manage their pain chronically without medications.

And a lot of pain is related to perceptions of, and chemical, neurochemical mechanisms actually happening in the brainstem. And the thought is that things like yoga and mindfulness can help control the pain pathways coming up to the brain and the actual sensations. But in any case, we want the person to be able to understand their pain. We do not want the continued use like through impact exercises to make pain worse. We don’t want the osteoarthritis to get worse. If there’s a neuropathic component of it, then the question is how can the brain help control itself to keep that neuropathic component under control. Sometimes anticonvulsant medications are even used. And I mentioned pregabalin and the selective norepinephrine reuptake inhibitor, SNRI, antidepressants. We want them to be able to figure out how to keep that pain managed so they can go about living their daily functional lives. And if it’s osteoarthritic, we want them to be able to exercise their joints to optimize their long-term function of those joints. So we think about the pains differently depending on what the causes are and where the locations are. But in any case, we have to help the Veterans, have to help anybody who has chronic pain to be more functional long term. Life expectancy is going up. We want people to have good lives. So, anyway, [unintelligible 51:45].

Dr. Robin Masheb: Thank you. So I want to turn the discussion back to the yoga because we have a lot of questions about that. I'll just kind of put them together, and maybe you can respond. We had a question about whether you know anything about the differences between Veterans who choose the yoga versus those who choose not to do it. And in your either clinical experience or what’s coming out of the research literature, can you say anything about are they finding a specific type of yoga or type-specific poses that are most effective or things that aren’t effective in terms of poses? And let me see if there’s anything else I can put together in that same kind of bucket of questions. Oh, could you describe what your general yoga class is like, what a session is like, how long they are, how many sessions you offer, anything about the intensity?

Louise Mahoney: Certainly. That’s a lot of questions. In terms of the differences between the Veterans that attend and don’t attend, I would actually love to study that as a research question, and we’re working on that now. I think it’s an education issue. I think it’s probably that people only know about yoga what they see on the covers of magazines, that they get very bendy. Some people say I’m not flexible enough to do yoga, but they don’t realize that you don’t need to be flexible to start to do yoga, and yoga will help with flexibility. But that’s not really the point of yoga. So that is something that I really would like to look into and develop better educational tools so that Veterans aren’t scared to start yoga and to defray any of their apprehensions.

What was the next question? About the styles and the postures. We have not analyzed the data. We’ve actually completed a 10-week trial of yoga for chronic pain that had a very specific protocol, yoga protocol. I can’t say too much about that until it’s completed and published, but we typically use a combination of breath work, so controlled breathing exercises, some exercises, yoga practices that are called Kriyas or cleansing practices. We use the postures. We use forms of meditation. And the only difference, the main difference is we do not, in VA Palo Alto we do not do what would be called vinyasa yoga in the community. We don’t go up and down from the floor, so we will, in chair yoga we do seated postures. We do the breathing seated. Most people in the West are not comfortable sitting on the floor with their legs crossed. That would be a very uncomfortable position from which to meditate or read. So we start class often by sitting in a chair, and because we use conference rooms, we typically have chairs available. Then we do standing postures, and we also get down to the floor and do some postures. There’s a lot of excellent practices that are very similar to what you might be provided in physical therapy that can help with low back pain, and we offer those during yoga classes. So I imagine that physical therapy developed from the yoga practices and also Pilates. In the West, Pilates and yoga developed around the same time frame, around the turn of the 19th, the 20th century, so the late 1800s, early 1900s, so there’s a lot of overlap between yoga and Pilates postures.

Dr. John Wesson Ashford: Okay, Louise, I'd like to interrupt here . . .

Louise Mahoney: Yes.

Dr. John Wesson Ashford: . . . because we’re about out of time.

Louise Mahoney: Yes.

Dr. John Wesson Ashford: And I want to make one last comment that I think with all this interest in yoga, perhaps there needs to be another Cyberseminar on yoga. In fact, I think one of the issues is pain is probably far and away the main reason that people go to see the doctor, but the question is following up on the doctor’s recommendations. Recommendations for exercise and yoga, as you can see, are not among the high recommendations that are followed by the patients. They would much rather have a pill and go home and be done with their problem. So getting people to actually participate and exercise in the yoga programs, I think, is an extraordinarily important issue for everybody, not just Veterans. But anyway, I want to thank everybody for their attention to this extremely important problem. And I hope you will forgive us if we didn’t answer all issues and questions. We’re certainly trying our best. Let me turn it back over to the organizers.

Dr. Robin Masheb: Thank you. These were great presentations, and the discussion was really interesting. And thank you for the last comment because we did have a question from somebody, which is if yoga is working, why aren’t we doing more? What should we be doing more to kind of get the word out and get more people engaged in the Veterans Health Administration? So thank you for that.

Just one more reminder to hold on for another minute or two for the feedback form. If anyone is interested in downloading the PowerPoint slides from today, please go to the reminder e‑mail you received this morning, and you will find the link to the presentation. If you’re interested in downloading slides from any of our past sessions, simply do an Internet search on VA Cyberseminars archive, and you can use the filters to find our previous seminars.

You’ll be receiving an e-mail with your certificate of attendance from today’s session. And just to let everybody know, we’re going to be on break now for the summer, but the Spotlight on Pain Management seminar series will be returning in the fall on Tuesday, September 4th, with Dr. Evan Carey who has been a previous speaker and always does a great presentation. We don’t have the specific title yet, but that will be coming, and you’ll receive registration information around the 15th of August.

I want to thank everybody for attending today’s HSR&D Cyberseminar and for making the 2017/2018 academic year a great one for Spotlight on Pain Management. And we hope that you will join us again in the future. Thank you everybody.

[ END OF AUDIO ]