

The Intersection of Opioid Abuse, Overdose, and Suicide: The Role of Chronic Pain

Webinar Series: The Intersection of Opioid Abuse, Overdose, and Suicide

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[Gisela Rots]: Good afternoon, everyone, and welcome to our webinar this afternoon on *The Intersection of Opioid Abuse, Overdose, and Suicide* and specifically, *The Role of Chronic Pain*. Thank you all so much for joining us today. We're really grateful you are all here with us. I see a couple of questions coming around what questions folks have and would like to have answered today. The working definition of chronic pain and public health. It's a big one, right? Why are chronic pain patients blamed for opioid abuse for the general public? These are great questions. Seeing them fly in; this is wonderful. So, we are going to be addressing a lot of these questions today, some directly, some indirectly, but we will try to make sure we get to weave those in and out and I am actually going to hand it over to James Wright from the Suicide Branch at SAMHSA, James.

[James Wright]: Great! Thank you. And again, hello everyone. My name is James Wright and I work in the Suicide Prevention Branch in the Center for Mental Health Services at SAMHSA. I'm a public health advisor and a grant project officer for several of our suicide prevention programs including the Suicide Prevention and Resource Center and the National Suicide Prevention Lifeline.

I would like on behalf of SAMHSA to welcome everyone to this second webinar in a series supported by SAMHSA and hosted by two of our technical assistance centers, the Suicide Prevention Resource Center and the Center for the Application of Prevention Technologies or CAPT. I also want to thank

both of them for the work they have done on this webinar series. This one, in particular, will focus on opioid abuse, overdose, and suicide and how they are impacted by chronic pain.

I want to briefly give a disclaimer that for everyone participating on today's webinar, the views that we express in this training do not necessarily reflect those of SAMHSA or HHS.

And two of our facilitators today, well, I will be one and I think we are having technical difficulties with Jon Dunbar-Cooper, but who has done work helping us put this webinar together. And I believe I am turning it over to Gisela.

[Gisela Rots]: Thank you so much, James, and welcome everyone. Again, grateful to have you all here. I would like to introduce my esteemed co-presenters today. First, we've got Dr. Lisham Ashrafioun. He is the senior instructor at the Department of Psychiatry at the University of Rochester and a researcher at the Veteran's Administration Center of Excellence for Suicide Prevention and at the Canandaigua Veteran's Medical Center. His current work focuses on developing, enhancing, and increasing the uptake of non-pharmacological approaches to pain management to improve overall functioning and mitigate suicide risk and other adverse outcomes. We're really grateful to Li for joining us today.

We also have Dr. Paul Arnstein, who for more than thirty years has helped thousands of patients in pain. He's the director of the Massachusetts General Hospital Cares about Pain Relief at the Massachusetts General Hospital. He works with professionals and policymakers to ensure that no patient lives or dies with needless pain due to unrealistic fears and mistaken beliefs and I think you'll see both Paul and Li's expertise being really applied today as we talk about chronic pain patients.

And then there's me. I'm Gisela Rots. I'm the Coordinator for the CAPT's Northeast Resource Team. I'm responsible for managing and supervising the delivery of training and technical assistance to the eleven states here in the Northeast Region. I've got extensive experience providing support to community coalitions and developing cross-sector partnerships and I'm really very lucky to be here with you all today and to be presenting with both Paul and Li.

In terms of objectives for today, we're going to first take a step back and summarize a little bit from our first webinar, but then we'll be jumping in and talking about shared characteristics among people with chronic pain, and we'll be talking a lot about the factors that place people with chronic pain at an increased risk for opioid abuse, overdose, and suicide—so really looking at those intersections. We will be spending a little bit of time talking about strategies that can mitigate that risk of opioid abuse, overdose, and suicide and we'll be thinking about how we as prevention practitioners can think about how that relates to some of the other work that we're doing in the fields and really improve the coordination of those efforts to prevent suicide and opioid abuse

among people with chronic pain. It is a lot for today. So I'll just warn you we've got a lot on the agenda, a lot on the docket, but we will be doing our best to get this information to you in a way that is digestible.

So with that, I'm going to do a little bit of a recap from our last webinar. So, in our last webinar on *The Intersection of Opioid Abuse and Misuse and Suicidality*, we discussed data sources for opioids and suicide, talked about community readiness, and identified factors for both suicide abuse and overdose, and suicide itself, and looked at them together. What you see on your screen now is those shared factors, that intersection that we identified—the physical health problems, behavioral health problems, trauma and adverse childhood experiences, as well as social isolation and we're going to unpack the physical health problems in the context of chronic pain today. And I think what you'll see is that there's a lot of overlap, which I'm sure will not be a big surprise to many of you.

I also just before we launch into this, want to remind us all that opioids, when they are prescribed appropriately, are an incredibly important tool to treat among other things, chronic pain itself. And obviously, we need to be thinking about responsible prescribing, but we shouldn't be thinking about no prescribing per se, right? So we really want to make sure we're not making the appropriate prescribing of opioids the bad guy here. It's an important tool in a pain manager's toolbox. It isn't the only tool and we'll be talking a little bit more about that today as well.

So that was a quick and dirty introduction, but hopefully we've gotten oriented and we're all on the same page about where we're going today. So to start us off, let's take a step back and think about what chronic pain is, the theories, some of the demographics and treatments that are available and I am going to hand it over to Paul to do that.

[Paul Arnstein]: Thank you very much, Gisela. Severe persistent pain sends ripples throughout the nervous system, invading a person's whole life, their personality, their relationship with the world. It even affects others who are close to the person who is suffering.

There are a number of theories on pain and I think that the Biopsychosocial Model is one that resonates the most. In recent decades, we've tended to focus more on the biological aspects of pain, where we would evaluate and treat patients based on the location, the intensity, the character and type of pain, and the modifiers in terms of what makes it better, what makes it worse, and what the patient seems to respond to.

However, in addition to these biological factors, we know that there are thoughts and emotions and values and motivations and stressors in the person's life and supports that help buffer those stressors that are important. So the whole psychosocial component, in terms of whether the relationships and environment are supportive or abusive, the impact the pain has on daily living, including their ability to work or fulfill important role obligations that shape the experience.

And even if you look beyond the Biopsychosocial Model to consider what some people call the spiritual components of a person's life, the pain may make the hopes, dreams, and goals of the person unrealistic and this, and related losses that they experience, such as the inability to participate in important routines and rituals, may produce considerable existential distress. Their religious or other spiritual ways of connecting with others and with their environment can all be affected.

One theory of pain that I've written about is looking at the Gain Control Model of pain—that there's not just one thing that affects the experience of pain, but actually there are things that we can call amplifiers of pain—things that seem to turn up the signal intensity and increases the perceived amount of pain and how it interferes with biopsychosocial functioning, healing, and the ability to enjoy life. And in contrast to that, there are also dampeners that can lessen the intensity of pain, boost healing, facilitate functioning, and enhance the quality of life.

And some of the examples that we see of this clinically is that we know that things like inflammation, emotional distress, or isolation are things that can make the experience of pain worse, whereas things like muscle relaxation, icing, self-efficacy beliefs, and engagement in important or meaningful activities are things that lessen the intensity and the focus on pain and help the patient to move in the right direction.

I noticed that one of the first questions that came up was, "Well, what is chronic pain?" And basically when you look at all types of pain, pain is a leading reason why people seek healthcare. Over 50 million Americans will seek healthcare for major trauma or surgical procedures this year, but really in the background, there are over 100 million Americans who are estimated to live with chronic pain. And some of the definitions of chronic pain may vary depending on the sources that you look at, so generally the official international definition is: "Pain that persists more than a month beyond normal healing time." And the way most clinicians interpret that is, well, most people heal or most tissue heals within two months, so if pain persists for three months, it then becomes chronic. But by and large, most of the definitions would all agree that pain that's present for six months or longer really is chronic pain. And really when you look at the Biopsychosocial Model, when you start looking at how persistent pain interferes with thoughts, feelings, emotions, relationships, and functioning, that really six months is clearly a point at which pain is chronic and public health surveys estimate that to be 100 million Americans who are living with chronic pain.

Now that's different from what's now known as high impact chronic pain, and that's the chronic pain that is experienced daily, that substantially restricts the ability to participate in work, social interactions, and self-care activities. And so, again, we have 23 million Americans who have that intensity of chronic pain. And then when you look at chronic pain, there are 10 million Americans who have cancer pain and among those with cancer pain, a third of them report as being moderate to severe in intensity levels.

Now there are some overlaps among these groups where there are 30-50 percent of patients who experience major trauma or surgery who will go onto develop chronic pain and as many as 40 percent of cancer survivors do live with chronic pain whether or not their cancer has been officially cured or they're a survivor with five years or longer without any signs of recurrent cancer.

So we're not alone in dealing with this problem of chronic pain. The World Health Organization monitors large international databases of 328 diseases to calculate something that's known as the Global Burden of Illness [Disease] and this represents the number of person years lived with a disability and in the 35 years since these records have been kept, low back pain and neck pain have ranked as the most burdensome cause of disability globally, accounting for 57 million years lived with a disability.

This is closely followed by migraine headaches, and in the most recent estimations, when you look at this back and neck pain—that the cost—not only in disability, but in dollars—is greater than that of cancer, heart attacks, and diabetes combined. We're keeping our eye on arthritis pain because osteoarthritis has, during that 35 years, steadily risen in the ranks from being about 30th in the ranks now it's the 11th most common among disabling conditions and we expect the next time that these databases are looked at, in 2020, that it will be in the top ten.

In addition to this physical burden and occurrence, there are also some changes that we see in the brain that do affect the person psychosocially. There are gray matter changes with some atrophy in key areas of the brain that have been shown in people who have persistent pain that greatly outpaces that seen with normal aging and it can explain the learning, memory, and emotional difficulties experienced by so many who live with chronic pain.

Interestingly, this loss of gray matter is reversible with effective treatments, and even more interesting, it seems like yoga is one of the things that really does help to build-up gray matter in the areas that are lost to chronic pain.

The cumulative economic burden of chronic pain is estimated at well over a half a trillion dollars a year. This costs each person with chronic pain an estimated \$10,000 per year. Patients, professionals, and the public have until recently tended to overestimate the benefits and safety of some treatments, such as opioids or invasive procedures, while underestimating the usefulness of non-drug modalities.

The demographics of pain. Generally, women report more pain than men and the prevalence of pain generally increases with age, with the highest prevalence noted between the ages of 45 and 64 years of age, but recurrent musculoskeletal pain prevalence increases with age, afflicting most older adults. In some studies, more non-Hispanic Whites report pain more than other groups, but in other

studies, Black or Hispanics report more chronic pain and the reason for these discrepancies are unclear.

Among the most common pain problems, as mentioned, were low back and neck pain, affecting a quarter of adults in the United States at any given month with joint pains, headaches, and facial pains also very common. Work-related injuries are also very common. Work that involves frequent exertion, repetitive bending, twisting, frequent or prolonged standing can lead to injuries, and are a source of chronic pain. Work-related musculoskeletal disorders have been estimated to cost the United States approximately 2.6 billion dollars in annual direct and indirect costs.

There are some factors that increase health disparities and we see certain vulnerable populations that are at greater risk for disabling pain and this includes people with limited access to healthcare services, racial and ethnic minorities, people with low income or education levels, the very old or young, are those with increased risk and those who, because of where they work or live or limited communication skills, are also at greater risk. This is a significant problem facing vulnerable populations that can arise from the conscious or unconscious biases, negative attitudes, beliefs or perceptions that clinicians, social service program administrators, or other decision-makers may carry that can negatively affect the care or access to services that are available.

I saw there was a question about stigma and certainly people with chronic pain are a stigmatized group and oftentimes they're labelled as being a drug seeker, a bad or difficult patient, a hypochondriac, or mentally ill. They're blamed for their condition or for seeking some secondary gain, such as financial reward or avoiding unpleasant tasks. People who encounter these biases feel stigmatized, which may decrease their willingness to report pain in a timely way, participate in decisions about their care, adhere to the recommended treatment plan, or follow the self-care protocols. This perception can also negatively affect their psychological state.

So, we look at chronic pain from a public health perspective, that from a primary prevention point of view, we'd like to prevent painful illnesses or injuries from occurring in the first place through health promotion and injury prevention strategies. In healthcare settings, we need to be screening for past exposure to pain, substance use disorder, and treatment responses to non-drug, as well as prescribed, treatments. We want to prevent needless exposure to pain but also needless exposure to opioids by using numbing medications. We want to resolve acute pain expediently and effectively by using multi-modal treatment methods, but when pain is stronger or lasts longer than expected, secondary prevention strategies need to be employed.

We want to evaluate in this population's substance use disorder risks before prescribing or refilling prescriptions for opioids. If signs or symptoms of chronic pain emerge, we want to optimize the non-opioid analgesics and/or adjuvant therapies plus non-drug approaches, refer to a specialist, and refine the treatment plan to adapt to the patient's unique responses.

At the tertiary prevention level, once chronic pain is established, we want to provide education and counseling to lower the risk of disability, depression, and premature death that can occur with high impact chronic pain. We want to recognize and treat chronic pain as chronic disease requiring specialty services, social support, and the use of self-management strategies.

A Stepped Care Model for Pain Management has been tested in VA hospitals and has been recommended in the National Pain Strategy of 2016 as an approach that others should adopt. When a person first has pain, they usually self-manage it, and we should be teaching people simple non-drug and wellness approaches as first line pain treatments. When the patient reports to primary care for painful conditions or routine wellness checks, they should be evaluated for pain and receive appropriate medical treatments as needed. This may include second or third line pain treatments as part of multimodal therapy. If pain persists despite treatments provided in primary care settings, a referral to specialty services is the next step. Given the biopsychosocial nature of pain, these services may include rehabilitative medicines, mental health or pain specialty services. If pain persists despite referrals to specialty services, the patient should be referred to a pain center that offers multidisciplinary integrative services. I'll now turn it over to Gisela.

[Gisela Rots]: Fabulous, thank you so much Paul. That was an incredible amount of information in a relatively short period of time, so I want to take a step back now and think about alright, so what are the implications, what steps could we as prevention practitioners take? I think that you know Paul just made an incredibly good case for why the effective treatment of pain is important in addressing chronic pain as being really important and so how can we help support that? So to begin with, as we so often do in public health, we take a step back and we think about doing a community readiness assessment to identify what's already happening in our communities and some of us may have already done that. So, we can think about identifying opportunities for self-care and are there other alternative pain therapies that are, as Paul mentioned, things like yoga. Are those readily available? Do we have an advanced pain management clinic nearby and who is that population that is experiencing the most chronic pain? What might that mean in terms of the health disparities that are present? And what about having access to effective healthcare? Thinking about these pieces in the context of our own communities is really important, as is thinking about which other organizations that are around us may be actively addressing chronic pain.

For example, if we have a local labor union that supports workers in incredibly physically demanding jobs, is chronic pain on their radar? How might they be addressing this? What about other local organizations, community centers, faith community, chambers of commerce? How are they thinking about supporting individuals who may be experiencing chronic pain and who might they be able to bring to the table?

I think getting that lay of the land is really important to obviously understand what's happening in our communities, but also to find out how big of an issue chronic pain can be and to help support

that. Thinking about that qualitative data collection, stakeholder interviews, and how that can help to discover perhaps how unintentionally we as prevention providers may be increasing stigma, right? And we see the theme coming up in some of the questions. Why are chronic pain patients blamed for some of the opioid misuse? And so thinking about how we might be inadvertently, on the substance misuse prevention side, reinforcing some of those unintentional stigma components, is really important. And so being self-aware, and also encouraging others to be compassionate is really important. And then we'll also take a step back in looking at any barriers there might be and this can look different in different communities, right? It could be that there are no sidewalks, so walking to a yoga class may not be possible, or it could be other barriers that are resource-related. But there are a lot of things to start getting the lay of the land to understanding what's happening in our communities that is very helpful.

And so we have an example here of how using data and getting the lay of the land actually rolled out and this example comes from Massachusetts and a couple of folks were asking questions around, "Well, can you give us examples of how this might be rolling out in different places?" And I'd like to highlight this example from Massachusetts of how when they were using data they were able to identify some stakeholders in a particular effort.

So, MassMen is a suicide prevention campaign for middle-aged men that is housed within the Massachusetts Department of Public Health and then there's a local organization called the Mystic Valley Public Health Coalition, which is an opioid abuse coalition representing six cities outside of Boston in the appropriately named Mystic Valley. And so the Mystic Valley Public Health Coalition has done extensive work looking at death certificate data among individuals who died by opioid overdose. And what they found was that 42 percent of those who died of opioid overdose worked in the trades, and this was an opportunity for them to then think, "Okay, well if that's the case then there's an opportunity for a partnership here." So by the end of 2017, MassMen and the Mystic Valley Public Health Coalition had compared notes and identified an incredible amount of common ground around risk factors and mortality, challenges with men's health and communications, outreach strategies, program ideas. And so they started working together at the intersection of opioid overdose prevention and suicide prevention, specifically around prevention efforts among the men in trades, which is a group at high risk for chronic pain. So this is getting started, right? This is one example of how once, kind of delving into the data, we can sometimes uncover really interesting and new opportunities for specific partnerships.

So, with that, I'm just taking a quick look at some of the questions. Paul, there is one question here which I'm wondering if I can throw at you quickly and that is, "Do you have any specific tools that you might suggest folks use to assess pain when helping a person at risk or do you think that—does it depend on the patient?"

[Paul Arnstein]: Yes, thank you. There are a number of tools that are used to assess patients with pain; however, a lot of times they're very disease specific so that they might vary whether a person has a migraine headache or back pain. There is the Multidimensional Pain Inventory that was developed at Yale that takes about 15 or 20 minutes and is very comprehensive and really gets at the biopsychosocial components that are really important about pain, but that's too burdensome for a lot of people to use in clinical practice.

There is something called the Brief Pain Inventory that I really like both for research and clinical practice, because it basically comes down to ten questions that really ask about the pain for people with chronic pain: what's it been at its best, at its worst, and on average in the past month, but then it really delves into some of the biopsychosocial functioning, so it gets at certain thought patterns. It gets at emotional state. It gets at whether they're able to perform role functions. And so again, that gives you some insights there to use that tool. It is more user friendly than some of the others, but I think just coming to know the patient and, at least in my experience, figuring out what is of greatest value to the patient, really helps us to understand where we can go with our further evaluation and treatment. So sometimes I reach into my pocket and sprinkle a magic dust over the patient and say, "This is going to make your pain go completely away. What are you going to be doing next Wednesday?" And that is very instructive to me as how pain has affected them as a person but, "Oh, I'm sorry that magic dust is on back order, and now we have to deal with the pain, so let's look at what some of these biopsychosocial issues really," and talking to the person about not only the pain, but the impact that it's had on their life.

[Gisela Rots]: That's super helpful, Paul, and I think you just highlighted the huge challenge, right? That magic dust doesn't appear, so we really have to think about those multiple tools in the toolbox. So thank you for that. It sounds like you're really advocating for that context is everything and knowing the patient is super important so thank you.

With that, I'm going to go ahead and move us on to our next section and here, we're going to be talking a little bit more about the risk for people with chronic pain when we look at opioid abuse and overdose and suicide. And we've seen a lot of questions around this topic come in, so hopefully some of your questions will get answered as I hand it over to Li who is going to walk us through this section.

[Lisham Ashrafioun]: Thank you Gisela, and thank you everyone for joining us. I'm really excited to be part of this webinar on such an important issue and I just want to say that I really like doing webinars so that no one can see how unkempt I am and also no one knows that I've been watching the Belgium/England World Cup game right now.

So obviously, I'm kidding. But anyways, to get to the topic at hand. Chronic pain is a risk factor for a range of concerns, and although it's not pictured here, chronic pain is also associated with a range

of medical concerns so there's higher rates of diabetes and cardiovascular problems, obesity, etc., among patients with chronic pain.

Additionally, chronic pain can contribute to the development and exacerbation of a range of mental health disorders, like anxiety and depression. And it's not just the misuse of opioids, but alcohol and other substances as well.

Another thing I wanted to highlight is the reciprocal relationship between sleep disturbance and pain. So we see very high comorbidity rates of sleep disturbance, like insomnia, in patients with chronic pain. As we will continue to discuss over the course of the webinar, chronic pain, of course, is a risk factor of suicide and overdose, but importantly, I want to make sure that it's clear that suicide and overdose does not always mean that it's actually with opioids only. So suicide and overdoses can occur because of other medications like benzodiazepines and sedatives and non-opioid analgesics as well.

It's also important to remember that firearms are actually the most common method of suicide. So there was a VA study that found that about two-thirds of suicides among veterans who were using prescription opioids were actually due to firearms. So even people with access to potentially lethal means through opioids were mostly dying because of firearms. So, essentially, you see that pain on its own can increase risk of suicide and overdose, but it also may increase risk through the development and exacerbation of other known risk factors of suicide, like mental health disorders and just the greater physical health burden that many chronic pain patients experience.

So, I think I saw a question about comorbidity and so I think one potential way to really address comorbidity is that a lot of pain patients may not be involved in any behavioral healthcare and so engaging pain patients in some sort of behavioral health to address things like depression or PTSD or other anxiety disorders may be a way to address suicidal ideation that may not be directly related to their pain.

So, a lot of the data on the relationship between suicide and chronic pain and overdose and chronic pain actually involves large epidemiological research and so I think this quote really brings things back to the experience of an individual and personalizes what's going on. So chronic pain, as described really well by Paul, has the potential to really close people's lives off and with a smaller life, there's just sort of more room to concentrate on how awful pain is and so the escape of that pain may seem like a better option than constantly suffering through it.

And as noted in the previous slide, we find that chronic pain is associated with both increased risk of illicit opioid use, misuse of prescription opioids, and increased risk of overdose. So there's factors like mental health and physical health problems, sensitivity to pain, pain catastrophizing—or thinking the worst about one's pain, and pain tolerance are examples of risk of substance abuse.

Then there's also a number of factors that are associated with increased risk of unintentional overdose. So some examples include higher doses of opioids, with doses as low as 50 milligrams of morphine equivalent daily dose, increase in the risk, a benzodiazepine and sedative co-prescriptions also increase. These combinations can increase respiratory depression.

Mental health problems, like depression and opioid use disorders and substance use disorders more generally, are associated with increased risk of overdose. Greater medical comorbidity is also associated with greater risk, so things like respiratory instability and sleep-related breathing disorders. And then there is a recent review that was done that also identified specific prescription opioids like oxycodone, methadone, and hydromorphone increasing risk.

So, how about chronic pain and suicide? So, there was a recent meta-analysis that indicated that physical pain was associated with sort of the whole gambit of suicide-related outcomes, so things including death wishes, suicidal ideation, suicide planning, suicide attempts, and suicide. There are studies that indicate that pain is associated with suicide independent of key risk factors of suicide. So it's not just that patients with chronic pain have higher rates of medical psychiatric comorbidity, because even after we account for this, pain on its own appears to increase risk of suicide.

So with that being said, I want to talk a bit about pain-specific factors that are associated with suicide-related outcomes. One important thing to keep in mind, much of the research is actually based on cross-sectional data and more longitudinal studies are needed to better understand the causal and temporal relationships between suicidality and pain. So, that's just really like my little disclaimer here.

Nonetheless, to highlight some of the findings in the literature, so pain severity is one example. So there's some mixed evidence based on the cross-sectional data but with the longitudinal data, using medical records, they indicate that moderate and severe pain is associated with higher rates of suicide attempts and suicide. And in terms of pain diagnoses, there was a very large VA administrative data poll and that study found that, again, after considering psychiatric and medical comorbidities and demographics, back pain, psychogenic pain, and migraines were all associated with a greater risk of suicide.

Research has also looked into pain catastrophizing which I mentioned before, but again, thinking the worst about one's pain and so this often occurs through like a magnification or rumination or feeling helpless about one's pain. And so there's some cross-sectional research indicating that it's associated with suicidal ideation and intentional overdose.

Perceived burdensomeness is another factor and so for those of you who are familiar, this is a key construct in a well-regarded theory of suicide, in which a person feels like he or she is a burden on someone and that people would be better off without him or her. And so research has found that

self-perceived burden in a sample of chronic pain patients is associated with suicidal ideation, again, after accounting for some of these key risk factors for suicide.

As mentioned previously, insomnia is very common among patients with chronic pain and it's associated with increased risk, and I hinted at this earlier when bringing up the quote, but a desire to escape pain is another important factor. So pain is associated with an agony or suffering and individuals with chronic pain may have a desire to escape both the physical and its associated emotional pain.

Passive coping strategies for pain. So this might include things like just sort of hoping for pain to go away that's been found to be associated with suicidal ideation in a cross-sectional study, and prescription opioid use, of course, is associated with suicide risk. So, I did an analysis of a pain cohort of over 200,000 veterans, and I found that filling a prescription opioid in the year prior to initiating pain services was associated with greater risk of suicide attempt in the following year.

Now with that being said, there was another study that was done that used medical record data and found that more frequent follow-ups by providers after initiating opioid therapy was actually associated with decreased risk of suicide attempts at a facility level. So, I think this finding is really important in terms of how we think about the relationship between opioids and adverse outcomes. So, for some individuals, with appropriate care and follow-up, and maybe a favorable risk/benefit ratio for opioids, opioids will not sort of universally increase risk of suicide and overdose. So it's just something to keep in mind that some individuals may actually benefit from opioids based on favorable risk/benefit ratios, appropriate care, follow-up, things like that.

So basically, this was a very cursory overview of the relationship between pain-related factors, and suicide-related outcomes. And again, I just want to encourage you to consider that much of the research, aside from the large administrative data, is cross-sectional and there's still a lot of room to learn more about suicide risk among patients with chronic pain, at least I hope so because I've invested much of my research career eggs in this basket, but I do think that there's a lot of room here still. And I also want to invite you to check out the handout that we provided that briefly describes the relationship of some of the factors that I mentioned, but also other pain-related factors that I did not discuss. So with that, I will hand the mike over to Gisela. Thank you.

[Gisela Rots]: Fabulous! Thank you so much for that, Li, and thanks for emphasizing the need to dig a little bit deeper. As I listen to you talk, I was thinking of just how much work there is to be done, specifically thinking about how we can help to address some of the stigma, which seems to get at some of those risk factors that you were talking about, right? The perceived burdens, catastrophizing, the insomnia, the desire to escape. And as someone else pointed out in one of their questions, the opportunity to be thinking about how we partner also provides that opportunity to discuss the risk and prevention of substance use disorders, specifically including things like

overdose prevention and medication-assisted treatments. And it strikes me that there's also an opportunity then to be thinking about how we can ensure that folks who have a non-fatal overdose are actually assessed for suicidal ideation, as well. So, when we look at these risk factors and we consider them in the context of our own communities, I hope some lightbulbs are going off in terms of folks thinking about the opportunities for those partnerships.

So again, thinking very distinctly about what's unique, what's contextual about those who are experiencing chronic pain in our communities, and how might we be thinking about some of those prevention strategies and those partners that might help us to increase collaboration and partnership—and that's destigmatizing. As you were talking, one of the things I was thinking about was having a local Meals on Wheels Program might be one opportunity to think about how we might be engaging with those who are being socially isolated. If we don't have Meals on Wheels, how is it that those who are isolated may be able to get more access to food in their homes or access to more social engagement? It strikes me that there isn't a lot of opportunities there.

And then, thinking more specifically about engaging partners within health systems in some of our prevention efforts to ensure that those pain specialists and primary care providers do both of those screenings, and on that front, Li, I'm actually wondering if I can put you on the spot again for a moment. So, you worked within the VA system and you've done a lot of work with patients and primary care providers and I'm wondering whether you might have an example, off the top of your head, that you think shows how there's opportunities to think about partnering with health systems on behalf of patients and with patients from that VA perspective?

[Lisham Ashrafioun]: Yeah, thank you. So, there's a variety of things that the VA does, but one thing that comes to mind is a lot of the interdisciplinary pain teams that have been created. They consist of stakeholders in pharmacy and behavioral health and physical medicine and rehabilitation, addiction, physical therapy, etc., and they can help with things like making appropriate referrals, providing treatment recommendations. And this, I think, can really help reduce some of the burden that a lot of primary care providers may experience. And ultimately, with team-based decision-making, treatments can be better-informed. In terms of for the patient, it just may be more efficient for them because they're not being passed around through different settings as well. So I think that's a good example of solid support for both primary care providers and patients who are experiencing pain. The efficiency piece for pain patients is important, as well, because a lot of patients experiencing pain maybe have adverse reactions to their healthcare system and so it's really important to be able to engage them into care that can be as helpful as possible.

[Gisela Rots]: That's helpful and I'm sure, as we all know, navigating a healthcare system can be challenging in the best of times, and if you're experiencing chronic pain, I imagine that's even more challenging, so that's really helpful. Thanks for that, Li, so really thinking about how we can link up

our primary care providers with other resources in the community is a helpful frame for that. With that, with an eye on the time, I'm going to keep us moving.

We're next going to delve into some specific strategies that can be used to prevent opioid abuse, overdose, and suicide within those patients who have chronic pain and I am going to hand it over to Paul to get us started here.

[Paul Arnstein]: Thank you very much, Gisela. I hope that we've imparted the concept here that there are overlaps that occur between chronic pain, mental health disorders, opioid and other drug overdose issues, as well as suicide. And this is a message that clinicians caring for patients with chronic pain need to be aware of. As far as these co-occurring psychosocial problems, the prevalence rates of depression and anxiety-spectrum disorders, including post-traumatic stress disorder, increase with the intensity and duration of pain, although even without those, chronic pain is an independent risk factor for a range of self-harm thoughts and behaviors. But when clinicians are prescribing large doses of potentially lethal medications, such as opioids and/or benzodiazepines, the standard of care for treating chronic pain should include screening for depression and suicide risk. If at risk for suicide, a plan of action should be developed and contact information—the local psychiatric emergency services should be provided. Patients should be cautioned against self-medicating for pain as this can lead to substance use disorder or overdose. It's often very difficult for us to determine the intent of patients who overdose, whether it was unintentional or a form of self-directed harm, so if we see patients who do come in with a non-lethal overdose, this should raise a yellow flag for us in terms of doing these types of evaluations.

Some of the strategies to reduce suicide risk, although not well-studied in particular for the chronic pain population, but doing these comprehensive suicide risk screenings and assessments, and basically this is becoming a standard of care across various healthcare settings. There's a Handout #2 that you see that is listed at the bottom of this screen here that does have a variety of validated screening and assessment tools including the Columbia Suicide Severity Rating Scale, the Patient Health Questionnaire, the ASQ Suicide Screening Tool. It also gets into the Joint Commission Professional Standards around screening and interventions that we use when we identify patients who may be at risk for suicide. But individuals reporting multiple reasons for misusing prescription opioids more commonly report suicidal thoughts and behaviors than those who are using prescription opioids as prescribed. So again, this might be a yellow flag that gets raised.

And while I'm talking about flags, now that most institutions have electronic medical records, there are ways that we can flag patients in the EMRs, as far as indicating that they're at risk for suicide in patients who do have known risks, and this is very helpful to clinicians when they come in through the emergency department or other healthcare settings.

When patients are in an acute suicide crisis, it's important for us to implement risk mitigation strategies—things like caring letters, follow-up phone calls, discussions around safety planning, keeping the healthcare environments safe for these patients, increasing monitoring—especially during times of stressful life events, and helping to improve their knowledge and use of non-drug coping skills.

Risk Evaluation Mitigation Strategies should be used by professionals whenever opioids or other potentially lethal drugs are prescribed, especially in patients with an alcohol use disorder or a mood disorder.

Some additional strategies to reduce suicide risks. When they are in an acute suicidal crisis, it is very important, this is a medical emergency. We really need to get patients into a safe environment with one-to-one observation in a true crisis when this is necessary, so we're not going to be leaving these patients by themselves. We're going to be doing safety planning with brief interventions that can be used in a variety of settings. We also want to develop a tiered patient-centered plan that includes personalized-specific strategies for the patient to use when they're in a suicidal crisis so that when the immediate crisis passes that they are at risk for having another crisis and that they have an action plan of what to do. Certainly, we want to reduce access to lethal means as Li had pointed out. This includes firearms, but there are a variety of other lethal means, so that here in the hospital, we're looking at using johnnies that don't have strings and other eating utensils and other things that we wouldn't typically think about as being lethal means, but people who are in an acute crisis might turn out of desperation to some of these other means.

So we want to provide these patients with immediate access to care through the emergency department, inpatient psychiatric units, respite centers, identifying crisis resources and outpatient behavioral health providers. As necessary, we'd provide rapid referral to facilitate immediate access to outpatient treatment appointments within 24–48 hours before we discharge a patient from the hospital or the emergency department, because we know the first 72 hours are the greatest risk of suicide.

For patients at lower risk for suicide, we can make personal and direct referrals and linkages to outpatient behavioral health and other providers for follow-up care within a week of the assessment, and we make those appointments rather than leaving it up to patients making the appointments, and we use warm handoffs by connecting the patient either with their next provider or a peer-support person before they leave.

If available, then we use peer support navigators—and these are people who have been through crises themselves and can help the person be aware of resources, help get them to their next appointment. And for all patients, we want to make sure that they have ready access to this National Suicide Prevention Lifeline 1-800-273-TALK.

Strategies to reduce opioid overdose risks include educating both prescribers and patients and we do that in a variety of ways. So, for professionals, we have Opioid Safety Review Committees. These are things that are very common in the VA system, but the Joint Commission now through 2018 standards has pretty much advocated that all types of healthcare organizations—hospitals and other healthcare settings need to have these Opioid Safety Review Committees. Between the patient and provider, there should be patient/provider treatment agreements and academic detailing to pharmacists and other healthcare professionals is really important. If we turn back the time machine, 20 or 30 years ago, a lot of the information that pharmacists and prescribers got were for the drug manufacturers themselves, from the salesforce, and so we really need to be providing the education through credible sources, and this academic detailing by healthcare professionals who are in the know has really shown to be an effective strategy.

You want to use the risk mitigation tools. The VA has a tool they call STORM, that is a Stratification Tool for Opioid Risk Management, and also urine drug screens, and these have been shown to be effective, although there are some limits to urine drug screens. If we get an unexpected result, we will always want to confirm those results to make sure that we're not jumping to conclusions about what they mean.

So when we're helping patients who have prescribed opioids, we want to be thinking about co-prescribing naloxone, especially if the patient is taking high doses, if they have a history of substance use disorder, or their co-prescribed sedating medications like benzodiazepines, antidepressants, or gabapentinoids.

Certainly, if the patient has a prior history of overdose, we want to consider the referral to the Medication-Assisted Treatment programs and use of additional non-drug methods, and when appropriate, we want to look at having a taper schedule for the patient. We don't want to simply discontinue opioids. This is ill-advised because it's likely to trigger a withdrawal syndrome. Depending on the dose or duration of therapy, we might be reducing the dose 10-25 percent at a time over the course of days, weeks, or months. But, if we don't have an effective alternative to opioids, simply dismissing patients with chronic pain and having them self-manage the pain on their own, oftentimes they turn to alcohol or other drugs, and they lose their connection to formal health services, which is a potential lifeline to assess and intervene for suicide risks.

Li, can you tell me more about some of the non-drug approaches that you use that help patients with both pain and substance use disorders?

[Lisham Ashrafioun]: Yeah, absolutely. I saw a few questions about this as well. So, there are a number of non-medication treatments that might be offered to patients experiencing chronic pain. These might include psychosocial interventions like CBT and mindfulness-based interventions. It might include movement-based interventions, like exercise and physical therapy, and then there's

complementary and other complementary and integrative health approaches that I will go over in just a second. Then, I saw there was a question about pain schools. And so this is an example of an education program, and so pain schools can provide an overview of different non-pharmacological and non-opioid medications for treatment, and so these pain schools might actually practice relaxation techniques or go over different stretching exercises.

Another thing that we've emphasized in our pain schools is pain is not solely a biomedical issue, it's a biopsychosocial issue and so we go over the Biopsychosocial Model during these pain schools, as well. And then there's also a question I saw about massage therapy, and I know this is something that the VA offers for many of their pain patients at certain facilities, but the evidence-base for it is not as sound as some of the other non-pharmacological treatments, not that it won't be in the future, but right now there isn't a lot of evidence for it.

Another important thing to note is that some of these non-pharmacological approaches can be offered through telehealth as well, so for example CBT for pain is a treatment that's being delivered by the phone and also through video and other phone interventions have been used to promote self-management strategies or for supervising home-based exercise programs.

As I had just mentioned, complementary integrative health approaches are growing in popularity and evidence-base and these are approaches that—so prepare yourself for this definition—they complement and are integrated into conventional approaches to pain. So these include treatments like acupuncture, Tai-Chi, yoga, meditative type of treatments, chiropractic care, and things like that.

And then there's self-management approaches. This is a huge component of pain management so, as Paul discussed earlier, self-management approaches represent the base of Stepped-Care Approach to Pain so the Stanford Self-Management Model helps people increase their self-efficacy to control and manage their pain through approaches like problem solving, decision making, forming strong patient-provider relationships, tailoring techniques for him or herself. And so areas covered might include appropriate use of medications, dealing with frustration, poor sleep, increasing exercise, improving communication skills and nutrition, and activity pacing.

And just to go over a couple of key barriers to engaging in treatment and to discuss some potential solutions—one, of course, is the underutilization or under engagement in potentially effective non-pharmacological treatments. So part of this might come from providers just not being aware of what's available and what might be useful to their patients. So I've heard some primary care providers say that it's not clear what they can refer their patients to or how they can actually make their referrals. So provider education about what's available and how to get their patients into those treatments might be helpful. You know, actually, maybe a pain school could be helpful, but there's also, in terms of underutilization, there's a growing literature base on using approaches or

techniques to promote engagement and so some examples might include motivational interviewing, SBIRT or screening brief intervention and referral to treatment, and then there's also a one session cognitive behavioral intervention that focuses on addressing patients' unhelpful thoughts or beliefs about treatment. So a therapist might use cognitive behavioral strategies like problem solving and cognitive restructuring to change or generate a more balanced thinking about treatment.

Another barrier is poor access to care, and so one potential solution for this goes back to promoting or creating telehealth opportunities. So this can be helpful for people with transportation issues, for people who might have few treatment centers or treatment options because they're living in rural settings, for instance, or because people with chronic pain, many of them have mobility or disability issues and so having telehealth options might be a great option for them. Also, it really stresses the importance of self-management techniques, so again, these are things that people can incorporate into their daily lives right at home.

Another issue with access can also be due to insurance coverage and so one way to address this is it may just take some advocacy for certain treatments to get covered by insurance policies that aren't currently. Gisela, I'll pass it over to you. Thank you.

[Gisela Rots]: Awesome. Thank you so much Li and Paul and I think you started to get at some of these effective strategies to be thinking about next steps. I think you know we were starting to see a lot of questions come up like, "Is there yoga that's specific for chronic pain?" and the answer is yes and no. We actually have a series of resources so we'll go ahead and send those out with our follow-up after the webinar. Definitely some questions around, "Alright, well how do we actually get some of these non-opioid pain management opportunities covered by insurance?" and I think it's educating policymakers, it's talking to health insurance companies and helping to really help them understand why these are so important. So there's a lot of education that needs to happen and in just a moment I'll actually jump into an example of an area that is being done, but for now let's refocus again a little bit on what are the implications for what Paul and Li were just talking about in terms of strategies for the work that we are doing.

So thinking about strategies and resources already being used in our community to address the needs of patients with chronic pain, so the pain management centers or the opportunity to partner if you're in a rural area on a telehealth opportunity. Project ECHO comes to mind as being one of those opportunities and how can you help those providing chronic pain with some support and introduce them to others who are doing other similar kinds of work and can we help more generally to address the issues of social isolation by setting up visiting circles with local youths who may be interested in doing some either volunteer work or getting more involved in their communities? How can our faith communities be a part of engaging more generally in prevention efforts to raise that awareness about non-medication strategies among those people who experience pain, thinking very strategically and practically about what that can help us do in terms of destigmatizing and

creating a bit more compassion? That sounds so simple and I understand that it's not, but making sure we're being cognizant of the words that we use, the language we use, which is always evolving and always changing, but engaging in that conversation and over time and by talking about these issues, and talking about the real barriers that chronic pain patients feel and experience, we have an opportunity to change the community norms around that.

And obviously also thinking about how we can partner with medical communities to implement or support other strategies to reduce the risk of opioid abuse, overdose, and suicide amongst those with chronic pain. We know that there are certainly laws around confidentiality and the like, but there also may be opportunities to provide support to those that are doing the important work on the front line. I think Paul and Li both talked about very tangible, practical opportunities to be thinking about that—not that they're simple to implement because we know that relationship-building takes time and is complicated, but we have to start somewhere.

I want to run into an example and this example is from North Carolina. Many of you may already be familiar with Project Lazarus. If you Google them, you will find them online but they have a chronic pain initiative and for those of us who don't know about Project Lazarus, they are from Wilkes County, North Carolina originally, and Project Lazarus really looks at using data, including prescription drug monitoring program data, and qualitative data to identify what was driving opioid overdose in their county and has expanded a lot of its efforts and is doing a lot of . . . a comprehensive set of strategies around this. So one of the contributors to overdose that they found was indeed chronic pain and so they saw a need to do more effective primary care provider education around effectively managing chronic pain in an outpatient setting, as well as helping primary care providers understand how opioids could be safely prescribed. What's interesting, I think, is that they also complement this provider education with encouraging proper referrals for chronic pain in hospital settings and providing effective patient support so that chronic pain patients also know and understand what they can do to help manage their pain, right? So thinking both about how to support the providers, do some more education with them, providing them with resources, and connecting patients with additional resources as well.

So I think that if you're interested in more information on Project Lazarus, you can certainly Google them. This is just, again, we're just providing one example. There's a lot of other ones that are out there as well, so we don't mean to say this is the only one.

And I'm going to keep us moving relatively quickly. If we take another step back and we think as prevention practitioners, we need to identify how we can best work with our communities to impact change as it comes to that intersection of not just suicide and opioids, but also chronic pain. And I think that there are a few different ways and interventions points that we can be thinking about, right? So on this continuum of information sharing, coordination, and collaboration, and our monkeys that are showing us exactly what that means, but to start off with an information-sharing

example, right? This might be where a community's substance misuse and a suicide prevention coalitions compare their assessment data on opioid abuse and suicide rates among chronic pain patients to see where that overlap is and whether there's a way to really hone in on some of the [inaudible] in this realm would be if a state's substance misuse prevention entity and a state's, maybe a pharmacy school integrate guidance into a curriculum on opioid tapering and co-prescribing naloxone to chronic pain patients, right? So thinking about the substance misuse prevention and pharmacy school as an opportunity to really provide those students with guidance on of this intersection and thinking about how to put naloxone into the hands of those who may have opioids at their fingertips, appropriately of course.

A collaboration example could be a large hospital system that fully integrates a recommended standard of care for people with suicide risk across all departments including pain management centers, right? So making sure that if there is someone with suicide risk, obviously, they're being assessed, but there's a way to surround that person and provide them with the appropriate support and, of course, this is all driven by data and local context and making sure we have the needs right.

I did want loop back across a couple of questions that came up. I think Paul maybe I can throw this first question out to you. We talked a bit about the link between suicidal ideation and those who experience chronic pain and we received a couple of questions asking, "Is this suicidal ideation caused by the pain or is it caused by the depression from the diagnosis?" Do we have a sense of that?

[Paul Arnstein]: So yeah, thank you, Gisela. That's a good question and as Li had said that a lot of the data that we have is cross-sectional so we can draw some associations but not necessarily cause/effect relationships, but what we do know about chronic pain is that by six months of living with day in/day out pain, that people are at much greater risk, that about half of the patients have symptoms of depression and have at least thought about death, so this death wish concept is experienced there. And at a year, you see even more of that and so whether or not there's causation is really unclear, but these are people who were not depressed or did not have death wishes at baseline.

In my own research, my question was "Why do some people with chronic pain go down the road of depression and disability and others don't?" And what I was able to find was that self-efficacy beliefs was a greater predictor of who developed depression and disability than pain intensity was, and so really we started modelling our program around how do we build self-efficacy beliefs? How do we teach pain management skills? And how do we teach patients to cope with the ongoing pain and to function despite the persistence of pain? And by doing that, the patients had less depression and disability. Suicide was not one of the outcomes that we were looking at there. Interestingly, it was mentioned around volunteering as well and I did do a study that looked at the chronic pain patients that went through my program and then I had them come back and volunteer and give

back to people who were going through tough times with chronic pain. And by volunteering, serving as a volunteer, that further enhanced self-efficacy beliefs, it further enhanced pain, and further reduced depression and disability, and so there's something there about really coming together as a community as far as how do we help people to feel and do better.

[Gisela Rots]: That is really helpful and interesting how, again, that idea of connection is really important, so thank you for that. And just taking a look at the time, I see that we have to wrap up. I'll just mention two quick things. There were a couple of questions around access to naloxone for non-first responders and I encourage folks to take a look at their own state laws for that. There are standing orders in many states that allow for others to have access to naloxone, but who that might be and how you get access depends on your state and the laws around that. The Public Health Law Network is a great resource for that. And there were also a couple of questions about determining whether an overdose might have been intentional or unintentional and I have encouraged folks to check out the first webinar that we did on this topic a few weeks ago. We'll include the link to that when we send out the follow-up materials and we get into that because it's certainly a very challenging topic. So with that, we are going to have to wrap up and so I just want to say thank you and I want to go ahead and hand it over to James to walk us through the next section.

[James Wright]: Perfect, great. Thank you very much and so relevant resources, yes I do want to highlight just a couple. We've only got a couple of minutes left, a couple from CAPT, SPRC, and then from SAMHSA as well, but there's one highlighted here, *Opportunities for Collaborating with Medical Professionals to Prevent Opioid Misuse*. I do encourage everyone to at least jot down the website samhsa.gov/capt and take a look. These are just a couple of examples, *Partnering with the Medical Community*, *Preparing for Prescriber Education*, etc. but there's many more that you can find, so I would encourage everyone to first take a step from the substance abuse side, and then take a step from the suicide prevention side.

You can go to sprc.org or zerosuicide.sprc.org. There is, hopefully many of you have heard of, "Zero Suicide," but really it's a comprehensive approach to suicide prevention in healthcare settings and it's a seven point focus. A couple of those being *Suicide Screening and Assessment*, *Planning Intervention for Suicide Prevention*, and it's got a *Zero Suicide Toolkit*, that will help you walk through all of those key components. And a big piece here is, depending upon who you're with and what you're doing, you can get technical assistance on how to join this movement and really get help along the way and how to implement it into your health and behavior healthcare systems.

And then finally just a couple more. There is the *Behavioral Health Treatment Services Locator*, that's one piece of it from SAMHSA, so if you're looking for additional behavioral services from the treatment side, both substance use and mental health, you can get that through the treatment locator. Also, highlighted earlier was the Lifeline 1-800-273-TALK and you can also go on their website, even for online services at suicidepreventionlifeline.org. Coming out of the Action Alliance,

which is a public and private partnership that SAMHSA supports and EDC operates, there's *Recommended Standard Care for People with Suicide Risk: Making Healthcare Suicide Safe*. I do encourage people to take a look at that, and then finally, the CDC does have guidelines for prescribing opioids for chronic pain, definitely exactly what we're looking at for today. So with that, I think I'll turn it back over to Gisela, that's correct.

[Gisela Rots]: Perfect. Thanks so much. If you have more questions, please do feel free to reach out to my colleague, Rachel Pascale, rpascale@edc.org. If you have any questions or comments, we always welcome them. Please do feel free to get in touch. Thank you all so much for joining us. We really appreciate your engagement, your questions, and walking down this path with us today and hope that you walked away with some new information. And with that, on behalf of SPRC and the CAPT and SAMHSA, I'll wish you a very pleasant afternoon.