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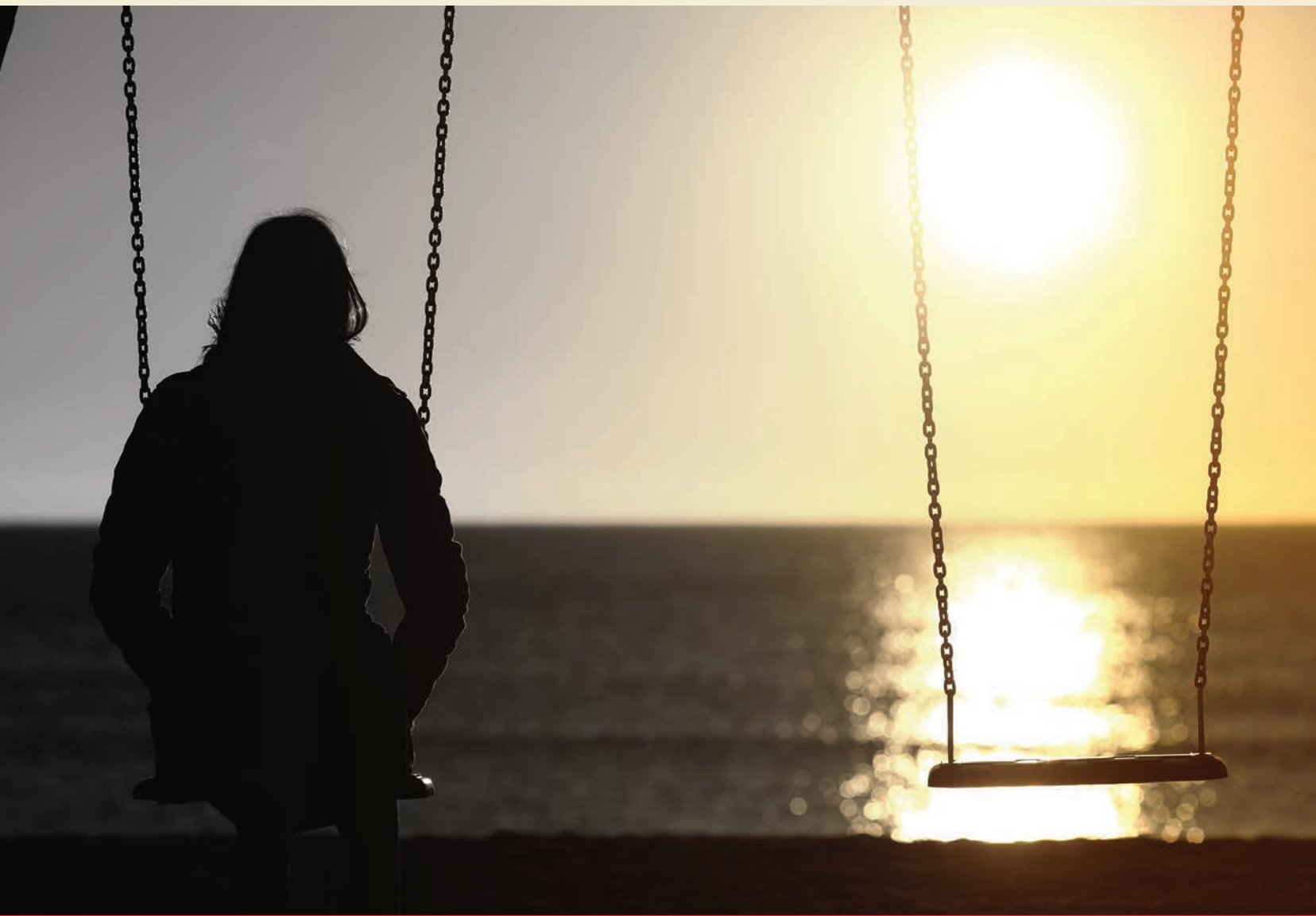

Understanding Chronic Pain and Suicide

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The question about the relationship between living with chronic pain and suicide is important to understand. We know that approximately 30 million Americans live with what the U.S. Department of Health and Human Services (HHS) has labeled “high-impact chronic pain,” i.e., pain that is persistent, unrelenting and disabling.[1] In addition, we know that in 2015 approximately 44,000 died by suicide,[2] and some people with chronic pain will die by suicide. The data are scarce and the relationship between these two important public health issues is unclear. This is primarily because both chronic pain and suicide are complex, involving biological, psychological, social and environmental factors. With people living longer,[3] there will be more people living with chronic pain and most likely more people dying by suicide in the years to come. By gaining familiarity with both suicide and chronic pain, the nature of their relationship becomes clearer.

Scope of the Problem

In 2015, the rate of suicide was 13/100,000.[2] It is estimated that the rate of suicide among people with chronic pain is 23/100,000[4] or approximately double the rate of suicide in the general population, though still infrequent. Suicidal ideation, suicide attempts and death by suicide are not equivalent in that many more people think about suicide than attempt suicide and even fewer people die by suicide. While suicidal ideation and suicide attempts are considered strong predictors of suicide, less than 10 percent of those who have made a suicide attempt go on to die by suicide. Unfortunately, about 60 percent of those who die by suicide have no previous attempt and used lethal means for their first attempt. This is one reason that understanding the risk factors and learning the warning signs of suicide, as well as limiting access to lethal means when someone is at risk, are so important.

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Researchers have found that approximately 12.4 percent of people with chronic pain report thinking about suicide at any point in time and 23 percent have thought about suicide during their lifetime (Table 1). Almost five percent of people report having made a suicide attempt in the past year and about 15 percent report having attempted suicide at some point in their life. For the population of people with any chronic pain, the prevalence of suicide has been estimated at 2.3 percent, and for those with severe and very severe chronic pain it has been suggested to be eight percent.[5,6] Thus, suicidal ideation and behavior is present among people with chronic pain and more present in this group than in the general population. The correlation between chronic pain and suicide is likely even larger and more complicated than we have imagined in the past because we do not know how many "unintended" opioid overdose deaths may be suicides or chronic pain sufferers seeking relief from their pain.

Table 1: Prevalence and Odds Ratio of suicidal ideation and behavior among those with and without pain*

Suicidal Idea (SI) or Behavior (SA)	Prevalence for those without pain % (CI)	Prevalence for those with pain % (CI)	Odds ratio for those with pain compared to without pain OR (CI)
Death Wish - Lifetime	17.4 (10.88-27.59)	29.8 (5.60-75.30)	1.72 (1.08-2.74)
Suicidal Ideation - Current	5.9 (4.63-7.56)	12.4 (5.0-25.70)	2.09 (1.64-2.68)
Suicidal Ideation - Lifetime	13.0 (9.51-17.75)	22.9 (6.88-54.40)	1.76 (1.29-2.40)
Suicidal Ideation with Plan, Current	0.8 (0.51-1.16)	2.0 (0.50-8.00)	2.60 (1.73-3.90)
Suicidal Ideation with Plan, Lifetime	3.9 (2.34-6.59)	8.5 (0.80-50.70)	1.16 (1.29-3.64)
Suicide Attempt, Recent	2.0 (1.46-2.72)	4.7 (1.5-13.5)	2.37 (1.73-3.23)
Suicide Attempt, Lifetime	6.9 (5.34-8.87)	14.9 (5.9-33.00)	2.16 (1.68-2.79)
Suicide	N/A	2.7 (0.60-7.20)	1.37 (1.00-1.88)
Suicide (severity moderate or more)	N/A	2.0 (0.60-7.20)	1.59 (1.00-2.51)
Suicide (severe and very severe pain)	N/A	8.0 (0.70-49.10)	2.8 (1.61-4.89)

*Calculated estimate from data in Stubbs[6] ((prevalence in people with pain/Odds Ratio relative to people without pain)*100). Sample sizes for calculating prevalence of suicide in group without pain is too small to be accurate. Review suicide prevalence data for those with pain with caution.

General Suicide Risk Factors and Warning Signs

Suicide is determined by many contributors converging at the same time, often in the face of life stressors, and with access to lethal means. There are many factors—health, historical and environmental—that can affect the likelihood that someone will engage in suicidal behavior. Ninety percent of people who die by suicide are experiencing a diagnosable and potentially treatable mental health condition, though they may not be aware of it, and many have more than one condition.[7] Twenty-two percent of people who die by suicide are legally intoxicated at the time of their death. About one-third are in mental health treatment at the time of their death.[8]

Additional factors that can change the threshold for suicide include one's personal history of suicidal ideation or attempts, family history of suicide or a mental health condition, childhood adversity, head trauma, life trauma, chronic health conditions and chronic pain. Other factors present around the time of the suicide may have also contributed, including being intoxicated and life stressors such as loss of a job, divorce, humiliating events, exposure to suicide and access to lethal means. There is never one cause of suicide, and the presence of one or more of these factors does not mean that a person is definitely at risk for suicide. As with other health conditions, with knowledge of increased risk, one can monitor themselves closely, use tools known to help reduce suicidal ideation and behavior, and seek treatment when needed.

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People do not suddenly become suicidal. There are typically warning signs evidenced by how people talk, feel and behave. Sometimes people talk about not wanting to go on, feeling like a burden, feeling as if they have no future and believing things will never get better. They often openly tell others they are thinking about suicide. They may talk about unbearable pain and that others would be better off without them. Regarding feelings, people may feel depressed, anxious, apathetic, angry, irritable or humiliated. They may engage in risky behavior, increase use of drugs and alcohol, look for ways to kill themselves, give away possessions, and exhibit changes in appetite, energy or sleep. They may get aggressive or agitated, or they may become passive and withdraw from others. When these feelings and behaviors persist or are present often, they may be warning signs for increased suicide risk.

Chronic Pain and Suicide Risk

In addition to the risk factors for suicide noted above, people with chronic pain may have additional risks for suicide.[9] It is important to note that people with chronic pain can also have mental health conditions such as clinical depression, bipolar disorder and substance use disorders. Family, friends and professionals involved with the person with chronic pain ought to do a mental health check-in regularly. Chronic pain, pain medications, loss of function, unemployment and lack of peer support can increase risk for mental health conditions as well as suicide risk. Researchers have found that the type, severity and duration of chronic pain are associated with suicide even when accounting for mental health conditions. This suggests that the pain itself may be a contributor. Insomnia, especially due to pain, is an important sign that someone may be at risk.

Neurobiological researchers suggest that the brain circuitry of physical and psychic pain may be like those related to suicide. Similar parts of the brain are involved in both pain and suicide and the system related to reward/antireward perception seems to be involved in both. More research into the role of brain function in pain and suicide is needed.[10] Hopelessness, feeling like a burden, and desire to escape pain may be additional warning signs that someone is at increased risk for suicide. When people feel like they are a burden, they mistakenly think that others would be better off without them.

A Note about Opioids, Pain and Suicide

According to the National Institute on Drug Abuse, more than 64,000 people died of drug overdoses last year. Drug overdose is the leading cause of accidental death in the US, and more than 20,000 of those 2016 deaths were related to prescription pain medications. For more than twenty years, clinicians and researchers have been working to determine if chronic pain and suicide are directly related. In light of the opioid crisis, more recently advocates for those living with chronic pain have asked if at least some of those 20,000 deaths attributed to opioids are not accidental at all but rather suicides.

A new analysis by two Princeton economists, Anne Case and Angus Deaton, suggests that chronic pain and the opioids used to treat it may, in fact, be key drivers of the rising rate of suicides, at least among 45- to 54-year-olds. Their data do not allow for the determination of a direct relationship among these three concerns and further research is needed to determine if such a link exists. If deaths associated with opioids currently being labeled by the CDC as “unintentional” are in fact suicides, we may lack understanding to address three critically important public health issues in the US: chronic pain, suicide and the opioid crisis. This also strengthens the argument for the importance of integrating mental and physical health care. It is important to note that the rise in opioid deaths is primarily driven by a threefold increase in

the rate of deaths from heroin and the doubling of deaths by synthetic opioids such as fentanyl and tramadol. The rate of unintentional deaths by natural and semi-synthetic opioids such as oxycodone and hydrocodone, though still accounting for 24 percent of opioid deaths, has declined in the past few years. The combination of pain and opioid use disorders contributes to suicide in combination with other factors noted previously, including access to lethal means in terms of these potentially lethal medications.

What Can be Done When Someone Appears Distressed?

When a person has a host of risk factors and warning signs, it is an appropriate time for a family member, friend or health care professional to have a direct and caring conversation. It is not unusual for people to discount, misinterpret or ignore warning signs; however, they need to be taken seriously. It is important to remember that suicidal ideation and the associated warning signs are not typical for a person who is feeling well. They are a sign of distress, regardless of whether or not they are related specifically to suicide. People with chronic pain may be reluctant to talk about concerns about their emotional well-being, fearing they will be told they are depressed because they are in pain or that it is “all in their head.” However, people with chronic pain may still have treatable mental health conditions, and sometimes the treatments can help with the pain. It is important to consider the mental health of each person with chronic pain.

When approaching someone who has raised concern, let them know what you notice and ask them about how they are feeling. Ask directly if they are thinking about suicide and listen to what they say without judgment and without trying to fix their problems. They may be reluctant to talk at first, so persistence may be necessary. Asking someone about suicide will not make them suicidal, and not asking may lead to a missed opportunity to help a suicidal person access resources and strategies for reducing their suicide risk.

The goals of the caring conversation are to connect with the person, show them they are not alone and that they are important, assess whether there is an immediate danger and help them gain access to any necessary resources and interventions. If they are in immediate danger, they should not be left alone and their access to lethal means needs to be limited. Crisis lines such as the National Suicide Prevention Lifeline (800-273-2355 (TALK)) and the Crisis text line (TALK 741741) are available for assistance, and there may be a mobile crisis unit or 24-hour crisis center available. Hospital emergency departments and the police (911) are also available for emergencies.

Treatments and Interventions to Reduce Suicide Risk

Pain reduction is always a goal although it cannot always be fully achieved. New medications and techniques continue to emerge and it is important to consider all options. Other medications such as anticonvulsants, antidepressants and ketamine have helped many. Psychotherapy, especially Cognitive Behavioral Therapy, have been shown to help people live with more satisfaction and reduce suicidal ideation among people with chronic pain.

Psychotherapies shown to reduce suicidal ideation and behavior focus directly on the management of suicidal ideation and behavior and include Dialectical Behavioral Therapy (DBT), Cognitive Behavioral Therapy-Suicide Prevention (CBT-SP), Collaborative Assessment and Management of Suicidality (CAMS) and Attachment Based Family Therapy (ABFT) for children and their parents. These approaches differ with respect to the focus of treatment and the manner of therapy; however, they are evidence-based interventions aimed at reducing suicidal ideation and behavior.

Developing a tool kit for living with pain can assist people in optimizing their life engagement and functioning. The personal tool kit helps the individual develop necessary skills and a support team. The tool kit includes learning to pace oneself, set goals and action plans, develop relaxation and mindfulness skills, exercise, track progress, deal with setbacks, and develop and maintain patience, compassion and self-respect.

Moments of crisis are not the time to figure out a plan; therefore, a safety plan for managing specific times of increasing stress, suicidal ideation or any type of crisis can be invaluable if put in place proactively. The safety plan is developed individually in collaboration with someone trained in safety plan development, such as a counselor or mental health professional. It is written in hard copy or available via a smartphone app and is useful in helping to guide a person to either avoid or work through a crisis moment.

The safety plan includes:

- warning signs of distress,
- actions that a person can take to distract themselves,
- people they can be with for distraction,
- people who can help with the distress,
- professionals who can be helpful and emergency numbers,
- limiting access to lethal means, and
- reasons for living.

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The safety plan can be shared with those involved, such as family members, friends, teachers or co-workers, and is revisited and revised regularly.[11]

Summary

Chronic pain is not a choice, and millions of people live with ongoing pain and discomfort. It can be depressing, takes mental energy, affects body and brain function, and challenges a person's coping capacity. It can interfere with attention, memory, mental control and general functioning. Despite the negative impact of chronic pain, most people are involved in life and do not engage in suicidal behavior. Many have suicidal thoughts that come and go and do not act on these thoughts. Suicide is relatively infrequent, even in people with chronic pain.

Mental health plays a critical role in well-being and must be assessed routinely. Clinical depression is not a natural part of chronic pain. If one does experience clinical depression, anxiety, excess or dangerous drug or alcohol use or other mental health conditions, evidence-based treatments are available. These treatments are geared toward mental health conditions and decreasing suicidal ideation and behavior, though they may reduce pain as well. Integrated health care that pairs medical and behavioral health professionals is showing great promise for assisting people in managing pain and improving mood and functioning, as well as decreasing isolation.

Conclusion

Suicide can be prevented. Increased knowledge and awareness, decreased stigma and improved access to effective care offer a pathway to saving lives. More research aimed at understanding the association between pain and suicide and effective preventive approaches is needed.

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