



Say Suicide

MICHAEL ERWIN
FOUNDER

BELIEVE STROKE RECOVERY FOUNDATION



1. Saying a stroke is a life changing event is an understatement!
2. It is estimated that 7.5 out of 10 stroke survivors experience some degree of depression.
 - The survivor feels they have NO purpose.
 - They feel like a burden to their family and society.
3. Our task force goal is to establish an automatic approval for out-patient mental health check-up and care.

Our Task Force:

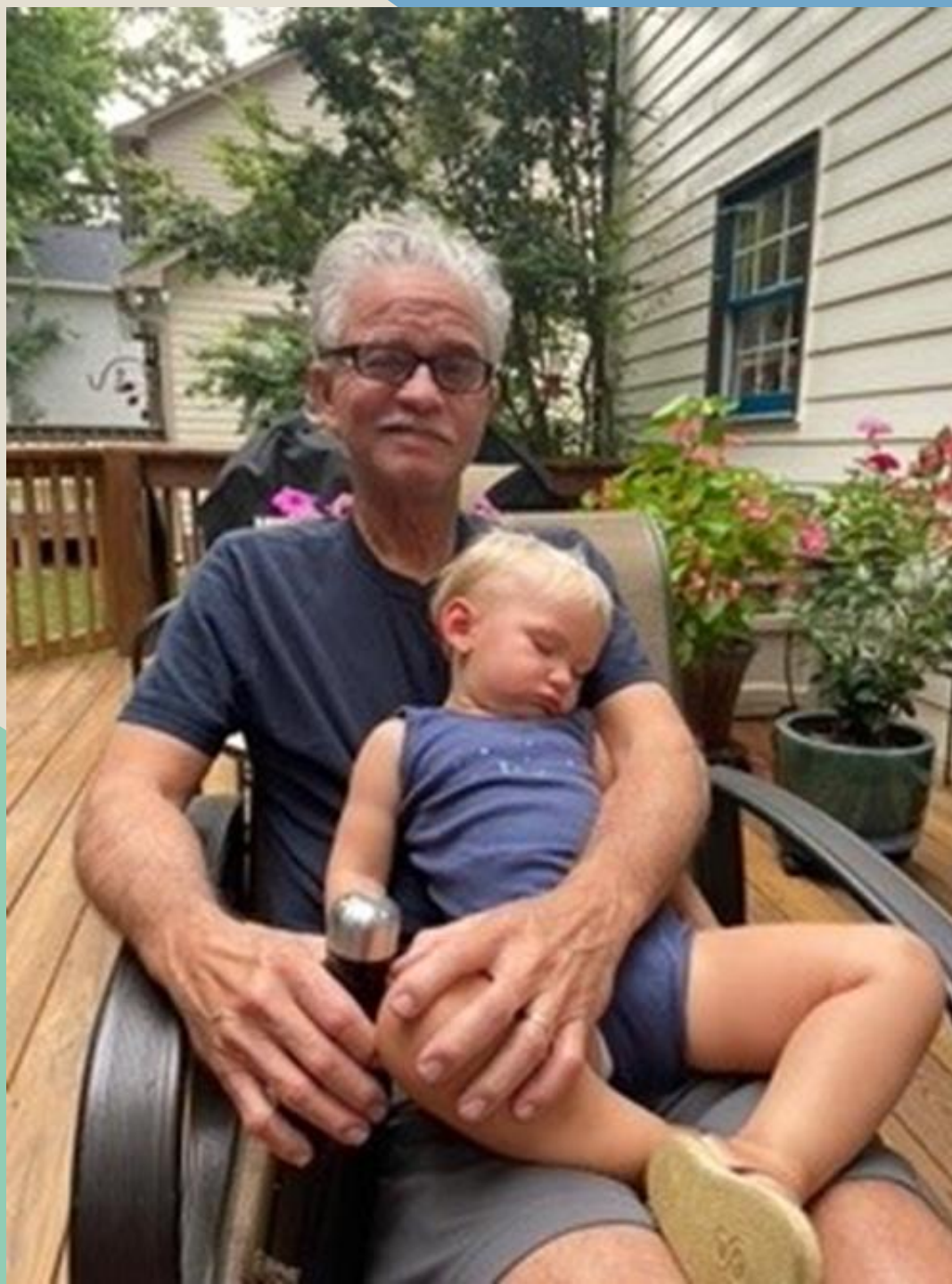
- **Pamela Hung** – Loving wife of late Stroke Survivor, Miguel Hung
- **Julie Webb** – Neurosciences Program Manager at Duke Regional Hospital and BELIEVE SRF Board Member
- **Kimberly Baradei** –Speech/Language Pathologist, Certified Brain Injury Specialist, owner of Elevate Speech Services, and BELIEVE SRF Board Member
- **Jennie Lacy** – Doctor of Clinical Psychology at Durham DBT and Stroke Survivor
- **Michael Erwin** – BELIEVE Stroke Recovery Foundation founder and Stroke Survivor

PAMELA HUNG

LOVING WIFE







One week post stroke



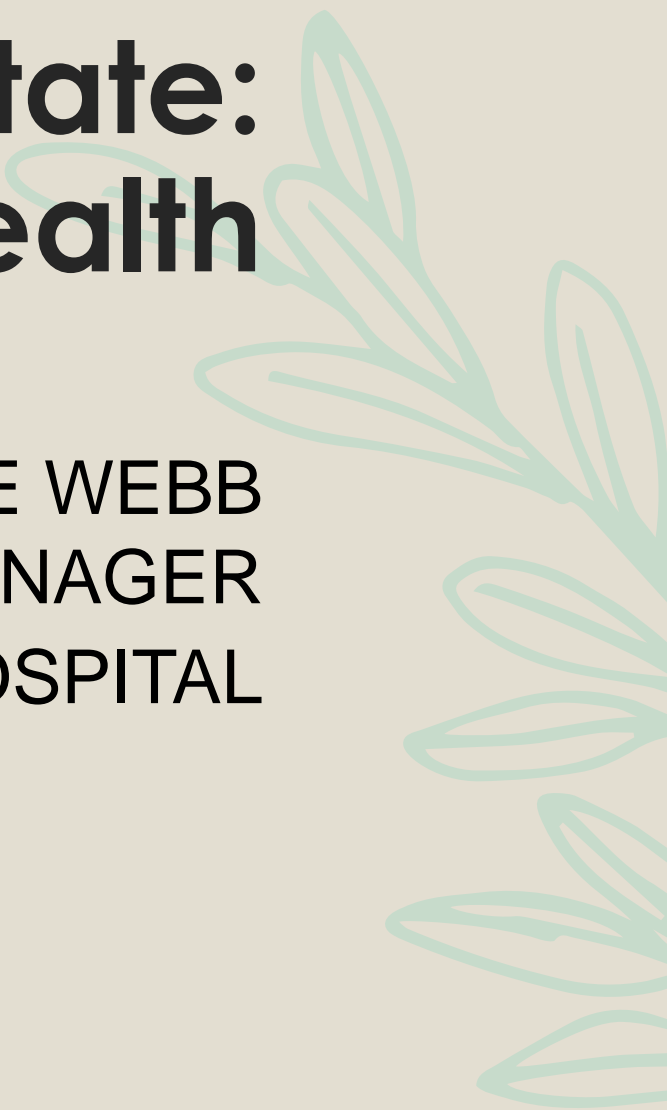
One month before
disappearance





State of the State: Stroke and Mental Health

JULIE WEBB
NEUROSCIENCES PROGRAM MANAGER
DUKE REGIONAL HOSPITAL





Post-Stroke Depression

- Peaks 6 months to 2 years after stroke
- Increased likelihood of post-stroke depression in those with aphasia

Research Shows Need for:

- Consistency
- Developing Pathways
- Further research to focus on mood screening instruments, aphasic stroke survivors' lived experiences, and the clinical expertise of those providing psychological support

Depression Screening

- Varies among facilities, health systems, outpatient settings
- Focuses on depression and anxiety
- Medicare covers one depression screening per year and should be completed in a primary care setting
 - Most commonly used tool is Patient Health Questionnaire (PHQ)

AHA Recommendations

“Administration of a structured depression inventory is recommended to routinely screen for poststroke depression.”

- Numerous poststroke depression screening tools
- Further studies are needed to determine optimal timing, setting, and follow-up for screening

Stroke Mental Health Screening and Services

KIMBERLY BARADEI, MA, CCC-SLP, CBIS

Owner of ELEVATE SPEECH SERVICES

Board Member, BELIEVE STROKE RECOVERY FOUNDATION

JENNIE LACY

DURHAM DBT

Stroke Specific Factors That Influence Mental Health & Access To It



Changes in Independence Activities of Daily Living (ADL's)



THE STRUCTURES OF NEUROTRANSMITTERS

STRUCTURE KEY: ● Carbon atom ○ Hydrogen atom ○ Oxygen atom N Nitrogen atom R Rest of molecule

ADRENALINE

Fight or flight neurotransmitter

The chemical structure of Adrenaline is shown in red. It consists of a benzene ring with two hydroxyl groups (catechol) at positions 3 and 4, and a side chain at position 1 that includes a hydroxyl group and a terminal amino group.

Produced in stressful or exciting situations. Increases heart rate & blood flow, leading to a physical boost & heightened awareness.

NORADRENALINE

Concentration neurotransmitter

The chemical structure of Noradrenaline is shown in purple. It is similar to Adrenaline but lacks the terminal hydroxyl group on the side chain.

Affects attention & responding actions in the brain, & involved in fight or flight response. Contracts blood vessels, increasing blood flow.

DOPAMINE

Pleasure neurotransmitter

The chemical structure of Dopamine is shown in pink. It features a benzene ring with two hydroxyl groups (catechol) at positions 3 and 4, and a side chain at position 1 that includes an amine group and a terminal methyl group.

Feelings of pleasure, and also addiction, movement, and motivation. People repeat behaviours that lead to dopamine release.

SEROTONIN

Mood neurotransmitter

The chemical structure of Serotonin is shown in orange. It consists of an indole ring system with a hydroxyl group at position 3 and a side chain at position 2 that includes an amine group and a terminal methyl group.

Contributes to well-being & happiness; helps sleep cycle & digestive system regulation. Affected by exercise & light exposure.

GABA

Calming neurotransmitter

The chemical structure of GABA is shown in blue. It is a four-carbon chain with a carboxylic acid group at one end and an amino group at the other.

Calms firing nerves in CNS. High levels improve focus; low levels cause anxiety. Also contributes to motor control & vision.

ACETYLCHOLINE

Learning neurotransmitter

The chemical structure of Acetylcholine is shown in green. It consists of an acetate group (two carbons) linked to a choline group (three carbons, one nitrogen, and one quaternary ammonium group).

Involved in thought, learning, & memory. Activates muscle action in the body. Also associated with attention and awakening.

GLUTAMATE

Memory neurotransmitter

The chemical structure of Glutamate is shown in blue. It is a five-carbon chain with a carboxylic acid group at one end and an amino group at the other.

Most common brain neurotransmitter. Involved in learning & memory, regulates development & creation of nerve contacts.

ENDORPHINS

Euphoria neurotransmitters

The chemical structure of Endorphins is shown in orange. It is a complex polypeptide chain with multiple amide bonds and a terminal amine group.

Released during exercise, excitement, & sex, producing well-being & euphoria, reducing pain. Biologically active section shown.

© COMPOUND INTEREST 2015 - WWW.COMPOUNDCHEM.COM | Twitter: @compoundchem | Facebook: WWW.FACEBOOK.COM/COMPOUNDCHEM
This graphic is shared under a Creative Commons Attribution-NonCommercial-NoDerivatives licence.

Communication Deficits

Aphasia

LEFT BRAIN:



- Anger/Frustration
- Verbal communication
- Immune Activation
- Memory
- Detail-Oriented
- Impulses
- Gas Pedal
- Fine Motor Skills
- Pattern/Repetition
- Short-Term Focus

RIGHT BRAIN:



- Emotional Regulation
- Sadness/Remorse
- Nonverbal cues
- Gross Motor Skills
- Immune Suppression
- Go-with-the-flow
- Big Picture
- Behavior control
- Impulse regulation
- Long-term focus

RHD

Education & Identification

"The responsibility to see suffering should never fall only on the one who suffers."

— *Anonymous*



B

E

F

A

S

T



BALANCE

EYES

FACE

ARMS

SPEECH

TIME

SIGECAPS mnemonic

If you don't have access to a depression screening tool, use the SIGECAPS mnemonic as part of your assessment.

S leep:	Changes in sleep pattern
I nterest:	Loss of interest in activities
G uilt:	Feelings of guilt or increased worry
E nergy:	Changes in energy
C oncentration:	Changes in concentration
A ppetite	Changes in appetite
P sychomotor	Psychomotor disturbances
S uicide	Suicidal ideation

Timeline for Identification

During Hospitalization

Pros:

- Early access to information for survivors & family
- Sudden onset of post-stroke depression
- Survivors may have limited access to aftercare

Cons:

- Too early for emotional processing.
- May not carryover due to stress/processing/memory deficits

Post Hospitalization

Pros:

- Depression may only start after discharge
- Improved processing of emotions after 'new routine' established
- Multiple professionals involved in after-care (more eyes)

Cons:

- Limited access to follow-ups (transportation/financial)
- Waitlists/Scheduling delays for medical professionals

Community Resources



Depression Screenings

Sleep ↑ ↓
Interest ↓
Guilt ↑
Energy ↓
Concentration ↓
Appetite ↑ ↓
Psychomotor ↓
Suicide ↑

- Patient Health Questionnaire (PHQ)
 - <https://www.apa.org/depression-guideline/patient-health-questionnaire.pdf>
- Beck Depression Inventory - II (BDI-II)
 - <https://naviauxlab.ucsd.edu/wp-content/uploads/2020/09/BDI21.pdf>
- Geriatric Depression Scale (GDS)
 - https://hign.org/sites/default/files/2020-06/Try_This_General_Assessment_4.pdf

Finding Mental Health Providers



- <https://mhanational.org/resources/choosing-a-provider/>
- <https://mhanational.org/resources/finding-therapy/>
- <https://findtreatment.gov/locator>
- <https://www.psychologytoday.com/us/therapists>
- <https://www.theravive.com/>
- <https://www.findapsychologist.org/>
- <https://abpsi.org/>
- <https://biausa.org/find-bia>

Social Connection - Support Groups

Social connection is key to well-being and overall life satisfaction. Social connection is the size and diversity of one's social network and roles, the functions these relationships serve, and their positive or negative qualities.

- <https://www.startwithyourheart.com/stroke-advisory-council/post-stroke-care/> (Statewide List of Support Groups)
- <https://www.bianc.net/wp-content/uploads/2020/05/BrainInjurySupportGroups.pdf>
- <https://www.bianc.net/wp-content/uploads/2023/07/support-group-list.pdf>
- <https://www.facebook.com/TriangleStrokeSupportNetwork/>
- <https://www.aphasiaproject.org/>
- <https://www.stroke.org/en/stroke-support-group-finder>

Alternative Therapies

- Music exposure post acute stroke
 - <https://pubmed.ncbi.nlm.nih.gov/18287122/#:~:text=In%20the%20acute%20recovery%20phase,underlying%20these%20effects%20are%20discussed>
 - Spotify Playlist Video from Novant Health New Hanover Regional Medical Center <https://vimeo.com/novanthhealth/review/1082583895/63bd5138b2>
- Acupuncture
 - <https://pmc.ncbi.nlm.nih.gov/articles/PMC10161596/>
- Movement based therapy
 - [https://pmc.ncbi.nlm.nih.gov/articles/PMC4591069/#:~:text=Thirteen%20studies%20\(n=1022\),sub%2Dacute%20and%20chronic%20stroke](https://pmc.ncbi.nlm.nih.gov/articles/PMC4591069/#:~:text=Thirteen%20studies%20(n=1022),sub%2Dacute%20and%20chronic%20stroke)
- Transcranial direct current stimulation (tDCS)
 - <https://pubmed.ncbi.nlm.nih.gov/37283525/>



SPOTIFY

MAY IS STROKE & MENTAL HEALTH AWARENESS MONTH

PLAYLIST



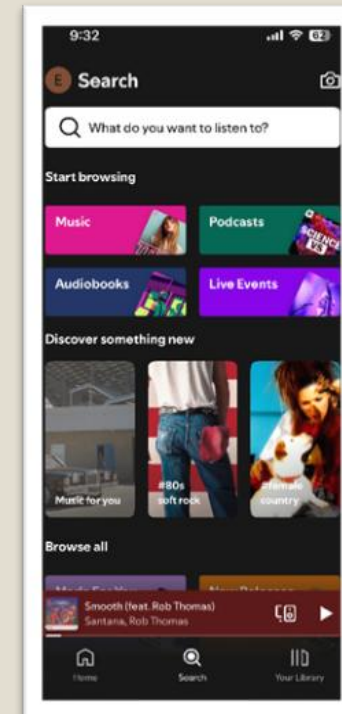
SEARCH, LISTEN & SAVE

MENTAL HEALTH MATTERS NHHNHRMC

Want to add a song? Email the title to
erika.yourkiewicz@novanthealth.org

From Novant Health New Hanover Regional Medical Center

1. Download the Spotify App
2. Search/magnifying glass (bottom center)
3. Type in “Mental Health Matters NHHNHRMC” or press the camera icon and hover over below image.
4. Save the playlist and enjoy!



Suicide Prevention

National Strategy for
Suicide Prevention

[https://www.hhs.gov/
sites/default/files/nns
p-federal-action-
plan.pdf](https://www.hhs.gov/sites/default/files/nns-p-federal-action-plan.pdf)

If you or someone you know is struggling or in crisis, confidential, free, 24/7/365 help is available.

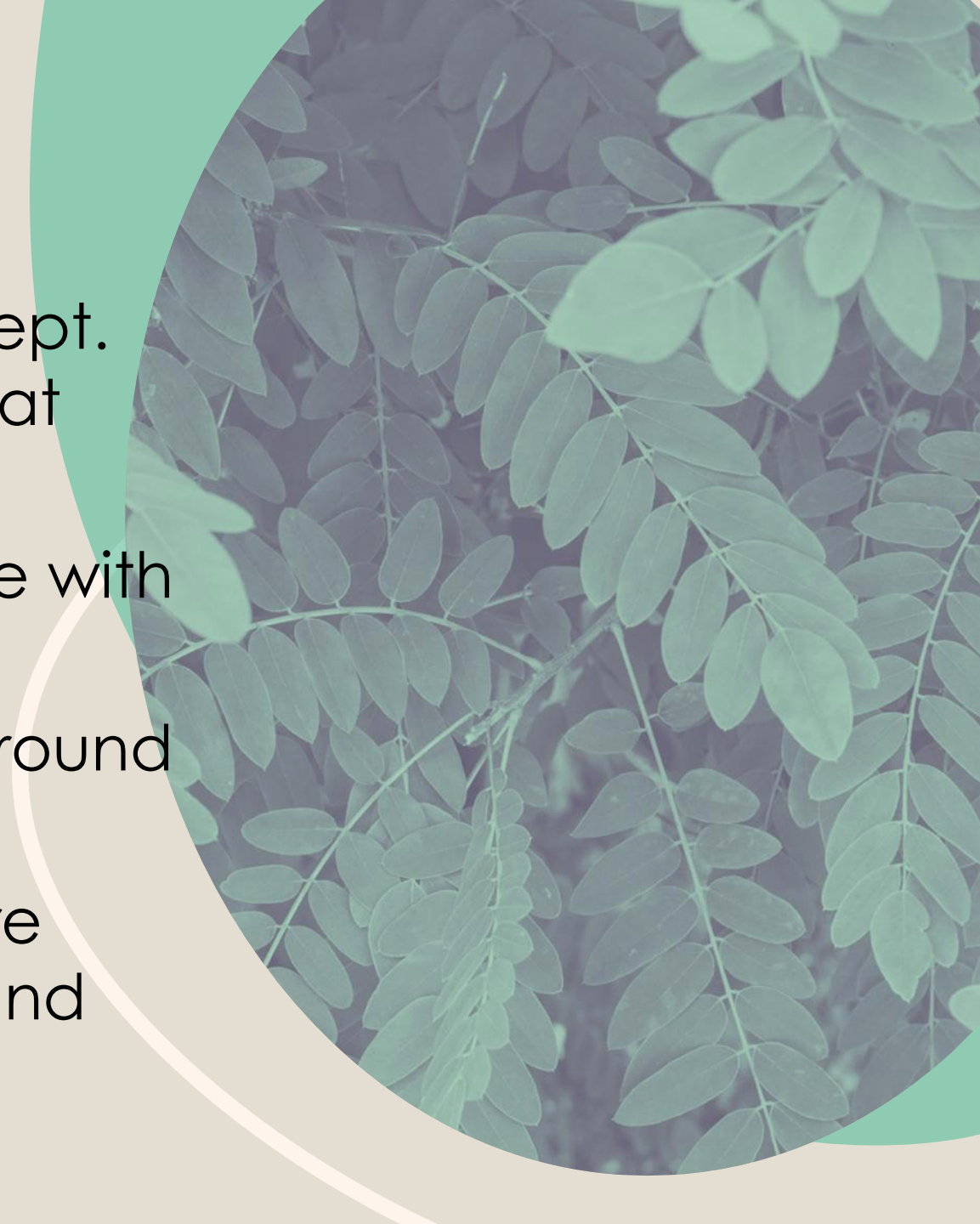
Call or text 988 or Chat 988lifeline.org

Specialized Services Available:

- Veterans: Text to 838255
- Spanish - Text “AYUDA” to 988
- LGBTQI+: Text “PRIDE” to 988

Jennie L. Lacy, PhD

- Licensed Psychologist
- PhD in Clinical Psychology from Dept. of Psychology and Neuroscience at Duke
- Works with individuals who struggle with suicidality and self harm
- Works with couples and families around supporting their loved ones
- Advanced training on the structure and function of the brain during and after brain tumor and on neurobiological changes



On December 29, 2021, I also became a stroke survivor

- No risk factors
- Vertebral artery dissection of unknown origin
- Large clot shattered and cut off blood flow to 7 different parts of my brain
- No help for 8 hours



Hospital

- In the hospital for one month
- Rehab 4 hours per day
- Dedicated and determined

Discharge: What Now?

- Still needed 24-hour care
- Skilled Nursing Facility **debate**
- Home care for 5 months



At “Home:” When Things Got Real

- **Lost** my beloved 3rd floor apartment
- **Lost** myself physically, emotionally, spiritually
- **Lost** my savings
- Had to learn to walk, talk and do basic self-care again

Outpatient Rehab

- Insurance, financial stress, huge debt
- Inconsistent philosophies, priorities, temperaments across rehabs
- Chastised for mental health challenges/bad days
- Spoken to like I was a child or had cognitive deficits

Living Alone: When Things Got Hard

- Back to work part time
- Friends and family went back to life as usual
- Rehab 2x week
- Juggling everything alone
- Relearning everything: cooking, cleaning, paying bills

My Own Suicidality

- Thought about suicide daily for a while even on medication and in therapy
- People say well-meaning but invalidating things:
 - “Aren’t you glad to be alive?”
 - “But you can walk now.”
 - “Just be positive.”

I'm Still Me, But Different: Learning *Acceptance*

- I am still a psychologist
- I joined Facebook groups and online stroke support groups to learn others' experiences
- My motto became: "If it's to be, it's up to me."
- I practiced and preached **radical acceptance**
- I couldn't **unstroke** myself, so now what?
- Realized suicide was not an option for me
- Began trauma therapy

What I've Learned

- Every stroke is truly different
- Every stroke is a traumatic event
- Caregivers may also have trauma from the stroke
- There are ways in which trauma shows up because you have no control over it, and you can't stop it
 - Flashbacks
 - Hypervigilance
 - Easy to startle
 - Quick to react emotionally

Trauma Therapy

There are multiple types of trauma therapy.

Some Examples:

- EMDR (Eye Movement Desensitization and Reprocessing)
- PE (Prolonged Exposure)
- SET (Somatic Experiencing Therapy)

What Can We All Learn?

- Outpatient setting: assessment, understanding, and intervention
 - Ask about feelings: depressed, unsafe, or wanted to hurt or kill themselves since last session
 - If we normalize it, we can name it
- “...anything that is mentionable can be more manageable”**
- Mr. Rogers**
- Significant data and consensus in scientific community, **invalidation** leads to diminished mental health, and increased depression, self injury, and suicidality.
 - Stroke survivors face chronic invalidation

What Can We Ask?

- Can you tell me your mood?
- What have been the highs and lows since last session?
- Have you been feeling sad or depressed?
- How's your sleep? Have you been having any nightmares? Have you been having memories of the stroke event, or any recurrent thoughts that don't seem to go away?
- Have you had any thoughts of hurting yourself in any way?
- Have you had any thought of killing yourself?
- Have you made any plans to kill yourself or thought about how you might do that?

WE OWE IT TO SURVIVORS, PROVIDERS, AND
CAREGIVERS TO LEARN HOW TO TALK ABOUT
THE WHOLE PROCESS, NOT JUST THE
COMFORTABLE PARTS.

Thank You

Call to Action! - Time to share

What are you seeing/doing/using in your work/facilities/communities that has been successful?

What are some identified areas that need improvement?

Where do we go from here?

