

Aphasia Rehabilitation: Clinical Challenges

Featured Presenters: Patrick Coppens, Ph.D. and Janet Patterson, Ph.D.
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About the Speakers



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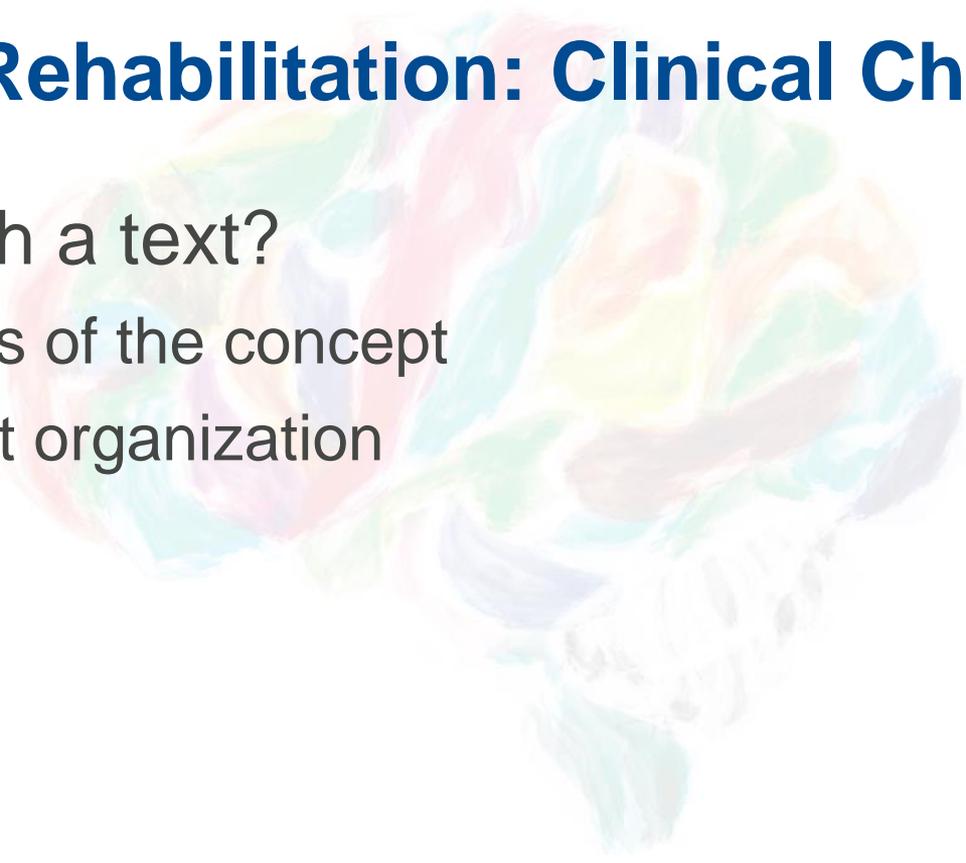


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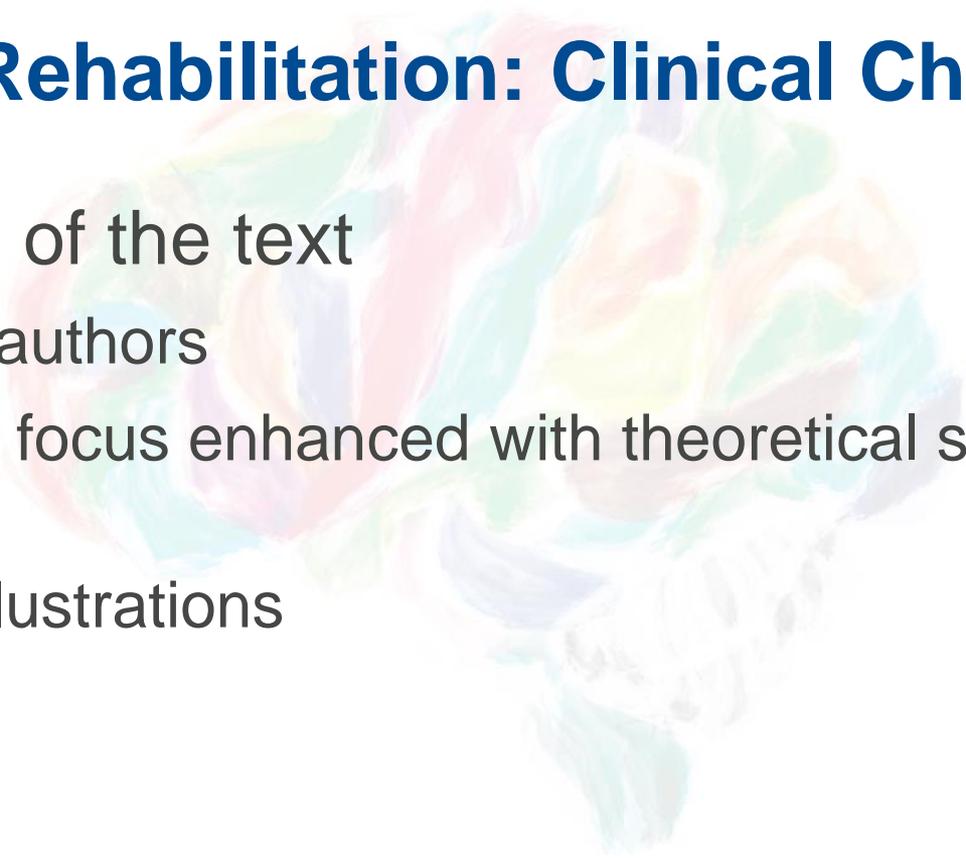
Aphasia Rehabilitation: Clinical Challenges



- Why such a text?
 - Genesis of the concept
 - Content organization



Aphasia Rehabilitation: Clinical Challenges



- Features of the text
 - Expert authors
 - Clinical focus enhanced with theoretical support (EBP)
 - Case Illustrations



Aphasia Rehabilitation: Clinical Challenges

Contents | Part 1: Challenging Symptoms

- Perseverations (Jacqueline Stark)
- Paraphasias (Michael de Riesthal)
- Jargonaphasia (Jane Marshall)
- Agrammatism (Yasmeen Faroqi-Shah & A.L. Baker)
- Echophenomena (Marcelo Berthier et al.)
- Neurogenic Stuttering (Luc De Nil et al.)



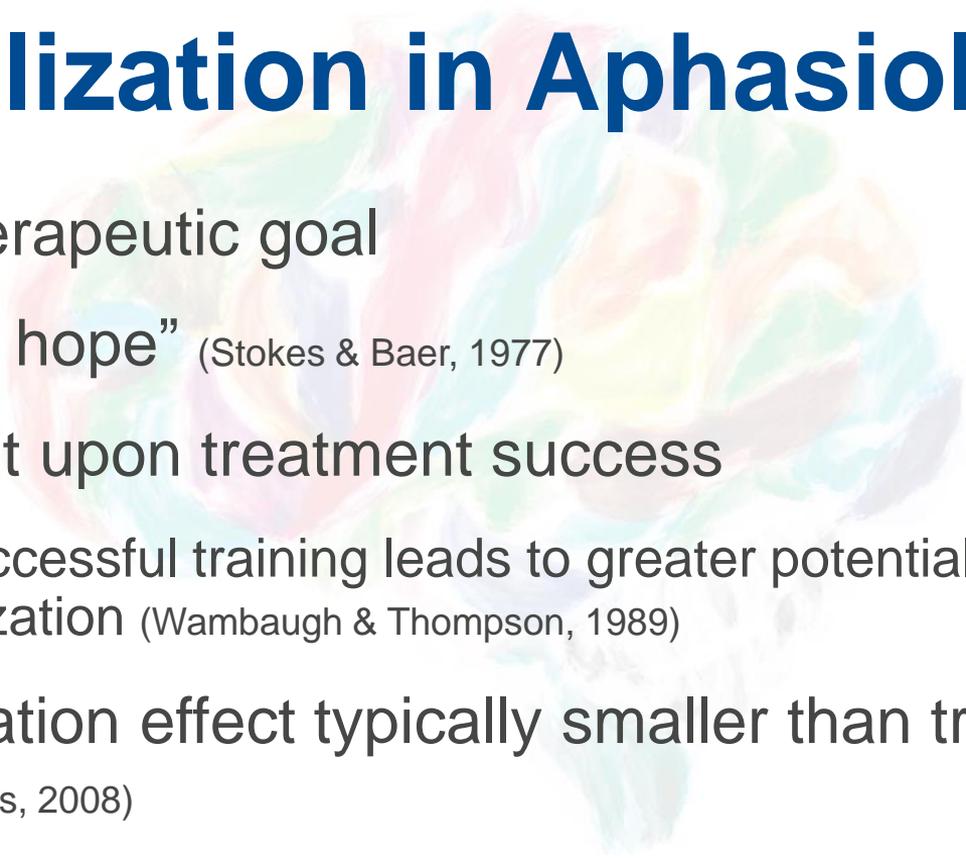
Aphasia Rehabilitation: Clinical Challenges

Contents | Part 2: Challenging Treatment Components

- Generalization (Patrick Coppens & Janet Patterson)
- Multimodal Strategies (Sarah Wallace)
- Treatment Intensity (Janet Patterson et al.)
- Combining Therapy Approaches (Jacqueline Hinckley)
- Evidence-based Practice (Janet Patterson & Patrick Coppens)
- Motivation (Mike Biel et al.)
- Informal Assessment (Patrick Coppens & Nina Simmons Mackie)



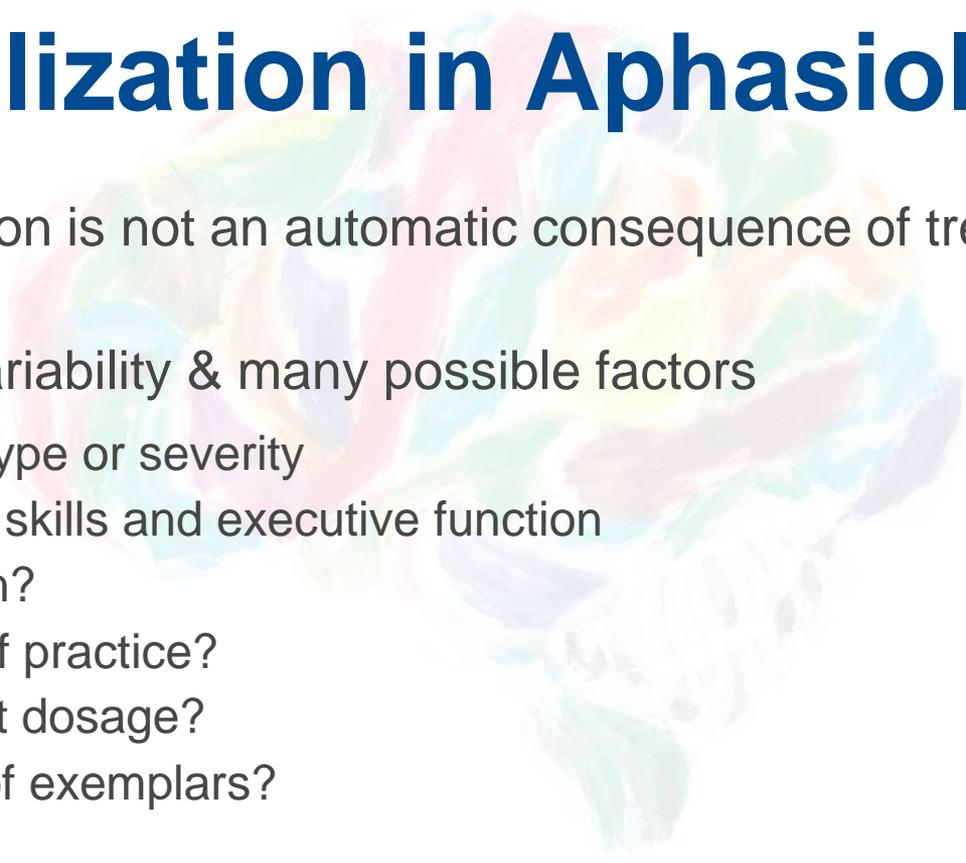
Generalization in Aphasiology



- Critical therapeutic goal
- “Train and hope” (Stokes & Baer, 1977)
- Dependent upon treatment success
 - More successful training leads to greater potential for generalization (Wambaugh & Thompson, 1989)
- Generalization effect typically smaller than treatment effect (Staines, 2008)



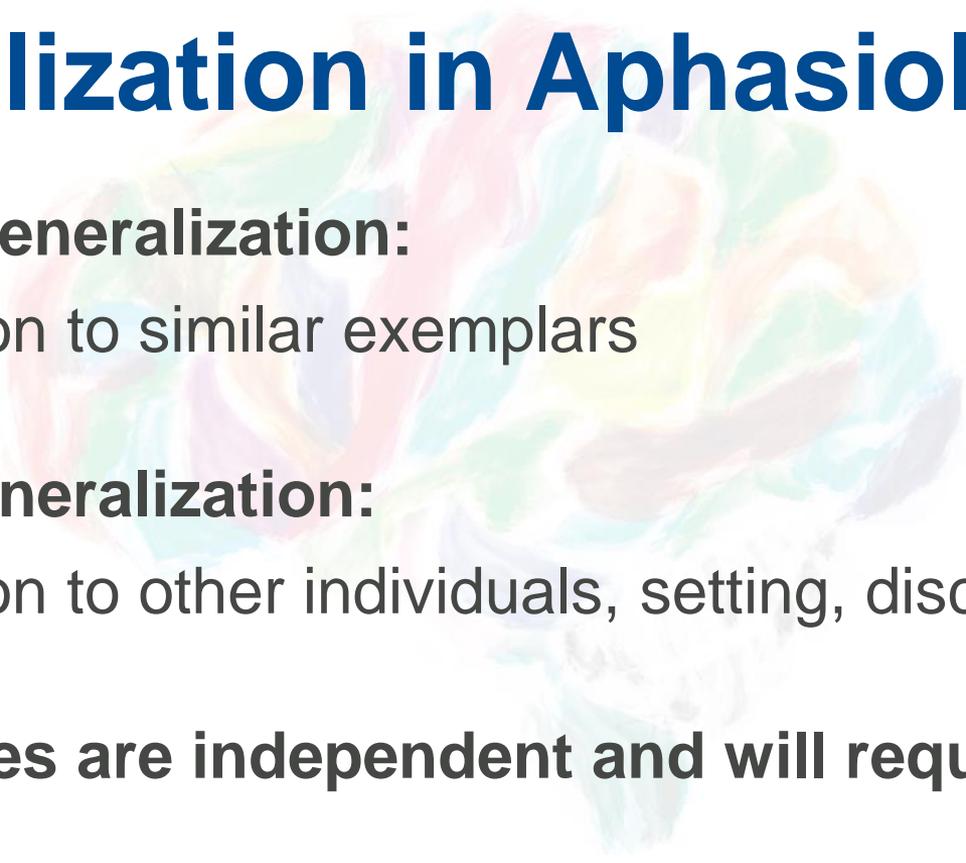
Generalization in Aphasiology



- Generalization is not an automatic consequence of treatment success
- Individual variability & many possible factors
 - Aphasia type or severity
 - Cognitive skills and executive function
 - Motivation?
 - Amount of practice?
 - Treatment dosage?
 - Number of exemplars?



Generalization in Aphasiology



Response generalization:

Generalization to similar exemplars

Stimulus generalization:

Generalization to other individuals, setting, discourse

These 2 types are independent and will require distinct strategies



Response Generalization

Strategy	Results
Train verbs	-
Train items in a sentence context	++
Treat more complex items	+
Treat the underlying mechanism	++
Use loose training	+
Internalize the strategy	++
Train enough exemplars	-



Stimulus Generalization

Strategy	Results
Train verbs	-
Train items in a sentence context	+
Add discourse or conversational training	+
Treat more complex items	+ (syntax)
Treat the underlying mechanism	++
Use loose training	+
Add home practice	+
Use functional items	++



Treatment Dosage and Intensity in Aphasia Rehabilitation

- Selecting an appropriate treatment technique and determining patient candidacy are important to treatment success
- Clinical research remains silent on the best match of patient, treatment, dosage, and intensity
- One systematic review reported modest but mixed evidence favoring intensive treatment



Treatment Dosage and Intensity in Aphasia Rehabilitation

How to define intensity?

- Hours/day; days/week
- No consistent definition of high vs. low intensity

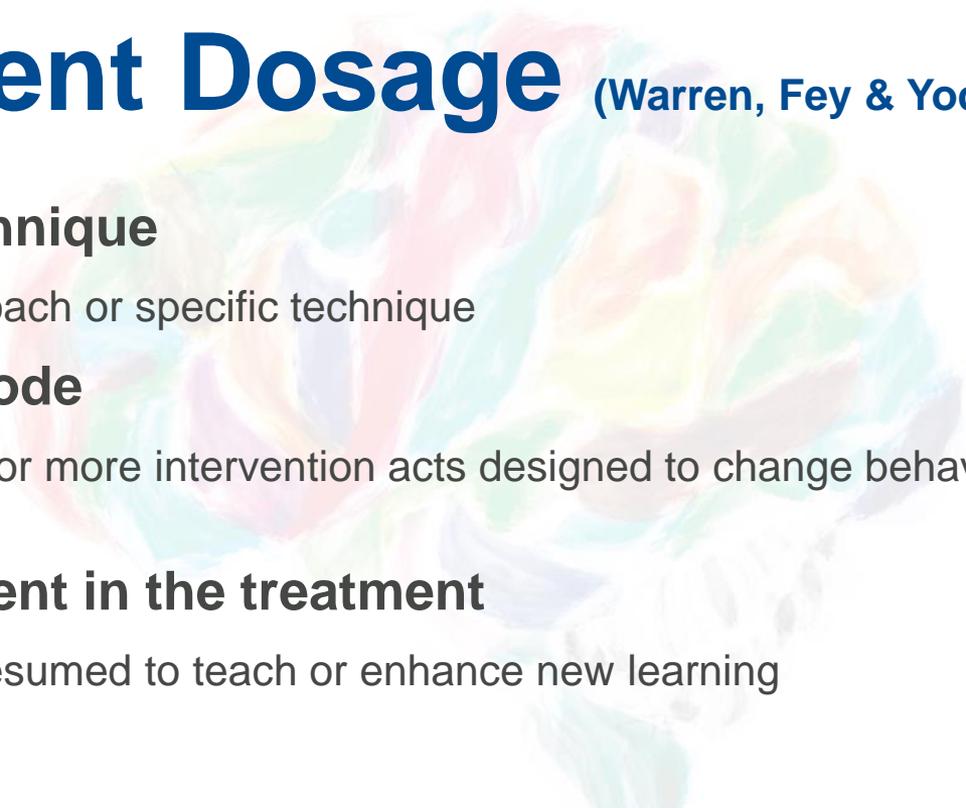
How to compare intensities?

- Most studies used one level of intensity
- Two levels required to understand the influence of intensity on treatment outcome

How to think about intensity vs. dosage?



Treatment Dosage (Warren, Fey & Yoder)



Treatment technique

General approach or specific technique

Teaching episode

Contains one or more intervention acts designed to change behavior and achieve a goal

Active ingredient in the treatment

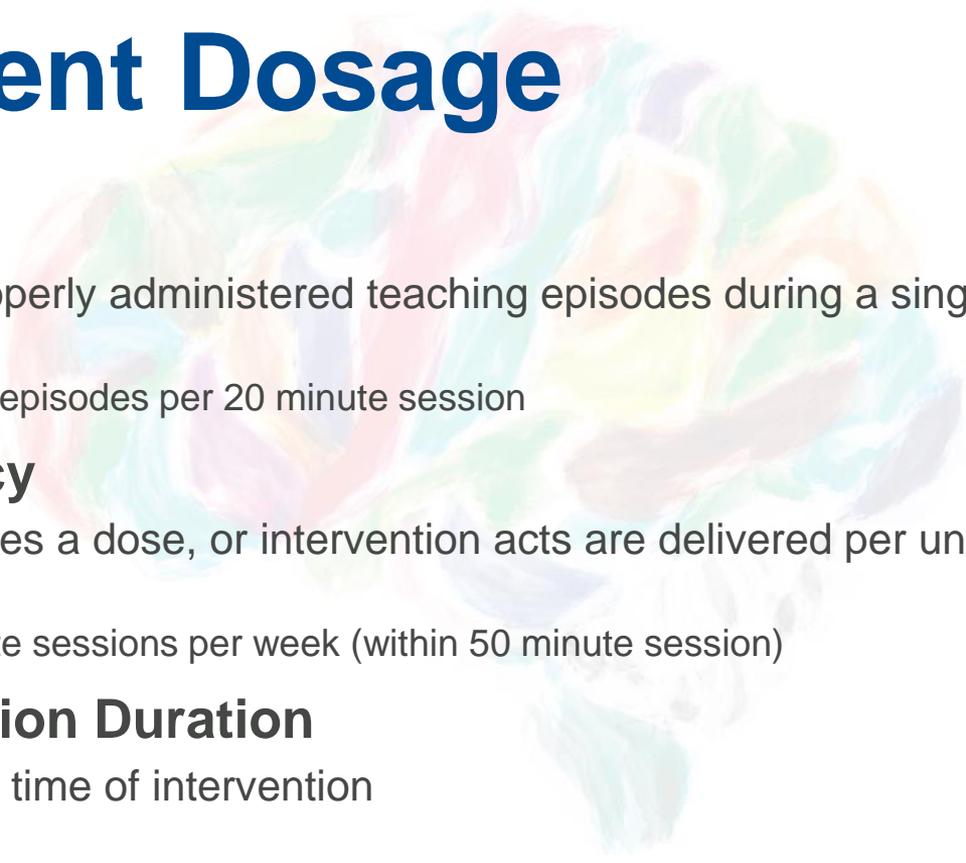
Processes presumed to teach or enhance new learning

Dose form

Typical task within which teaching episodes are delivered



Treatment Dosage



Dose

Number of properly administered teaching episodes during a single intervention session

20 cueing episodes per 20 minute session

Dose frequency

Number of times a dose, or intervention acts are delivered per unit of time (e.g. day, week)

2 20 minute sessions per week (within 50 minute session)

Total Intervention Duration

Total period of time of intervention

8 weeks



Measurements

Cumulative Intervention Intensity (CII)

Dose x Dose frequency x Total Intervention

$$20 \times 2 \times 8 = 320$$

Therapeutic Intensity Ratio (TIR) (Babbit, Worrall & Cherney)

Intensive Comprehensive Aphasia Programs

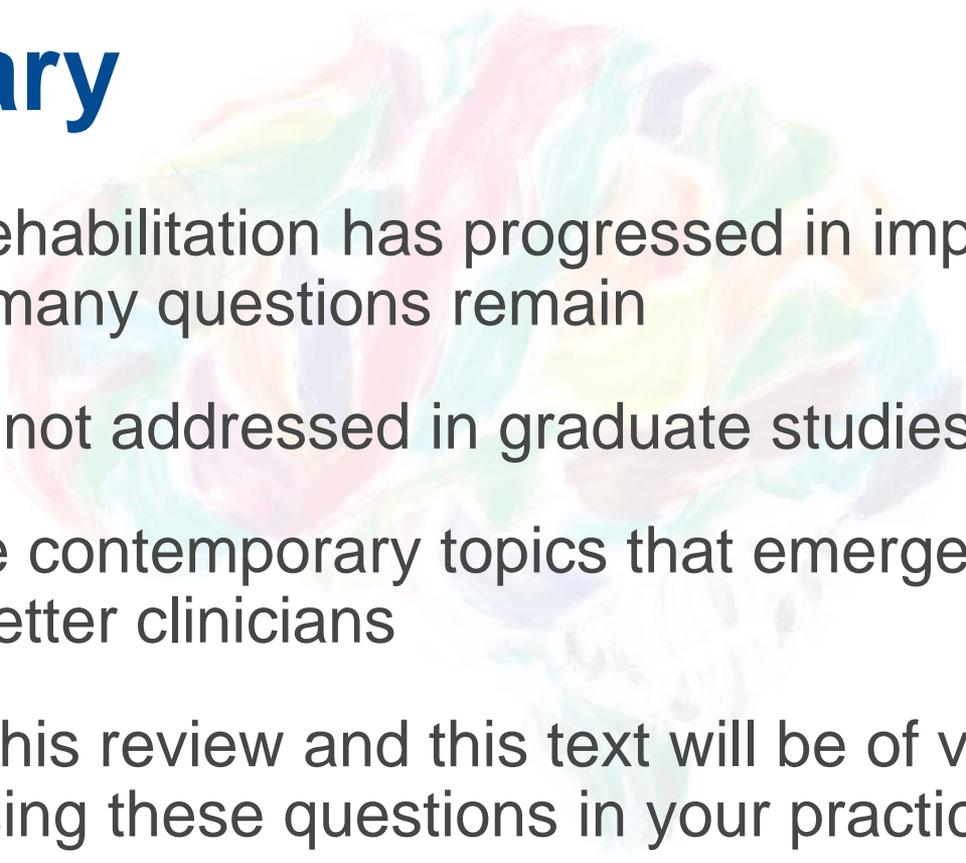
(Tx hours/day x Tx days/week) / (40 hours/week)

$$(5 \times 4) / 40 = .5 \text{ TIR}$$

Compare CII or TIR and treatment outcomes in model treatment and your treatment



Summary



- Aphasia rehabilitation has progressed in important ways; however, many questions remain
- Some are not addressed in graduate studies
- Others are contemporary topics that emerge as we become better clinicians
- We hope this review and this text will be of value to you in addressing these questions in your practice



References

Babbitt, EM, Worrall, L & Cherney, LR (2015). Structure, processes, and retrospective outcomes from an Intensive Comprehensive Aphasia Program. *American Journal of Speech-Language Pathology*, 24, S854-S863.

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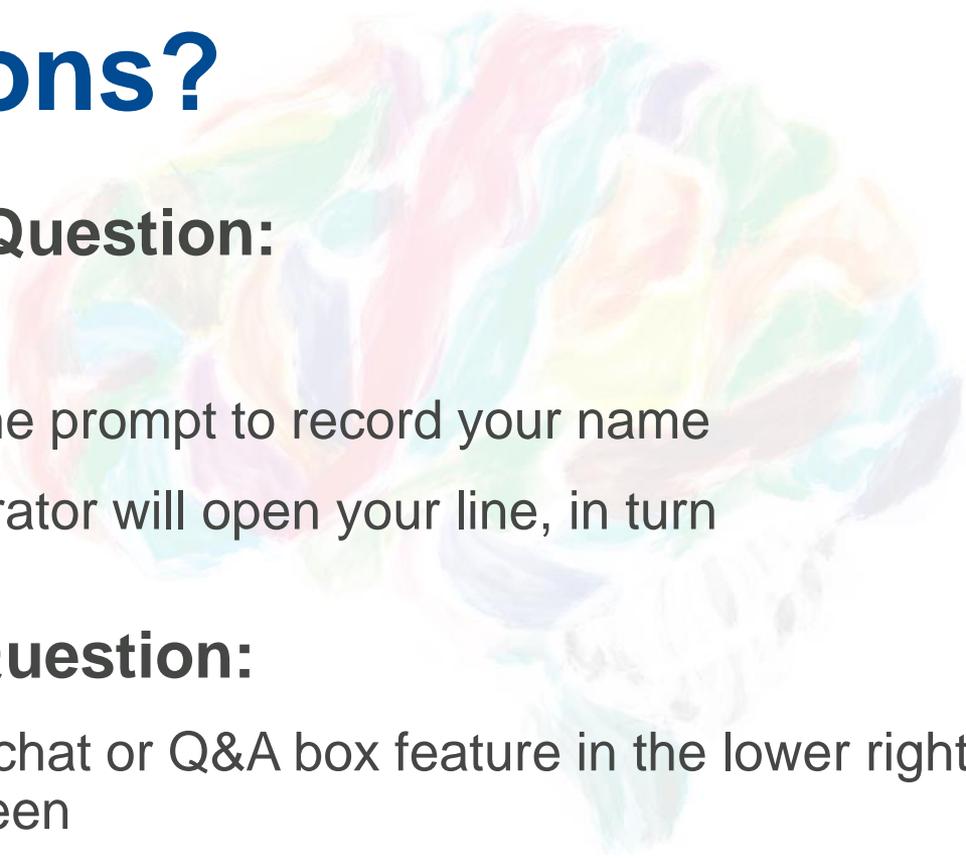
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