

THE OPIOID CRISIS AND ROLE OF OCCUPATIONAL THERAPY

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Workshop Description:

- This workshop focuses on the current U.S. opioid crisis and how it has developed. The risk factors for becoming addicted to opioids will be described, along with the signs and symptoms of addiction and overdose. An overview of the various treatment approaches used with opioid addiction will be presented along with assessments utilized. The potential expanded role for occupational therapy will be discussed, particularly in terms of providing non-pharmacological approaches to pain management.
 - *Section I – Overview of the opioid crisis and its impact across populations*
 - *Section II – Assessment and treatment of opioid use disorders*
 - *Section III – Assessment of pain and pain management in populations across the lifespan*
 - *Section IV – Role of occupational therapy in the opioid crisis*

Learning Objectives:

- Recognize the signs and symptoms of opioid addiction in populations across the lifespan.
- Describe assessments and treatment interventions used in opioid addiction.
- Identify effective nonpharmacological approaches that can be used by OT practitioners for pain management.



Section I:

- Overview of the Opioid Crisis and Its' Impact Across Populations

Terminology:



Opioid Crisis Fast Facts:

- Opioids such as morphine and codeine are naturally derived from opium poppy plants more commonly grown in Asia, Central America and South America.
- Heroin is an illegal drug synthesized from morphine.
- Hydrocodone and oxycodone are semi-synthetic opioids, manufactured in labs with natural and synthetic ingredients. Between 2007 and 2016, the most widely prescribed opioid was hydrocodone (Vicodin). In 2016, 6.2 billion hydrocodone pills were distributed nationwide. The second most prevalent opioid was oxycodone (Percocet). In 2016, 5 billion oxycodone tablets were distributed in the United States.
- The International Narcotics Control Board reported that in 2015, about 99.7% of the world's hydrocodone was consumed by Americans.
- Methadone is another fully synthetic opioid. It is commonly dispensed to recovering heroin addicts to relieve the symptoms of withdrawal.

- ***“The ongoing opioid crisis lies at the intersection of two substantial public health challenges – reducing the burden of suffering from pain and containing the rising toll of the harms that can result from the use of opioid medications.”***

- -- Pain Management and the Opioid Epidemic: Balancing Societal and Individual Benefits and Risks of Prescription Opioid Use; National Academies of Sciences, Engineering, and Medicine, 2017.



Current Statistics:

- Every day, more than 130 people in the United States die after overdosing on opioids.
- The misuse of and addiction to opioids—including prescription pain relievers, heroin, and synthetic opioids such as fentanyl—is a serious national crisis that affects public health as well as social and economic welfare.
- The Centers for Disease Control and Prevention estimates that the total "economic burden" of prescription opioid misuse alone in the United States is \$78.5 billion a year, including the costs of healthcare, lost productivity, addiction treatment, and criminal justice involvement.
 - National Institute of Drug Abuse, January 2019
 - <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis>

The Opioid Crisis:

- The Centers for Disease Control and Prevention (CDC) has recently noted that the opioid crisis is quickly moving to a fentanyl crisis.
- This has coincided with an increase in the demand of the illicit drug market for synthetic opioids as well as other substances, and with a four-fold increase in the heroin death rate since 2010.
- Nationwide, nearly half of all opioid overdose deaths in 2017 involved illicitly manufactured fentanyl.
- Fentanyl is an opioid used for pain and anesthesia and is 50 times more potent than morphine.
- Illicit fentanyl (manufactured abroad and distinct from medical use in the United States), with an even more potent synthetic form, has sometimes been mixed with other opioids (prescription and illicit opioids, cocaine, and other illegal substances), including heroin, resulting in sentinel outcomes because of its concentrated effect and low costs.

What do we know about the opioid crisis?

- Roughly 21 - 29% of patients prescribed opioids for chronic pain misuse them.
- Between 8 - 12% develop an opioid use disorder.
- An estimated 4 - 6% who misuse prescription opioids transition to heroin.
- About 80% of people who use heroin first misused prescription opioids.
- Opioid overdoses increased 30% from July 2016 through September 2017 in 52 areas in 45 states.
- The Midwestern region saw opioid overdoses increase 70% from July 2016 through September 2017.
- Opioid overdoses in large cities increase by 54% in 16 states.
 - <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis>

Names of Opioid Analgesics:

- Oxycodone (OxyContin, Percodan, Percocet)
- Hydrocodone (Vicodin, Lortab, Lorcet)
- Propoxyphene (Darvon)
- Hydromorphone (Dilaudid)
- Meperidine (Demerol)
- Diphenoxylate (Lomotil)
- Fentanyl (Duragesic)
- Morphine (Kadian, Avinza, MS Contin)
- Codeine (Tylenol or Empirin with Codeine)

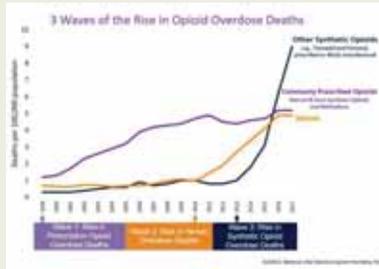


The Opioid Crisis:

- Fentanyl is a fully synthetic opioid, originally developed as a powerful anesthetic for surgery and also administered to alleviate severe pain associated with terminal illnesses like cancer. The drug is up to 100 times more powerful than morphine. Illicitly produced fentanyl has been a driving factor in the number of overdose deaths in recent years.
- The Centers for Disease Control and Prevention (CDC) has recently noted that the opioid crisis is quickly moving to a fentanyl crisis.
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State of the Opioid Crisis:

- Drug overdose deaths continue to increase in the United States.
- From 1999 to 2017, more than 700,000 people have died from a drug overdose.
- Around 68% of the more than 70,200 drug overdose deaths in 2017 involved an opioid.
- In 2017, the number of overdose deaths involving opioids (including prescription opioids and illegal opioids like heroin and illicitly manufactured fentanyl) was 6 times higher than in 1999.
- On average, 130 Americans die every day from an opioid overdose.
 - CDC, 2019



The Epidemic in Numbers:

- Over 249,000,000 million prescriptions for opioids were written in 2013 – enough for every adult in America to have their own bottle of pills!
 - CDC
- There has been a 300% increase in opioid prescription sales since 1999, without overall change in reported pain.
 - CDC



More Statistics:

- More than 47,000 Americans died of opioid overdose in 2017
- Over 2 million Americans live with addiction to opioids.
- More than 50 million Americans suffer from chronic pain and of those, 25 million live with daily chronic pain and lack effective and safe non-opioid options for pain management.
- These staggering numbers are likely underestimates.
- They fail to capture the full extent of the damage of the opioid crisis, which reaches across every domain of family and community life—from lost productivity and economic opportunity, to intergenerational and childhood trauma, to extreme strain on community resources, including first responders, emergency rooms, hospitals, and treatment centers. (NIH, 2018)



THE OPIOID EPIDEMIC BY THE NUMBERS



The History of the Opioid Crisis:

- In the late 1990s, pharmaceutical companies reassured the medical community that patients would not become addicted to prescription opioid pain relievers; healthcare providers began to prescribe them at greater rates.
- This led to widespread diversion and misuse of these medications before it became clear that these medications could indeed be highly addictive and opioid overdose rates began to increase.
- In 2015, more than 33,000 Americans died as a result of an opioid overdose, including prescription opioids, heroin, and illicitly manufactured fentanyl, a powerful synthetic opioid.
- That same year, an estimated 2 million people in the U.S. suffered from substance use disorders related to prescription opioid pain relievers, and 591,000 suffered from a heroin use disorder (not mutually exclusive).

Pain in the Era of the Fifth Vital Sign:

- The Harrison Narcotic Act in 1914 led to physicians and patients being afraid of developing addiction if placed on morphine or other opioids, which led to opioids being used sparingly in the treatment of chronic pain.
- In 1986 the World Health Organization developed cancer pain treatment guidelines that included opioids for the first time and recognized the treatment of pain as a universal right.
- The American Pain Society initiated an influential campaign, “Pain, The Fifth Vital Sign,” to raise awareness among health professionals of pain assessment and management; this led to opioids were promoted as a way to improve quality at end of life.
- By the late 1990s, it was generally accepted that all patients are entitled to the assessment and treatment of pain, resulting in JCAHO mandating pain assessment and treatment of all patients in accredited healthcare settings by 2001 in order to receive federal health care dollar.

Pain in the Era of the Fifth Vital Sign:

- In 1996, Purdue Pharmaceuticals introduced Oxycontin®, which was marketed aggressively with FDA-approved labeling to claim that addiction was “very rare”.
- This resulted in an exponential increase in the number of Oxycontin prescriptions from 670,000 in 1997 to about 6.2 million in 2002, when the label was changed to drop the above language.
- Opioid prescriptions were frequently written by practitioners without specialty training (including dentists), and in a few rare cases, by providers who focused on writing opioid prescriptions for profit.



The Power of Opioids:

- Opioid medications exert their analgesic effects predominantly by binding to mu-opioid receptors.
- Mu-opioid receptors are densely concentrated in brain regions that regulate pain perception, including pain-induced emotional responses, and in brain reward regions that underlie the perception of pleasure and well-being.
- This explains why opioid medications can produce both analgesia and euphoria.
- Mu-opioid receptors in other brain regions and in peripheral organs account for other common opioid effects.
- In particular, mu-opioid receptors in the brain stem are mainly responsible for the respiratory depression associated with opioid-overdose incidents and deaths

Opioid Addiction and the Brain:

- Opioids attach to receptors in brain
 - ➔ **Pleasure**
- Repeated opioid use
 - ➔ **Tolerance**
- Absence of opioids after prolonged use
 - ➔ **Withdrawal**



More on How Opioids Work

- Opioids not only directly activate these brain analgesia and reward regions but also concurrently mediate a learned association between receipt of the drug and the physiological and perceptual effects of the drug – a type of Pavlovian conditioning.
- Repeated receipt of opioids strengthens these learned associations and over time becomes part of the desire (craving) for the drug’s effects – analgesic or pleasurable.
- For a patient in chronic pain, even mild levels of pain can trigger the learned associations between pain and drug relief, which are manifested as an urge for relief.
- Such a conditioned urge for relief from even mild pain can lead to the early, inappropriate use of an opioid outside prescribed scheduling.

Why Do Adults Misuse Prescription Drugs?

- The 11.5 million adults who misused prescription pain relievers at least once in the past year were asked to identify the reason for their most recent pain reliever misuse.
 - to relieve physical pain,
 - to relax or relieve tension,
 - to feel good or get high,
 - to help with sleep,
 - to help with feelings or emotions,
 - to experiment or see what the drug is like,
 - to increase or decrease the effects of other drugs,
 - because the respondent is “hooked” or has to have the drug, or
 - for some other reason.



Reflective Exercise:

- How many of you have been prescribed an opioid painkiller?
- For what purpose?
- Did you take it?
- How did it make you feel?
- What did you do with the pills when you were done?



Children and the Opioid Crisis:

- Who are these children and adolescents?
- Newborns whose mothers are addicted to opioids. These babies may undergo withdrawal themselves and need special treatment.
- Children of all ages at risk for accidental ingestion or inhalation of toxic substances.
- Children living with an addicted parent, dealing with constant uncertainty and fear.
- Children who have taken over the role of family caregiver for younger siblings or for their addicted parents.
- Children who are removed from their homes and placed in foster or kinship care. Some of these children have unmet mental health care needs.
- Very young children exposed to toxic levels of stress that impair brain development.
 - STAT, Carol Levine, Jan. 2, 2018 <https://www.statnews.com/2018/01/02/opioid-epidemic-impact-children/>

Neonates:

- <https://www.drugabuse.gov/related-topics/trends-statistics/infographics/dramatic-increases-in-maternal-opioid-use-neonatal-abstinence-syndrome>



Neonatal Abstinence Syndrome (NAS):

- First described in the medical literature in the 1970
- Dramatic increases in past 10 years
- Caused by the sudden discontinuation of fetal exposure to substances that were used or abused by the mother during pregnancy
- Occurs in 55 – 94% of newborns whose mothers were addicted to or treated with opioids during pregnancy
- Clinical manifestations vary based on which substance was abused, what other drugs were used, how long and at what dosage.
- Treatment should be individualized, supportive, and non-pharmacologic
- However, 60 – 80% of newborns with NAS do not respond to non-pharmacologic treatment and require medication (morphine)
- Newborns with NAS/NOWS are more likely than other babies to also have low birthweight and respiratory complications.

Facts about Increases in Maternal Opioid Use:

- The rate of babies born with Neonatal Abstinence Syndrome (NAS) is increasing
 - 1.2 per 1,000 hospital births in 2000
 - 1.5 in 2003
 - 1.96 in 2006
 - 3.39 in 2009
 - 5.8 in 2012
 - 6.5 in 2014
- Average length of hospital stays for newborns with NAS is 16.9 days as opposed to 2.1 days without NAS
- Hospital costs for babies with NAS is \$66,700 compared to \$3,500 without NAS
- \$563 million spent in 2014 alone



Symptoms of NAS:

- **METABOLIC, VASOMOTOR, RESPIRATORY:**
 - Fever
 - Frequent yawning
 - Sneezing
 - Sweating
 - Nasal stuffiness
 - Respiration rate more than 60/minute
 - Fast, shallow breathing
- **GASRO-INTESTINAL:**
 - Projectile vomiting
 - Regurgitation
 - Loose, watery stools
 - Weight loss
 - Poor feeding
 - Excessive sucking
- **CNS:**
 - Tremors
 - High-pitched crying
 - Sleep disturbance
 - Increased muscle tone
 - Excoriation
 - Myoclonic jerks
 - Irritability
 - Seizures

Non-Pharm Management of NAS:

- Limit exposure to lights and noise
- Minimize handling
- Promote rest
- Music therapy
- Massage/Rub infant's back instead of patting
- Use of a water bed
- Swaddling and holding infant
- Provide opportunities for non-nutritive sucking
- Adequate nutrition to minimize weight loss
- Increase frequency of feedings with high-caloric, lactose-free formula
- Recruitment of volunteers to hold infant



Providing Care for Infant with NAS

- Holding
 - *Swaddling - this helps them regulate*
- Rub infant's back instead of patting
- Infant massage may be beneficial
- Feeding/sucking:
 - *Frequent small/demand feedings may be helpful*
 - *Breastfeeding*
 - *Use a pacifier*
- Most important ... Be attuned to the infant and adjust to their responses



What Happens to Infants with NAS?

- Research is only beginning in this area
 - "children with a history of NAS were significantly more likely
 - to have a subsequent educational disability
 - to be referred for evaluation of educational disability
 - to meet criteria for an educational disability
 - to receive special education therapies or services
 - to be diagnosed with developmental delay, speech/language impairment"
- *Fill, Miller, Wilkinson, Warren, Dunn, Schaffer, & Jones, 2018*



Medication Safe Storage with Children:

- A survey was administered to adults reporting opioid prescription pain reliever use in the previous 12 months and who had children <18 years old living with them.
- Safe storage was defined as locked or latched for younger children and as locked for older children.
- Among 681 adults who completed our survey and reported having children in their home, safe storage was reported by 32.6% of those with only young children, 11.7% among those with only older children, and 29.0% among those with children in both age groups.
- Opioid pain relievers are stored unsafely in many households with children.
- Educational messages should address perceived barriers related to safe storage while emphasizing how it may reduce OPR access among children.
 - McDonald, Hendricks, McGinty, Shields, Berry & Gielen, 2017

Parents with Young Children:



Children and Opioids in the Home:

- Opioid Safety Protocol For The Home
- <https://www.youtube.com/watch?v=jlH0gi92KKA>
- <https://www.nationwidechildrens.org/specialties/comprehensive-pain-management-clinic/pain-treatment-therapy-options/opioid-safety>



Prescribing Patterns of Opioids to Children:

- From 1999 - 2014, 1 out of 10 children enrolled in Tennessee's Medicaid program were prescribed opioids, according to a study published in Pediatrics.
- Researchers analyzed state Medicaid data on children ages 2-17 who did not have a serious chronic disease, prolonged hospitalization, institutional residence or evidence of a substance use disorder during the study period.
 - 1. *Over the 15-year period, physicians in Tennessee prescribed more than 1.3 million opioids to children, even though the FDA only recommends prescribing opioids to minors with "severe conditions" such as sickle cell anemia and cancer.*
 - 2. *About 31 % of opioid prescriptions for children were given after a dental procedure, followed by outpatient procedures (21.5 % of prescriptions), trauma cases (18.1 %) and infections (16.5 %).*
 - 3. *One out of every 2,611 prescriptions was linked to an opioid-related emergency department visit, hospitalization or death.*
 - 4. *Researchers suggested these prescriptions to children without severe conditions can cause unnecessary exposure and urged physicians to consider alternative options to opioids before prescribing.*
- "The opioid epidemic is complex, it's complicated, it has patient and physician-level origins...a study like this highlights is that opioids are not benign and should be used when they are appropriate for the shortest duration possible."
 - Chung, C., Callahan, T., Cooper, W., Dupont, W., Murray, K., Franklin, A., Hall, K., Dudley, J., Stein, M., & Ray, W. (2018).

Current Issues with Children and Opioids:

- **Parents Using Their Children's Pain to Get Opioids** - Almost half of American teens who misused a prescription opioid in the past year got the pills from a friend or relative for free; some doctors are concerned about the diversion of prescription opioids in the other direction – from child to parent; no data on how many parents misuse the opioid medication that their child is prescribed for pain, some doctors say it's common enough that pediatricians should be cautious when prescribing opioids to children and teens.
- **More Children Coming to Hospitals Addicted to Opioids** - This amounts to about 135 young people each day testing positive for opioid dependence or addiction in 2013 – including prescription pain medications and illegal drugs such as heroin.
- **Opioid Epidemic Burdening Grandparents, Foster Homes** - As the opioid epidemic pushes children out of their parents' custody, grandparents and other relatives are forced to step up; In 2014, more than 40 percent of children in foster care with relatives were there because of their parents' opioid, alcohol, or other drug use, according to Generations United.
- **Poison Centers Inundated with Calls About Children Ingesting Prescription Pills** - Every 45 minutes, on average, a call is made to a poison control center in the United States about a child being exposed to prescription opioids. About 60 percent of those were regarding children younger than age 5. The next category was teens with a 50% increase in suicides.
 - <https://www.healthline.com/health-news/children-ingesting-prescription-pills#2>

Children and the Opioid Crisis:

- The number of children admitted to hospitals for opioid overdose has nearly doubled since 2004
- Children between ages 1-17 who were admitted to hospitals and pediatric intensive care units with opioid-related diagnoses from 2004 to 2015 nearly doubled to 1,504 patients between 2012 and 2015, from 797 patients between 2004 and 2007.
- The researchers cautioned that many of these children likely overdosed after stumbling upon their parents' prescription medications.
- *"When they come in, they're going to fall into one of two categories: either they're teenagers with intentional or drug-seeking behavior because of recreational or self-injurious behavior, or they're kids who got into their parents' medication."*
- *"The thing that was a bit striking is that in the youngest children, those under six years of age, 20% of the ingestions were of methadone. So you sort of have to ask yourself: where are they getting all this methadone from?"*
- Children between the age of 1 - 5 years were the second most-likely to be admitted for opioid overdose, accounting for over one-third of cases. The vast majority were likely the result of accidental consumption of medications such as methadone and oxycodone that had been prescribed to the children's parents.
- *"Children accidentally getting into medications is not a new phenomenon. But this is probably a reflection of the massive amount of drugs -- opioid drugs -- that are available to children in the community."*
 - Kane, Colvin, Bartlett, & Hall, 2018

Opioid Crisis Impact on Families/Caregivers:

- Increase of opioid misuse has significantly impacted the child welfare system.
- Infants are coming into protective custody at alarming rates.
- Grandparents are becoming primary caregivers for a second time.
- Approximately 2.6 million children are being raised by grandparents or are in kinship care with no birth parents in the home. This is 4% of all children.
- Approximately 32% of children in foster care (139,000+) are being raised by relatives. For every child in foster care with a relative, there are 19 children being raised by grandparents or family members outside of the foster care system.
- It is important that caregivers recognize signs that their anxiety levels are increasing and arrange to take breaks from care
 - Generations United, (2016). *Raising the children of the opioid epidemic: Solutions and support for grandparents.*
 - <https://www.gu.org/app/uploads/2018/09/Grandfamilies-Report-SOGF-Updated.pdf>

Adolescents:

- In 2014, 467,000 adolescents were current non-medical users of pain relievers and this is on the rise.
- 168,000 of them had an addiction to prescription pain relievers
- People often share their unused pain relievers, and do not discard unused pain relievers, unaware of the dangers of nonmedical opioid use
- Most adolescents who misuse prescription pain relievers are given them for free by a friend or relative (or they take them from them).
- The prescribing rates for prescription opioids among adolescents and young adults doubled from 1994 - 2007.
- Many who start on prescription opioids progress to heroin.
 - Wenner & Gligli, 2016

Adolescents and Opioid Use:

- Prescription drug misuse, which can include opioids, is among the fastest growing drug problems in the United States.
- In 2016, 3.6 percent of adolescents aged 12 to 17 reported misusing opioids over the past year. This percentage is higher (7.3 percent) among older adolescents and young adults aged 18 to 25. The vast majority of this misuse is due to prescription opioids, not heroin.
- Death from overdose is the most serious consequence of prescription drug misuse.
- And while the number of deaths from drug overdose remains quite low overall, the rate of overdose deaths among adolescents is increasing.
- In 2015, 4,235 youth aged 15 to 24 died from a drug related overdose; over half of these were attributable to opioids.
- The CDC estimates that for every young adult overdose death, there are 119 emergency room visits and 22 treatment admissions.
 - HHS, November 2017

Opioid Use in Adolescents:

- Adolescents can progress from first use to full-blown dependence in months, when compared to a similar pattern of use in adults
- Teens often are convinced they don't need help and can quit on their own and they believe they are invincible and don't need treatment or meds
- There are devastating consequences for youth and their families including
 - Progression to full addiction
 - Severe psychological impairment
 - Hepatitis C and HIV transmission with injection use
 - Exacerbation of co-occurring psychiatric drugs
 - Overdose
 - Death
 - Sharma, Bruner, Barnett, & Fishman, 2015

To Parents with Teenagers at Home:



Treatment of Adolescents with OUD:

- Engagement in treatment is difficult
- Has to be developmentally appropriate
- Needs family involvement
- Treatment resources are scarce
- Insurance coverage varies widely
- Teens often are convinced they don't need help and can quit on their own
- They believe they are invincible and don't need treatment or meds
- Treatment programs must be relevant, friendly, and interesting.
 - Sharman, Bruner, Barnett & Fishman, 2015

Intervention Ideas for Children and Youth:

- Resource: Intervention IDEAs for Infants, Toddlers, Children and Youth Impacted by Opioids
- Available at:
<https://osepideasthatwork.org/sites/default/files/IDEAsIlsBrief-Opioids-508.pdf>



People with Serious Mental Illness:

- *"Evidence from the field suggests that a new, more complex health problem is emerging for persons who have serious mental illness (SMI). Today, a large and growing proportion of these individuals also use or are dependent upon opioids. Anecdotal reports from the field suggest that up to half of adults with SMI in our urban areas, particularly those with schizophrenia or bipolar disorder, have this comorbidity."*
- *"The devastating effects of opioids are well known. With today's much stronger formulation of prescription opioids that include fentanyl or k-fentanyl (a particularly strong version of fentanyl produced in China), one can become addicted with the use of as few as three or four pills. Street opioids, such as heroin laced with impure k-fentanyl, can lead to death with a single use. Overdose and death are very common; naloxone can save lives, but is not yet broadly available to persons with SMI, especially those who are homeless and live on the streets."*

People with Serious Mental Illness:

- *"Within as short as 30 days of starting to use opioids, the likelihood doubles that one also will develop depression. And the reverse also is true: a person with depression has twice the likelihood of using or becoming dependent upon opioids. Thus, this relationship is a downward-spiraling vicious cycle likely to lead directly to death from overdose or indirectly from suicide."*
- *"We have documented for more than three decades the relationship between SMI and long-term physical conditions, such as heart disease, diabetes, cancer, COPD, and arthritis, among others. Many of these conditions can and do lead to early death when not treated appropriately. Opioids frequently are prescribed to address pain associated with these conditions. Thus, it is easy to discern how an adult with SMI also could become addicted to opioids. It also is easy to understand how this addiction could morph from prescription opioids to street heroin, overdose, and death."*
- <https://www.behavioral.net/blogs/ron-manderscheid/prescription-drug-abuse/address-emerging-smi-and-opioid-crisis>

Suicide Risk:

- Public comments submitted to the Task Force show growing consideration of suicide resulting from unrelieved pain and in some cases lack of access to treatment.
- According to a recent CDC report using data from the National Violent Death Reporting System, the percentage of people who died by suicide who also had evidence of chronic pain increased from 7.4% in 2003 to 10.2% in 2014.
- Numbers from this data set beyond 2014 are not yet available.
- This finding leads to the rising concern that a recent trend of health care professionals opting out of treating pain has contributed to an existing shortage of pain management specialists³ and is leaving some patients without adequate access to care.

Women:

- Between 1999 and 2015, the rate of deaths from prescription opioid overdoses increased 471% among women, compared to an increase of 218% among men.
- Heroin deaths among women increased at more than twice the rate than among men.
- There has been an increase in the rates of synthetic opioid-related deaths in women of 850% between 1999 and 2015.
- Women are more likely than men to experience chronic pain than men and they tend to use prescription opioid pain medications for longer periods and in higher doses.
 - *U.S. Dept. of Health and Human Services, 2017*

Women (cont.):

- Women tend to use substances differently than men, sometimes using a smaller amount of drugs for a shorter amount of time before they become dependent.
- Research suggests that women who use opioids progress to dependence more quickly than men, and experience more cravings than men. This is known as "telescoping", referring to the progression of time from first use of an addictive substance to physical dependence on that substance.
- Women are more likely than men to initiate hazardous drug use while in some type of intimate partner relationship, particularly after introduction of the substance by a boyfriend or spouse.
 - *U.S. Dept. of Health and Human Services, 2017*



Women (cont.):

- A history of traumatic childhood events, such as physical or sexual abuse, has been associated with the initiation of substance abuse in women.
- Research has demonstrated that rates of childhood trauma are higher in women than men. It is estimated that 55% - 99% of women who misuse substances had a history of trauma, compared with 36% - 51% of the general population.
- Middle class white women are more likely to be treated for chronic pain, however, women with substance use disorders are more likely to have lower incomes, be unemployed, and have less education than women without substance use.
- From 2000 - 2009, prenatal maternal opioid use increased from 1.19 to 5.63 per 1,000 hospital births per year.
 - *U.S. Dept. of Health and Human Services, 2017*

Older Adults:

- As the baby boomer generation ages and the population of older adults in the U.S. grows, opioid misuse among older Americans is becoming an urgent public health concern.
- The population of older adults who misuse opioids is projected to double from 2004 to 2020, from 1.2% to 2.4%.
- Roughly one in three beneficiaries in Medicare's prescription drug program received a prescription for opioids in 2016, with the average dose far exceeding the manufacturer's recommended amount.
- Beyond the threat of addiction, opioid use can also pose health risks such as breathing complications, confusion, drug interaction problems, and increased risk of falls, which can be more dangerous in the older adult population.
 - *SAMHSA, 2017*



Older Adults and Opioid-Related Problems:

- Among US adults age 65 years and older, the number of hospitalizations for opioid related diagnoses rose from 80 500 in 2010 to 124 300 in 2015, according to a recently published report from the Agency for Healthcare Research and Quality.
- During that same period, the number of opioid-related emergency department visits by patients in that age group doubled, from 18 100 to 36 200.
- The rate of opioid-related hospital stays increased 34.3% between 2010 and 2015 among those 65 years and older, from 199.3 to 267.6 per 100 000 population.
- Meanwhile, the rate of hospital stays that were not related to opioids declined 17.4%.
- In addition, the rate of opioid-related emergency department (ED) visits by people ages 65 years and older increased 74.2% during the period studied, from 44.7 to 77.9 per 100 000 population.
- The rate of ED visits not related to opioid use in that age group increased 17.4%.
 - *JAMA (2018) 320 (20), p. 2067*

People with Chronic Pain:

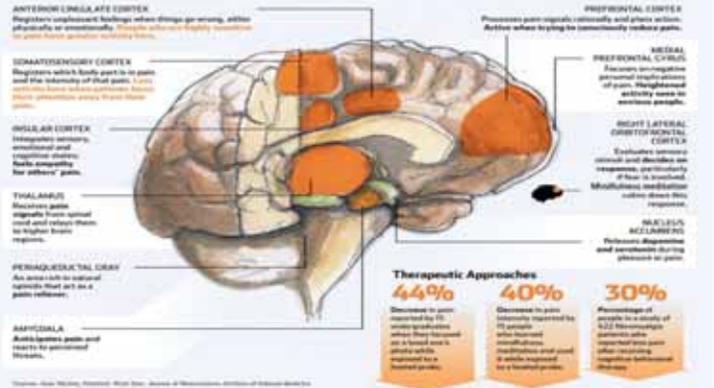
- The Grim Statistics:
 - 50 million Americans have chronic pain (lasting 6 months or longer)
 - Only 30% of cancer patients have adequate relief
 - 25 million experience short term pain from injuries or surgery
 - Pain is the primary complaint for which people seek treatment
 - Women are more likely to have chronic pain, more likely to be prescribed prescription pain relievers, be given higher doses, and use them longer periods of time than men.
 - Women also may become dependent on prescription pain reliever more quickly than men.

Magnitude of the Pain Problem:

- Over 11 million people experience migraine headaches
- 23 million people report chronic back pain
- 37 million people have arthritis-related pain
- 3 – 6 million people are diagnosed with fibromyalgia
- 3.5 million people experience cancer pain
- Health care costs for pain exceed \$125 billion



How the Mind Processes Pain



Exercise:

- Think about one of your earliest experiences of pain.
- What caused the pain?
- What did you do?
- Was anyone there with you?
- What did they do for you?
- How did that help?
- How did that early life experience affect how you handle pain today?
- Discuss this with others near you.



Reflection:

- Think back to the very first time you took any medication (including alcohol) for pain relief. Include your age at the time, what you were doing, who you were with, what happened, what you were thinking about your pain, how you were affected (emotions that emerged), who suggested the pain medication, what it was, and how much was used.
- What did you want the medication to do for you?
- What did you want the medication to help you cope with or escape from?
- What happened when you were growing up in your family when someone was in pain? What were the messages you received about pain management?
- What have you learned from this exercise?
 - *Grinstead & Gorski, p. 24*

Section II:

Assessment and Treatment of Opioid Use Disorders

Heroin Use Facts:

- From 2002–2013, past month heroin use, past year heroin use, and heroin addiction all increased among 18-25 year olds.
- The number of people who started to use heroin in the past year has also increased.
- Among new heroin users, approximately 3 out of 4 report abusing prescription opioids prior to using heroin.
- The increased availability, lower price, and increased purity of heroin in the US have been identified as possible contributors to rising rates of heroin use.
- Heroin-related deaths more than tripled between 2010 and 2015, with 12,989 heroin deaths in 2015.
 - *CDC*

Signs and Symptoms of Opioid Addiction:

- Physical signs that someone may be abusing an opiate include:
 - Noticeable elation/euphoria
 - Marked sedation/drowsiness
 - Confusion
 - Constricted pupils
 - Slowed breathing
 - Intermittent nodding off, or loss of consciousness.
 - Constipation
- Other signs of opiate abuse include:
 - Doctor shopping (getting multiple prescriptions from different doctors).
 - Shifting or dramatically changing moods.
 - Extra pill bottles turning up in the trash.
 - Social withdrawal/isolation.
 - Sudden financial problems



Opiate Withdrawal Symptoms:

- Withdrawal symptoms can mimic flu symptoms and include:
 - Headache
 - Nausea and vomiting
 - Diarrhea
 - Sweating
 - Fatigue
 - Anxiety
 - Inability to sleep



Opiate Overdose Symptoms:

- Opiate overdose symptoms include:
 - Vomiting
 - Lightheadedness
 - Tiny, unreactive pupils
 - Low blood pressure
 - Pale skin
 - Blue-like color to lips and nails
 - Limp body
 - Cold, clammy skin
 - Non-responsiveness
 - Unconsciousness
 - Extremely slow or stopped breathing
 - Seizures
 - Profoundly slowed heart rate



Morphine Overdose Symptoms:

- Morphine Overdose symptoms include:
 - A cold or clammy feel to the skin
 - Bluish hue in the fingertips and lips
 - Constricted (small) pupils
 - Blurry vision
 - Nausea
 - Vomiting
 - Severe constipation
 - Severely slowed or irregular breathing
 - Slow heartbeat
 - Limp muscles
 - Coma



Opioid Use Assessments:

- Chart of Evidence-Based Screening Tools for Adults and Adolescents
- National Institute for Drug Abuse, June, 2018
 - <https://www.drugabuse.gov/nidamed-medical-health-professionals/tool-resources-your-practice/screening-assessment-drug-testing-resources/chart-evidence-based-screening-tools-adults>



Assessments for Substance Use:

- DAST - 20 (Adult and Adolescent Versions)
 - http://www.emcdda.europa.eu/attachelements.cfm/att_61480_EN_DAST%202008.pdf
- CAGE - AID (Adults)
 - <http://www.integration.samhsa.gov/images/res/CAGEAID.pdf>
- Opioid Risk Tool (Adults)
 - <https://www.drugabuse.gov/sites/default/files/files/OpioidRiskTool.pdf>
- NIDA Drug Use Screening Tool: Quick Screen & Full Screen (Adults)
 - <https://www.drugabuse.gov/nmassist/>
- CRAFFT (Part A) (Adolescents)
 - https://www.integration.samhsa.gov/clinical-practice/sbirt/CRAFFT_Screening_interview.pdf
- DAST - 10 (Adults)
 - https://cde.drugabuse.gov/sites/nida_cde/files/DrugAbuseScreeningTest_2014Mar_24.pdf

DAST – 10:

- The Drug Abuse Screening Test (DAST-10) is a 10-item brief screening tool that can be administered by a clinician or self-administered.
- Each question requires a yes or no response, and the tool can be completed in less than 8 minutes.
- This tool assesses drug use, not including alcohol or tobacco use, in the past 12 months.
- *"I'm going to read you a list of questions concerning information about your potential involvement with drugs, excluding alcohol and tobacco, during the past 12 months. When the words "drug abuse" are used, they mean the use of prescribed or over-the-counter medications/drugs in excess of the directions and any non-medical use of drugs. The various classes of drugs may include: cannabis (e.g., marijuana, hash), solvents, tranquilizers (e.g., Valium), barbiturates, cocaine, stimulants (e.g., speed), hallucinogens (e.g., LSD) or narcotics (e.g., heroin). Remember that the questions do not include alcohol or tobacco."*

DAST – 10:

- Have you used drugs other than those required for medical reasons?
- Do you abuse more than one drug at a time?
- Are you always able to stop using drugs when you want to?
- Have you had "blackouts" or "flashbacks" as a result of drug use?
- Do you ever feel bad or guilty about your drug use?
- Does your spouse (or parents) ever complain about your involvement with drugs?
- Have you neglected your family because of your use of drugs?
- Have you engaged in illegal activities in order to obtain drugs?
- Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?
- Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding, etc.)?

CAGE-AID:

- The CAGE questionnaire is used to test for alcohol abuse and dependence in adults; the CAGE-AID version of the tool has been adapted to include drug use.
- These tools are not used to diagnose diseases, but only to indicate whether a problem might exist.
- The questions are most effective when used as part of a general health history and should NOT be preceded by questions about how much or how frequently the patient drinks or uses drugs.
- The reason for this is that denial is very common among persons abusing alcohol or other drugs; and therefore, the CAGE/CAGE-AID questions focus the discussion toward the behavioral effects of the drinking or drug use rather than toward the number of drinks or drugs used per day.
- Item responses on the CAGE and CAGE-AID are scored 0 or 1, with a higher score indicating alcohol or drug use problems.
- A total score of 2 or greater is considered clinically significant, which then should lead the physician to ask more specific questions about frequency and quantity.

CAGE – AID:

- 1. Have you ever felt you ought to cut down on your drinking or drug use?
- 2. Have people annoyed you by criticizing your drinking or drug use?
- 3. Have you felt bad or guilty about your drinking or drug use?
- 4. Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover?

Opioid Risk Tool:

- The Opioid Risk Tool (ORT) is a brief, self-report screening tool designed for use with adult patients in primary care settings to assess risk for opioid abuse among individuals prescribed opioids for treatment of chronic pain
- Patients categorized as high-risk are at increased likelihood of future abusive drug-related behavior
- The ORT can be administered and scored in less than 1 minute and has been validated in both male and female patients, but not in non-pain populations.

Opioid Risk Scale:

Opioid Risk Tool ^[1,2]		
Mark each box that applies	Female	Male
1. Family history of substance abuse		
• Alcohol	<input type="checkbox"/> 1	<input type="checkbox"/> 3
• Illegal drugs	<input type="checkbox"/> 2	<input type="checkbox"/> 3
• Prescription drugs	<input type="checkbox"/> 4	<input type="checkbox"/> 4
2. Personal history of substance abuse		
• Alcohol	<input type="checkbox"/> 3	<input type="checkbox"/> 3
• Illegal drugs	<input type="checkbox"/> 4	<input type="checkbox"/> 4
• Prescription drugs	<input type="checkbox"/> 5	<input type="checkbox"/> 5
3. Age (mark box if 16-45 years)	<input type="checkbox"/> 1	<input type="checkbox"/> 1
4. History of preadolescent sexual abuse	<input type="checkbox"/> 3	<input type="checkbox"/> 0
5. Psychological disease		
• ADD, OCD, bipolar, schizophrenia	<input type="checkbox"/> 2	<input type="checkbox"/> 2
• Depression	<input type="checkbox"/> 1	<input type="checkbox"/> 1

ADD = attention deficit disorder
OCD = obsessive-compulsive disorder

NIDA Quick Screen:

- Instructions: Using the sample language below, introduce yourself to your patient, then ask about past year drug use, using the NIDA Quick Screen. For each substance, mark in the appropriate column. For example, if the patient has used cocaine monthly in the past year, put a mark in the "Monthly" column in the "illegal drug" row.
- Introduction (Please read to patient)
- "Hi, I'm _____, nice to meet you. If it's okay with you, I'd like to ask you a few questions that will help me give you better medical care. The questions relate to your experience with alcohol, cigarettes, and other drugs. Some of the substances we'll talk about are prescribed by a doctor (like pain medications). But I will only record those if you have taken them for reasons or in doses other than prescribed. I'll also ask you about illicit or illegal drug use—but only to better diagnose and treat you."

NIDA Quick Screen:

- In the past year, how often have you used the following?
Never - Once/Twice - Monthly - Weekly - Daily/ Almost Daily
- Alcohol
- For men, 5 or more drinks a day
- For women, 4 or more drinks a day
- Tobacco Products
- Prescription Drugs for Non-Medical Reasons
- Illegal Drugs
- If the patient says "NO" for all drugs in the Quick Screen, reinforce abstinence. Screening is complete. If patient says "Yes" to one or more days of heavy drinking, note that patient is an at-risk drinker.

CRAFFT:

- The CRAFFT is a behavioral health screening tool for use with youth under the age of 21 and is recommended by the American Academy of Pediatrics' Committee on Substance Abuse for use with adolescents.
- It consists of a series of 6 questions developed to screen adolescents for high risk alcohol and other drug use disorders simultaneously.
- Screening using the CRAFFT begins by asking the adolescent to "Please answer these next questions honestly"; telling him/her "Your answers will be kept confidential"; and then asking three opening questions.
- If the adolescent answers "No" to all three opening questions, the provider only needs to ask the adolescent the first question - the CAR question. If the adolescent answers "Yes" to any one or more of the three opening questions, the provider asks all six CRAFFT questions.

CRAFFT Questions:

- CRAFFT is a mnemonic acronym of first letters of key words in the six screening questions. The questions should be asked exactly as written.
 - **C** - Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs?
 - **R** - Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in?
 - **A** - Do you ever use alcohol/drugs while you are by yourself, ALONE?
 - **F** - Do you ever FORGET things you did while using alcohol or drugs?
 - **F** - Do your family or FRIENDS ever tell you that you should cut down on your drinking or drug use?
 - **T** - Have you gotten into TROUBLE while you were using alcohol or drugs?

Screening Tools for Adolescents:

- Brief Screener for Tobacco, Alcohol and Other Drugs (BSTAD) - online, 3 questions, for ages 12 - 17
 - BSTAD asks a single frequency question for past year use of the three substances most commonly used by adolescents: tobacco, alcohol, and marijuana. Patients who report using any of these three substances are then asked questions about additional substance use.
 - <https://www.drugabuse.gov/ast/bstad/#/>
- Screening to Brief Intervention (S2BI) – 3 questions, online, ages 12 - 17
 - S2BI asks a single frequency question for past year's use of the three substances most commonly used by adolescents: tobacco, alcohol, and marijuana. An affirmative response prompts questions about additional types of substances used.
 - <https://www.drugabuse.gov/ast/s2bi/#/>

More Assessments for Substance Use:

- Screener and Opioid Assessment for Patients with Pain – Revised
 - <https://d1l15256ygm7oi.cloudfront.net/colospine/2016/08/SOAPP-R-Screener-and-Opioid-Assessment-for-Patients-with-Pain-Revised-160816-57b258fc9a277.pdf>
- Current Opioid Misuse Measure (COMM)
 - <http://mytopcare.org/wp-content/uploads/2013/05/COMM.pdf>
- Pain Assessment and Documentation Tool
 - <https://www.drugabuse.gov/sites/default/files/files/PainAssessmentDocumentationTool.pdf>
- Clinical Opiate Withdrawal Scale
 - <https://www.drugabuse.gov/sites/default/files/files/ClinicalOpiateWithdrawalScale.pdf>

Screening Tool for Adults:

- The Tobacco, Alcohol, Prescription medication, and other Substance use (TAPS) Tool – 4 items, online
 - Combines screening and brief assessment for commonly used substances, eliminating the need for multiple screening and lengthy assessment tools
 - Provides a two stage brief assessment adapted from the NIDA quick screen and brief assessment (adapted ASSIST-lite)
 - May be either self-administered directly by the patient or as an interview by a health professional
 - Uses an electronic format (available here as an online tool)
 - Uses a screening component to ask about frequency of substance use in the past 12 months
 - Facilitates a brief assessment of past 3 months problem use to the patient
 - <https://www.drugabuse.gov/taps/#/>

Current Opioid Misuse Measure :

- The COMM™ is a brief patient self-assessment to monitor chronic pain patients on opioid therapy.
- 17 items, takes 10 minutes to administer, 5 point rating scale
- This assessment examines six key issues to determine if patients already on long-term opioid treatment are exhibiting aberrant medication-related behaviors:
 - Signs & Symptoms of Intoxication
 - Emotional Volatility
 - Evidence of Poor Response to Medications
 - Addiction
 - Healthcare Use Patterns
 - Problematic Medication Behavior

COMM Questions:

1. In the past 30 days, how often have you had trouble with thinking clearly or had memory problems?
2. In the past 30 days, how often do people complain that you are not completing necessary tasks? (i.e., doing things that need to be done, such as going to class, work or appointments)
3. In the past 30 days, how often have you had to go to someone other than your prescribing physician to get sufficient pain relief from medications? (i.e., another doctor, the Emergency Room, friends, street sources)
4. In the past 30 days, how often have you taken your medications differently from how they are prescribed?
5. In the past 30 days, how often have you seriously thought about hurting yourself?

COMM Questions:

6. In the past 30 days, how much of your time was spent thinking about opioid medications (having enough, taking them, dosing schedule, etc.)?
7. In the past 30 days, how often have you been in an argument?
8. In the past 30 days, how often have you had trouble controlling your anger (e.g., road rage, screaming, etc.)?
9. In the past 30 days, how often have you needed to take pain medications belonging to someone else?
10. In the past 30 days, how often have you been worried about how you're handling your medications?
11. In the past 30 days, how often have others been worried about how you're handling your medications?

COMM Questions:

12. In the past 30 days, how often have you had to make an emergency phone call or show up at the clinic without an appointment?
13. In the past 30 days, how often have you gotten angry with people?
14. In the past 30 days, how often have you had to take more of your medication than prescribed?
15. In the past 30 days, how often have you borrowed pain medication from someone else?
16. In the past 30 days, how often have you used your pain medicine for symptoms other than for pain (e.g., to help you sleep, improve your mood, or relieve stress)?
17. In the past 30 days, how often have you had to visit the Emergency Room?

Screeener and Opioid Assessment for Patients with Pain – Revised (SOAPP®-R):

- The (SOAPP®-R) is a tool for clinicians to help determine how much monitoring a patient on long-term opioid therapy might require.
- 24 item questionnaire, takes less than 10 minutes to score
- The SOAPP-R should be completed by chronic pain patients being considered for opioid therapy.
- The SOAPP-R is NOT a lie detector. Patients determined to misrepresent themselves will still do so. Other clinical information should be used with SOAPP-R scores to decide on a particular patient's treatment

SOAPP®-R:

- 1. How often do you have mood swings?
- 2. How often have you felt a need for higher doses of medication to treat your pain?
- 3. How often have you felt impatient with your doctors?
- 4. How often have you felt that things are just too overwhelming that you can't handle them?
- 5. How often is there tension in the home?
- 6. How often have you counted pain pills to see how many are remaining?
- 7. How often have you been concerned that people will judge you for taking pain medication?
- 8. How often do you feel bored?
- 9. How often have you taken more pain medication than you were supposed to?
- 10. How often have you worried about being left alone?
- 11. How often have you felt a craving for medication?
- 12. How often have others expressed concern over your use of medication?

SOAPP®-R:

- 13. How often have any of your close friends had a problem with alcohol or drugs?
- 14. How often have others told you that you had a bad temper?
- 15. How often have you felt consumed by the need to get pain medication?
- 16. How often have you run out of pain medication early?
- 17. How often have others kept you from getting what you deserve?
- 18. How often, in your lifetime, have you had legal problems or been arrested?
- 19. How often have you attended an AA or NA meeting?
- 20. How often have you been in an argument that was so out of control that someone got hurt?
- 21. How often have you been sexually abused?
- 22. How often have others suggested that you have a drug or alcohol problem?
- 23. How often have you had to borrow pain medications from your family or friends?
- 24. How often have you been treated for an alcohol or drug problem?

Clinical Opiate Withdrawal Scale:

- The Clinical Opiate Withdrawal Scale (COWS) is an 11-item scale designed to be administered by a clinician.
- This tool can be used in both inpatient and outpatient settings to reproducibly rate common signs and symptoms of opiate withdrawal and monitor these symptoms over time.
- The 11 items are observed by the clinician and each item is rated on a 0-4 or 5 scale
- The summed score for the complete scale can be used to help clinicians determine the stage or severity of opiate withdrawal and assess the level of physical dependence on opioids.
- The range of the total scores is from 5-12 indicating mild withdrawal to more than 36 indicating severe withdrawal

Clinical Opiate Withdrawal Scale:

- Resting Pulse Rate
- GI Upset
- Sweating
- Tremor
- Restlessness
- Yawning
- Pupil Size
- Anxiety or Irritability
- Bone or Joint Aches
- Gooseflesh Skin (piloerection)
- Runny Nose or Tearing



Medication-Assisted Treatment (MAT):

- There are 3 federally approved medication assisted treatments for opioid use disorder:
 - Buprenorphine
 - Methadone
 - Naltrexone
- Each works differently
- Limits on who can prescribe as per the Comprehensive Addiction and Recovery Act (CARA):
 - NPs and PAs complete 24 hours of training – can treat 30 patients
 - MDs complete 8 hours of training – can treat 30 patients

MAT - Methadone:

- Methadone is a full agonist, occupying the mu-receptor
- Methadone works by changing how the brain and nervous system respond to pain.
- It lessens the painful symptoms of opiate withdrawal and blocks the euphoric effects of opiate drugs such as heroin, morphine, and codeine, as well as semi-synthetic opioids like oxycodone and hydrocodone.
- Methadone is offered in pill, liquid, and wafer forms and is taken once a day. Pain relief from a dose of methadone lasts about four to eight hours.
- Prevents the highs and lows of drug-seeking behavior
- No optimal length of treatment, although 12 months minimum is usual
- By law, methadone can only be dispensed through an opioid treatment program (OTP) certified by SAMHSA.

MAT – Buprenorphine:

- Buprenorphine is a partial agonist – it does not completely bind to the mu-receptor
- Does not produce euphoria and does not have the same side effects as other MATs
- It can produce effects such as euphoria or respiratory depression, however, these effects are weaker than those of full drugs such as heroin and methadone.
- Buprenorphine's effects increase with each dose until they level off, called a "ceiling effect" which lowers the risk of misuse, dependency, and side effects.
- Also, because of buprenorphine's long-acting agent, many patients may not have to take it every day.
- How long they stay on is an individual decision
- Comes in pill, film, or implant forms

MAT – Naltrexone:

- Naltrexone is an opioid antagonist – it covers the mu opioid receptor, meaning it blocks the effects of opioids if used
- Naltrexone blocks the euphoric and sedative effects of drugs such as heroin, morphine, and codeine.
- If a person relapses and uses the problem drug, naltrexone prevents the feeling of getting high.
- No euphoric effects, so no dependency issues
- Must be off all opioids for 7 – 10 days before starting
- Usually take for 3 months
- Also used for alcohol dependence
- Forms include daily pills or extended release injection

Exhibit 1: Key Differences Between Medications Used To Treat Patients With Opioid Dependence

Prescribing Considerations	Extended-Release Injectable Naltrexone	Buprenorphine	Methadone
Frequency of Administration	Monthly	Daily	Daily
Route of Administration	Intramuscular injection in the gluteal muscle by healthcare professional.	Oral tablet or film is dissolved under the tongue. Can be taken at a physician's office or at home.	Oral (liquid) consumption usually witnessed at an OTP, until the patient receives take-home doses.
Restrictions on Prescribing or Dispensing	Any individual who is licensed to prescribe medicine (e.g., physician, physician assistant, nurse practitioner) may prescribe and order administration by qualified staff.	Only licensed physicians who are DEA registered and either work at an OTP or have obtained a waiver to prescribe buprenorphine may do so.	Only licensed physicians who are DEA registered and who work at an OTP can order methadone for dispensing at the OTP.
Abuse and Diversion Potential	No	Yes	Yes
Additional Requirements	None; any pharmacy can fill the prescription.	Physicians must complete limited special training to qualify for the DEA prescribing waiver. Any pharmacy can fill the prescription.	For opioid dependence treatment purposes, methadone can only be purchased by and dispensed at certified OTPs or hospitals.

Recovery Options:

- Detox – usually 3 – 7 days inpatient
- Partial Hospitalization – Monday – Friday, 6 hours/day, 2 weeks (with MAT)
- Intensive Outpatient – 3 -4 days, 3 – 4 hours/day, 4 – 8 weeks (with MAT)
- MAT – daily, doctor visits, counseling sessions, with drug screens
- Individual, Group Counseling – various formats and themes
- 12 Step Programs – AA, NA, Women for Sobriety, Smart Management and Recovery Training (SMART)
- Inpatient Programs – 24/7 for 1 – 3 months, insurance may not cover
- Residential Programs – 3-6 months, can be expensive

Medication for Overdose:

- Naloxone (Narcan, Evzio) is a medication approved by the FDA to prevent overdose by opioids such as heroin, morphine, and oxycodone
- It blocks opioid receptor sites, reversing the toxic effects of the overdose
- It is an opioid antagonist—meaning that it binds to opioid receptors and can reverse and block the effects of other opioids.
- Administered when a patient is showing signs of opioid overdose via:
 - intranasal spray,
 - intramuscular (into the muscle),
 - subcutaneous (under the skin),
 - or intravenous injection.
- It can very quickly restore normal respiration to a person whose breathing has slowed or stopped as a result of overdosing with heroin or prescription opioid pain medications.

Surgeon General Urges More Americans To Carry Opioid Antidote:

- The drug, sold under the brand name Narcan (among others), can very quickly restore normal breathing in someone suspected of overdosing on opioids, including heroin and prescription pain medications. But the drug has to be given quickly.
- On 4/5/18, U.S. Surgeon General Jerome Adams issued an advisory that encouraged more people to routinely carry naloxone.
- "The call to action is to recognize if you're at risk. And if you or a loved one are at risk, keep within reach, know how to use naloxone."
- Police officers and EMTs often have naloxone at the ready. Access to the drug for the general public has been eased in the past few years.
- The medicine is now available at retail pharmacies in most states without a prescription. Between 2013 and 2015, researchers found a tenfold increase in naloxone sold by retail pharmacies in the U.S.
- But prices have increased along with demand.

Surgeon General Urges More Americans To Carry Opioid Antidote:

- "We should think of naloxone like an EpiPen or CPR. Unfortunately, over half of the overdoses that are occurring are occurring in homes, so we want everyone to be armed to respond."
- "We're working with pharmacies, providers and medical associations to increase training on how to administer naloxone in homes. But overall (and I'm an anesthesiologist who's administered naloxone many times myself) it's very safe, easy to use, and 49 of 50 states have standing orders for people to be able to access and to use naloxone in the home setting."
- Dr. Jerome Adams emphasized that "knowing how to use naloxone and keeping it within reach can save a life."



Section III:

■ Assessment of pain and pain management in populations across the lifespan

Basic Definition of Pain:

- "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage. Pain is always subjective."
 - *International Association for the Study of Pain*
- 'Chronic pain is often defined as any pain lasting more than 12 weeks. Whereas acute pain is a normal sensation that alerts us to possible injury, chronic pain is very different. ... Chronic pain may arise from an initial injury, such as a back sprain, or there may be an ongoing cause, such as illness. However, there may also be no clear cause. Other health problems, such as fatigue, sleep disturbance, decreased appetite, and mood changes, often accompany chronic pain. Chronic pain may limit a person's movements, which can reduce flexibility, strength, and stamina. This difficulty in carrying out important and enjoyable activities can lead to disability and despair.'
 - <https://medlineplus.gov/magazine/issues/spring11/articles/spring11pg5-6.html>

Chronic Pain:

- Patients with chronic pain, particularly those being treated with opioids, can be stigmatized, a tendency exacerbated when their pain condition is complicated by common mental health co-morbidities such as anxiety and depression or by addiction.
- Opioids can have addictive properties in certain at-risk populations; risk assessment and periodic reevaluation and monitoring are required for all patients in these populations and should be a part of the complex care management they need, particularly when there is an intersection of chronic pain, opioids, mental health, and addiction.

State of Pain in the U.S.:

- Today, chronic pain affects an estimated 50 million U.S. adults, and as many as 19.6 million of those adults experience high-impact chronic pain that interferes with daily life or work activities.
- The practice of pain management and the opioid crisis have influenced one another as they each have evolved in response to different influences/pressures.
- It is imperative to strike a balance between ensuring that patients with painful conditions can work with their health care providers to develop an integrative pain treatment plan that optimizes function, quality of life, and productivity while also ending the devastating effects of opioid misuse.
- Health economists from Johns Hopkins University have put the total annual cost of chronic pain to be as high as \$635 billion yearly in the United States, which exceeds the annual costs for cancer, heart disease, and diabetes. The pervasiveness of pain has a huge impact on commerce, a report by the Institute of Medicine demonstrated that lost productivity in 2010 cost between \$297.4 billion to 335.5 billion.

-Healthcare providers, insurers, and the public need to understand that although pain is universal, it is experienced uniquely by each person, and care – which often requires a combination of therapies and coping techniques – must be tailored. Pain is more than a physical symptom and is not always resolved by curing the underlying condition. Persistent pain can cause changes in the nervous system and become a distinct chronic disease-



Institute of Medicine (IOM). (2011) *Relieving Pain in America: A Blueprint for Transforming, Prevention, Care, Education, and Research*

Dissecting the Chronic Pain Experience:



Components of Chronic Pain Model:

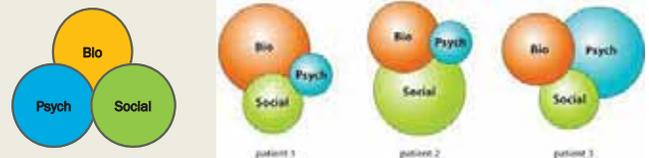
- **Suffering:** very closely tied to the emotional aspect of pain even though they are theoretically and conceptually distinct. For instance, a broken bone may cause pain without suffering (since the person knows the pain is not deadly and the bone will heal). In contrast, bone pain due to a tumor may cause the same pain as a break but the suffering will be much greater due to the "meaning" behind the pain.
- **Pain Behaviors:** things people do when they suffer or are in pain. These are behaviors that others observe as typically indicating pain, such as talking about the pain, grimacing, limping, moving slowly, and taking pain medicine. Pain behaviors are in response to all the other factors in the pain system model (tissue damage, pain sensation, thoughts, emotions, and suffering). Pain behaviors are also affected by previous life experiences, expectations, and cultural influences in terms of how the pain is expressed.
- **Environments:** includes all of the environments in which an individual lives, works, and plays. Research has consistently shown that these environments influence how much a person will show pain behaviors.

Components of Chronic Pain Model:

- **Tissue Damage:** the tissue injury or damage that initially started the pain. The tissue damage causes input to the nervous system (the pain signal). This is also termed "nociceptive input."
- **Pain Sensation:** the actual perception that occurs in the brain after the nerve signal (due to nociception) travels from the periphery to the central nervous system. Pain sensation is experienced in the brain, while nociception occurs at the site of injury.
- **Thoughts:** occur in higher brain centers and are an assessment of the pain sensation signal coming into the nervous system as well as events surrounding it. These thoughts can be conscious or unconscious and will greatly influence how the pain signal is perceived.
- **Emotions:** a person's response to thoughts about the pain. If you believe (thoughts) the pain is a serious threat (e.g. a tumor), then emotional responses will include fear, depression, and anxiety, among others. Conversely if you believe the pain is not a threat, then the emotional response will be negligible.

Biopsychosocial Model of Pain:

- The Biopsychosocial Model of Pain suggests that pain involves not just physiological factors but also psychological and social factors.
- It suggests that family and culture influence the perception of pain and the individual's response to pain involves psychological/social factors.
- The biopsychosocial model takes into account cognitive, emotional, spiritual and cultural issues that are unique to the individual and his or her journey with pain. Suffering related to pain is an individual experience. One of the core principles of the biopsychosocial model is to give the patient the right to participate in and direct their own care.



Gate Control Theory:

- The Pain Gate Theory or Gate Control Theory of Pain, put forward by Ron Melzack and Patrick Wall in 1965, is the idea that physical pain is not a direct result of activation of pain receptor neurons, but rather its perception is modulated by interaction between different neurons.
- They suggested that there is a "gating system" in the central nervous system that opens and closes to let pain messages through to the brain or to block them. Pain gate theory is often used to explain phantom or chronic pain.
- Gate control theory of pain is an attempt to discuss about how pain sensation is transmitted. Pain is defined as the subjective sensation which accompany the activation of nociceptors and which signals the location and strength of actual potential tissue damaging stimuli.

Gate Control Theory:

- Factors that can open the pain gate:
 - *Physical factors*
 - Extent
 - Inappropriate activity level
 - *Emotional factors*
 - Depression
 - Worry/fear
 - Tension
 - Anger
 - *Thoughts*
 - Focusing on pain
 - Boredom due to decreased activity
 - Maladaptive attitudes and expectations



Gate Control Theory:

- Factors that close the pain gate:
 - *Physical factors*
 - Medication
 - Counter-stimulation (heat, rubbing)
 - Appropriate activity level
 - rest
 - *Relative emotional stability*
 - Relaxation
 - Positive emotions (happiness, optimism)
 - *Thoughts*
 - Life involvement, increased interest in activities
 - Concentration/distraction
 - Adaptive attitudes/positive thoughts and feelings

Reframing Questions:

- The question is not "how did I get the pain?" ←
- The question is "how do I manage the pain?" ←
- The question is not "what is the cause of the pain?" ←
- The question is "what factors influence the pain?" ←
- The question is not "what can the medical profession do?" ←
- The question is "what can I do?" ←

Reflective Exercise:

- Think about a pain experience you have had in the past 3 weeks – minor or severe.
- What caused the pain?
- Was it a familiar pain, or something unexpected?
- Were you alone or with others when you were aware of the pain?
- If there were people, how did their presence affect the way you felt about the pain and what you did about it?
- If you were alone, how did that affect the pain?
- What factors contributed to your perception of the pain as problematic or of no great consequence?
- What did you do to make the pain better?
- Was it effective?

Metaphor...



- Imagine a car with 4 totally flat tires, going nowhere.
- That's what life can look like for someone whose life has been totally changed by chronic pain.
- Medical treatment only puts air in one of our tires. We still have three flat tires and can't move forward.
- Successful treatment of a person with chronic pain is that the person has learned how to independently self- manage his/her condition in a way that allows life to continue, maximizing participation in everyday life activities, minimizing discomfort and side effects, and avoiding other bad consequences of treatment.
- This does not mean that the person will be pain free but will be able to manage pain, get back on track, and lead a productive, satisfying, and happy life.
- So, what else we need to fill our other three tires so that we can resume our life's journey?

History of Pain Management:

- The practice of pain management began to undergo significant changes in the 1990s, when pain experts recognized that inadequate assessment and treatment of pain became a public health issue.
- Recommendations for improving the quality of pain care³ were followed by initiatives that recognized patients' reported pain scores as "The 5th Vital Sign".
- Hospital administrators and regulators began to focus on pain scores, encouraging and incentivizing clinicians to aggressively treat pain to lower pain scores.
- Increasing administrative burdens (e.g., required quality measures, electronic health records, data management and government regulation requirements) common across all medical disciplines and settings led to a lack of sufficient time for health care professionals to spend with patients to conduct assessment of pain and determine optimal treatment plans.
- As the mandate for improved pain management has increased, there was and remains a need for greater education and greater time and resources to respond to the greater needs of patients with painful conditions

Pain History:

- The pain history should include the following:
 - *Significant previous and/or ongoing instances of pain and its effect on the patient*
 - *Previously used methods for pain control that the patient has found either helpful or unhelpful*
 - *The patient's attitude toward and use of opioids, anxiolytics, or other medications, including any history of substance abuse*
 - *The patient's typical coping response for stress or pain, including the presence or absence of psychiatric disorders such as depression, anxiety, or psychosis*
 - *Family expectations and beliefs concerning pain, stress, and postoperative course*
 - *Ways the patient describes or shows pain*
 - *The patient's knowledge of, expectations about, and preferences for pain management methods and for receiving information about pain management.*

Pain Assessment:

- Measuring the severity of pain is often done on scales, meant to compare the intensity of the patient's pain at different points in time.
- The best scales are those that are brief, valid, require minimal training to use, and use both behavioral and descriptive measures of pain.
- When selecting a scale, it is important to consider which type of scale would work best for the individual patient.
- Patient education regarding pain assessment is also important.
- For example, discuss with the patient how their pain will be assessed after a procedure and demonstrate to them how the Numbering Rating Scale and the Wong-Baker FACES Pain Rating Scale works; allow the patient to choose which scale will work better for them.
- The Numerical Rating Scale (NRS) is the most widely used measure to assess pain intensity.
- Patients are asked to rate their pain from 0 to 10, with "0" equaling no pain and "10" equaling the worst possible pain they can imagine.

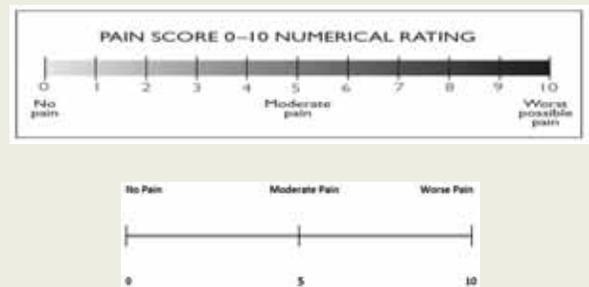
Pain Assessment:

- It is also important to document the impact pain has on quality of life. Key questions to ask include:
 - Does pain affect sleep? If so, how?
 - Does the pain lead to changes in mood?
 - Does the pain lead to reduced energy?
 - Does the pain reduce the patient's ability to participate in activities and socializing?
 - Does the pain affect relationships?
 - Does the pain limit or affect activity or exercise?
 - Is the patient able to participate in activities of daily living such as bathing, dressing, eating, toileting, or brushing their teeth?
 - Does the pain impact instrumental activities of daily living (IADL), such as the use of the telephone, doing the laundry, handling of medications or ability to handle finances?

Pain Assessment:

- Besides current pain intensity, the complete pain assessment includes the following:
 - 1. Location of pain, where does the pain start, and does it spread to other parts of the body?
 - 2. Pain intensity for the worst pain, the best pain gets, and the acceptable level of pain. Satisfactory pain relief is a level of pain that may be noticeable, but not bothersome.
 - 3. Character or quality of pain. The words used by the patient to describe pain may enhance the understanding of the etiology of the pain and provide usefulness in selecting interventions to manage it. Somatic, (musculoskeletal) pain is usually localized and described as dull, achy and sore. Visceral pain is usually poorly localized and described as cramping or squeezing. Descriptors of burning, shooting, or knife-like are indicative of neuropathic (nerve) pain.
 - 4. Onset, duration, variations and pattern (is pain better or worse at certain times, certain hours?)
 - 5. Alleviating factors - what makes the pain better?
 - 6. Aggravating factors - what makes the pain worse?
 - 7. Impact of pain on quality of life and daily functioning. How long has the pain affected sleeping, relationships with others, mood, emotions, concentration, for examples?

Unidimensional Pain Assessment:



Multidimensional Pain Assessments:

- McCaffery Initial Pain Assessment:
 - <https://www.drugabuse.gov/sites/default/files/files/McCaffreyInitialPainAssessmentTool.pdf>
- The McGill Pain Questionnaire:
 - <https://www.sralab.org/sites/default/files/2017-07/McGill%20Pain%20Questionnaire%20%281%29.pdf>

ACPA QoL Scale: Measure of Function for People with Pain

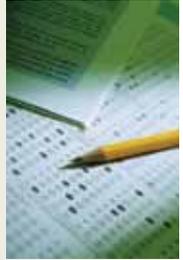
- **0** Non-Functioning Stay in bed all day Feel hopeless and helpless about life
- **1** Stay in bed at least half the day Have no contact with outside world
- **2** Get out of bed but don't get dressed Stay at home all day
- **3** Get dressed in the morning Minimal activities at home Contact with friends via phone, email
- **4** Struggle but fulfill daily home responsibilities No outside activity Not able to work/volunteer
- **5** Do simple chores around the house Minimal activities outside of home 2 days a week
- **6** Work/volunteer limited hours Take part in limited social activities on weekends
- **7** Work/volunteer for a few hours daily. Can be active at least 5 hours a day. Can make plans to do simple activities on weekends
- **8** Work/volunteer for at least 6 hours daily Have energy to make plans for 1 evening social activity during the week Active on weekends
- **9** Work/volunteer/be active 8 hours daily Take part in family life Outside social activities limited Go to work/volunteer each day
- **10** Normal daily activities each day Have a social life outside of work Take an active part in family life <https://www.theacpa.org/wp-content/uploads/2017/09/Quality-of-Life-2018.pdf>

Assessments Used in Pain Management:

- Chronic Pain Acceptance Questionnaire (CPAQ):
- The CPAQ is a 20 item self-report scale, rated on a 6 point Likert scale from "0" – Never True to "6" – Always True
- Two Subscales – Activities Engagement and Pain Willingness – and an overall total CPAQ score
- Sample Items:
 1. "I am getting on with the business of living no matter what my level of pain is"
 5. "It's not necessary for me to control my pain in order to handle my life well"
 10. "Controlling pain is less important than any other goals in my life"
 19. "It's a relief to realize that I don't have to change my pain to get on with my life"
- (McCracken, Vowles, & Eccleston, 2004)
- <https://www.diy12.org/wp-content/uploads/2015/06/Chronic-Pain-Acceptance-Questionnaire-Revised.pdf>

Assessments Used in Pain Management:

- Pain Catastrophizing Scale:
- Participant answers 13 statements pertaining to their experience with pain.
- Sample items:
 - "I become afraid that the pain will get worse."
 - "I feel that I can't stand it anymore."
 - "I feel that I can't go on."
- Four point Scale:
 - 0 = Not at all
 - 1 = to a slight degree
 - 2 = to a moderate degree
 - 3 = to a great degree
 - 4 = all the time
- (Sullivan, 1995)
- http://sullivan-painresearch.mcgill.ca/pdf/pcs/PCSManual_English.pdf



Pain Management in Children & Youth:

- Children often cannot or will not report pain to their health care providers. Health care professionals must have a high degree of suspicion for pain.
- Obtain a pain history from the child and/or parents at the time of admission. Learn what words the child uses for pain.
- Elicit from the family any culturally determined beliefs about pain.
- Find out what pain meds family members are taking are where they are stored.
- Note changes in the child's behavior, appearance, activity level and vital signs. Changes in these parameters may indicate a change in pain intensity.
- Use specific Pediatric pain assessments

Children and Adolescents:

- Chronic pain has been estimated to affect 5% to 38% of children and adolescents.
- These pain conditions can be congenital diseases (sickle cell disease), where pain begins in the infant or toddler age period; chronic noncongenital diseases (i.e., juvenile idiopathic arthritis, fibromyalgia, inflammatory bowel disease); or primary chronic pain conditions (i.e., headaches, chronic abdominal pain, chronic musculoskeletal pain, CRPS).
- The origination of pain conditions in the pediatric age group is important because the developing pediatric nervous system can be especially vulnerable to pain sensitization and development of neuroplasticity.
- Data support the finding that early neonatal and childhood pain experiences can alter pain sensitivity in later life.

Children and Adolescents:

- Poor pain management in children can put them at risk for persistent pain and increased impairment as they transition into adulthood and may even be linked to the development of new chronic pain conditions.
- Psychological conditions resulting from chronic disease and pain syndromes can contribute to long-term pain.
- These psychological conditions can include difficulty coping, pain catastrophizing, anxiety, and depression.
- Incorporation of parents and family into pain care is especially important in the pediatric population because childhood pain can be affected by family and parental factors, including family functioning and parental pain catastrophizing, anxiety, and depression.
- Appropriate pain management in childhood is imperative because their early pain experiences can shape their response to pain as adults

Children and Adolescents:

- Chronic pain is a significant problem in the pediatric population, conservatively estimated to affect 20 to 40 percent of children and adolescents around the world.
- The most common chronic pain conditions in children and adolescence are musculoskeletal pain, headaches, and abdominal pain.
- They may experience physical and psychological pain and their families may experience significant emotional distress and social consequences as a result of pain and associated disability.
- Research suggests that the family dynamic and how parents respond to their child's pain can have a significant impact on the course of the child's pain and on their function.

Pain Management Resources Children/Youth:

- Pain and Sleep Resources for Children:
 - <https://www.ualberta.ca/rehabilitation/about-us/contact-us/faculty-directory/brown>
- Pediatric Pain Management Toolbox:
 - <https://emscimprovement.center/resources/toolboxes/pediatric-pain-management-toolbox/>
- Wong-Baker Faces Foundation:
 - <http://wongbakerfaces.org/>
- Pain, Pain Go Away: Helping Children with Pain
 - https://www.rch.org.au/uploadedFiles/Main/Content/anaes/Pain_go_away.pdf

Additional Resources:

- HealthReach's low-literacy patient materials about opioids, opioid addiction, and opioid treatment (includes documents, videos, and audio)
 - <https://healthreach.nlm.nih.gov/searchindex?keywords=opioids&btnsearch=Search&author=&language=&format=&user=&records=10>
- National Center on Substance Abuse and Child Welfare's Neonatal Abstinence Syndrome
 - <https://ncsacw.samhsa.gov/resources/opioid-use-disorders-and-medication-assisted-treatment/default.aspx>
- U.S. Office of Special Education's Programs Intervention IDEAs for Infants, Toddlers, Children, and Youth Impacted by Opioids,
 - <https://osepideasthatwork.org/sites/default/files/IDEAsIssBrief-Opioids-508.pdf>.

Pain Assessments for Children:

- Barriers are often present and include:
 - *Belief that children, especially infants, do not feel pain the way adults do*
 - *Lack of routine pain assessment*
 - *Lack of knowledge in pain treatment*
 - *Belief that preventing pain in children takes too much time and effort*
 - *Well documented that children are often undertreated for pain*
- Specifically in neonates:
 - *Studies show that neonates can experience pain by 26 weeks of gestation*
 - *Untreated pain in neonates lead to increased distress and altered pain response in the future*
 - *Historically children and infants received less post-operative analgesia than adults*
 - *Challenging*
 - *Need to combine both physiologic and behavioral parameters*
 - *Many scales available*

Premature Infant Pain Profile (PIPP)

- Developed at the Universities of Toronto and McGill in Canada.
- **Used for infants less than 36 weeks gestation**
- Scores <6= minimum Pain, 6-12 = mild-moderate Pain, >12 = moderate to severe pain
- Scoring instructions:
 - Score gestational age before examining infant.
 - Score the behavioral state before the potentially painful event by observing the infant for 15 seconds .
 - Record the baseline heart rate and oxygen saturation.
 - Observe the infant for 30 seconds immediately following the painful event.
 - Score physiologic and facial changes seen during this time and record immediately.

Neonatal Infant Pain Scale (NIPS)

- The Neonatal Infant Pain Scale (NIPS) is a behavioral scale and can be utilized with both full-term and pre-term infants.
 - **From birth to one year of age**
- The tool was adapted from the CHEOPS scale and uses the behaviors that nurses have described as being indicative of infant pain or distress.

Table II – Neonatal Infant Pain Scale

NIPS	0 point	1 point	2 points
Facial expression	Relaxed	Contracted	-
Cry	Absent	Mumbling	Vigorous
Breathing	Relaxed	Different than basal	-
Arms	Relaxed	Flexed/stretched	-
Legs	Relaxed	Flexed/stretched	-
Alertness	Sleeping/calm	Uncomfortable	-

Maximal score of seven points, considering pain ≥ 4.

Neonatal Infant Pain Scale (NIPS)

- Total pain scores range from 0-7. The suggested interventions based upon the infant's level of pain are listed below.
- The difficulty with any tool that is not self report is the ability to *differentiate between pain and agitation*, however, the *non-pharmacological intervention may help differentiate between these two* (i.e. changing the wet diaper, feeding the infant, repositioning, etc).

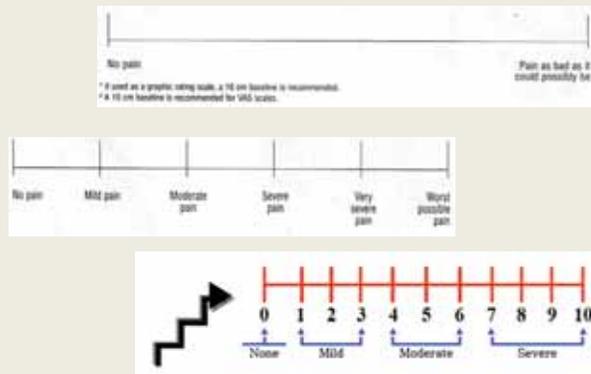
Pain Level	Intervention
0-2 = mild to no pain	None
3-4 = mild to moderate pain	Non-pharmacological intervention with a reassessment in 30 minutes
>4 = severe pain	Non-pharmacological intervention and possibly a pharmacological intervention with reassessment in 30 minutes

Children Between 3-8 Years

- Toddlers to school age children (3-8)
 - Self Report Scales
 - Visual Analog (VAS): Age 5+
 - Faces/Oucher Scale/ Wong- Baker: Age 3+
 - Observational Scales
 - FLACC: Age 2 mos- 7 years
 - CHEOPS scale age 1-7 years



Visual Scales:



Faces – Wong Baker Scales:

- The Wong Baker Faces Pain Scale combines pictures and numbers to allow pain to be rated by the user.
- It can be used in children over the age of 3, and in adults.
- The faces range from a smiling face to a sad, crying face.
- A numerical rating is assigned to each face, of which there are 6 total.



OUCHER Scales:

- The Oucher is a poster-like instrument designed to help children provide self-reports of the intensity of their pain. The Oucher consists of two scales: a 0-100 numerical scale for older children and a six-picture photographic scale for younger children.
- The Different Scales:
 - Caucasian
 - African American
 - Hispanic
 - Asian - Boy
 - Asian - Girl
 - First Nations - Boy
 - First Nations - Girl
- http://www.oucher.org/downloads/2009_Users_Manual.pdf

OUCHER Scales:



Older Adults:

- Chronic pain is one of the most common, costly, and incapacitating conditions in older adults.
- Chronic pain in older adults usually results from a physical or psychological pathology, especially those conditions such as cancer and arthritis that may increase in frequency with age.
- Managing pain in older adults can be complex because of age-related physiologic changes, associated medical comorbidities, polypharmacy, increases in pain thresholds, decreases in pain tolerance, and alterations in pharmacokinetics and pharmacodynamics that increase the risk of side effects from pharmacologic treatment.
- Effective pain management for older adults requires an understanding of the special considerations associated with the physiology of aging, validated assessment tools, common pain presentations in the older adult population, and the use of evidence-informed Clinical Practice Guidelines for common conditions such as low-back pain.

Older Adults:

- Up to 75% of adults 65 and older report living with persistent pain.
- Older adults are more likely to have additional health problems that can cause or complicate chronic pain.
- Mobility and balance issues, common in older adults, both may impact their ability to engage in daily therapeutic exercise.
- While medications are certainly an important part of treating chronic pain, use in older persons is fraught with potential problems.
- Physical rehabilitation and other interventional therapies, which may include targeted injections and acupuncture, can be helpful to reduce pain, increase strength and physical function, and decrease the need for medications.
- Psychological supports including relaxation techniques, mindfulness practices, and positive self-talk should always be considered for managing pain in elderly people. Finding a support group for people with chronic pain is also most beneficial.

Older Adults:

- As the baby boomer generation ages and the population of older adults in the U.S. grows, opioid misuse among older Americans is becoming an urgent public health concern.
- The population of older adults who misuse opioids is projected to double from 2004 to 2020, from 1.2 % to 2.4%.
- Roughly one in three beneficiaries in Medicare's prescription drug program received a prescription for opioids in 2016, with the average dose far exceeding the manufacturer's recommended amount.
- Beyond the threat of addiction, opioid use can also pose health risks such as breathing complications, confusion, drug interaction problems, and increased risk of falls, which can be more dangerous in the older adult population.
 - SAMHSA, 2017



Opioid Crisis and Older Adults

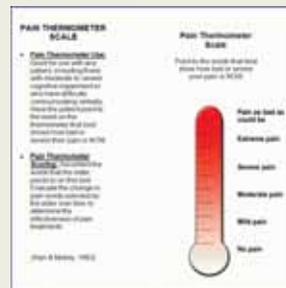
- Chronic pain conditions are more prevalent for individuals 65 years old and older, with 52.8 percent reporting that they've experienced some type of pain within the previous 30 days. This pain can result in problems with mobility, increased risk of falls, and even trouble sleeping.
- Other effects of enduring chronic pain for the elderly are more mental in nature, including the development of issues related to depression, anxiety, feeling isolated, and activity avoidance. Essentially, chronic pain impacts all areas of one's life, which is why many are now turning to opioids in an effort to ease it.
- The number of elderly patients receiving opioid prescriptions increased nine times between 1996 to 2010 according to *Psychiatric Times*. And more than one in three (35 percent) of individuals over the age of 50 report that they have misused this particular category of drug in the last 30 days, causing the hospitalization rate for misuse to increase five-fold over the last two decades.
- <https://www.aginginplace.org/how-the-opioid-crisis-affects-the-elderly/> February 2020

Pain Assessment in Older Adults:

- Take into account the older adult's history, interview information and results of physical examinations.
- Determine the presence of any sensory (e.g., hearing, eyesight) deficits and check sensory assistive devices (e.g., hearing aids) to make sure that they are working properly.
- Make adjustments to accommodate the older adults' sensory deficits (e.g., provide written and oral instruction, use enlarged type and bold figures, and ensure adequate lighting).
- Determine ability to complete the pain interview and to use available pain scales.
- Provide clear, simple instructions on the use of the pain scales each time administered to assure understanding.
- Identify an assessment tool that the patient can easily use. Institutions should have several tool options available for use with older adults.

Specific Pain Assessments:

- For Cognitively Intact Older Adults:
 - Numeric Rating Scale
 - Verbal Descriptor Scale or Pain Thermometer
 - Faces Pain Scale



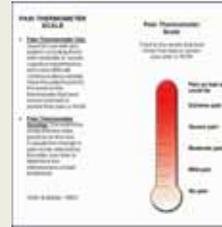
Other Pain Assessments Older Adults:

- Comprehensive Pain Assessment Form
 - https://geriatricpain.org/sites/geriatricpain.org/files/wysiwyg_uploads/comprehensive-pain-assessment-intact-tool_updated_2017.pdf
- Pain Diary
 - https://geriatricpain.org/sites/geriatricpain.org/files/wysiwyg_uploads/pain-diary.pdf
- ID Pain: A Neuropathic Pain Screen
 - https://geriatricpain.org/sites/geriatricpain.org/files/wysiwyg_uploads/neuropathic_pain_screen_with_sm_logo_updated_2017.pdf

For Cognitively Impaired Older Adults:

- Comprehensive Pain Assessment
 - https://geriatricpain.org/sites/geriatricpain.org/files/wysiwyg_uploads/comprehensive-pain-assessment-form-impaired_updated_2017.pdf
- Pain Assessment in Advanced Dementia (PAINAD) -Pain assessment tool used to assess pain in older adults who have dementia or other cognitive impairment and are unable to reliably communicate their pain.
 - <https://geriatricpain.org/assessment/cognitively-impaired/painad/pain-assessment-advanced-dementia-painad-tool>
- Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC) - Checklist to screen for pain in older adults who have dementia or other cognitive impairment with a limited ability to communicate.
 - https://geriatricpain.org/sites/geriatricpain.org/files/wysiwyg_uploads/pacslac_checklist_with_sm_logo.pdf
- Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC-II) - Revised PACSLAC with fewer items on a checklist to screen for pain in older adults who have dementia or other cognitive impairment resulting in a limited ability to communicate.
 - https://geriatricpain.org/sites/geriatricpain.org/files/wysiwyg_uploads/pacslac-ii_tool_with_logo.pdf

Pain Assessment – Older Adults:



- This scale is used to assess pain intensity in persons who are able to self report and is the best choice for most older adults.
- Ask the older adult to point to the words on the thermometer to show how bad or severe their pain is right NOW. Compare the words chosen after each use to the previous words to evaluate if pain has increased or decreased.
- Research indicates this is tool is the best choice for most older adults.

Websites

- U.S. Pain Foundation
 - <https://uspainfoundation.org/>
- National Fibromyalgia and Chronic Pain Association
 - <https://www.fmcpaware.org/>
- Pain Concern
 - <http://painconcern.org.uk/resources/more-resources/>
- Veteran's Administration
 - <https://www.va.gov/painmanagement/>
- Geriatric Pain
 - <https://geriatricpain.org/>

Pain Management Websites

- Pain Awareness Toolkit for Health Professionals
 - <https://www.theacpa.org/wp-content/uploads/2018/07/Tool-Kit-2018.pdf>
- American Chronic Pain Association
 - <https://www.theacpa.org/>
- *ACPA Resource Guide To Chronic Pain Management: An Integrated Guide to Medical, Interventional, Behavioral, Pharmacologic and Rehabilitation Therapies.* 2020 Edition.
- <https://www.theacpa.org/wp-content/uploads/2020/02/ACPA-Resource-Guide-2020-Final-draft.pdf>

Non-pharmacological Pain Therapies:

- | | | |
|----------------------------------|-----------------------------------|--|
| ■ Heat, Cold | ■ Exercise | Not in the <i>ACPA Guide</i> :
■ Activity Pacing
■ Energy Conservation |
| ■ Massage | ■ Pilates | |
| ■ Vibration | ■ Yoga | |
| ■ Immobilization | ■ Tai Chi | |
| ■ Acupuncture | ■ Qigong | |
| ■ Guided Imagery | ■ Feldenkrais | |
| ■ Relaxation techniques | ■ Alexander Technique | |
| ■ Biofeedback | ■ Art and Music | |
| ■ Cognitive behavioral treatment | ■ Self-Management | |
| ■ Relaxation training | ■ Acupressure | |
| ■ Guided imagery | ■ Somatic Experiencing | |
| ■ Spiritual counseling, prayer | ■ Acceptance & Commitment Therapy | |
| ■ Expressive Writing | ■ Mindfulness | |

Guided Imagery Strategies for Pain:

- Four Step Process for effective pain relief:
 - *Learn to relax deeply by regularly practicing some form of relaxation exercise 10 minutes daily in a conducive setting.*
 - *Once relaxed, conjure up an image that represents your pain. You may want to draw a picture of the symbol to help you visualize it.*
 - *Visualize the therapeutic image or process you have chosen to relieve your pain*
 - *Visualize the positive benefits of your pain control. See yourself coping well, moving freely, smiling, and laughing. See yourself growing stronger, doing more. Create an image of positive health and energy.*

Suggested Guided Imagery Language:

- Band tightening around head
- Vise gripping head
- Muscles contracting
- Pain like a razor
- Hot, bright colors
- Bricks, heavy stones
- Knotted ropes
- Ripping fabric
- Knife cutting
- Flames in gut
- Band loosening, falling away
- Vise disintegrating
- Muscles loose, limp
- Razor melting away
- Cool colors, snow
- Stones dissolve, fade
- Knots untying, limp
- Fabric strong, mended
- Knife dissolving
- Fire put out with water

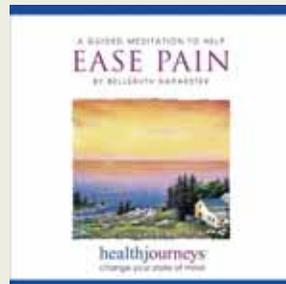
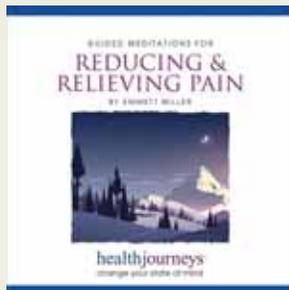
Sources for Guided Imagery Products:

- Children's Hospital of Cincinnati
 - <https://www.choc.org/programs-services/integrative-health/guided-imagery/>
- Health Journeys website, Belleruth Naparstek, LCSW
 - <http://www.healthjourneys.com/>
- The Academy for Guided Imagery (training)
 - <http://acadgi.com/>
- The Healing Mind (Marty Rossman, MD)
 - <http://www.thehealingmind.org/>
- Emmet Miller, MD
 - <http://www.drmliller.com/>



My Favorite Guided Imagery for Pain:

- Belleruth Naparstek, LCSW Health Journeys
- Emmett Miller, MD



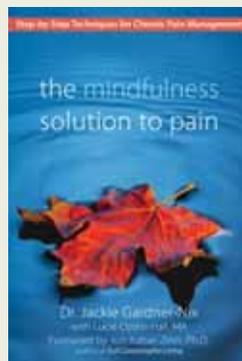
<https://www.healthjourneys.com/audio-library/pain-relief>

Mindfulness for Pain:

- Mindfulness is learning to pay attention, being purposeful about being attentive, being in the present moment, and without judgment.
- The Power of Acceptance ($S = P \times R$), or suffering equals pain times resistance; it is our resistance to pain that creates the suffering
- Mindfulness decreases stress which can lead to increased quality of life and decreased pain
- Mindfulness increases self-regulation through increased self-awareness
- Mindfulness helps to deconstruct the pain experience (separating the pain sensation from the mental responses to them)
- Mindfulness shifts one's perspective – changing one's relationship to pain
- Mindfulness helps to de-personalize and de-identify pain
- Mindfulness takes time and is not a quick fix

Mindfulness-Based Chronic Pain Management

- MBCPM is a 13 week psycho-educational program developed by Jackie Gardner-Nix, adapted from MBSR
- Developed to ease the pain and suffering of people with chronic pain
- NeuroNova Centre website set up at
 - <http://www.neuronovacentre.com/>
- Courses offered throughout Ontario
- Training now available for professionals who want to offer MBCPM through the University of Toronto



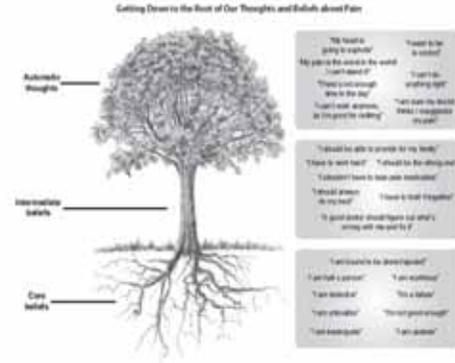
Components of MBCPM:

- Mindfulness Meditation
- Sitting meditation
- "Mountain" and "Lake" Meditations
- Body scan meditation
- Guided Imagery/Visualization
- Art Techniques
- Psycho-education on sleep, effects of stress, and exercise
- Loving Kindness for the Body in Pain Meditation
- Akido exercises to demonstrate communication styles
- On nutrition – mindful eating, and relationships between food and pain, and food, moods and behaviors
- Mindful movement exercises



Mindfulness-Based Cognitive Therapy for Pain

- The mindfulness-based cognitive therapy (MBCTP) for chronic pain protocol is designed to provide clients with skills they themselves can use to train their mind and reprogram neurological patterns of pain processing in the brain so that these patterns work for them rather than against them in managing pain.
- For some individuals with chronic pain this approach functions as an effective alternative treatment, for most however it will likely be complementary to their standard medical care, such as occupational therapy (OT).
- In community clinical practice, many adult clients presenting with depression, anxiety, sleep problems, or perhaps relationship difficulties are also likely to have chronic pain
- There are 8 session and four session formats.



How Mindfulness Research Picked up Portable Pain Coping Skills to Carry Forward



Breathworks:

- Breathworks was begun by Vidyamala Burch in 2001, emerged primarily from her personal experience of using mindfulness for over 20 years to successfully manage severe spinal pain following two major episodes of surgery and a car accident. The theoretical basis of the work came later, based on a careful analysis and evaluation of what worked for the many people taught.
- *"When a person is living with pain, illness or stress, the real problem is a tendency to be dominated by the unpleasant side of life. No one likes to suffer, and it is common to become trapped in aversive and avoidant states of mind, often experienced as a generalized 'mass' of suffering, accompanied by feelings of frustration, weariness and general negativity. When trapped in aversion in this way, however, one rarely turns to face what is actually going on. This leads to one becoming a victim of ideas about the pain or difficulty one is experiencing rather than the actual experience. Mindfulness undercuts this by teaching us how to investigate present-moment experience with a precise and detailed awareness."*
- 3 Minute Breathing Space https://www.youtube.com/watch?v=Eq_z-B8JtTO

Mindfulness-Oriented Recovery Enhancement (MORE):

- Mindfulness-Oriented Recovery Enhancement (MORE) is a mental training program that unites aspects of mindfulness training, cognitive-behavior therapy, & positive psychological principles into an integrative treatment strategy, designed to ameliorate addictive behavior, stress, and (physical and emotional) pain.
- The MORE treatment structure is a group-oriented process, delivered in 10 sessions of two hour long groups focusing on:
 - Strengthening attentional control over automatic cognitive biases
 - Cognitive reappraisal of maladaptive thoughts that contribute to negative emotion
 - Enhances positive emotion and motivation through enjoying (savoring) naturally rewarding experiences
- <https://drrericgarland.com/m-o-r-e/>



Mindfulness Based Relapse Prevention:

- This program is designed to bring practices of mindful awareness to individuals who have suffered from the addictive trappings and tendencies of the mind.
- MBRP practices are intended to foster increased awareness of triggers, destructive habitual patterns, and "automatic" reactions that seem to control many of our lives.
- The mindfulness practices in MBRP are designed to help us pause, observe present experience, and bring awareness to the range of choices before each of us in every moment.
- MBRP teaches clients to respond in ways that serves them, rather than react in ways that are detrimental to their health and happiness. Ultimately, we are working towards freedom from deeply ingrained and often catastrophic habits.
- <https://depts.washington.edu/abrc/mbrp/recordings/Urge%20Surfing.mp3> (Urge Surfing)

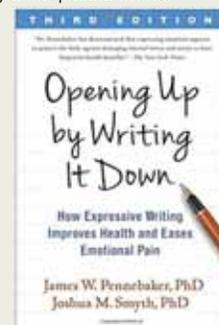
Acceptance & Commitment Therapy:

- One of “third wave” of cognitive-behavioral therapies;
- It isn't the pain itself, but your response to the pain that is the problem
- Goal is not the reduction of pain, but the elimination of your suffering
- Three concepts in ACT:
 - Accept – aspects of pain you can't change
 - Choose – actions consistent with values
 - Take Action – in ways that make you feel vital and energized



Expressive Writing:

- Research by Pennebaker has demonstrated that writing about painful events decreases their “sting”;
- Involves having clients write about their deepest thoughts and feelings regarding trauma, loss, or illness;
- Processing emotions is one way patients can cope with the stress of their pain;
- Provides an outlet for venting without risking negative responses from others.



Writing Exercises:

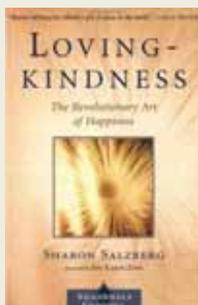
- Getting Ready to Write:
 - Find a time and place where you won't be disturbed. Ideally, pick a time at the end of your workday or before you go to bed.
 - Promise yourself that you will write for a minimum of 15 minutes a day for at least 3 or 4 consecutive days.
 - Once you begin writing, write continuously. Don't worry about spelling or grammar. If you run out of things to write about, just repeat what you have already written.
 - You can write longhand or you can type on a computer. If you are unable to write, you can also talk into a tape recorder.
 - You can write about the same thing on all 3-4 days of writing or you can write about something different each day. It is entirely up to you.

Writing Exercises (cont.):

- *“Over the next four days, I want you to write about your deepest emotions and thoughts about the most upsetting experience in your life. Really let go and explore your feelings and thoughts about it. In your writing, you might tie this experience to your childhood, your relationship with your parents, people you have loved or love now, or even your career. How is this experience related to who you would like to become, who you have been in the past, or who you are now?”*
- Other Ideas:
 - Something that you are thinking or worrying about too much
 - Something that you are dreaming about
 - Something that you feel is affecting your life in an unhealthy way
 - Something that you have been avoiding for days, weeks, or years
 - Write a letter to your pain/symptom

Loving – Kindness Meditation:

- Approach to developing love & releasing negative emotions, produces affective shift from more negative emotions to more positive (“metta”)
- Widely used for centuries in Buddhist traditions
- Uses silent mental phrases to direct feelings of love and kindness toward a loved one, toward yourself, toward a neutral person, toward someone who has caused you harm, and last, toward all human beings.
- Research study yielded positive outcomes with lower back pain.
- Resource: *Lovingkindness*, Sharon Salzberg



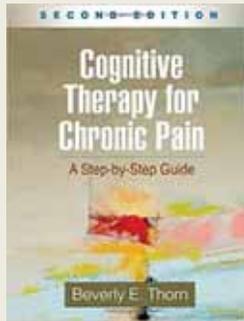
Sample Lovingkindness Phrases:

- May you be happy..
- May you be healthy...
- May you be free from all pain.
- May you live with ease.
- May you be safe
- May you live with ease and happiness and good health.
- May all those who have helped me be safe, be happy, be peaceful.
- May all beings everywhere be safe, be happy, be peaceful.



Cognitive-Behavioral Therapy:

- Based on premise that behavioral change is essential for adjusting to chronic pain;
- Increases motivation to change;
- Clients with chronic pain often have negative, distorted thoughts & beliefs about their pain (e.g., catastrophizing)
- Involves understanding the clients phenomenological experience of pain
- Resource: *Cognitive Therapy for Chronic Pain: A Step-by-Step Guide*, Beverly Thorn



Adapted Tai Chi:

- Tai chi is another ancient eastern tradition healing practice
- Slow, rhythmic movements
- Many forms and adaptations
- Mild to moderate aerobic activity
- Good research outcomes for pain, balance, strength training, cardiac rehab.
- Resource: *Tai Chi for Health Professionals*
- <http://www.taichihealth.com/>



Qi Gong:

- Ancient martial art
- Classified as mind-body intervention
- Slow movement, focus on moving energy
- Mild to moderate aerobic activity
- Good research outcomes for pain, relaxation
- Two forms: self-healing and external qi
- Resources:
- Ken Cohen:
- <https://www.qigonghealing.com/>
- Bob Stahl (Bay area)
- <https://www.mindfulnessprograms.com/>

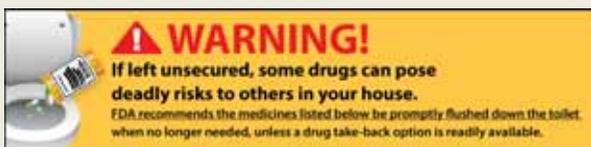


Yoga:

- 6 - 7 thousand year old practice
- Roots in Buddhism, but not religious
- Many forms - Hatha yoga most frequently used in MBSR - type programs
- Form of mindfulness - mindful awareness of body and mindful stretching
- Positive research outcomes for pain
- Resource:
- "Chair Yoga for Good Living" available from:
- <https://www.lechnyr.com/docs/chronic-pain/yogabooklet.pdf>



What to Do with Old Medications



Drug Disposal: Drug Take Back Locations



Some facilities and business are registered with the U.S. Drug Enforcement Administration (DEA) to collect old, unused, unneeded, or expired medicines. These authorized drug collection locations safely and securely gather and dispose of pharmaceuticals containing controlled substances, as well as other medicines.

In your community, such authorized collection locations may be in retail pharmacies, hospital or clinic pharmacies, and law enforcement agencies/ facilities. Some authorized collectors may also offer mail back programs or collection receptacles (drop off boxes) to assist you in safely disposing of your unused medicines.

<https://apps2.dea diversion.usdoj.gov/pubdispsearch/spring/main?execution=e2s1>

List of Medicines Recommended for Disposal by Flushing

Active Ingredient

Benzhydrocodone/Acetaminophen
Buprenorphine
Fentanyl
Diazepam
Hydrocodone

Hydromorphone
Meperidine
Methadone
Methylphenidate
Morphine
Oxycodone

Oxymorphone
Tapentadol
Sodium Oxybate

Found In Brand Names

Apadaz
Belbuca, Bunavail, Butrans, Suboxone, Subutex, Zubsolv
Abstral, Actiq, Duragesic, Fentora, Onsolis
Diasat/Diasat AcuDial rectal gel
Anexsia, Hysingla ER, Lortab, Norco, Reprexain, Vicodin,
Vicoprofen, Zohydro ER
Dilaudid, Exalgo
Demerol
Dolophine, Methadose
Daytrana transdermal patch system
Arymo ER, Embeda, Kadian, Morphabond ER, MS Contin, Avinza
Combunox, Oxaydo (formerly Oxecta), OxyContin, Percocet,
Percodan, Roxicet, Roxicodone, Roxybond, Targiniq ER, Xartemis
XR, Xtampza ER
Opana, Opana ER
Nucynta, Nucynta ER
Xyrem oral solution

FDA believes that the known risk of harm, including death, to humans from accidental exposure to the medicines listed above, especially potent opioid medicines, far outweighs any potential risk to humans or the environment from flushing these medicines. April 2018.

<https://www.fda.gov/media/109643/download>

Section IV:

- Role of occupational therapy in the opioid crisis...what we can do

What Can OT Practitioners Do?

- Learn the facts about the opioid crisis
- Know the warning signs and symptoms
- Become familiar with assessments
- Speak about prevention
- Know treatment resources in your community
- Advocate for role of OT in pain management



Occupational Therapy's Role:

- Opioid addiction decreases everyday functioning and performance.
- Our holistic and lifespan approach distinctly qualify us to help people who have become dependent on opioids and also to prevent this dependency from forming.
- We have important contributions to make regarding strategies and interventions for managing the care of individuals who are at high risk of becoming dependent on opioids and recovery interventions for those who have become addicted.
- This includes:
 - working with prescribers to offer non-pharmacologic strategies to patients with chronic pain
 - addressing the impact of opioid addiction on individuals, families, children, and parents
 - assisting with prevention efforts such as educating parents about locking up prescription meds
 - screening populations for possible opioid use, including those who are receiving rehabilitation services after an injury and/or surgery.
 - (McCombie & Stirling, 2018)

What OT Practitioners Need to know:

- OT practitioners need to be familiar with assessments and brief screening tools that can be used with our clients with chronic pain.
- We also need to be familiar with national publications such as:
- Opioid Overdose Prevention Toolkit from SAMSHA (2018)
 - <https://store.samhsa.gov/product/Opioid-Overdose-Prevention-Toolkit/SMA18-4742>
- CDC Guidelines for Prescribing Opioids for Chronic Pain (CDC, 2016),
 - <https://www.cdc.gov/drugoverdose/prescribing/guideline.html>
- National Pain Strategy from HHS (2016)
 - <https://iprcc.nih.gov/>
- Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research (IOM, 2011)
 - <http://www.nationalacademies.org/hmd/Reports/2011/Relieving-Pain-in-America-A-Blueprint-for-Transforming-Prevention-Care-Education-Research.aspx>

New Resource

- PAIN MANAGEMENT BEST PRACTICES: INTER-AGENCY TASK FORCE REPORT: Updates, Gaps, Inconsistencies, and Recommendations (May, 2019)
- Published by U.S. Department of Health & Human Services
- *"The Task Force recognizes that comprehensive pain management often requires the work of various health care professionals, including physicians of various disciplines, dentists, nurses, nurse practitioners (NPs), physician assistants (PAs), pharmacists, physical therapists, occupational therapists, behavioral health specialists, psychologists, social workers, and integrative health practitioners."*
- <https://www.hhs.gov/sites/default/files/pmtf-final-report-2019-05-23.pdf>

Major Findings of Final Report:

- **Balanced** pain management should be based on a biopsychosocial model of care.
- **Individualized**, patient-centered care is vital to addressing public health pain crisis.
- Ensure better and **safer opioid** stewardship through **risk assessment** based on patients' medical, social, and family history to ensure safe/appropriate prescribing.
- **Multidisciplinary** approach to chronic pain that focuses on the patient's medical condition, co-morbidities, and various aspects of care including:
 - **Medications.** Different classes depending on patient medical conditions and history.
 - **Restorative movement therapies.** Physical and occupational therapy, massage therapy, aqua therapy.
 - **Interventional procedures.** Different types of minimally invasive procedures can be important for both acute and chronic pain.
 - **Complementary and integrative health.** Acupuncture, yoga, tai chi, meditation.
 - **Behavioral health/psychological interventions.** Coping skills, cognitive behavioral therapy.

Major Findings of Final Report:

- **Multi-modal approach** to acute pain in the surgical, injury, burn and trauma setting.
- **Perioperative surgical home and acute pain guidelines** to provide a framework for improved patient experience and outcomes.
- **Addressing drug shortages** that might affect acute and chronic pain care.
- **Access to care** is vital through improved health care coverage for various treatment modalities and an enlarged workforce of pain specialists and behavioral health clinicians to help guide and support appropriately trained primary care clinicians.
- **Stigma** is a major barrier to treatment, so it is important to provide empathy and a non-judgmental approach to improve treatment and outcomes.
- **Education** through societal awareness, provider education and training, and patient education are needed to understand choices and promote therapeutic alliances between patients and providers.
- **Innovative** solutions to pain management such as telemedicine, tele-mentoring, mobile apps for behavioral and psychological skills, newer medicines, and medical devices should be utilized as part of the overall approach to pain management.
- **Research** is required to develop a better understanding of the mechanisms of pain, preventive measures, the use of innovative medical devices and medications to prevent the acute-to-chronic pain transition, and methods to improve outcomes of chronic pain conditions.
- **Special populations** are highlighted, including pediatric, women, older adults, American Indians/Alaskan Natives, active duty soldiers/veterans, sickle cell disease (as an example of a chronic relapsing condition).

What Else Do We Need to Know?

- We need to learn more about pain than we learned in OT school
- <https://www.oregon.gov/oha/hpa/dsi-pmc/pages/index.aspx>
- Pain management is a universal issue in the provision of OT and so we need more education regarding pain assessment, non-pharmacological management of pain, and related psychosocial interventions.
- OT practitioners need to become more familiar with and develop skills in noting alternative solutions to addressing chronic pain, recognizing the early warning signs of opioid abuse/dependence, screening clients for possible opioid addiction, and providing information on addiction resources.
- The profession's distinct value in this area lies in its ability to improve the quality of life for people experiencing pain, and to assist them in increasing participation to improve their overall health and well-being.
 - Costa, 2017



OTs Role in Advocacy:

- *"OTA leaders and staff [need] to become engaged in the policy discussion that are taking place at the national and state level to help identify and advocate for the role of OT in addressing these issues."*
- *"For example, as a profession, occupational therapy can assist in meeting the priority areas outlined by the Center for Medicare & Medicaid Services Opioid Misuse Strategy of 2016 to implement more effective person-centered and population-based strategies to reduce the risk of opioid use disorders, expand screening, diagnosis and treatment of opioid use disorders, and increase the use of evidence-based practices for acute and chronic pain management."*
 - Ad Hoc Report, 2018

What Our PT Colleagues are Doing:

- When the CDC came out with a statement that people should consider non-pharmacological approaches for pain, the APTA created the Choose PT campaign



<https://www.moveforwardpt.com/choose-physical-therapy-over-opioids-for-pain-management-chosept>

What is Being Done by AOTA?

- The Representative Assembly charged AOTA to develop an Opioid Drug Abuse Ad Hoc Committee.
- *"I move to charge the Speaker to appoint a small Ad Hoc Committee of content experts to compile resources and information related to the role of occupational therapy in reducing and preventing opioid drug abuse. The committee shall identify existing resources and information that could be made available to AOTA members and state occupational therapy associations to use to advocate for the role that occupational therapy contributes in addressing this issue. A report should be made to the RA at its fall 2017 meeting."*

Recommendations of Opioid Ad Hoc:

- Create a fact sheet on the Role of Occupational Therapy in Addressing Opioid Use and Abuse
- Create a webpage of resources on the AOTA website regarding the Role of Occupational Therapy in Addressing Opioid Use and Abuse
- Write an article in *AJOT* on the Role of Occupational Therapy in Opioid Addiction and Recovery
- Develop continuing education resources on the role of occupational therapy in addressing opioid use/abuse
- Develop resources for educators on pain management to address ACOTE Standard B.4.9:
- *"Design and implement intervention strategies to remediate and/or compensate for functional cognitive deficits, pain, and visual deficits, and the psychosocial and behavioral health deficits that affect occupational performance."*
- Continue work by the Ad Hoc Committee
 - *Ad Hoc Report, 2018*

Work of the Opioid Ad Hoc:

- *"The Opioid Drug Abuse Ad Hoc Committee believes that the O.T. profession has important contributions to make regarding strategies and interventions for managing the care of individuals who are at high risk of becoming dependent on opioids and recovery interventions for those who have become addicted."*
- *"This includes working with prescribers to offer non-pharmacologic strategies to patients experiencing chronic pain."*
- *"We recognize the impact of opioid addiction on the individual and others, such as families, children, and parents."*
- *"O.T. practitioners can also assist with prevention efforts such as educating parents about locking up prescription medications, or screening populations for possible opioid use including student athletes, and those who are receiving rehabilitation services after an injury and/or surgery."*
- Ad Hoc Report, 2018

Educating Occupational Therapy Practitioners:

- The Occupational Therapy Pain Curriculum aims to produce occupational therapy practitioners who are competent to work with clients with chronic pain and who can identify and address the impact of the pain experience on the client's occupational performance and participation in meaningful everyday activities.
- The occupational therapy practitioner needs to be aware of physiological, psychosocial, and environmental components of that pain experience.
- To carry out professional responsibilities for clients with pain and their pain-related loss of function, occupational therapists must have an understanding of explanatory models of pain across the lifespan.
- IASP Curriculum Outline on Pain for Occupational Therapy
- <https://www.iasp-pain.org/Education/CurriculumDetail.aspx?ItemNumber=7069>

Basic Professional Education:

- Although pain is one of the most common reasons for health care visits, most health profession education programs have yet to give it adequate attention.
- The National Pain Strategy recommends steps to improve discipline-specific core competencies, including basic knowledge, assessment, effective team-based care, empathy, and cultural competency.
- It encourages educational program accreditation bodies and professional licensure boards to require pain teaching and clinician learning at the undergraduate and graduate levels.
- The NPS also recommends development of a web-based pain education portal that would contain up-to-date, comprehensive, and easily accessed educational materials.
- These training efforts should be made in coordination with current HHS efforts to develop tools for providers to recognize the risk factors and symptoms of opioid use disorders.

Questions?

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