

Mental Health After Stroke

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Post Stroke Mood Changes

topics to be covered today

PATHOPHYSIOLOGY

science of post stroke mood changes
including post stroke fatigue

CAPTURING

best practice recommendations for
screening of post stroke mood changes

EDUCATION

tools for the clinician tool kit to support stroke
survivors navigate MH post stroke

RESOURCES

resources for stroke survivors and
caregivers

MOOD STATES



DEPRESSION



ANXIETY



FATIGUE



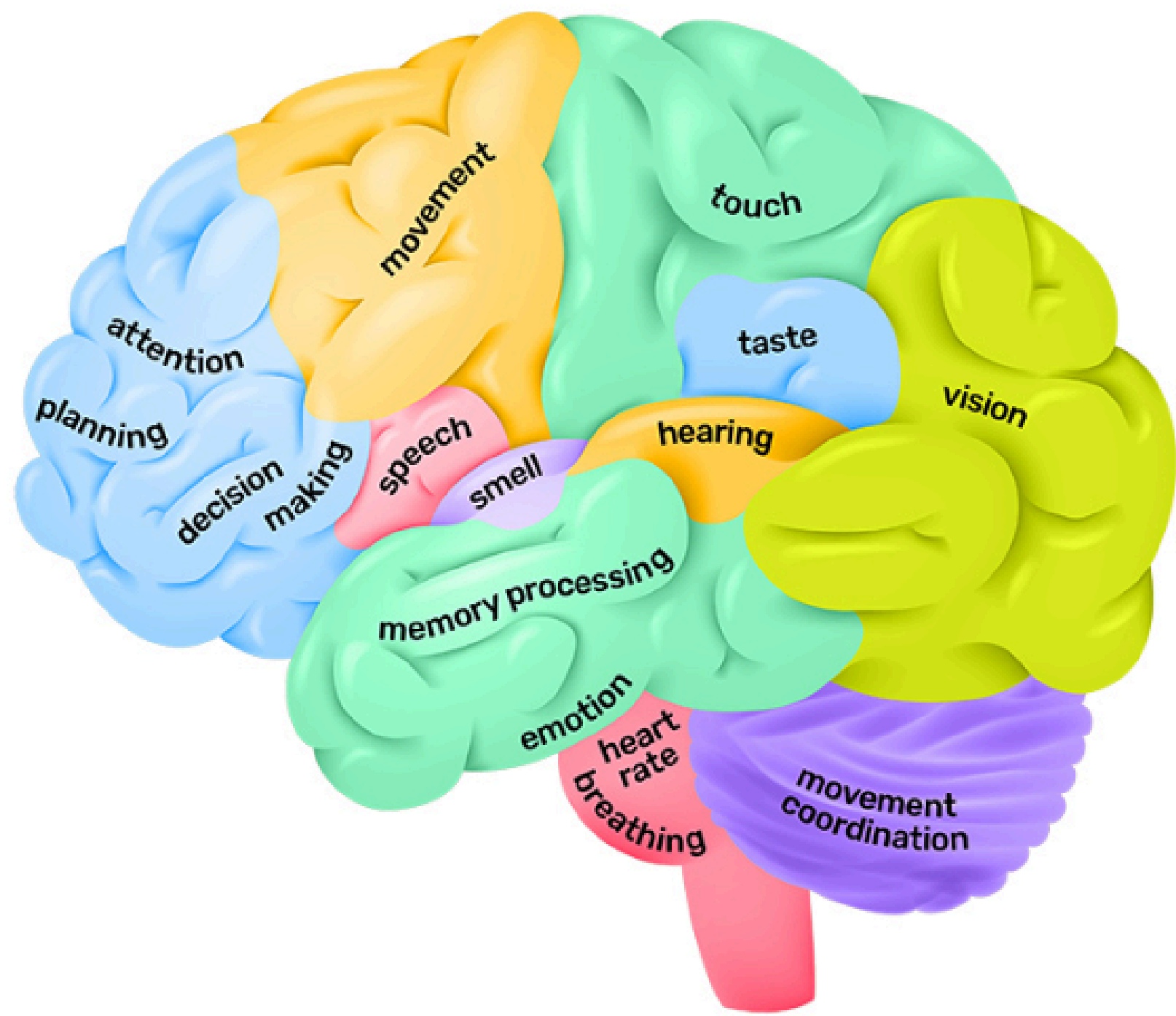
IRRITABILITY

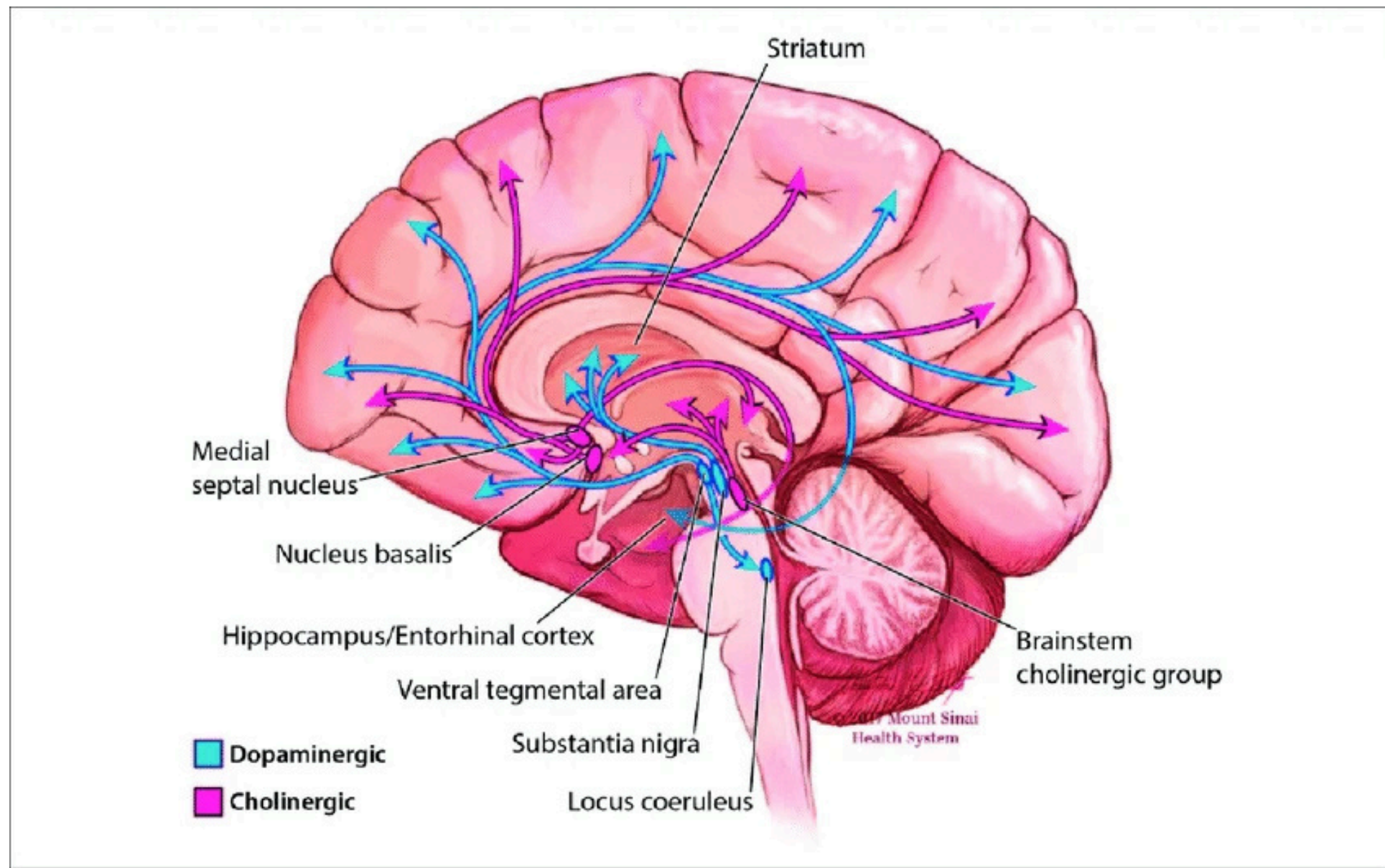


The Evidence

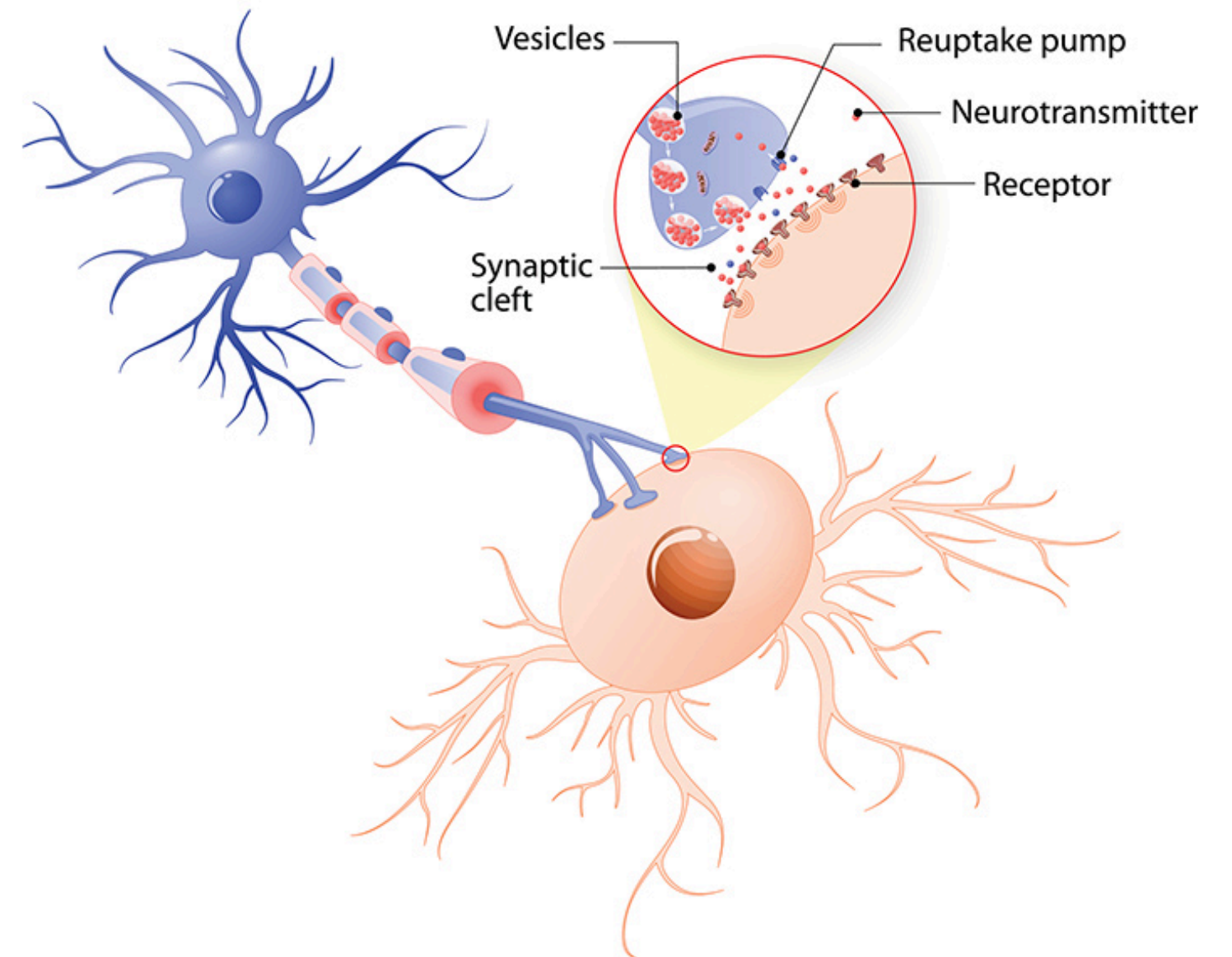
1/3 of stroke survivors experience post
stroke depression



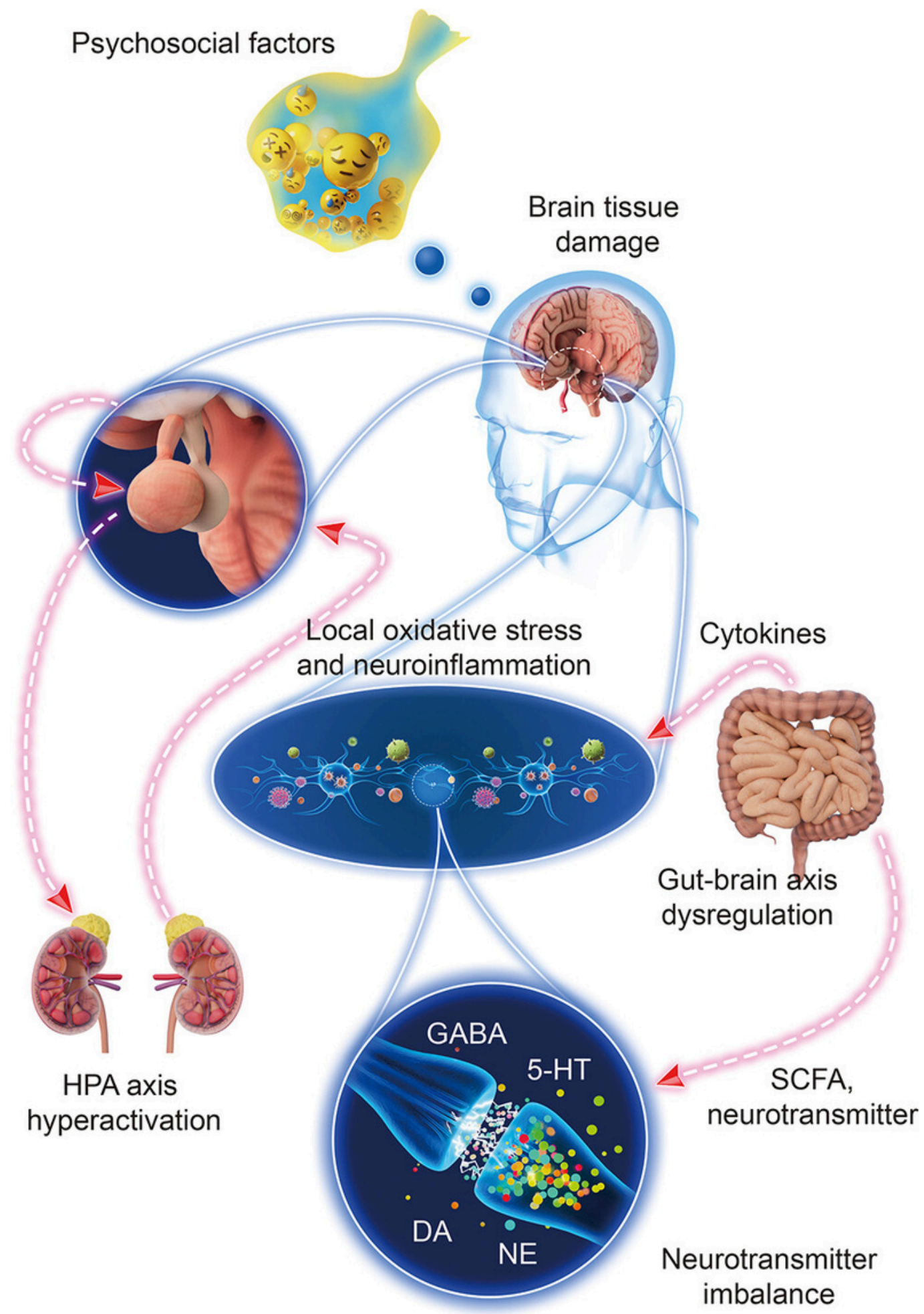




1 Dopamine (a monoamine neurotransmitter/catecholamine) and cholinergic (acetylcholine-related) systems



2 Neurotransmitters



• • • •

What to Look For

Depression, Anxiety and Fatigue



Increasing Age

PMHX Depression

**Increased initial
stroke severity**

Living Alone

Female

**Cognitive
impairment**

**High levels of
comorbidity**

Physical disability

**Prior history of
stroke**



Capturing Post Stroke Mood Changes

PHQ-9

GAD-7

HADS- A

SADQ- H10

Capturing Post Stroke Mood Changes

Screening Tool	# of Items	Report Type	Format
Patient Health Questionnaire (PHQ-9)	9	Self	Multiple choice response options, 4pt scale
Hospital Anxiety and Depression Screener (HADS)	14	Self	Multiple choice response options, 4pt scale
Stroke Aphasic Depression Questionnaire - Hospital Version (SADQ-H10)	10	Observer	Observed behavior, 4-point scale
Generalized Anxiety Disorder (GAD-7)	7	Self	Multiple choice response options, 4pt scale

MAY 2026

POST-STROKE MOOD SCREENING

IMPLEMENTATION GUIDE

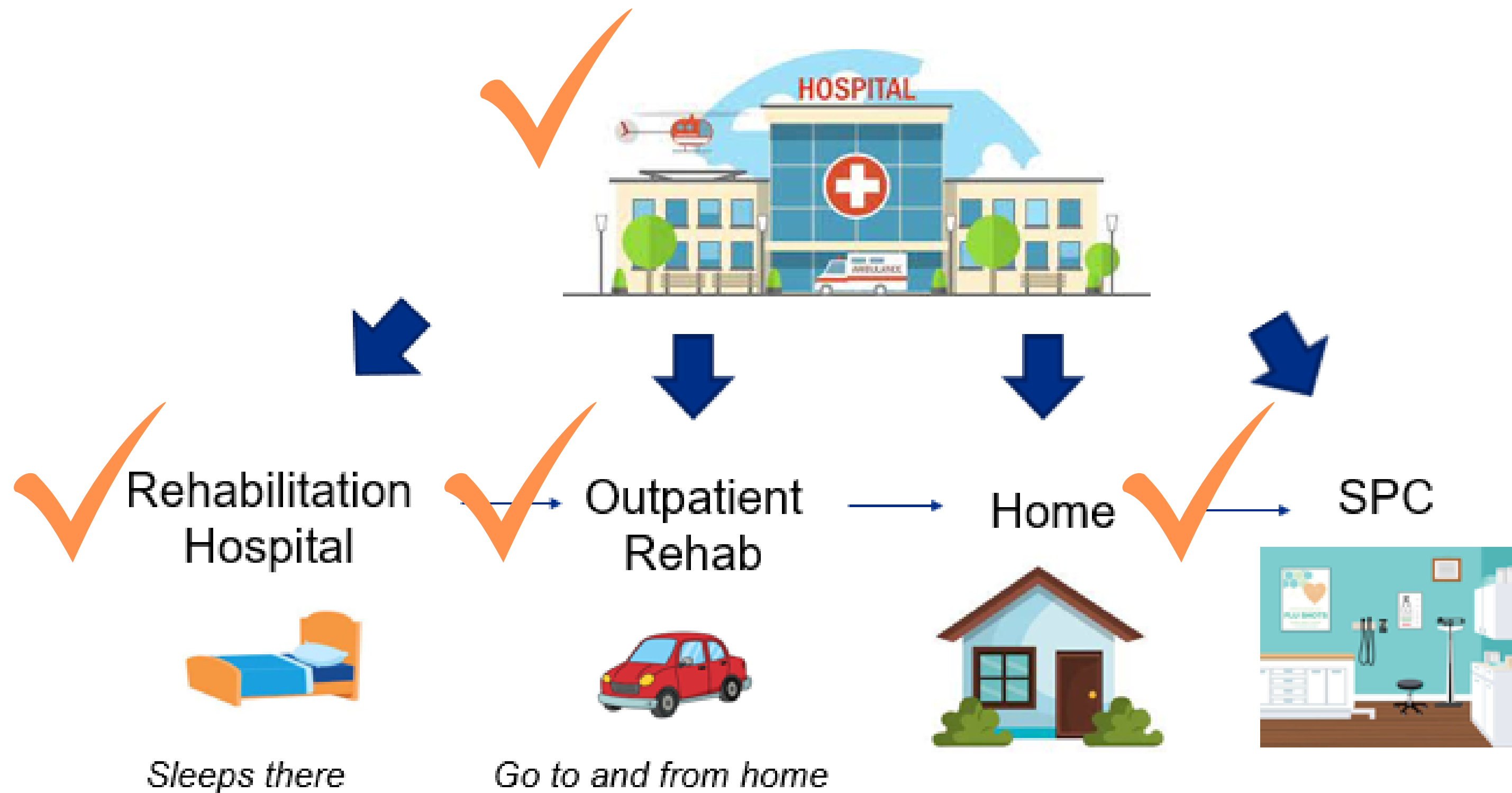
POST-STROKE MOOD SCREENING IMPLEMENTATION GUIDE

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Capturing Post Stroke Mood Changes





A decorative graphic featuring a light blue background on the left and a dark blue background on the right. A pink hand silhouette is shown holding a brush that has just painted the word 'Supporting' in a dark blue serif font. Above the hand, several colored dots (purple, black, orange, purple) are scattered. On the right side, three overlapping circles in purple, pink, and white contain the text 'Therapy Modalities', 'Kolb's ALM', and 'Rehab Evidence' respectively.

Supporting

adding tools to your tool belt

**Therapy
Modalities**

**Kolb's
ALM**

**Rehab
Evidence**

Kolb's Adult Learning Model

1. Experience:

- Something happens, taps into the senses
(listens to information)

2. Reflection:

- Recall, react, recognize what happened
(prompting, what stood out for you,
paraphrasing - teach back)

3. Generalization:

- Draw conclusions, answer the "why" (what
barriers can you anticipate and what
solutions/ why?)

4. Application:

- Plan to use the information or try out learning
(how can you apply this learning)

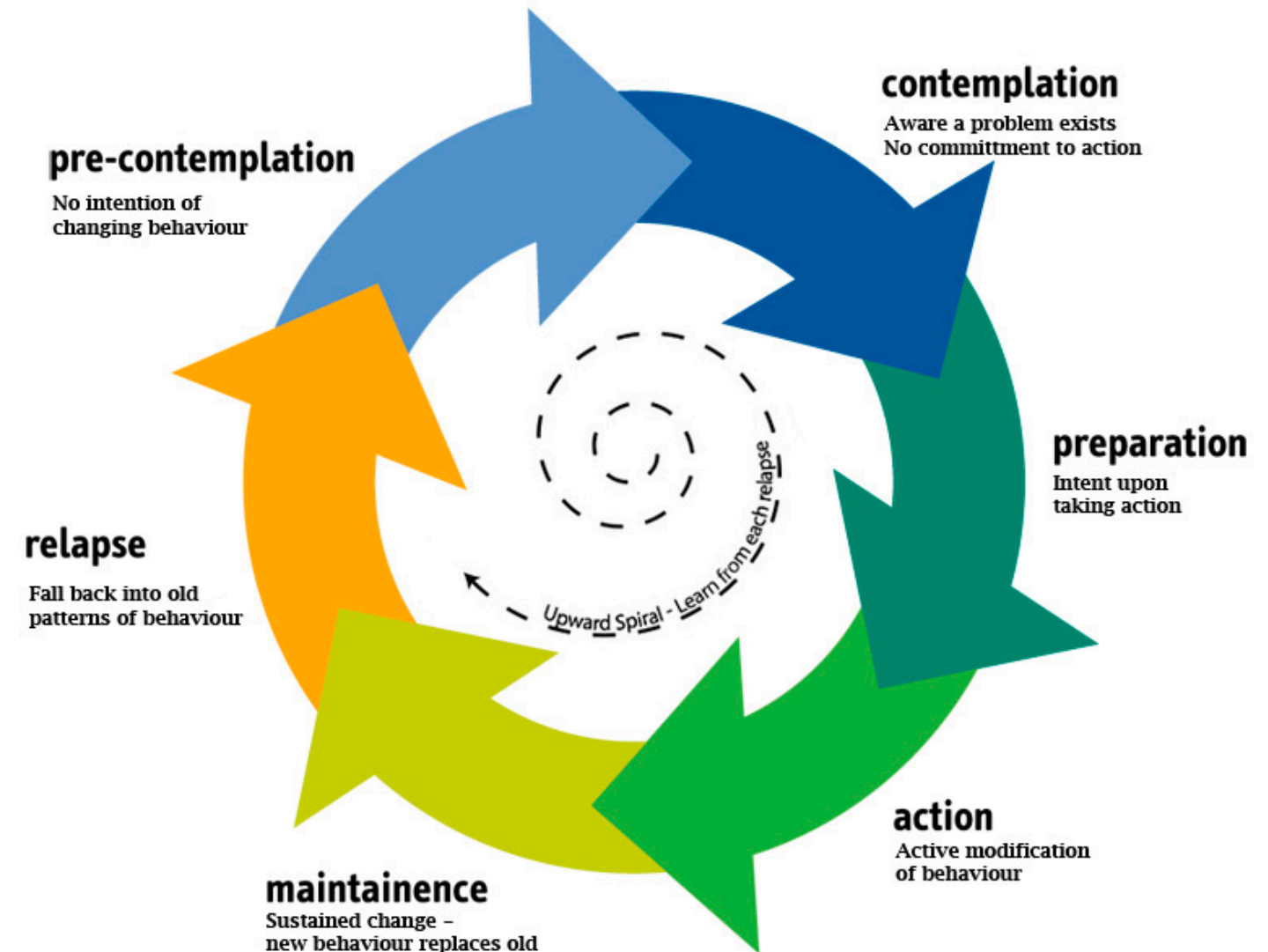
note: evaluate the learning objective and name
who will evaluate



Adopted from: Theresa Staathor Presentation: Navigating Coping Strategies to Promote Mental Health Post Stroke

Stages of Change

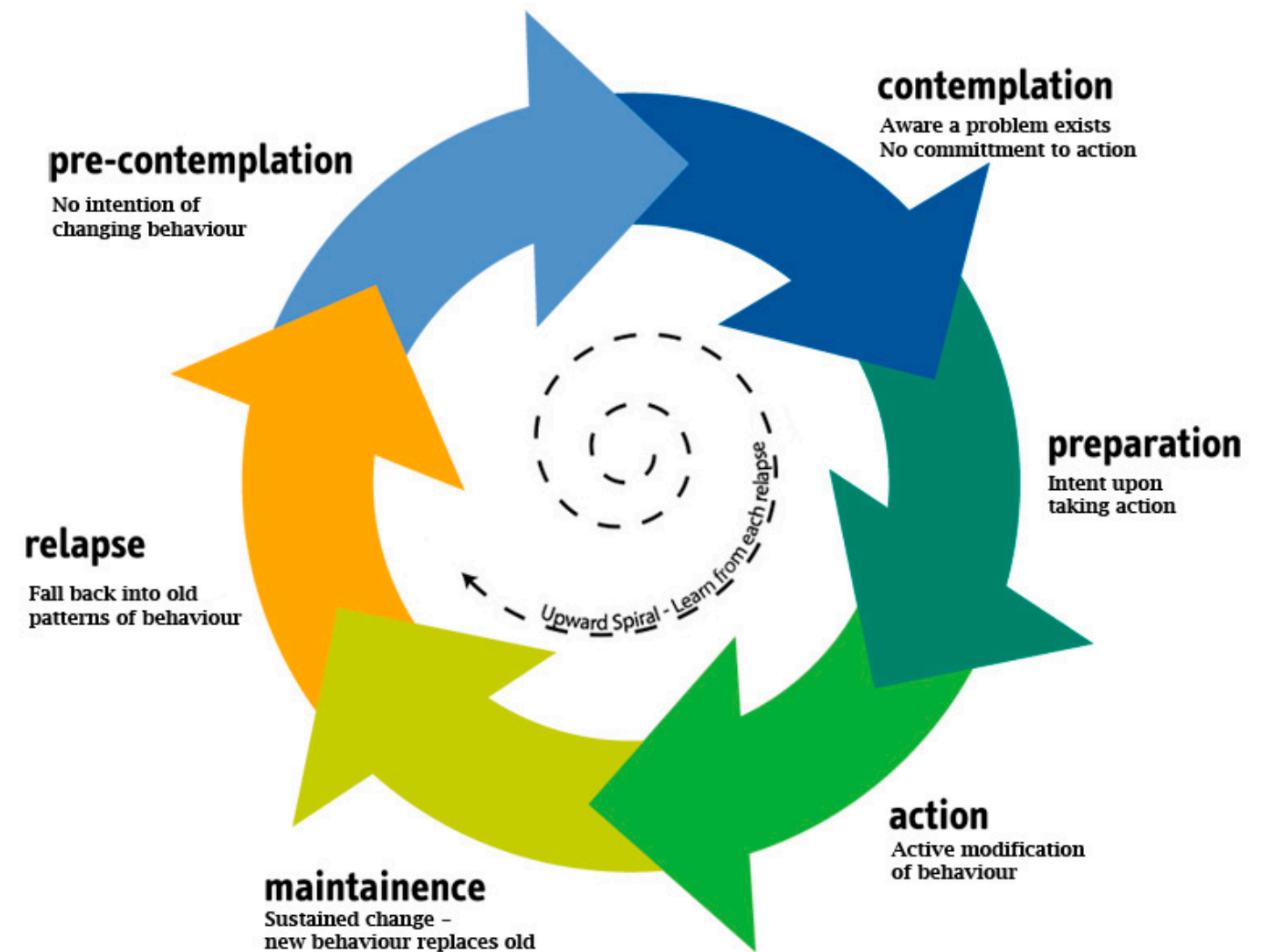
- **Precontemplation** (Not ready, no awareness):
 - Goal: Increase awareness of the issue.
 - **Action:** Build rapport and trust, insight building
- **Contemplation** (Ambivalent, thinking about it):
 - Goal: Resolve ambivalence and increase motivation.
 - **Action:** Weigh the pros and cons of the behavior/ use **structured problem solving**
- **Preparation** (Ready to act, planning):
 - Goal: Develop a plan
 - **Action:** Set a specific start date. **activity planning and behavioural activation**
- **Action** (Actively changing, often in the last 6 months):
 - Goal: Support implementation of the plan.
 - **Action:** Provide practical support



Transtheoretical Model of Change
Prochaska & DiClemente

Stages of Change

- **Maintenance** (Sustaining the change):
 - Goal: Prevent relapse.
 - **Action**: Help them identify triggers and create a **set back plan**
- **Relapse** (Reversion to old behaviors):
 - **Action**: View as a natural part of the cycle, not a failure. Help them learn from the experience and re-enter the cycle at preparation or contemplation



Transtheoretical Model of Change
Prochaska & DiClemente

Benson's Relaxation Technique



Benson's Relaxation Technique

Experience

- participates in Experience

Reflection

- How was that? what did you notice with your breathing, thoughts/ muscle tensions?

Generalization

- What is a benefit of matching a word? Why?

Application

- When could you use this technique? What's an example of when you are anxious that you would use this?

Adopted from: Theresa Staathor Presentation: Navigating Coping Strategies to Promote Mental Health Post Stroke

Dialectic Behavioural Therapy: Building a Life Worth Living - Values Exploration

“What do you consider most important in your life?”

- what gives your life meaning, purpose, and fulfillment?

Values to action steps:

1. Pick one VALUE

- be self directed

2. Identify 3 GOALS

- remain functionally independent, reconnect with hobbies, regain strength and movement

3. Choose one GOAL to work on now

- regain strength and movement

4. Identify ACTION STEPS you can take right now to move closer to the GOAL

- practice balance exercises, go for a walk, try a yoga class

5. Take one ACTION step

- booked a yoga class

Canadian Network for Mood and Anxiety Treatments (CANMAT) 2023 Update on Clinical Guidelines for Management of Major Depressive Disorder in Adults

First line:

- **Cognitive Based Therapy (CBT)**, Interpersonal therapy and behavioural activation

Second Line:

- Cognitive behavioural analysis of psychotherapy, mindfulness based CBT, **problem solving therapy**, short term psychodynamic psychotherapy, trans-diagnostic psychological treatment

Third Line:

- Acceptance and commitment Therapy, long term psychodynamic psychotherapy, metacognitive therapy and motivational interviewing

Education to Provide to Stroke Survivors

- CBT triangle and how under/over arousal plays a part
- Unhelpful vs. helpful thoughts – challenging unhelpful thoughts/ Noticing thoughts
- Fight/ Flight or Freeze
 - Hypoarousal: fatigue, lack of motivation, sleep challenges
 - activity scheduling
 - Hyperarousal: shortness of breath, head aches, irritability, muscle tension
 - controlled breathing [PACE, BOX, progressive muscle relaxation (PMR)]

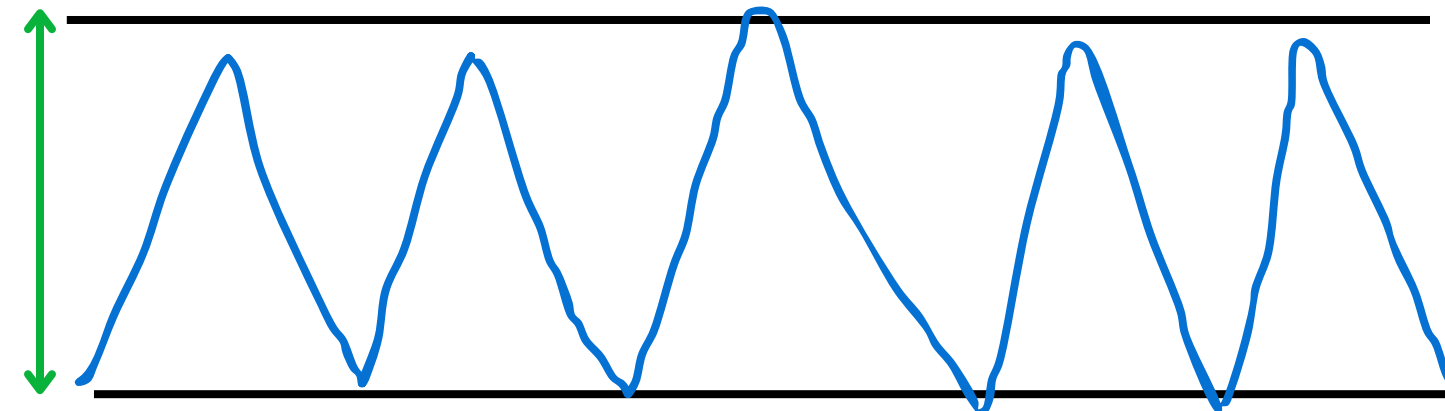


Activity Scheduling

1. Pick an Activity
 2. Work out activity
 3. create a pacing plan
 4. review and revise pacing
- (Tip: be specific use alarms and prioritize)

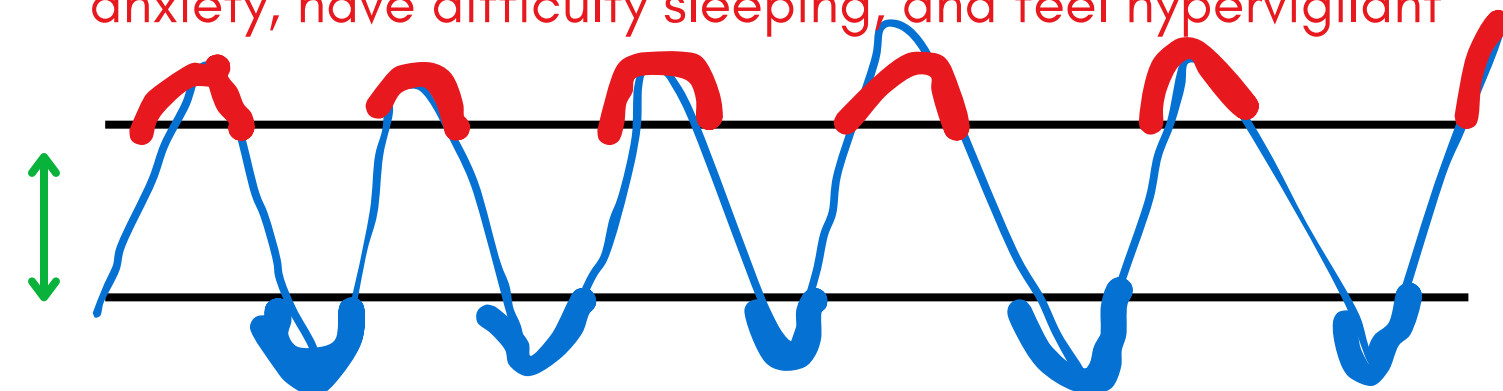
Widening the Window of Tolerance (Dr. Dan Siegel)

This is your window of tolerance prior to the stroke, maybe you do well under pressure, and managing house hold needs without much effort.



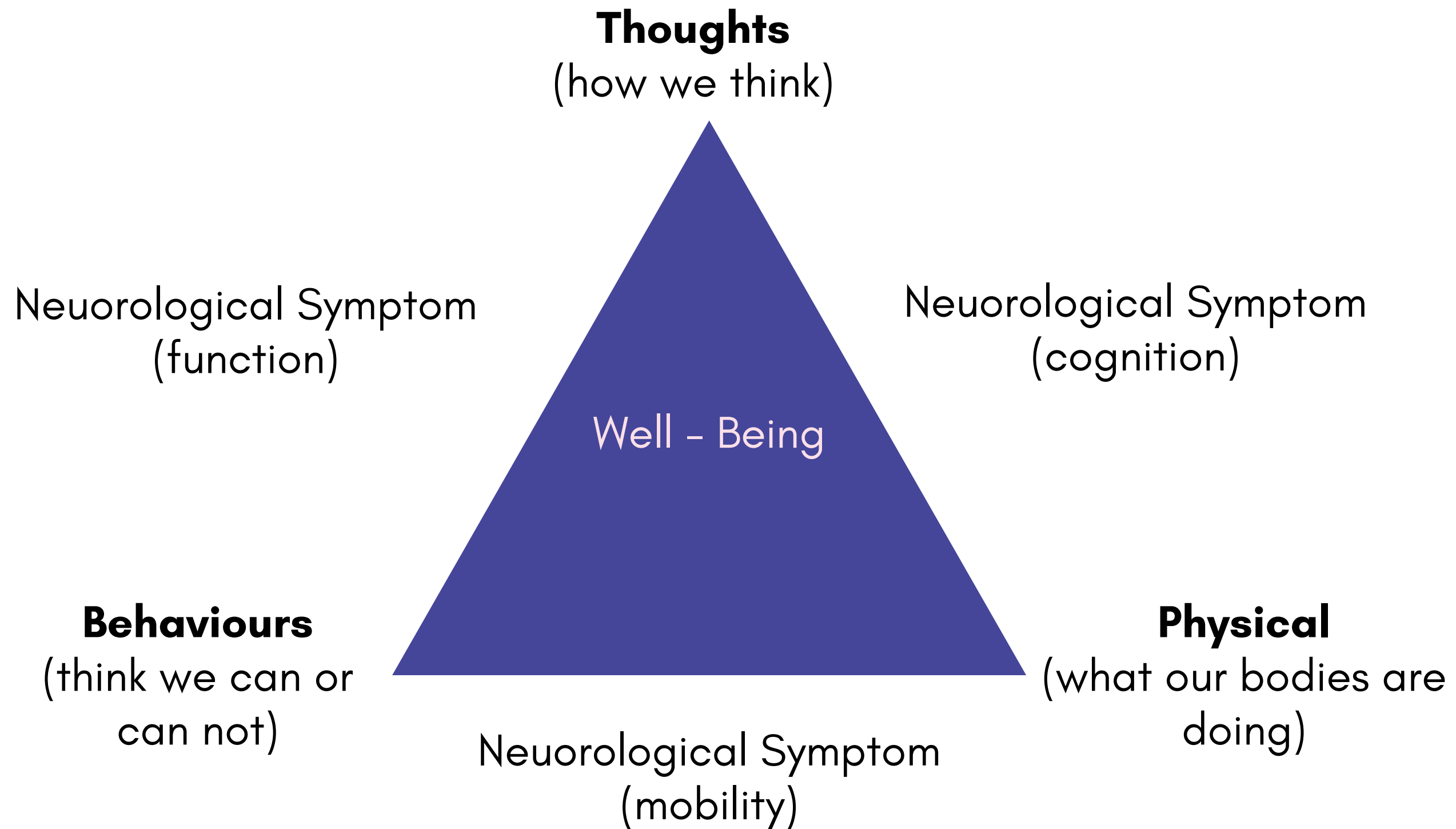
After a stroke, the window of tolerance can shrink, therefore tasks that would not cause distress now through you into a state of dysregulation

Hyperarousal: overwhelmed or impulsive, experience anxiety, have difficulty sleeping, and feel hypervigilant

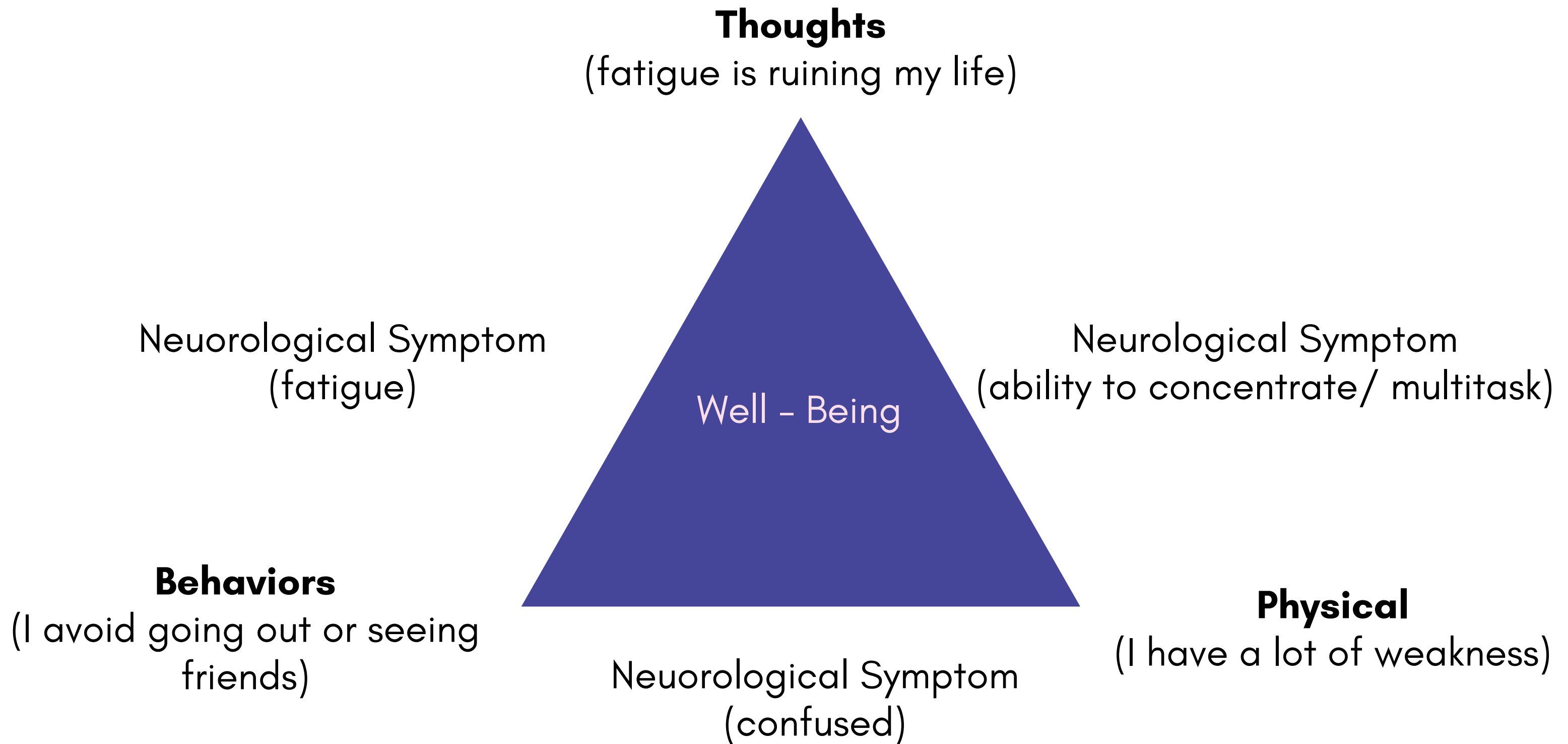


Hyporarousal: feeling numb, hopeless, helpless, shut down, flat, and disconnected with yourself and others

Cognitive Based Therapy - CBT

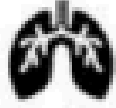





Example:



CBT Skill - Behavioral Activation

1. Provide relevance/context: Why are we doing this? What is the purpose?
2. Timed task: 5 minute rule, low ball the challenge
3. Graded task: Really small steps for action
4. Prediction log: Experiment for effort or pleasure
5. Provide choice: Offer two options for action
6. Team problem solving: Can you help me figure this out?

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Body Care Exercise, Meditate Healthy eating Treat illness, Rest 	Plan: 20 min walk Comments: walk & took a bath improved mood after walk	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:
Achievement Work, Chores Study 	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:
Connect with others Friends, Family Community 	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:
Enjoyment Play Pleasure 	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:	Plan: Comments:

Barrios, C., Milton-Nabhani, E., Chitnuchtaranon, P. (2025, March 19). Strategies for Managing Depression Post Stroke[PowerPoint slides.

CBT Skill - Structured Problem Solving (SPS)

1. Identify Problem
 - a. this could be small everyday problems or something bigger
2. Think of a Potential Solution
 - a. think of many! do not evaluate or solve
 - b. what would you tell a friend with similar problems?
3. Evaluate each solution
 - a. how practical is this? what are the pros/cons?
 - b. Long term vs. short term benefits
4. Create action Plan
 - a. What?
 - b. Where?
 - c. When?
 - d. Who?
 - e.
5. give time for them to work/ reflect on what you achieve

Resources

ICBT - WELL BEING AFTER STROKE

SCOPE

ONTARIO STRUCTURED PSYCHOTHERAPY

**NYGH MINDFULNESS BASED STRESS
REDUCTION**

**BEHAVIOUAL ACTIVATION EDUCATION AND
GUIDE**

**PRACTICAL STRATEGIES FOR MANAGING
ANXIETY AND FRUSTRATION AFTER STROKE**

EVIDENCE OF REVIEW FOR STROKE REHAB

**CANADIAN STROKE BEST PRACTICE
RECCOMENDATIONS - MOOD + DEPRESSION**

BENSON'S RELAXATION TECHNIQUE

ONTARIO CAREGIVER ORGANIZATION – PEER
SUPPORT & SCALE



The Guest House

This being
human is a guest house.
Every morning a new arrival.
A joy, a depression, a meanness,
some momentary awareness comes
as an unexpected visitor.
Welcome and entertain them all!
Even if they're a crowd of sorrows,
who violently sweep your house
empty of its furniture,
still, treat each guest honorably,
He may be clearing you out
for some new delight.
The dark thought, the shame,
the malice, meet them at the
door laughing, and invite them in.
Be grateful for whoever comes,
Because each has been sent as a
guide from beyond.

-Rumi



contact

I would love to stay in touch!

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