



WELCOME to  
*Palliative Care ECHO 5.0*

October 2025 –  
June 2026

# Schedule

10/7/2025	<a href="#"><u>Moral Distress/Injury</u></a>
11/4/2025	<a href="#"><u>VSED-MCF</u></a>
12/2/2025	<a href="#"><u>Creating a Legacy</u></a>
	<a href="#"><u>Complicated Bereavement?</u></a>
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	Palliative Care for Justice Involved
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	Palliative Care High-Risk Perinatal
6/2/2026	

# Moral Distress and Moral Injury

**Christopher Charles, MSN, RN, CCRN**

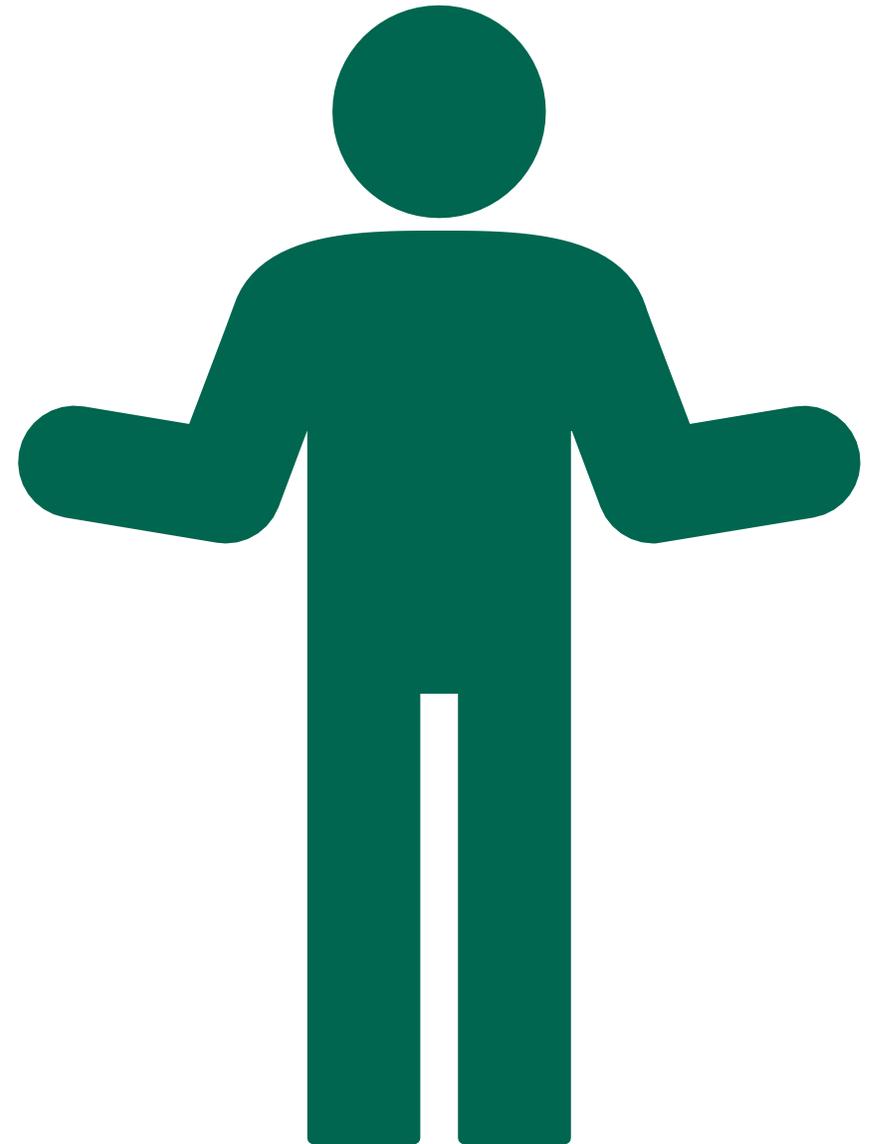
**Clinical Ethics Consultant & Clinical Nurse** – Dartmouth Hitchcock Medical Center

**Doctor of Nursing Practice Candidate** – Boston College



## Have you . . .

- Had challenges sleeping, waking and wondering if you could have done something differently in the care of patients?
- Felt like you were not a strong advocate for your patient?
- Felt strained by the competing responsibilities of self, family, and profession?



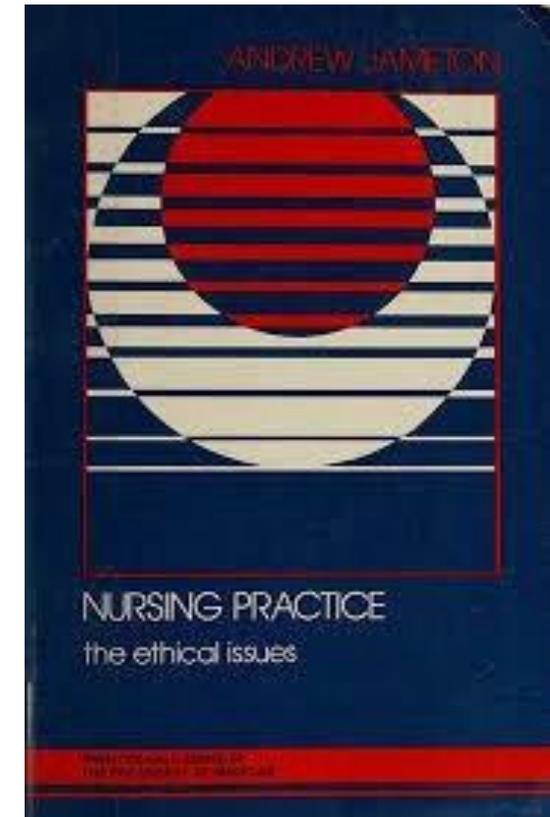
## Moral Distress & Injury

- **Moral Distress:** Refers to the psychological unease that results when professionals identify an ethically correct action to take but are unable due to institutional or hierarchical barriers (British Medical Association, 2021).
- **Moral Injury:** Occurs when sustained moral distress results in a reduction in functioning or psychological harm (British Medical Association, 2021).



## Moral Distress – Historical Context

- Entered nursing literature in 1984, Andrew Jameton -  
*Nursing Practice: The Ethical Issues*
  - Drawn from descriptions of bioethical conflicts that included:
    - Appropriate care for terminally ill patients
    - Limits of life support
    - Communication and decision-making with patients and families.



(Jameton, 1984)

## Moral Distress

- Healthcare professionals encounter situations where they feel unable to act according to what they feel is right, due to institutional or hierarchical barriers (Jameton, 1984; Grace & Uveges, 2023).
- Moral distress may result in:
  - Migration from clinical areas of high stress
  - Emotional distancing from patients, compassion fatigue, and poor outcomes.
  - Attrition from the profession (Allen & Butler, 2016; Robinson et al., 2014).
    - Large financial costs associated with attrition of trained staff

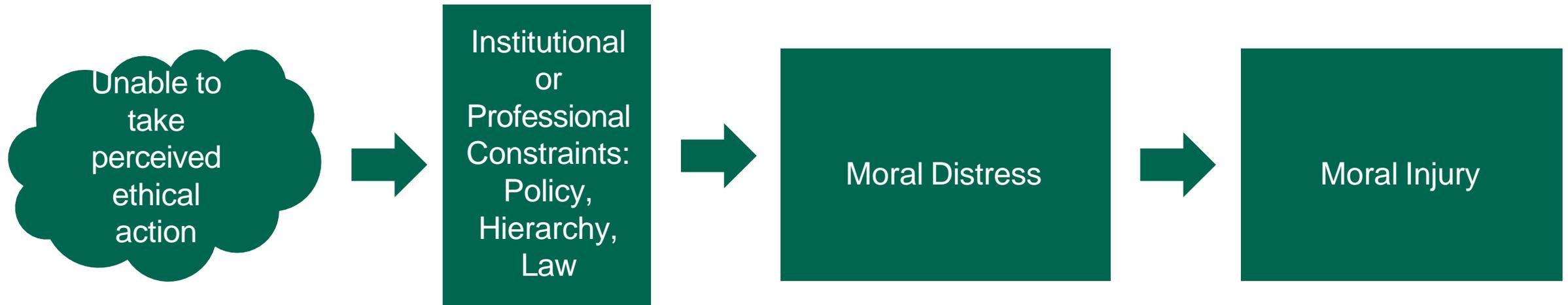
## Moral Injury – Historical Context

- Introduced in 1994 by Dr. Jonathan Shay, a military psychiatrist, who identified a syndrome among Vietnam War Veterans (Nash, 2012).
- Dr. Litz, in 2009 - “Moral Injury and moral repair in war veterans: A preliminary model and intervention strategy.”
- Euripides identified the syndrome, “miasma”– to describe any violation of moral values (Koenig & Al Zaben, 2021).



## Moral Injury

- Is described as a significant cognitive and emotional response that follows instances where there have been transgressions against an individual's ethical code (Williamson et al., 2021).
- Can yield:
  - Feelings of shame or guilt
  - Changes in cognition
  - Changes in self-image
  - Maladaptive coping (Williamson et al., 2021).



## Strategies to Address Moral Distress and Injury

- Developing moral agency among healthcare professionals (Robinson et al., 2014).
  - Provide ethics education that speaks to everyday ethical issues.
  - Empower clinical staff:
    - Identify a problem
    - Sort out nuances
    - Conceptualize and act.

## Strategies to Address Moral Distress and Injury

- American Association of Critical Care Nurses 4 A's (Rushton, 2006).
  - Ask
  - Affirm
  - Assess
  - Act
- Moral Distress Consult Service (Epstein & Delgado, 2010).



(The 4A's to Rise Above Moral Distress, n.d.)

## Strategies to Address Moral Distress and Injury

- Policy development for recurrent issues.
- Interdisciplinary collaboration to foster support and pooled resources to navigate challenges



## References

- DeMeyer, E. S. (2022). *Moral distress in cancer care*. *Cancer Nursing Today*. <https://www.cancernursingtoday.com/post/moral-distress-in-cancer-care>
- Epstein, E. G., & Delgado, S. (2010). Understanding and addressing moral distress. *OJIN*, 15(3).
- Jameton, A. (1984). *Nursing practice: The ethical issues*. Prentice-Hall)
- Koenig, H. G., & Al Zaben, F. (2021). Moral Injury: An Increasingly Recognized and Widespread Syndrome. *Journal of religion and health*, 60(5), 2989–3011. <https://doi.org/10.1007/s10943-021-01328-0>
- Litz BT, Stein N, Delaney E, Lebowitz L, Nash WP, Silva C, Maguen S. Moral injury and moral repair in war veterans: A preliminary model and intervention strategy. *Clinical Psychology Review*. 2009;29(8):695–706. doi: 10.1016/j.cpr.2009.07.003
- Nash, W. P. (2012, November 21). *Moral injury: The psychological wounds of war*. NPR. <https://www.npr.org/2012/11/21/165663154/moral-injury-the-psychological-wounds-of-war>
- Robinson, E. M., Lee, S. M., Zollfrank, A., Jurchak, M., Frost, D., & Grace, P. (2014). Enhancing moral agency: clinical ethics residency for nurses. *The Hastings Center report*, 44(5), 12–20. <https://doi.org/10.1002/hast.353>

## References

- Rushton, C. R. (2006). Defining and Addressing Moral Distress: Tools for Critical Care Nursing Leaders. *AACN Adv Crit Care*, 17 (2): 161–168
- Williamson V, Murphy D, Phelps A, Forbes D, Greenberg N. Moral injury: the effect on mental health and implications for treatment. *Lancet Psychiatry*. 2021 Jun;8(6):453-455. doi: 10.1016/S2215-0366(21)00113-9. Epub 2021 Mar 17. PMID: 33743196.
- Weiss Goitiandia, S., Axelrod, J. K., Brender, T. D., Batten, J. N., & Dzung, E. W. (2024). Recognizing the Systemic Root Causes of Moral Distress. *The American Journal of Bioethics*, 24(12), 29–32.  
<https://doi.org/10.1080/15265161.2024.2416137>
- Williamson V, Stevelink SAM, Greenberg N. Occupational moral injury and mental health: systematic review and meta-analysis. *Br J Psychiatry*. 2018 Jun;212(6):339-346. doi: 10.1192/bjp.2018.55. PMID: 29786495.
- “4As to Rise Above Moral Distress” (n.d.). Emerging RN Leader. Retrieved from [https://www.emergingrnleader.com/wp-content/uploads/2012/06/4As\\_to\\_Rise\\_Above\\_Moral\\_Distress.pdf](https://www.emergingrnleader.com/wp-content/uploads/2012/06/4As_to_Rise_Above_Moral_Distress.pdf)



Section of Palliative Care  
DARTMOUTH HITCHCOCK  
MEDICAL CENTER

# VSED: A Primer

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November 4, 2025

## Outline

- Define Terminology & Overview
- Explore who Chooses VSED and why?
- Discuss the ethical principles related to VSED
- Review Best Practices in supporting VSED
- Understand the stages of VSED
- Identify basic symptom management
- Access Resources



*Vincent van Gogh, "Sunflowers," 1888  
Oil on Canvas, The National Gallery (London)*

## Terminology

### **CFO = Comfort Feeding Only**

Offering as much or as little food and drink as the patient appears to enjoy without regard for adequate hydration and nutrition

### **MCF = Minimal Comfort Feeding**

The amount of food or fluid offered, self-fed, or caregiver-assisted is the “minimum amount needed for comfort”

### **VSED = Voluntarily Stopping Eating and Drinking**

A deliberate, self-initiated attempt to hasten death in the setting of suffering refractory to optimal palliative interventions or prolonged dying that a person finds intolerable

## Unlike other forms of hastening death, VSED:

Is a natural dying process

Is legal nationwide

Does not REQUIRE the assistance of medical professionals, though strongly recommended.

Avoids many ethical and legal concerns associated with MAID or other palliative measures of last resort

Alternative forms of last resort measures require a prognosis of <6 months, VSED is an option for those with slowly progressive disease

**“A competent person would have a constitutionally protected right to refuse lifesaving hydration and nutrition.”**

*-Cruzan v. Director, Missouri Department of Health (1990), Supreme Court of the United States*

## VSED Eligibility

Individuals near the end of life due to illness or advanced age, in serious or accelerated physical health decline, or facing impending cognitive decline

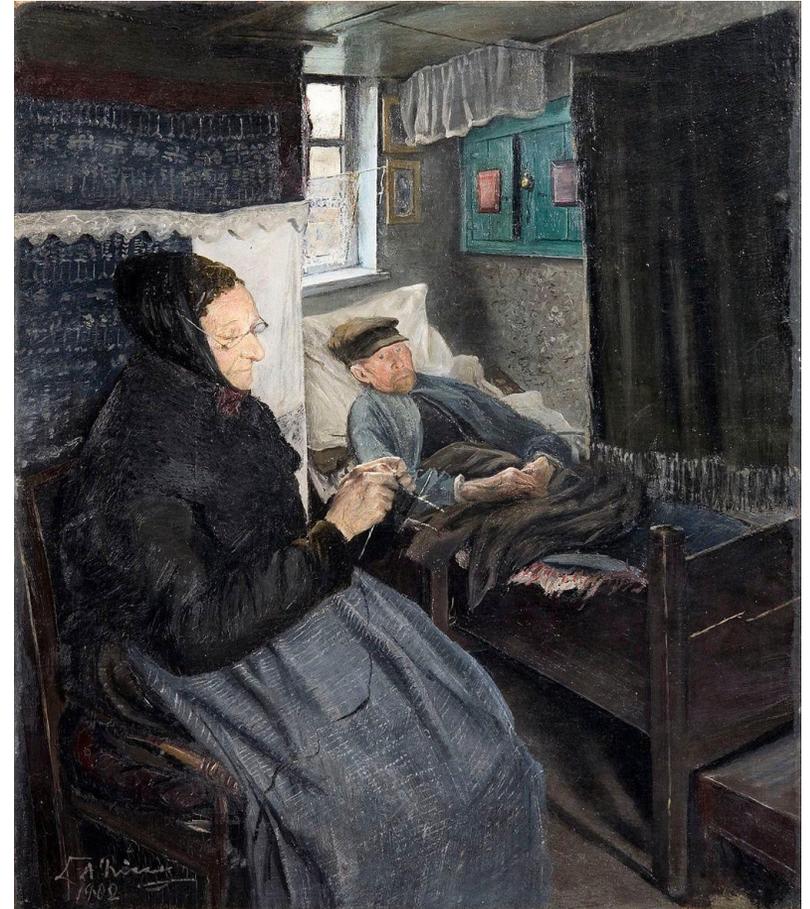
Full decision-making capacity

Voluntary and free from coercion

Not influenced by mental illness or cognitive impairment

Support from main caregivers

The request for VSED is consistent with well-established patient values



Laurits Andersen Ring "The Sick Man," 1902 Oil on Canvas, Wikimedia Commons

## Who Chooses VSED



## Motivations for VSED:

- Control over the timing and manner of death
- A desire to die at home
- Place a high value on independence
- Strong personal resolve and support system
- Poor quality of life
- Ineligible for MAID in their jurisdiction



*Frida Kahlo, "Without Hope," 1945, Oil on canvas  
Museo Dolores Olmedo (Mexico City)*

## Responding to Requests for VSED

### Clinicians

- Seek to understand
- Assess & treat causes of suffering:
  - Symptoms
  - Mental Health, psychiatry
  - Spirituality
  - Ethics
- No secondary gain
- Decision aligns with goals

### Patients

- Demonstrate decision making capacity
  - Understanding of illness
  - Risks, benefits, alternatives to VSED
- Identify challenges:
  - Biological drive to eat and drink & management of those symptoms
  - Social & emotional care partner needs
- Consistency in decision making

## Ethical and legal protections

Advanced Directives

Completed AD for SED

Ulysses Contract

POLST/COLST/PDNR

Document intention to refrain from eating & drinki  
lost decisional capacity

Consider making a short phone video to show your well-thought-out intentions

End of life planning: Cremation/burial, will, etc.

Cause of Death: underlying terminal diagnosis and contributing medical comorbidities.



John William Waterhouse, "Ulysses and the Sirens," 1891, Oil on canvas, National Gallery of Victoria

## Next steps in planning

Identify the support system

Care partners, loved ones, psychosocial

Identify where

Hospice Support

Private Caregivers

Death Doula



Edvard Munch, "Death in the Sickroom," 1893, Tempera and wax crayon on canvas, National Museum of Norway

## PHASE 1

Approx Days 1-4

Celebrations of life and final goodbyes

Option to stop process

Symptoms: anxiety, restlessness, fatigue, headache, dry mouth/throat, hunger

## PHASE 2

Approx Days 5-9

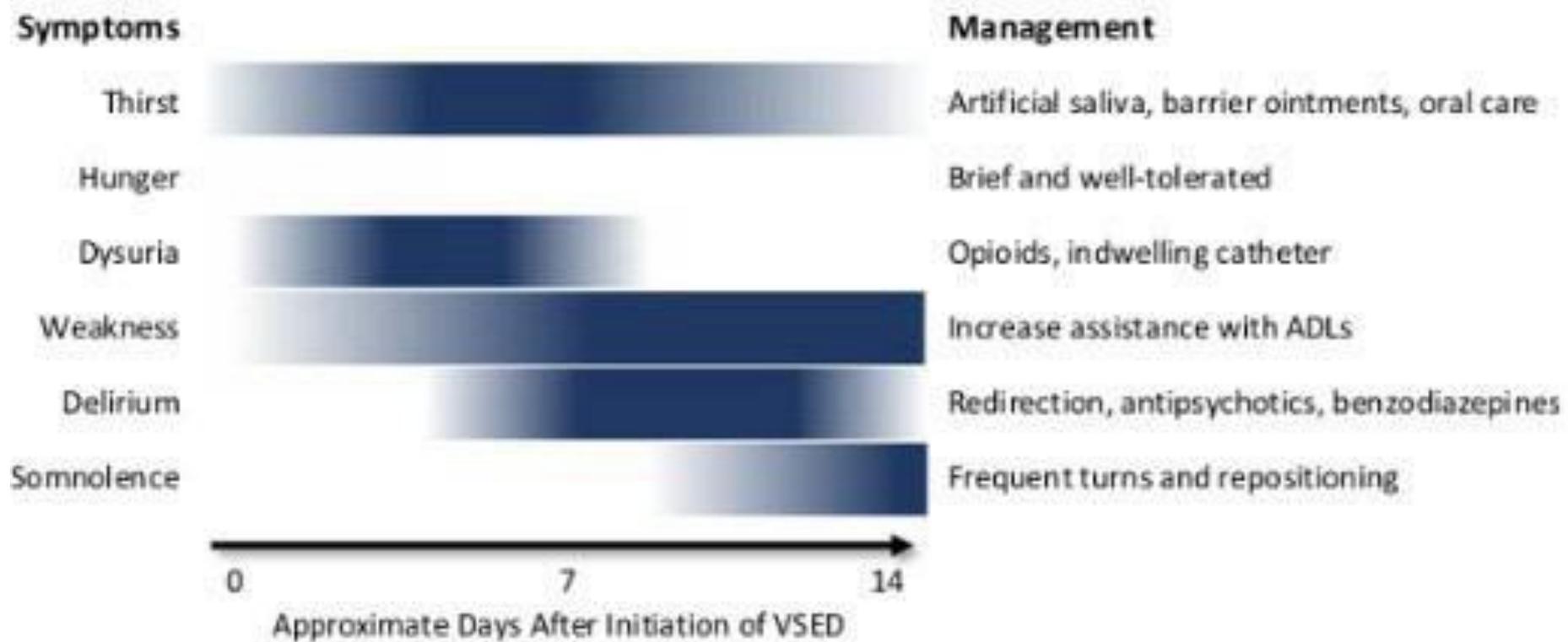
- Most difficult phase
- Symptoms: thirst, some delusions, often lack of capacity, potential agitation, weakness
- Important phase for symptom management to ensure comfort

## PHASE 3

Approx Days 10-14

- Actively dying
- Lethargy -> Somnolent -> Coma
- Symptoms: Normal individualized symptoms at EOL
- Focus on care partners and bereavement

## Symptom Management

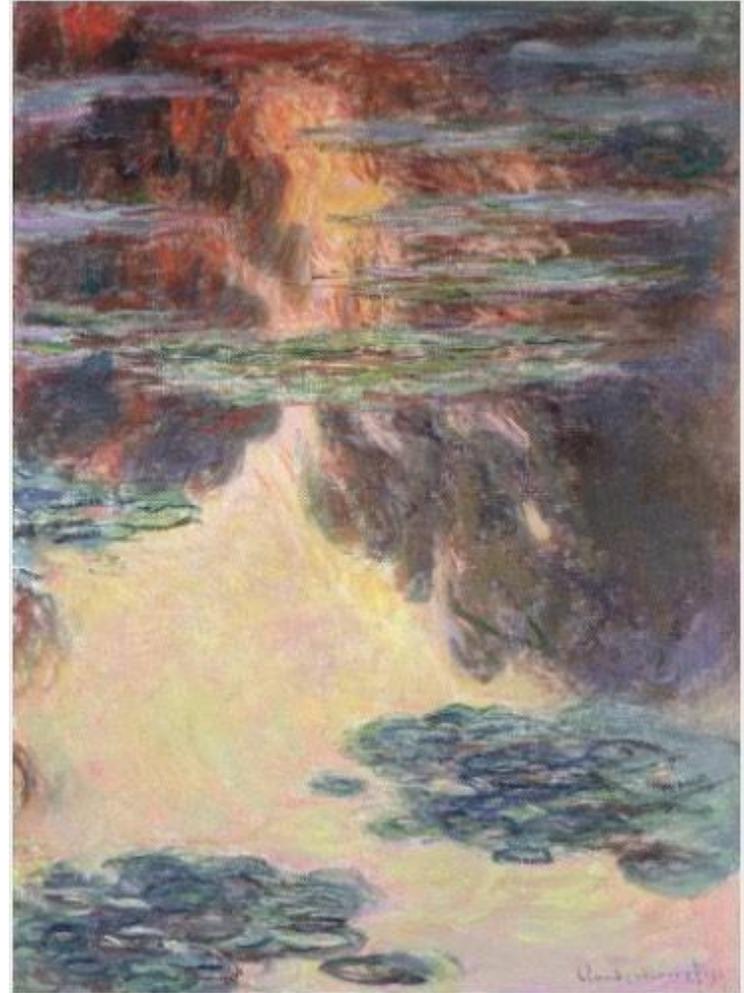


## Symptom Management

<b>Thirst &amp; Dry Mouth</b> <ul style="list-style-type: none"><li>• Moist swabs,</li><li>• Lip balm</li><li>• Oral spray/rinse</li><li>• Humidification</li></ul>	<b>Dry Skin</b> <ul style="list-style-type: none"><li>• Lotion</li><li>• Cooling cloths</li></ul>	<b>Pain</b> <ul style="list-style-type: none"><li>• Frequent repositioning</li><li>• Personal care</li><li>• Opioids</li></ul>	<b>Anxiety &amp; Delirium</b> <ul style="list-style-type: none"><li>• Psychosocial Support</li><li>• Benzodiazepines ie. lorazepam</li><li>• Antipsychotics ie. haloperidol</li></ul>
<b>Constipation &amp; Cramping</b> <ul style="list-style-type: none"><li>• Recommend cleanse prior to starting</li><li>• Bowel regimen: Senna/Colace</li></ul>	<b>Hunger</b> <ul style="list-style-type: none"><li>• Distraction</li><li>• Time with loved ones</li><li>• Music/Movies,</li><li>• Memento making</li><li>• Reiki,</li><li>• Massage</li></ul>	<b>Safety</b> <ul style="list-style-type: none"><li>• Hospital bed</li><li>• Bedside commode</li><li>• Urinal</li><li>• Indwelling catheter</li><li>• Walker/cane/lift assist</li></ul>	<b>Psychosocial &amp; Spiritual</b> <ul style="list-style-type: none"><li>• Anticipatory Guidance</li><li>• Clear plan for requests for food or fluid prior to initiation</li></ul>

## Summary

Legal protected right to hasten death  
Requires thorough and thoughtful planning with loved ones and medical teams  
Documentation of decisions and wishes with appropriate legal protections  
Strongly recommend engagement with hospice  
Acknowledge that bereavement may have different characteristics d/t the manner of death, ensure access to bereavement support



Claude Monet, "Nymphéas," 1907, Oil on Canvas, Musée Marmottan Monet, Wikimedia Commons

## Resources

Gruenewald DA. Voluntarily Stopping Eating and Drinking: A Practical Approach for Long-Term Care Facilities. *J Palliat Med.* 2018;21(9):1214-1220. doi:10.1089/jpm.2018.0100

Lowers J, Hughes S, Preston N. Experience of Caregivers Supporting a Patient through Voluntarily Stopping Eating and Drinking. *J Palliat Med.* 2021;24(3):376-381. doi:10.1089/jpm.2020.0223

Quill TE, Menzel PT, Pope TM, Nurse JS. *Voluntarily Stopping Eating and Drinking.* Oxford University Press; 2021.

Wax JW, An AW, Kosier N, Quill TE. Voluntary Stopping Eating and Drinking. *J Am Geriatr Soc.* 2018;66(3):441-445. doi:10.1111/jgs.15200

Wechkin H, Macauley R, Menzel PT, Reagan PL, Simmers N, Quill TE. Clinical Guidelines for Voluntarily Stopping Eating and Drinking (VSED). *J Pain Symptom Manage.* 2023;66(5):e625-e631. doi:10.1016/j.jpainsymman.2023.06.016

Wechkin HA, Menzel PT, Loggers ET, et al. "Mr. Smith Has No Mealtimes": Minimal Comfort Feeding for Patients with Advanced Dementia. *J Pain Symptom Manage.* 2025;69(2):216-222. doi:10.1016/j.jpainsymman.2024.11.001

# How to Create a Legacy

**Connolly Huddleston, MAPS, BCC**

**ECHO 5.0**

**December 2, 2025**

# Takeaways

- **What is legacy**
- **Barriers**
- **The benefits of legacy**
- **How to find, create, and build a legacy**



# What is legacy?

“**Legacy** is broadly defined as *what one leaves behind after death*, and its potential *extends beyond leaving wealth or possessions*.

Creating a legacy is *valuable for meaning-making* and can *foster symbolic immortality*, the feeling of living on after death, by *providing a way for an individual to be remembered* in the lives of those who survive them.”

# Legacy is...

**“the process of passing oneself through generations, creating continuity from the past through the present to the future”**



# Why do people *want* to leave a legacy?

- **Generativity**
- **Personal contribution**
- **Personal accomplishment**
- **Set their family/loved ones up for success**
- **Find peace, reconciliation, consolation, forgiveness**



# Barriers

- **Fear of dying**
- **Exposes a “weakness”**
- **Shock**
- **Denial**
- **Overanalyzing**
- **Complex family dynamics**
- **Perception of others**



# What are the benefits?

- **Emotional benefits**
- **Symptom management**
- **Spiritual well-being (existential distress)**
- **Promotes self-awareness**
- **Brings comfort**



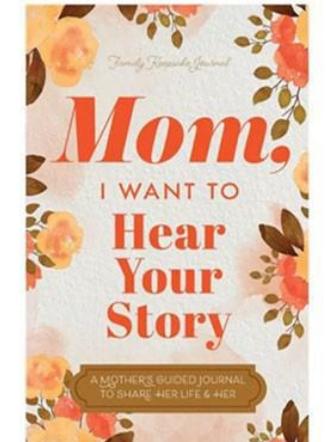
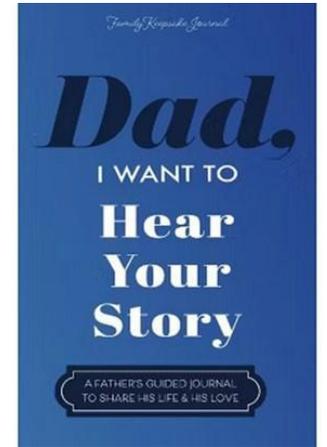
# Benefits cont.

- **Fosters hope, gratitude, and peace**
- **Maintain dignity**
- **Creates a continuous connection**
- **Sense of autonomy**



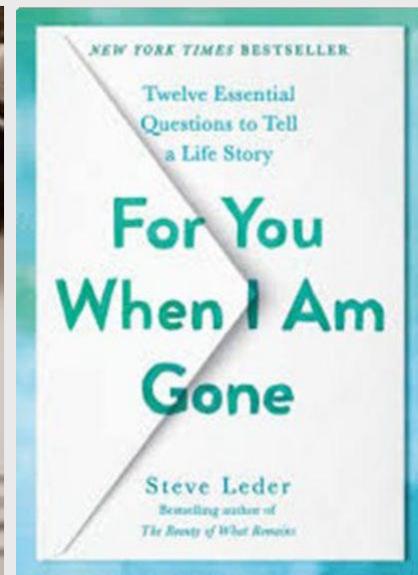
# Legacy Builders

- Talk about it
- Age-appropriate items
- Cards for milestone events
- Family heirlooms
- Journaling



# Builders cont.

- Voice/video recordings
- Donations to charities
- End of life preparation documents
- Recipes
- Funeral arrangements
- Memory boxes



# Legacy Creating Specialists

- **Chaplains**
- **Child-Life**
- **Death Doulas**
- **StoryCorps**
- **Memory Keepers**
- **Local Hospice Agencies**



# Palliative Care as Legacy Specialists



**To palliate: “to make (a disease or its symptoms) less severe or unpleasant without removing the cause”**

“

**“I alone cannot change the world,  
but I can cast a stone across the  
waters to create many ripples.”**

**-Mother Teresa**

”



# Thank you!

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# References

- Getting Your Affairs in Order Checklist: Documents to Prepare for the Future; Feb. 1, 2023; <https://www.nia.nih.gov/health/advance-care-planning/getting-your-affairs-order-checklist-documents-prepare-future#>
- Neller SA, Cloyes KG, Edelman LS, Wong B, Baines B, Towsley GL. Preparing for the Future While Living in the Present: Older Adults' Experiences Creating a Legacy of Values. *Gerontologist*. 2023 Oct 17;63(9):1488-1496. doi: 10.1093/geront/gnad019. PMID: 36842069; PMCID: PMC10581374.
- Timóteo C, Vitorino J, Ali AM, Laranjeira C. Legacy in End-of-Life Care: A Concept Analysis. *Nursing Reports*. 2024; 14(3):2385-2397. <https://doi.org/10.3390/nursrep14030177>
- 7 Legacy Project Ideas to Honor Your Loved One- Eterneva <https://www.eterneva.com/resources/legacy-project-ideas>
- Hunter, Elizabeth G., PhD, Beyond Death: Inheriting the past and giving to the future, transmitting the legacy of one's self; *OMEGA*, Vol. 56(4) 313-329, 2007-2008; <https://journals.sagepub.com/doi/epdf/10.2190/OM.56.4.a>



# **Prolonged Grief Disorder:**

## Clarity, controversy, treatment and support

Kristen Johnson, MS, CCLS, FT, GC-C

Palliative Care Program Manager, Bereavement Programs

## DISCLOSURES:

- Artificial Intelligence (AI) was not used
- Perspective of a thanatologist
- I welcome further conversation outside of this presentation

*The Weight of Grief*  
by Celeste Roberge

“There is no grief like the grief  
that does not speak.”

-Henry Wadsworth Longfellow



## *Universal support:*

- **Recognizes** individuality and uniqueness of grief
- **Honors** the pain of loss
- **Hold spaces** for grief
- **Understands** grief is something one learns to carry & live with
- **Extends** another layer of support when wanted/needed



## GRIEF IS A SPECTRUM...



Anticipatory Grief < > Acute Grief < > Integrated Grief

# GRIEF IS A SPECTRUM...

Anticipatory Grief < > Acute Grief < > Integrated Grief

...experienced in a  
**NONLINEAR** path



# GRIEF IS A <sup>^</sup>SPECTRUM:

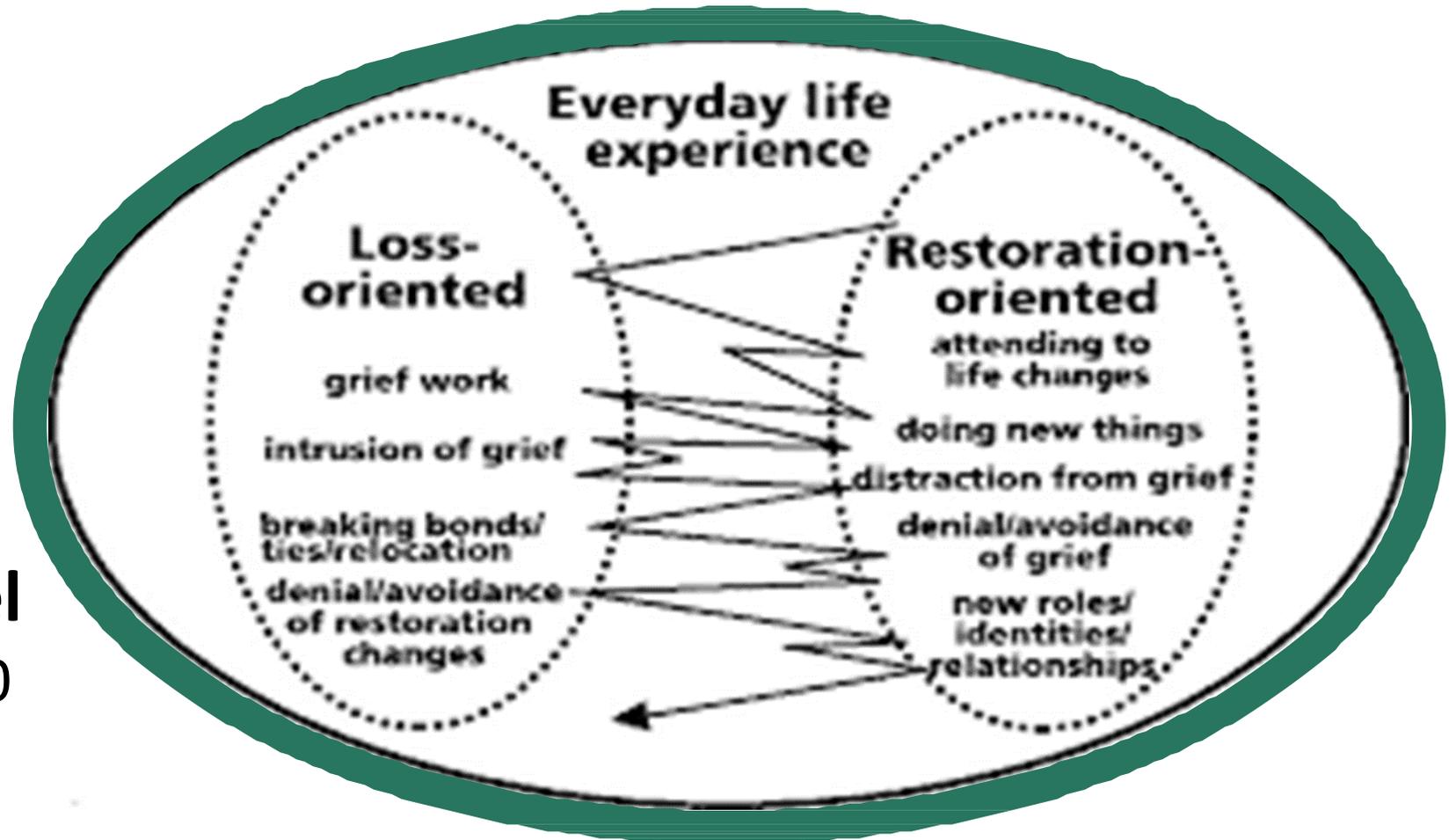
## Meaning Reconstruction Model

Robert Neimeyer

“A central process in grieving is the attempt to reaffirm or reconstruct a world of meaning that has been challenged by loss.”

nonlinear

# GRIEF IS A SPECTRUM:



**Dual Process Model**  
Stroebe & Schut, 2010

## Labels Matter:

### Outdated terms:

Complicated grief

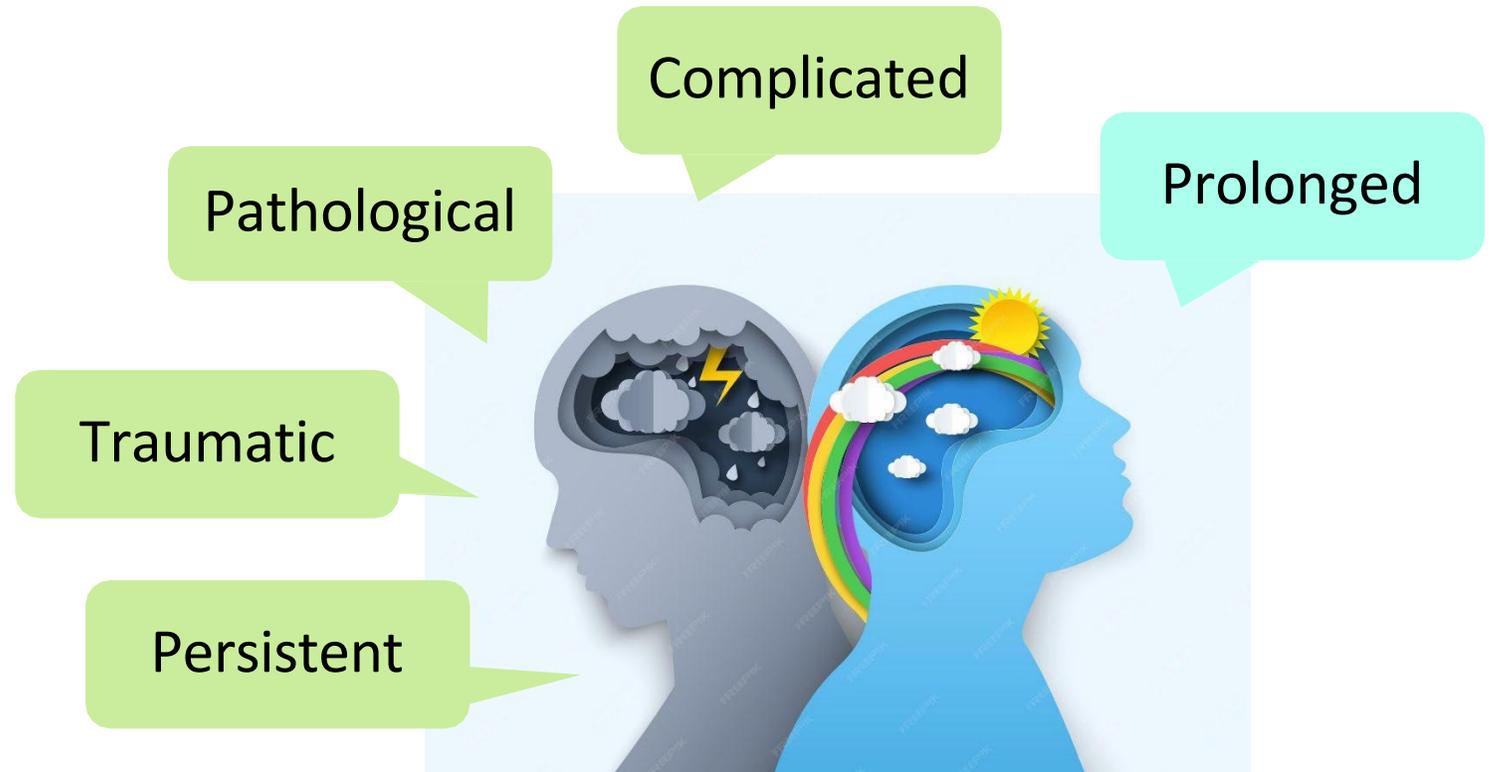
Pathological grief

Traumatic grief

Persistent complex

bereavement disorder

**Preferred term:** Prolonged grief disorder  
(after *at least* 12 months post loss with persistent pervasive yearning and longing)



## Labels Matter:

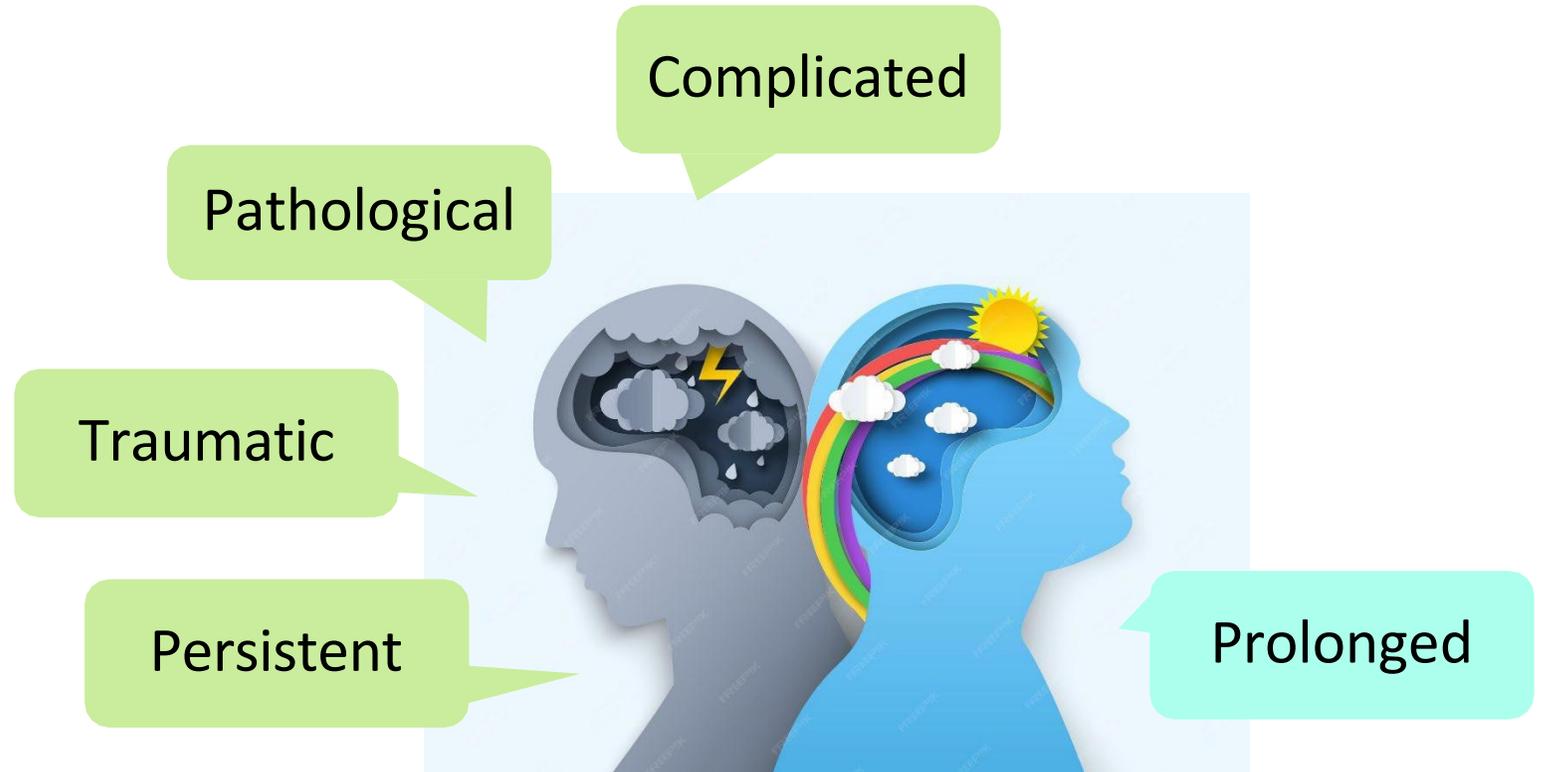
### Outdated terms:

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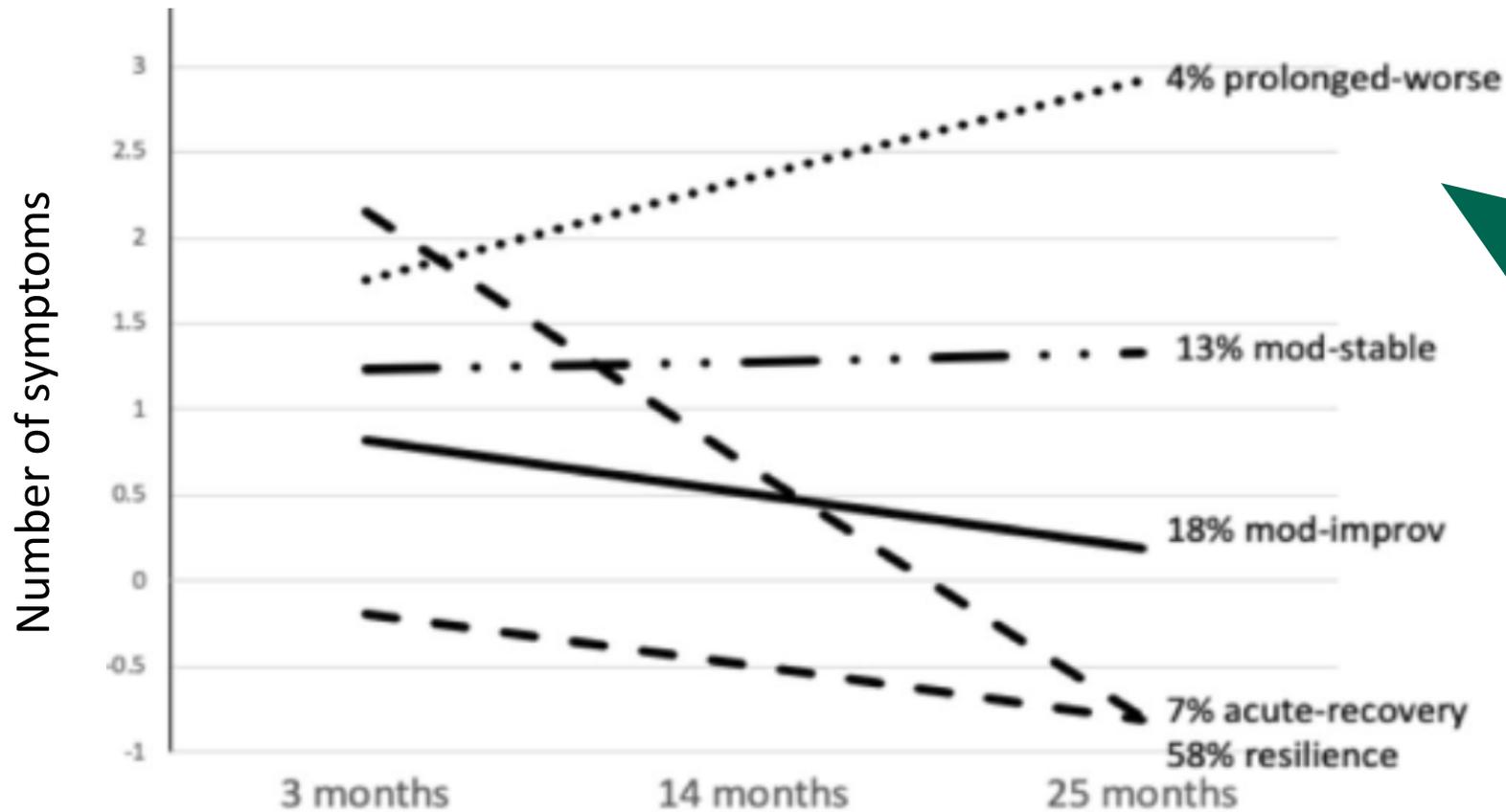
Traumatic grief

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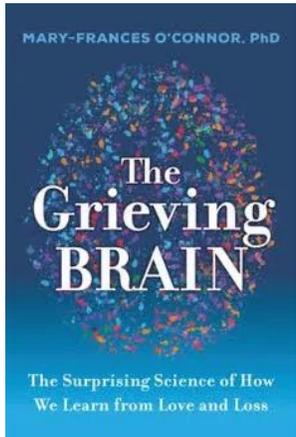
**Preferred term:** Prolonged grief

## Trajectories of grief, by DSM-5 and ICD 11 diagnosis



Difficult/disordered grief is a **SMALL SUBSET**— affects ~4-10% of bereaved, yet takes up to 90% of the literature and most of the clinical attention

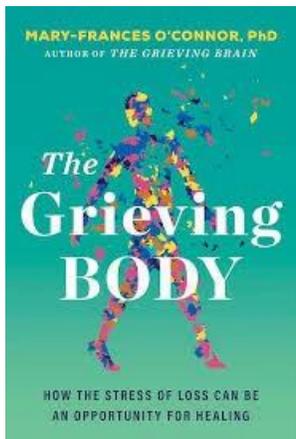
## BIOPSYCHOSOCIAL RESPONSE TO LOSS Mary Frances O'Connor, PhD



Figuring out how to regain the equilibrium in our physiological systems, doing everything without our loved one, is a (largely) unconscious process in grieving

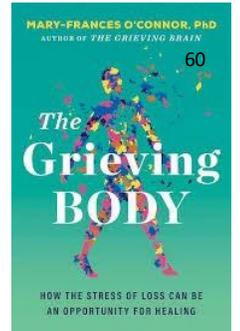
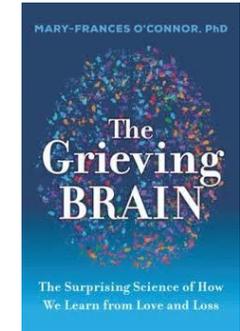
Attempting to re-regulate during grieving looks like:

- Fatigue or brain fog
- Restlessness, low tolerance
- Being more susceptible to illness



# BIOPSYCHOSOCIAL RESPONSE TO LOSS

Mary Frances O'Connor, PhD



## Cardiovascular reactivity

A man is almost twice as likely to die of a heart attack in the first 3 months

## Viewing bereavement as a heightened time for medical risk

While a risky time for people, most people will do fine  
Education, literacy, and a way to check in and follow up when needed is beneficial



# GRIEF DERAILERS

## Thoughts

Second guessing  
Self or other  
questioning/judging  
Existential distress



## GRIEF DERAILERS

### Thoughts

Second guessing  
Self or not guessing  
questioning/judging  
Self or other  
Existential distress/judging  
Existential distress

### Feelings

Dysregulated  
Intensely negative  
Low positive



# GRIEF DERAILERS

## Thoughts

- Second guessing
- Self or other questioning/judging
- Existential distress

## Feelings

- Dysregulated
- Intensely negative
- Low positive

## Behaviors

- Escape
- Avoidance
- Negative health patterns





There is a crack in everything,  
that's how the light gets in.  
—Leonard Cohen

## RISK FACTORS

- history of mood or anxiety disorders
- alcohol or drug abuse
- multiple losses
- sudden death
- under unnatural circumstances  
(inclusive of death in the ICU)
- inadequate social support



# PROLONGED GRIEF DISORDER (PGD) DIAGNOSIS ICD-11 and DSM-5-TR

1 Loss of a loved one at least 12 months ago

2 Intense persistent yearning/longing for the loved one or preoccupation with thoughts or memories of the deceased for at least the last month

3 At least 3 of the following symptoms, nearly every day, for at least the last month:

- **Identity disruption**
- Marked sense of **disbelief** about the death
- **Avoidance** of reminders of reality of the loss
- Intense **emotional pain** related to the death
- **Emotional numbness** since the loss
- Feeling that life is **unfulfilling, empty, or meaningless**
- **Intense loneliness**



# PROLONGED GRIEF DISORDER (PGD) DIAGNOSIS ICD-11 and DSM-5-TR

continued

- 4 The disturbance causes **significant distress or impairment** in social, occupational or other important areas of functioning
- 5 The **duration of bereavement reaction clearly exceeds expected** social, cultural, or religious norms for the individual's culture and context
- 6 The disturbance is **not better accounted for by another mental disorder** (e.g. major depression, PTSD, etc.)



# DIFFERENTIAL DIAGNOSIS for Prolonged Grief Disorder (PSD)

Depression	Grief
Preoccupied with self-critical and pessimistic rumination and feelings of worthlessness	Preoccupied with thoughts, images, and memories of the deceased

- **Is grief the main challenge?**
  - If yes, is this PGD...or a heightened period of natural grief
- **Is there another diagnosable disorder?** (e.g., Depression, PTSD)
  - If yes, is grief the primary challenge?
- **Is there a co-occurring condition that needs treatment first?**
  - Psychotic disorder
  - Substance use disorder
  - Bipolar disorder
  - Imminent suicidal risk



# SCREENING & ASSESSING Prolonged Grief Disorder (PSD)

## Tools for screening:

- PG-13-Revised (PG-13-R)
- Inventory of Complicated Grief (ICG)
- Brief Grief Questionnaire (BGQ)

## Instruments to distinguish symptoms

- Typical Beliefs Questionnaire (TBQ)
- Grief Related Avoidance Questionnaire (GRAQ)
- Structured Clinical Interview for PGD (SCI-PGD)
- Grief-related Work & Social Adjustment Scale (WSAS)

**PROLONGED GRIEF DISORDER (PG-13-Revised)**

Q1. Have you lost someone significant to you?  Yes  No

Q2. How many months has it been since your significant other died?  Months

For each item below, please indicate how you currently feel?

Since the death, or as a result of the death...	Not at all	Slightly	Some-what	Quite a bit	Overwhelmingly
Q3. Do you feel yourself longing or yearning for the person who died?	<input type="radio"/>				
Q4. Do you have trouble doing the things you normally do because you are thinking so much about the person who died?	<input type="radio"/>				
Q5. Do you feel confused about your role in life or feel like you don't know who you are any more (i.e., feeling like that a part of you has died)?	<input type="radio"/>				
Q6. Do you have trouble believing that the person who died is really gone?	<input type="radio"/>				
Q7. Do you avoid reminders that the person who died is really gone?	<input type="radio"/>				
Q8. Do you feel emotional pain (e.g., anger, bitterness, sorrow) related to the death?	<input type="radio"/>				
Q9. Do you feel that you have trouble re-engaging in life (e.g., problems engaging with friends, pursuing interests, planning for the future)?	<input type="radio"/>				
Q10. Do you feel emotionally numb or detached from others?	<input type="radio"/>				
Q11. Do you feel that life is meaningless without the person who died?	<input type="radio"/>				
Q12. Do you feel alone or lonely without the deceased?	<input type="radio"/>				

Q13. Have the symptoms above caused significant impairment in social, occupational, or other important areas of functioning?  Yes  No

Questions Q3 through Q12 in the PG-13-R are rated using a 5-point scale ranging from 1=not at all to 5=overwhelmingly. A PG-13-R symptom score of 30 or greater identifies syndromal-level PGD symptomatology. COURTESY/HOLLY G PRIGERSON, PHD, JIEHUI XU, M.S., PAUL K MACIEJEWSKI, PHD

YOUR SUMMED SCORE IS

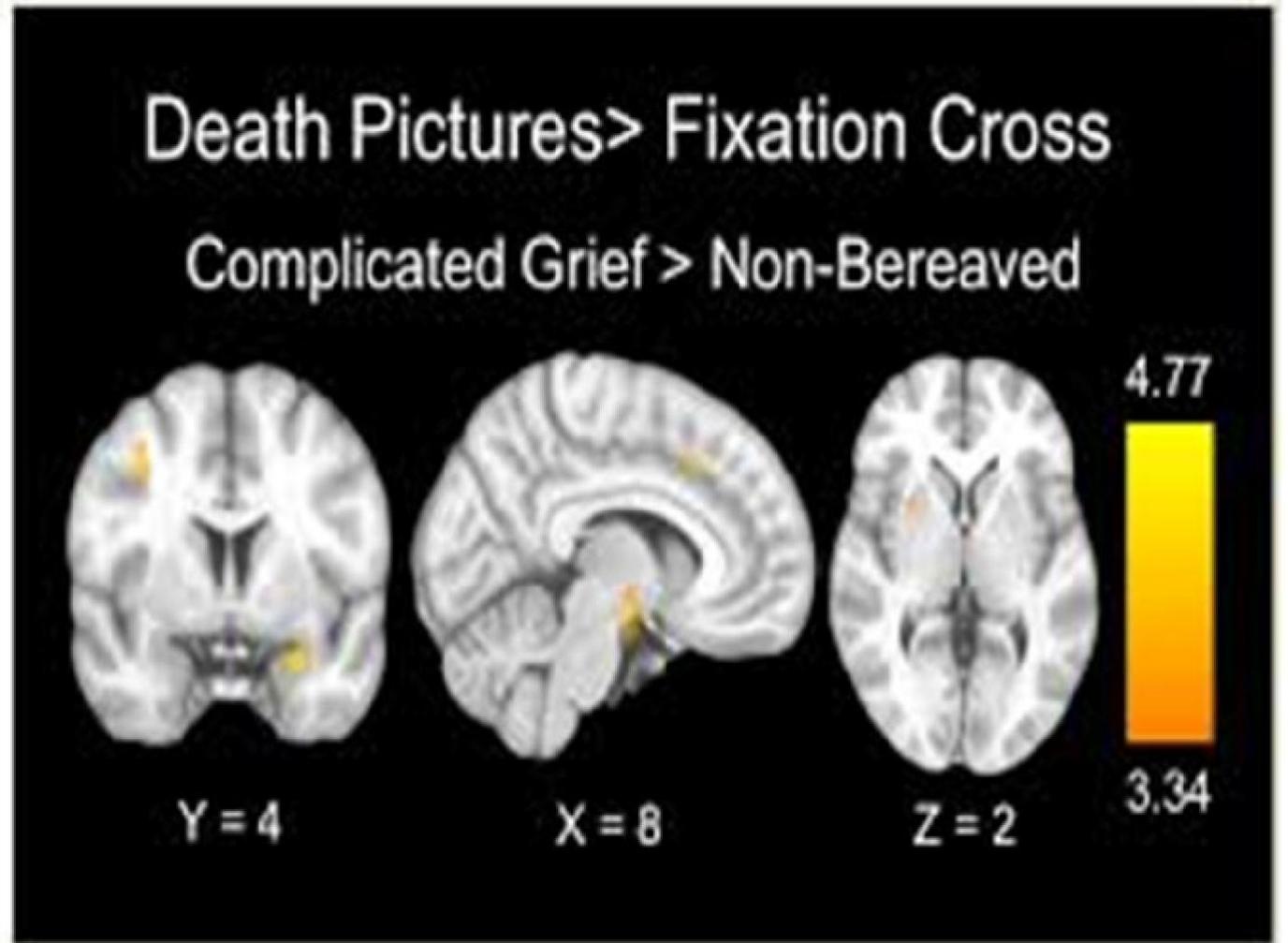
## CURRENT STUDIES

### 1. fMRI

2. DREAM Lab (Medical College of Wisconsin)

3. Pharmacology (Naltrexone treatment)

4. Center for Prolonged Grief - Prolonged Grief Therapy



- 19 bereaved and 19 non-bereaved individuals
- Bereaved individuals showed distinct brain activations

## CURRENT STUDIES

1. fMRI
2. **DREAM Lab** (Medical College of Wisconsin)
3. Pharmacology (Naltrexone treatment)
4. Center for Prolonged Grief - Prolonged Grief Therapy



- Screened 190 potential patients
- 19 individuals enrolled in Iyengar Yoga study
- 20 individuals to active control health education
- Seven non-bereaved participants to complete 10 week study

## CURRENT STUDIES

1. fMRI

2. DREAM Lab (Medical  
College of Wisconsin)

**3. Pharmacology  
(Naltrexone treatment)**

4. Center for Prolonged Grief  
- Prolonged Grief Therapy



- Study to consider pharmacology in treating PGD
- Conceptualized PGD as “addiction disorder”
- Intention to disrupt capacity to engage in social bonding and eliminate craving the person who died

## CURRENT STUDIES

1. fMRI
2. DREAM Lab (Medical College of Wisconsin)
3. Pharmacology (Naltrexone treatment)
- 4. Center for Prolonged Grief - Prolonged Grief Therapy**



## The Center for Prolonged Grief

- Prolonged Grief Treatment
- 3 studies
- 16 sessions
- Results: Prolonged Grief Treatment (PGT) twice as effective as Interpersonal Psychotherapy (IPT)

## EFFECTIVE SOURCES OF SUPPORT AND TREATMENT

Psychoeducation with Social Support (PSS)

Accelerated Resolution Therapy (ART)

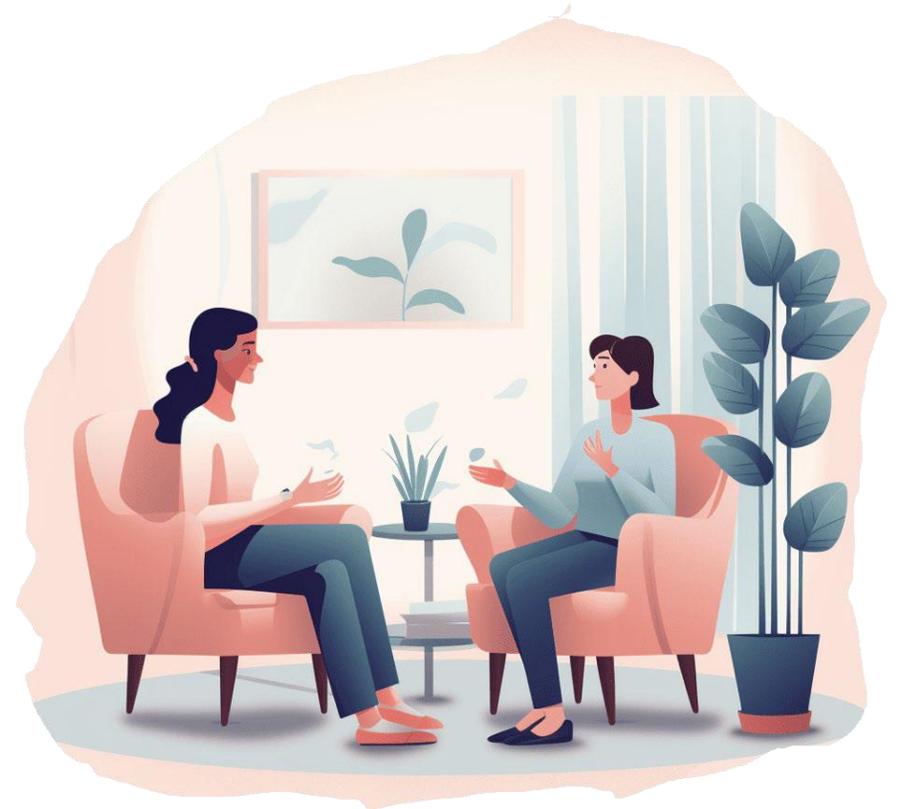
Exposure Therapy

---

Cognitive Narrative Therapy

Music Therapy

Multimedia Therapy



## COUNTERPOINT AND CONTROVERSY

- **Wish** western society gave as much time to grieve as other cultures
- **Worry** labeling a human experience as disordered could be hurtful
- **Wonder** if the new diagnosis helps or hurts

*The New York Times*

*How Long Should It Take to Grieve?  
Psychiatry Has Come Up With  
an Answer.*

The latest edition of the DSM-5, sometimes known as “psychiatry’s bible” includes a controversial new diagnosis:

**Grief is non-linear and without a timeline**

## Creating a Loss-Informed World

- A hope that we can create and nurture a world that doesn't yet exist – one that is loss informed
- A world where grief can be openly shared, witnessed, supported and understood.

It was love,  
and I lived in it.

And  
it is grief,  
and I will carry it.

-CHLOË PRAYNE.



Dartmouth  
Health

Palliative Care

DARTMOUTH HITCHCOCK  
MEDICAL CENTER

Thank you.

[Kristen.R.Johnson@hitchcock.org](mailto:Kristen.R.Johnson@hitchcock.org)

603-308-2447



Dartmouth  
Health

Department of Medicine /  
Section of Physical Medicine &  
Rehabilitation

DARTMOUTH HITCHCOCK MEDICAL  
CENTER

# Exploring Goals of Care for Individuals with Persistent Disability

Sarah Durante MD, FAAPMR

ECHO 5.0 February 4, 2026

## Outline

- Introduce language used to address disability
- Review disability prevalence in the United States
- Discuss the impact of disability on healthcare access and experience
- Offer strategies for exploring goals of care (GoC) for individuals with disabilities
- Offer resources for healthcare providers working with disabled people



**Photo credit:** Lisa Jamieson, [disabilityisbeautiful.com](http://disabilityisbeautiful.com)

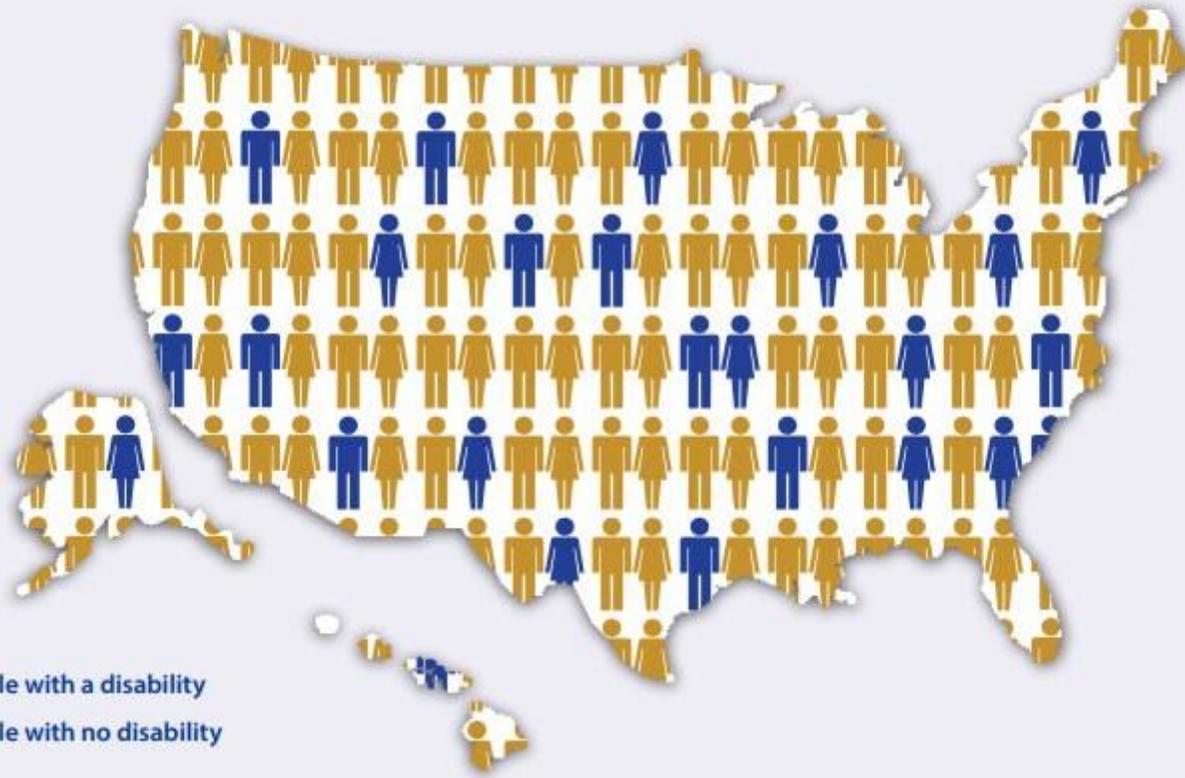
**HOW WE ADDRESS DISABILITY MATTERS.**

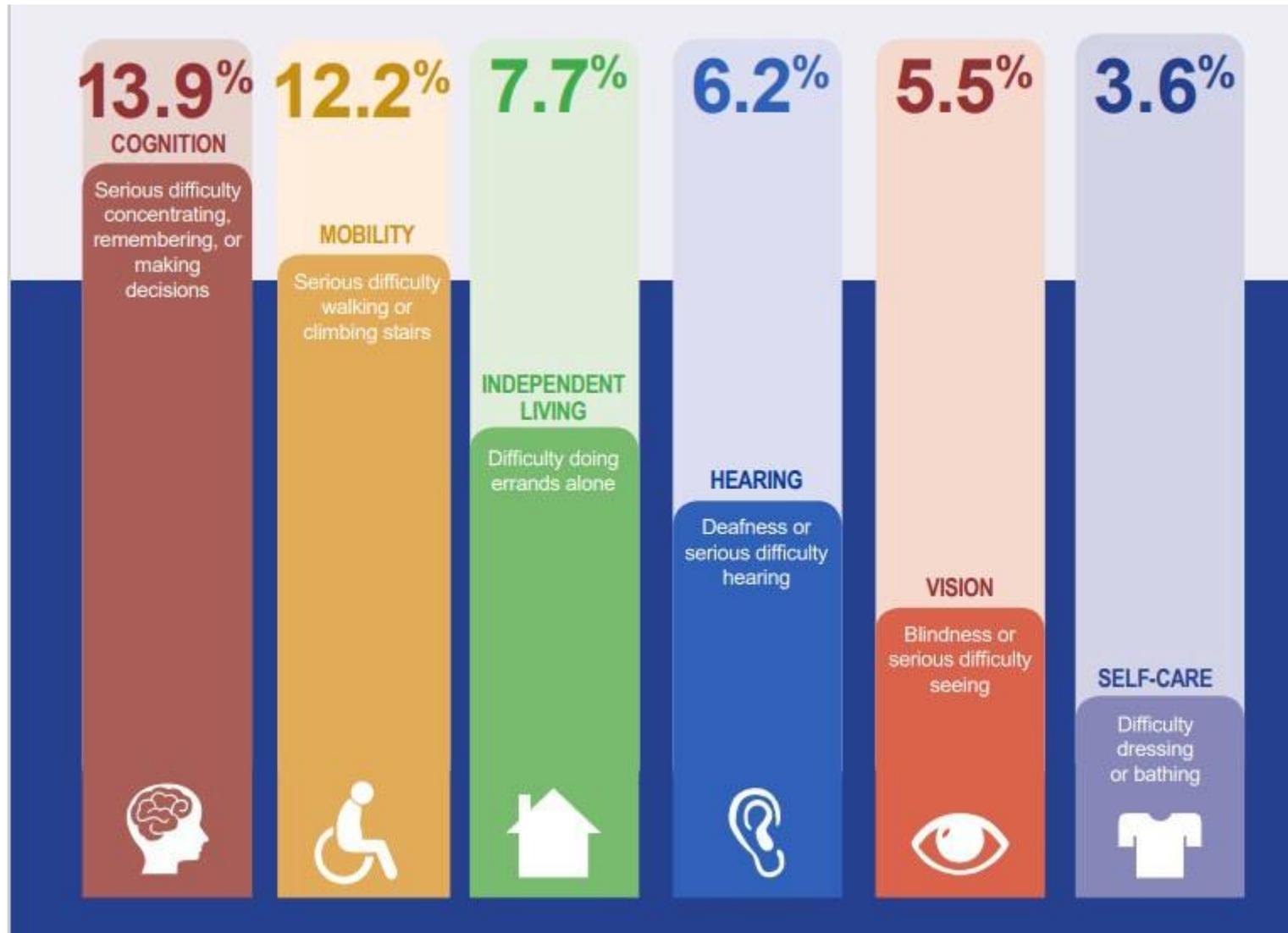


## Person-first vs identify-first language

- Medical professionals are taught to use person-first language (e.g. “person with Down syndrome”)
- Identity-first language is preferred by some members of the disabled community (e.g. “autistic person”)
- Both are equally appropriate depending on personal preference

More than **1 in 4** adults in the United States have some type of disability  
(28.7%)





**DISABLED INDIVIDUALS FACE SIGNIFICANT  
HEALTH DISPARITIES.**

# Disability and Healthcare ACCESS

Healthcare access barriers for working-age adults include

## Recent Changes to Immigration Policies Have Disastrous Impacts on Disabled People and Long-Term Care

by Rachel Litchman, 2023 Summer Internship Alumni | Jan 9, 2026 | Blog



Photo of Rachel Litchman

(45-64 years)



By Lisa I. Iezzoni, Sowmya R. Rao, Julie Ressler, Dragana Bolcic-Jankovic, Nicole D. Agarannik, Karen Donelan, Tara Lagu, and Eric G. Campbell

## Physicians' Perceptions Of People With Disability And Their Health Care

DOI: 10.1377/hlthaff.2020.01452  
HEALTH AFFAIRS 40,  
NO. 2 (2021): 297-306  
©2021 Project HOPE—  
The People-to-People Health  
Foundation, Inc.

84% reported that people with significant disability have worse quality of life than non-disabled people.

40.7% of physicians were confident about their ability to provide the same quality of care to patients with disability.

56.5% strongly agreed that they welcomed patients with disability into their practice.

RESEARCH ARTICLE | THE PRACTICE OF MEDICINE

[HEALTH AFFAIRS](#) > [VOL. 41, NO. 10](#): DISABILITY & HEALTH

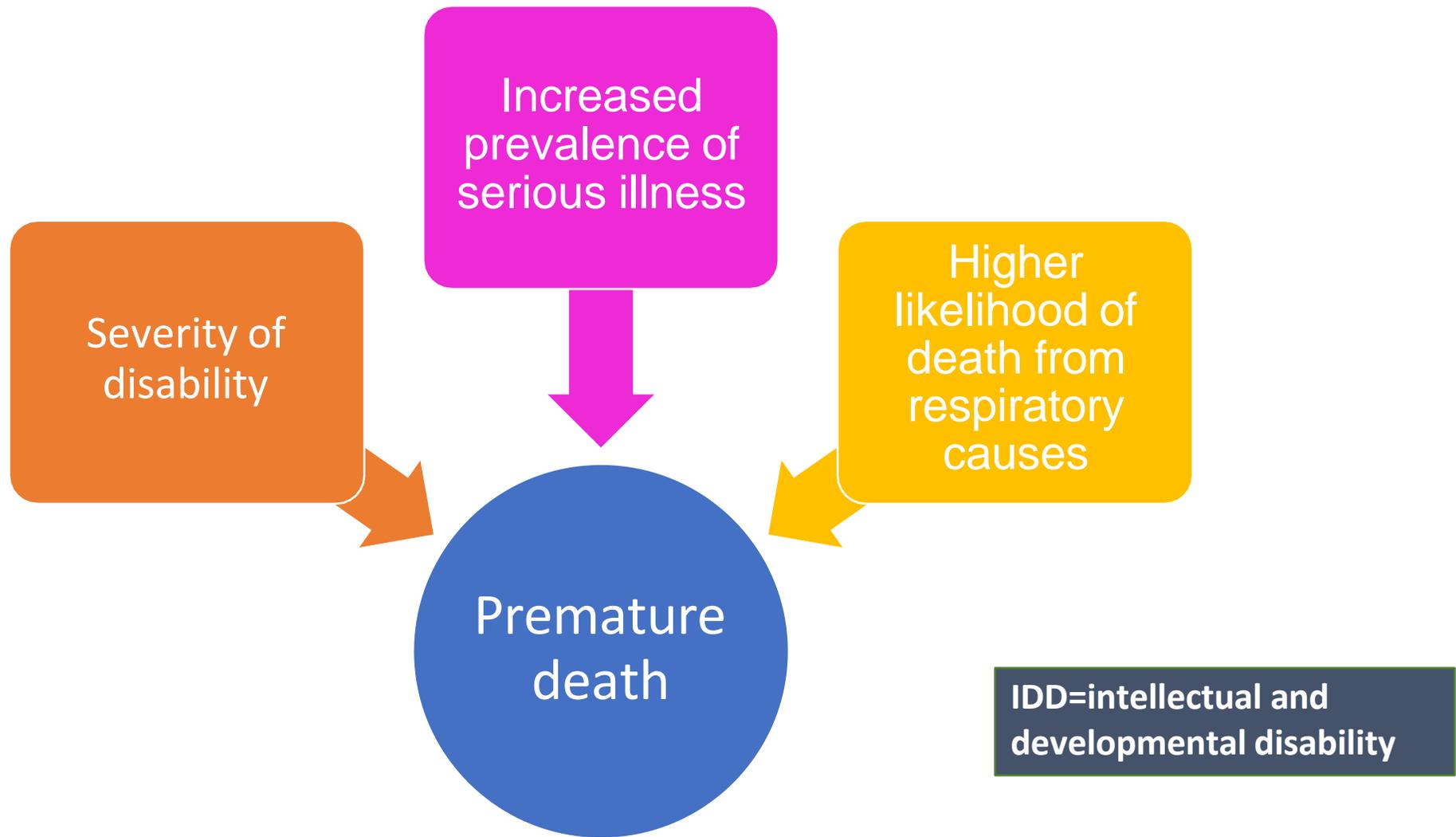
# ‘I Am Not The Doctor For You’: Physicians’ Attitudes About Caring For People With Disabilities

[Tara Lagu](#), [Carol Haywood](#), [Kimberly Reimold](#), [Christene DeJong](#), [Robin Walker Sterling](#), and  
[Lisa I. Iezzoni](#)

## People with intellectual and developmental disabilities (IDD) face unique challenges

- Lack of awareness of IDD among healthcare providers and organizations
- Communication barriers
- Social and physical isolation
- Medical complexity
- Trauma history

# Individuals with **IDD** die sooner than those without IDD



Landes SD, Stevens JD, Turk MA. Heterogeneity in age at death for adults with developmental disability. *J Intellect Disabil Res.* 2019;63(12):1482-1487.

Landes SD, Stevens JD, Turk MA. Cause of death in adults with intellectual disability in the United States. *J Intellect Disabil Res.* 2021;65(1):47-59.

# Disability bias exists in clinical practice

## Ineffectual bias

- Clinicians assume patients with disabilities possess lower levels of agency and competence than non-disabled patients.

## Fragility bias

- Clinicians perceive that patients with disabilities suffer more than non-disabled patients.

## Catastrophe bias

- Clinicians project more suffering onto patients with disabilities than patients actually experience

## THE “DISABILITY PARADOX”

- Many people with serious and persistent disability report experiencing a good or excellent quality of life.
- They view their lives as rich and full.
- They value their lives.

Gary L. Albrecht, Patrick J. Devlieger,

The disability paradox: high quality of life against all odds, *Social Science & Medicine*, Volume 48, Issue 8, 1999, Pages 977-988, ISSN 0277-9536, [https://doi.org/10.1016/S0277-9536\(98\)00411-0](https://doi.org/10.1016/S0277-9536(98)00411-0).

**AWARENESS LEADS TO MORE  
MEANINGFUL CONVERSATIONS.**

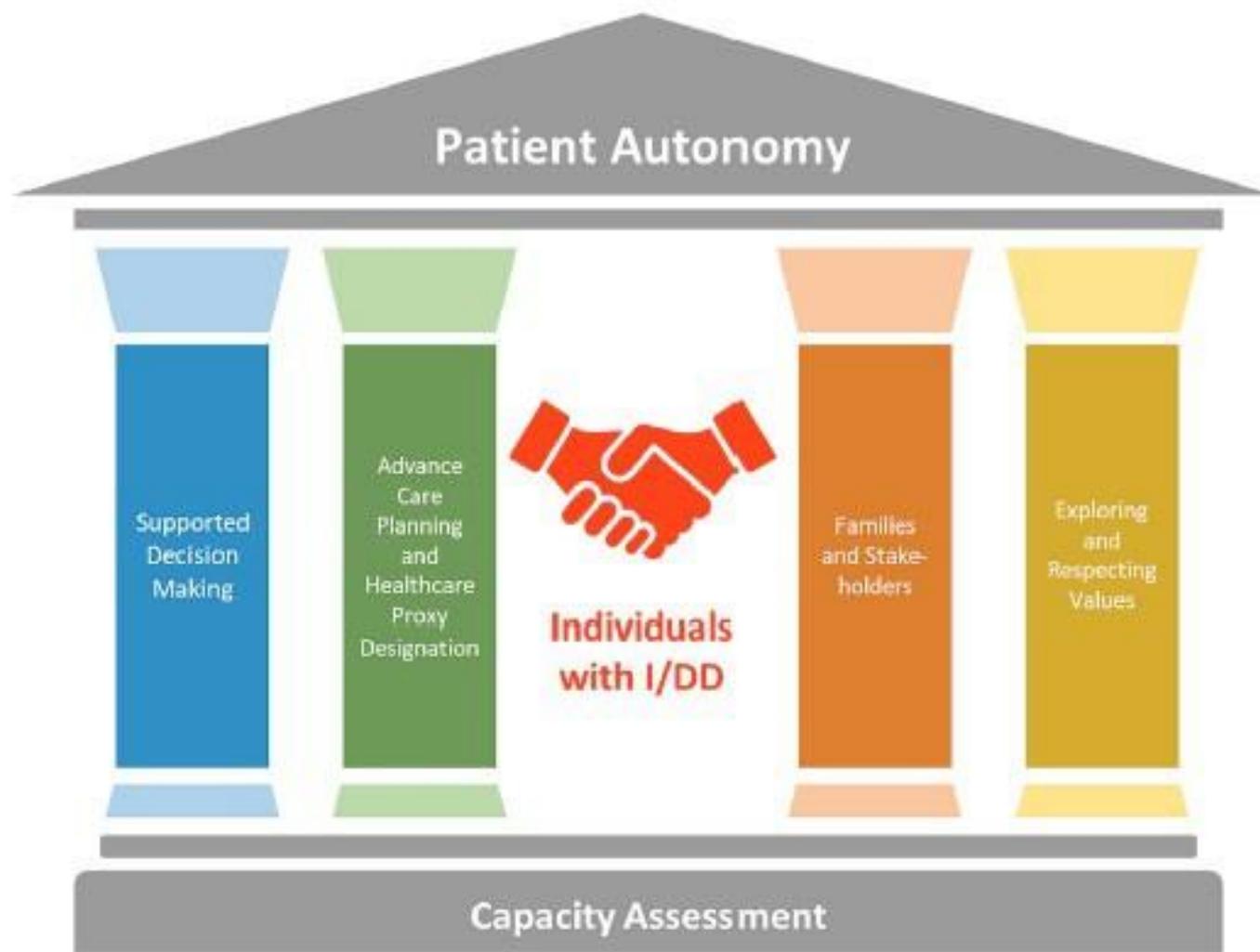


Fig. 1. Pillars of autonomy for patients with intellectual/developmental disabilities (I/DD) adapted from the World Health Organization's framework for palliative care.<sup>9</sup>

## Quality goals of care conversations...



- Explore preferences re: person-first vs identity-first language.
- Adapt to communication differences in order to center a person's voice and autonomy.
- Involve collaboration on meaningful goals.

## Quality goals of care conversations...

- Are trauma-informed and non-judgmental.
- Involve multidisciplinary support.
- Require awareness of bias and power dynamics.



**Photo credit:** Angie Morin, [disabilityisbeautiful.com](http://disabilityisbeautiful.com)

Resources for healthcare professionals

**University of New Hampshire  
Institute on Disability:**

[Institute on Disability](#)

**Special Olympics:**

[Center for Inclusive Health](#)

[Inclusive Health Principles and  
Strategies](#)





**SARAH.R.DURANTE@HITCHCOCK.ORG**

## References

1. [CDC infographic](#)
2. Iezzoni LI et al. Physicians' Perceptions of People With Disability and their Health Care, Health Affairs 40, No. 2 (2021): 297–306.
3. Lagu T et al. 'I Am Not The Doctor For You': Physicians' Attitudes About Caring For People With Disabilities. Health Aff (Millwood). 2022 Oct;41(10):1387-1395
4. Disability Bias in Health Care. Harvard Law School Project on Disability. Oct 20, 2021. <https://hpod.law.harvard.edu/news/entry/disability-bias-in-health-care>.
5. Albrecht GL, Devlieger PJ, The disability paradox: high quality of life against all odds, Social Science & Medicine, Volume 48, Issue 8, 1999, Pages 977-988.
6. [Institute on Disability](#)
7. [Center for Inclusive Health](#)
8. [Inclusive Health Principles and Strategies](#)
9. <https://www.aapd.com/recent-immigration-policies-impacts-disabled-people-and-long-term-care/>
10. Disability Bias in Health Care. Harvard Law School Project on Disability. Oct 20, 2021. <https://hpod.law.harvard.edu/news/entry/disability-bias-in-health-care>.
11. Castillo, M et al. State Decision-Making Approaches in Seriously Ill People With Intellectual/Developmental Disability. Journal of Pain and Symptom Management, Vol. 70 No. 5 (2025): 337-342.

# **Cannabis Use: What You Need to Know About Potential Benefits versus Risks**

Kathleen Broglio, DNP, ANP-BC, ACHPN, CARN-AP, FPCN, FAANP, FAAHPM  
Nurse Practitioner Section of Palliative Medicine

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# Disclosures and Acknowledgments

I do not have any relevant financial disclosures

Gratitude to Dr. Robin Larson for her review and editing of the slides

# Objectives

- Review prevalence and commonly reported reasons for cannabis use
- Describe cannabis pharmacology and routes of administration
- Discuss potential benefits and harms of cannabis use

# Cannabis has been utilized for centuries

**2727 B.C China**

- Rome Greece
- 1500's hemp

**1850**

U.S Pharmacopeia

- neuralgia,  
opioid addiction,  
alcoholism

**1937**

Marihuana Tax Act;  
Federal prohibition

1942 removed

US Pharmacopeia

**1970**

CSA 1

- > Recreational
- >Criminalization

**Present**

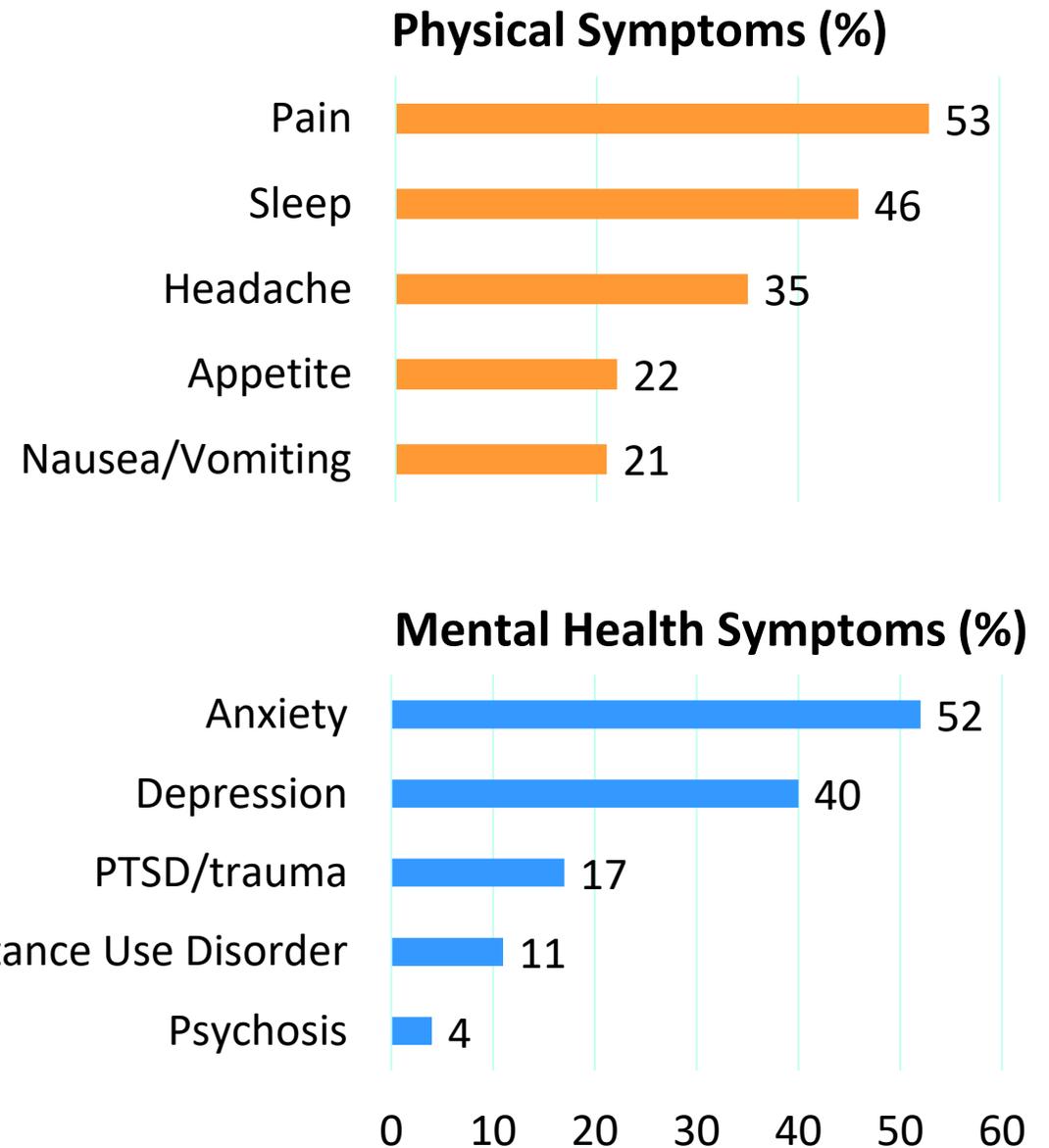
Increased therapeutic use

- Push for legalization
- 12/2025 Executive Order to change to CSIII (not enacted)

# People use cannabis to self-treat symptoms

27,169 respondents to 2018 online survey in U.S and Canada

- **27% self-reported ever use for symptom management**
- Higher in states with legal use (34%) versus no legal use (23%)
- Among reported reasons for symptom management:



# Individuals with **CANCER** use cannabis ... **AND** may not tell their clinicians



- Prevalence use from national samples 4-22%<sup>1</sup>
- 42% reported use at one cancer center; up to 50% believed it was treating cancer<sup>2</sup>
- 27% reported use for multiple symptoms at a rural academic medical center<sup>3</sup>

Amin et al *Cancer Spectr.* 2024 Jan 4;8(1):pkae004. doi: 10.1093/jncics/pkae004;<sup>1</sup>Weiss et al, *Cancer* 2022;128:160-168;<sup>2</sup> Wilson et al. *J Palliat Med*; 2019;1224-1226<sup>3</sup>

# Cannabis Pharmacology – What do we know?



# Endogenous cannabinoid system

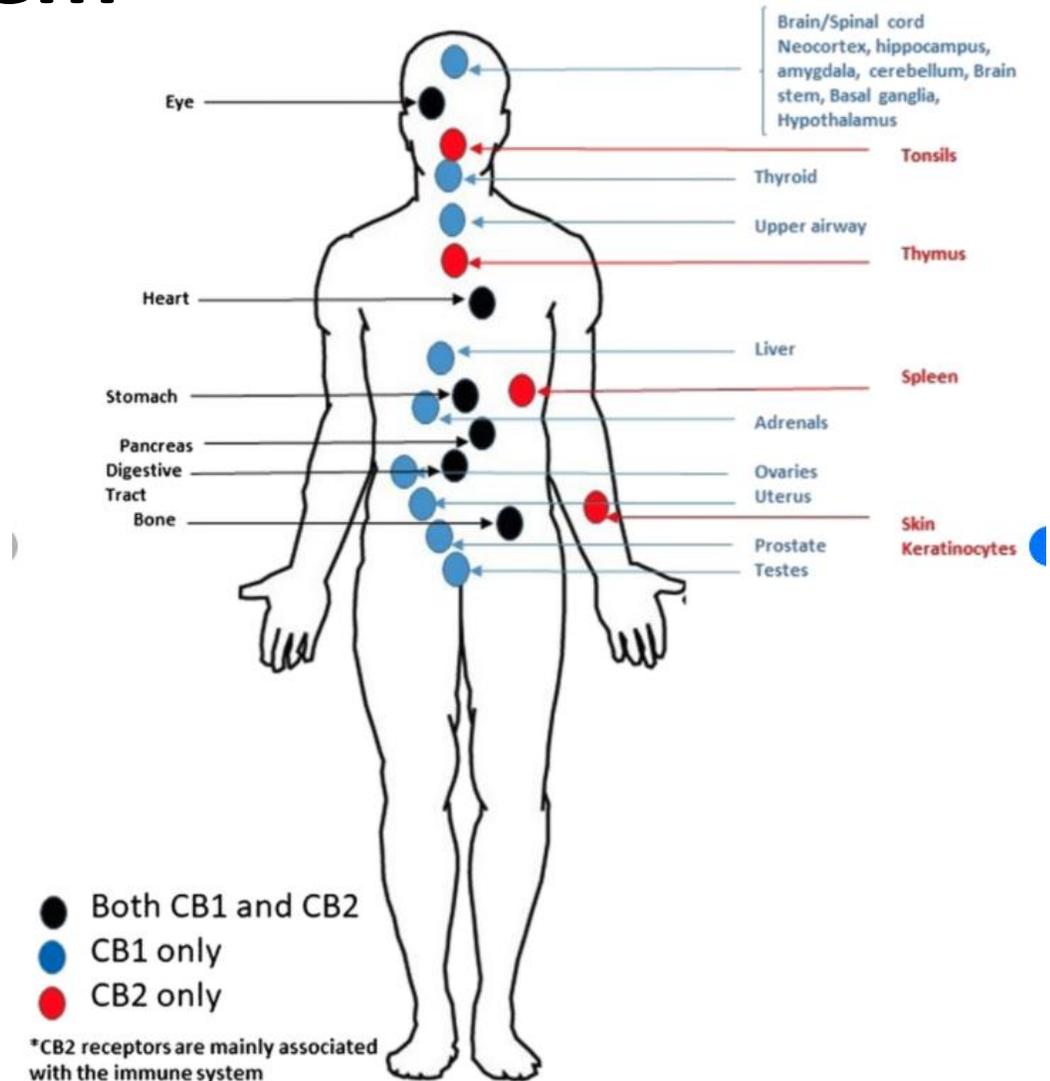
Endocannabinoids bind to cannabinoid receptors

- CB1 (primarily in nervous system)
- CB2 (primarily in immune system)

## Physiologic roles

- Pain regulation
- Mood modulation including reward
- Cognition, learning & memory
- Energy balance, appetite

**Implications: Limited understanding of the effects of exogenous (external) cannabinoids on endogenous (internal) cannabinoid system**



# Cannabis contains > 100 phytocannabinoids and > 500 chemical constituents

- Two most prevalent cannabinoids
  - **$\Delta^9$ -tetrahydrocannabinol (THC)**  
psychoactive; anti-emetic, analgesia, appetite stimulation (discovered 1964)
  - **Cannabidiol (CBD)**  
not psychoactive; anti-convulsant, anxiolysis, anti-inflammatory (discovered 1988)
- Less studied cannabinoids & terpenes may contribute to cannabis effects
- NO standardization—diverse strains bred and available
  - Very high THC concentrations are available (SOME up to 94% THC)

# What formulations of cannabis are utilized?



# Three pharmaceutical cannabis products available in U.S.

Synthetic **THC**  
(1985)

## **Dronabinol**

Appetite loss HIV;  
Chemo-induced nausea & vomiting

**Nabilone (currently not available)**  
Chemo-induced nausea & vomiting

**CBD** (2018)

## **Epidiolex**

Seizures Lennox-Gastaut syndrome  
or Dravet syndrome

**THC/CBD 1:1**

**Not approved US**

## **Nabiximols**

Multiple Sclerosis spasticity;  
Off-label neuropathic pain

# Cannabidiol (CBD) is widely available, but is not highly regulated

**HEALTH BENEFITS OF CBD OIL**

**CANCER**  
Cannabinoids may have benefits in the treatment of cancer-related side effects

**BRAIN**  
Anti-Anxiety, Anti-Depressant, Antioxidant, Neuroprotective

**WELL BEING**  
Helps to relax and to calm body and mind

**SPINAL CORD INJURY**  
Studies have not only demonstrated CBD's pain-killing properties, but also its ability to reduce spasms and improve motor function in SCI patients

**BONE STRUCTURE**  
CBD works by improving bone density and reducing the occurrence of bone diseases, it strengthens the collagen "bridge" that forms at the site of the break which then hardens with the new bone

**ASTHMA**  
CBD has potent immunosuppressive and anti-inflammatory properties

**EYES**  
Compounds found in CBD feature neuro protection and vasodilation properties which further assist in the conservation and treatment of glaucoma

**HEART**  
Anti-Inflammatory, Atherosclerosis, and Anti-Ischemic

**INTESTINES**  
Cannabidiol reduces intestine inflammation through the control of the neuroimmune system

**STOMACH**  
Antiemetic, Appetite Control

**POPULAR CBD BRANDS**

**BUYING CBD OIL**  
Discover safe, effective, and top-rated CBD products at [PopularCBDBrands.com](https://www.PopularCBDBrands.com)

# Cannabidiol (CBD) is widely available, but is not highly regulated



*Enthusiasm for use is not supported by the current evidence for efficacy*

**58 of 84 samples of CBD purchased online had mislabeled CBD content** Bonn-Miller et al. *JAMA*. 2017;318 (17):1708-1709



# Cannabis product formulations

Smoked

- Rapid onset of action 5-10 min
- Duration 2-4 hrs.
- Bioavailability 10-30%

Vaporization

- Rapid onset of action 5-10 min
- Metered dosing devices
- Risk of EVALI (e-cig/vaping associated lung injury)

Transmucosal,  
Sublingual

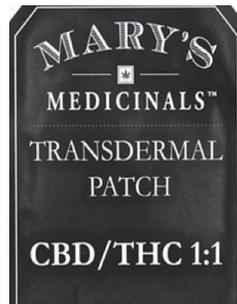
- Onset of action 15-45 minutes
- Duration 6-8 hours
- Pharmaceutical form (nabiximols) available

Edible

- Onset of action 60-180 min
- Duration 6-8 hours
- Bioavailability 6% extensive first pass effects

Transdermal  
Topical

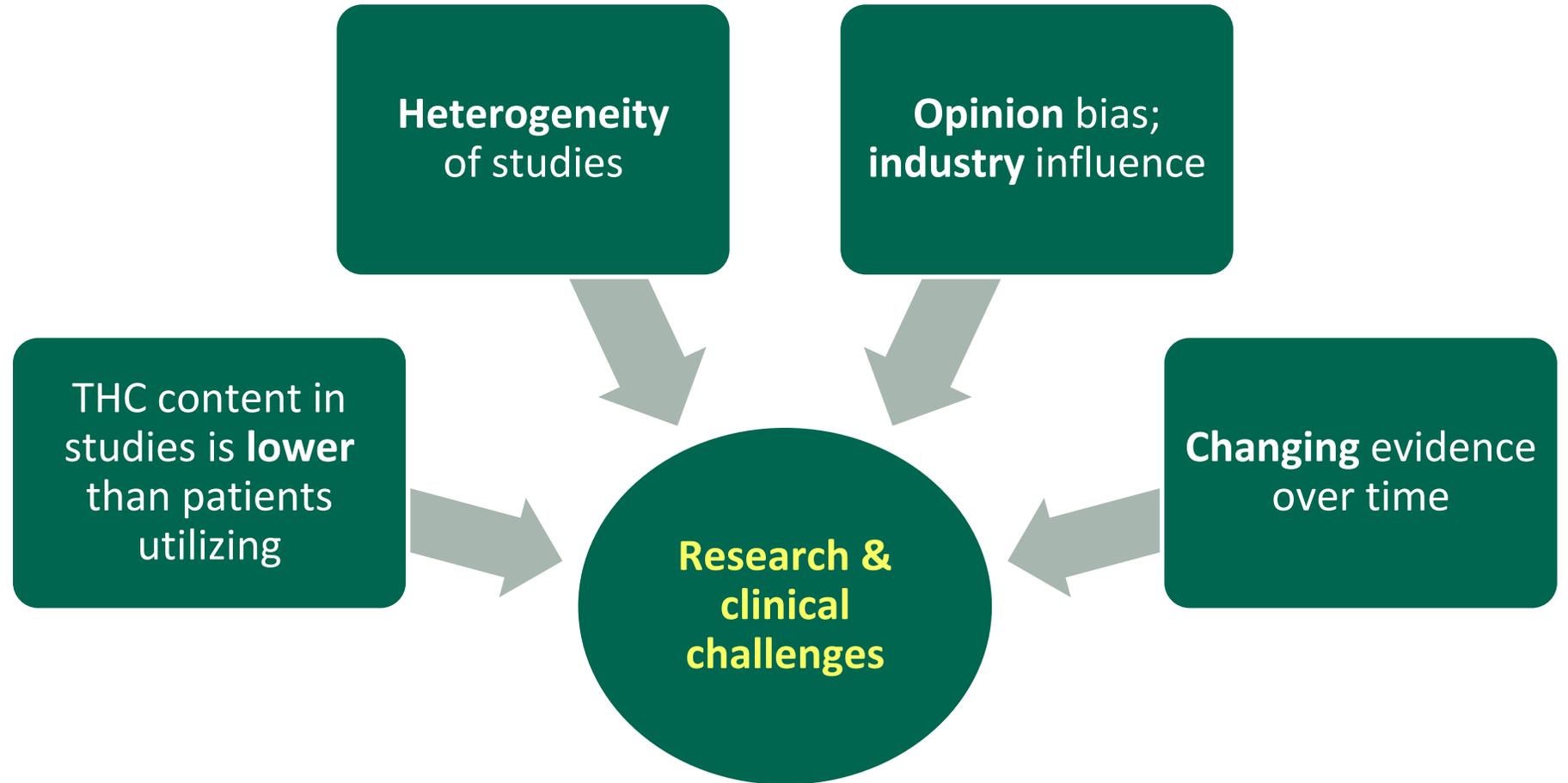
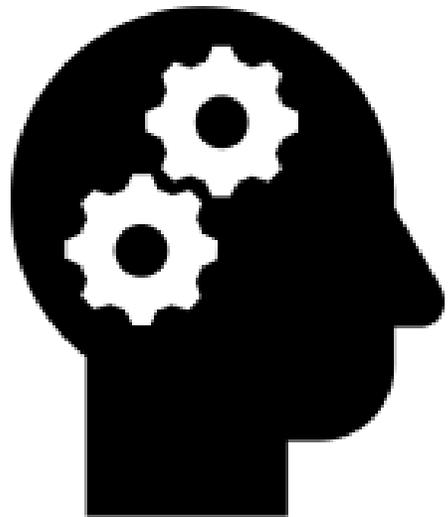
- Variable onset - duration
- Highly lipophilic
- Slow onset, stable blood levels



# What does the evidence show about cannabis therapeutic effects?



# Evidence of effects is difficult to accurately determine



# Cannabis: Evidence of Effects

## Substantial

or conclusive  
evidence for efficacy

- Chronic pain in adults, particularly neuropathic pain<sup>1,2</sup>
- Chemotherapy-induced nausea & vomiting<sup>1,3</sup>
- Subjective spasticity multiple sclerosis<sup>1</sup>
- Epilepsy (Dravet and Lennox-Gastaut) CBD Epidiolex<sup>4</sup>

## Moderate

- Short-term sleep<sup>1,5</sup>

<sup>1</sup> NASEM; 2017 <https://www.nap.edu/catalog/24625/the-health-effects-of-cannabis-and-cannabinoids-the-current-state>; <sup>2</sup> Nugent et al. 2017;167(5):319-331. <sup>3</sup> Lichtman et al JPSM 2018 <https://doi.org/10.1016/j.jpainsymman.2017.09.001>

<sup>4</sup> Chow et al. Support Care in Cancer. 2020;28:2095–2103 <https://doi.org/10.1007/s00520-019-05280-4> ; MacCallum & Russo. *Eur J Int Med.* 2018;49:12-19; <sup>5</sup> Privitera et al. *Epilepsia.* 2021;62(5):1130-1140 <sup>5</sup> Bonaccorso. *Neurotoxicol.* <https://doi.org/10.1016/j.neuro.2019.08.002>

# Cannabis: Evidence of Effects

Limited

- Appetite & weight loss in HIV/AIDS<sup>1</sup>
- Tourette symptoms<sup>1</sup>
- Anxiety symptoms in social anxiety disorders (CBD)<sup>1,2</sup>
- Post traumatic stress disorder symptoms<sup>1</sup>
- Dementia<sup>1</sup>

Insufficient  
evidence

- Cancer cachexia >appetite, > side effects
- Cancer – most literature preclinical<sup>4,5</sup>
- Neurodegenerative disorders<sup>1</sup>
- Irritable bowel syndrome<sup>1</sup>
- Addiction abstinence<sup>6</sup>

<sup>1</sup> NASEM. 2017; <https://www.nap.edu/catalog/24625/the-health-effects-of-cannabis-and-cannabinoids-the-current-state>; <sup>2</sup>Wright. *Cannabis Cannabinoid Res* 2020. <https://pubmed.ncbi.nlm.nih.gov/32923656/>  
<sup>3</sup>Wang et al. *Biomed Res Int*. 2019; <https://doi.org/10.1155/2019/2864384>; <sup>4</sup>Abu-Amna et al. *Curr. Treat. Options in Oncol*. 2021;22:16 doi: 10.1007/s11864-020-00811; <sup>5</sup>Goyal et al. *Comp Ther Med*. 2020; <https://doi.org/10.1016/j.ctim.2020.102336>; <sup>6</sup>Bonaccorso. *Neurotoxicol*. <https://doi.org/10.1016/j.neuro.2019.08.002>

# What are the adverse effects or potential harms of cannabis?



# Commonly reported adverse effects of THC

- **Central Nervous System**
  - Drowsiness
  - Dizziness
  - Confusion
  - Mental Clouding
  - Slurred speech
- **Physical**
  - Rapid heart beat
  - High or low blood pressure
  - Nausea
  - Fatigue
  - Dry mouth
  - Cannabis hyperemesis syndrome

# Reported CBD adverse effects

- Drowsiness/sedation
- Mood changes
- Interactions with prescription medications that may affect actions/toxicity
- Liver toxicity
- Reproductive and developmental effects

**TAKE HOME: People are using CBD and may not be cognizant of potential adverse effects**

# Some Harms of Cannabis Use

## Cardiac

- Associations between cannabis use and heart attack, stroke and atrial arrhythmias

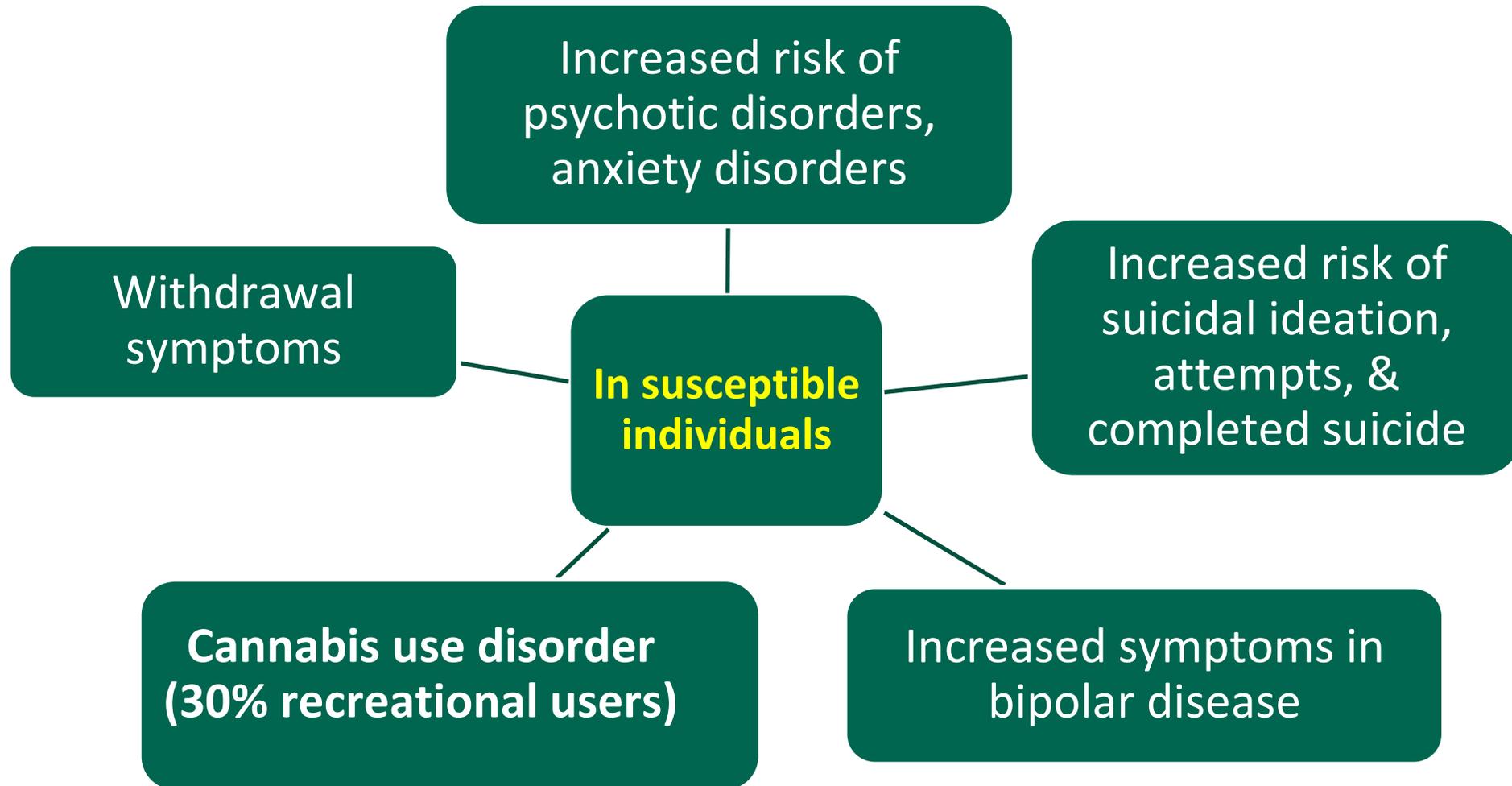
## Drug-Drug Interactions

- Greater than 100 known drug interactions
- May affect action of other medications
- May affect efficacy of immunotherapy

## Motor vehicle accidents

- Some studies show a significant correlation between high THC (affects central nervous system) blood concentrations and car crash risk

# Potential Mental Health Harms of Cannabis



# Ask ALL patients about cannabis use

“Many patients use marijuana to treat symptoms. I wonder if you do?”

OR “I always ask patients about marijuana use as I want to make sure if you are using it that I can provide some guidance about use”

OR “Since I am prescribing opioids for your pain, I ask you to do a urine test to make sure I am practicing safely. Will there be anything else in your urine such as THC which is in marijuana?”

# Some Take Away Considerations

Cannabis use is common in individuals with serious illness

Information about cannabis pharmacology is evolving and current research does not indicate very effective for many conditions

Cannabis is not 'benign' & may carry more risks than currently known

Clinicians should routinely ask patients about cannabis use and when appropriate should counsel about potential harms

# Selected References

- Amin S, Chae SW, Kawamoto CT, Phillips KT, Pokhrel P. Cannabis use among cancer patients and survivors in the United States: a systematic review. *JNCI Cancer Spectr.* 2024 Jan 4;8(1):pkae004. doi: 10.1093/jncics/pkae004. PMID: 38291891; PMCID: PMC10868394.
- Balachandran P, Elsohly M, Hill KP. Cannabidiol Interactions with Medications, Illicit Substances, and Alcohol: a Comprehensive Review. *J Gen Intern Med.* 2021 Jul;36(7):2074-2084. doi: 10.1007/s11606-020-06504-8. Epub 2021 Jan 29. PMID: 33515191; PMCID: PMC8298645.
- Bar-Sela, G., Cohen, I., Campisi-Pinto, S., Lewitus, G. M., Oz-Ari, L., Jehassi, A., Peer, A., Turgeman, I., Vernicova, O., Berman, P., Wollner, M., Moskovitz, M., & Meiri, D. (2020). Cannabis Consumption Used by Cancer Patients during Immunotherapy Correlates with Poor Clinical Outcome. *Cancers*, 12(9), 2447. <https://doi.org/10.3390/cancers12092447>
- Bonn-Miller MO, Loflin MJE, Thomas BF, Marcu JP, Hyke T, Vandrey R. Labeling Accuracy of Cannabidiol Extracts Sold Online. *JAMA.* 2017 Nov 7;318(17):1708-1709. doi: 10.1001/jama.2017.11909. PMID: 29114823; PMCID: PMC5818782.
- Chye DM, Sampaio Rodrigues T, Quarto LJG, et al. Cannabis use and atrial arrhythmias: A systematic review and meta-analysis of large populational studies. *Heart rhythm.* Published online 2025. doi:10.1016/j.hrthm.2025.05.062
- Jeffers AM, Glantz S, Byers AL, Keyhani S. Association of Cannabis Use With Cardiovascular Outcomes Among US Adults. *Journal of the American Heart Association.* 2024;13(5). doi:10.1161/JAHA.123.030178
- Leung J, Chan G, Stjepanović D, Chung JYC, Hall W, Hammond D. Prevalence and self-reported reasons of cannabis use for medical purposes in USA and Canada. *Psychopharmacology (Berl).* 2022 <https://pmc.ncbi.nlm.nih.gov/articles/PMC9110511>
- National Institute of Drug Abuse. Cannabis. Updated September 2024. <https://nida.nih.gov/research-topics/cannabis-marijuana#long-term-health-cannabis>
- National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on the Health Effects of Marijuana: An Evidence Review and Research Agenda. *The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research.* Washington (DC): National Academies Press (US); 2017 Jan 12. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK423845/> doi: 10.17226/24625
- Preuss UW, Huestis MA, Schneider M, Hermann D, Lutz B, Hasan A, Kambeitz J, Wong JWM, Hoch E. Cannabis Use and Car Crashes: A Review. *Front Psychiatry.* 2021 May 28;12:643315. doi: 10.3389/fpsy.2021.643315. PMID: 34122176; PMCID: PMC8195290.

# Selected References, continued

- Storck W, Elbaz M, Vindis C, *et al.* Cardiovascular risk associated with the use of cannabis and cannabinoids: a systematic review and meta-analysis. *Heart* Published Online First: 17 June 2025. doi: 10.1136/heartjnl-2024-325429
- Substance Abuse and Mental Health Services Administration. (2024). Key substance use and mental health indicators in the United States: Results from the 2023 National Survey on Drug Use and Health (HHS Publication No. PEP24-07-021, NSDUH Series H-59). Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. <https://www.samhsa.gov/data/report/2023-nsduh-annual-national-report>
- Substance Abuse and Mental Health Services Administration. Know the risks, effects and side effects of marijuana. <https://www.samhsa.gov/substance-use/learn/marijuana/risks> (updated 11/2024)
- Substance Abuse and Mental Health Services Administration. Cannabidiol (CBD) – Potential harms, side effects and unknowns. [Cannabidiol \(CBD\) – Potential Harms, Side Effects, and Unknowns](#) (updated 2/2023)
- Translating Emergency Knowledge for Kids (TREKK) 2025. Cannabis Methods of Delivery and Formulations. Updated 2025. [https://cms.trekk.ca/wp-content/uploads/2023/11/2025\\_01\\_31-Cannabis-Methods-of-Delivery-and-Formulations-v2.0-Final.pdf](https://cms.trekk.ca/wp-content/uploads/2023/11/2025_01_31-Cannabis-Methods-of-Delivery-and-Formulations-v2.0-Final.pdf)
- UCLA Semel Institute. Center for Cannabis and Cannabinoids. <https://cannabis.semel.ucla.edu/compunds/>