

Capitalizing on the Continuum:

Impacting Outcomes in Traumatic Brain Injury

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1



2

The Orchestra as an Analogy...



3

The Orchestra as an Analogy...



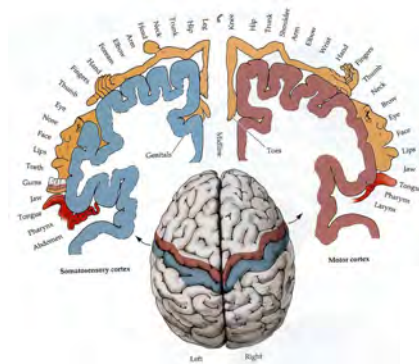
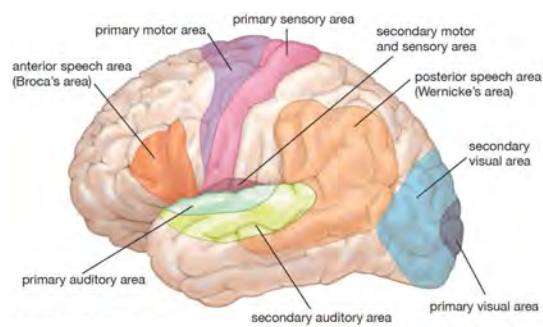
Options?

4



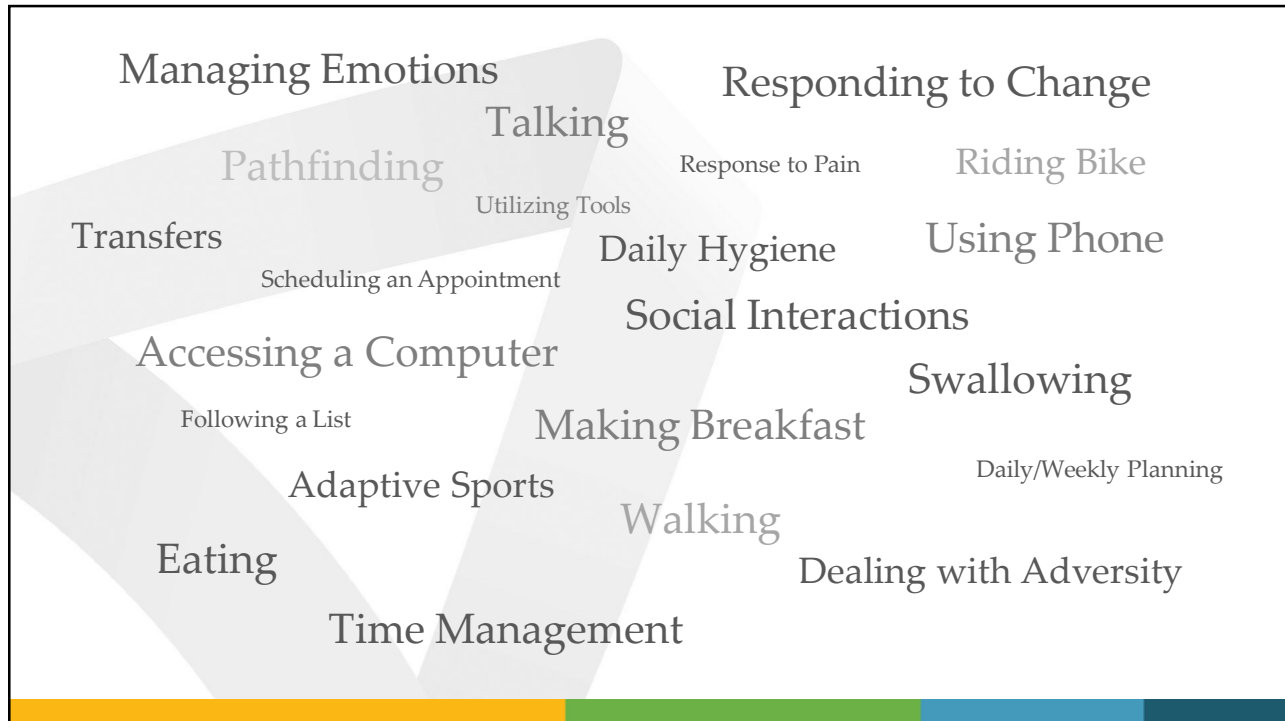
- Hire new trombone players
- Change the musical repertoire so that trombones are not needed
- Let other instruments play the trombone parts
- Teach other musicians in the orchestra to play trombone

5

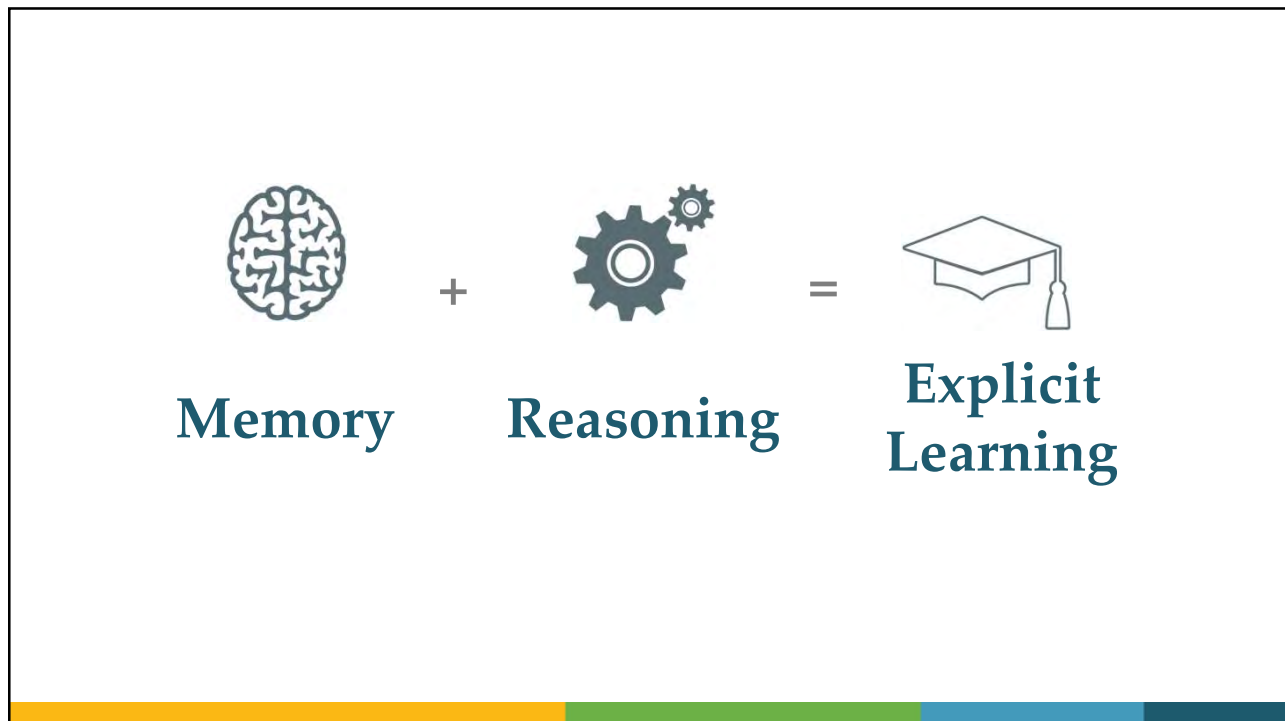


- We can't put in new brain tissue (yet) after damage
- Change the behavioral / cognitive repertoire so that particular brain function is less/not needed
- Let other functions "fill in" for the missing parts
- Teach other neurons in the brain (typically immediately adjacent to the damaged area) to replace area

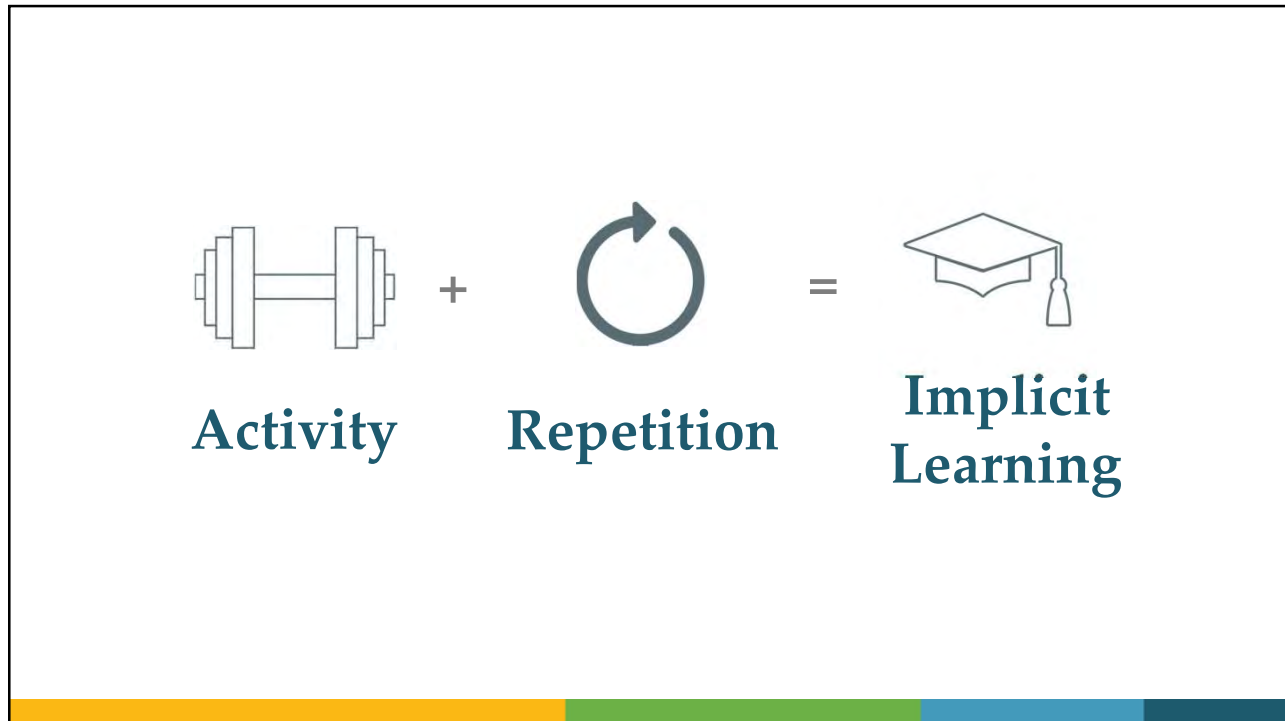
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7



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9



Neuroplasticity

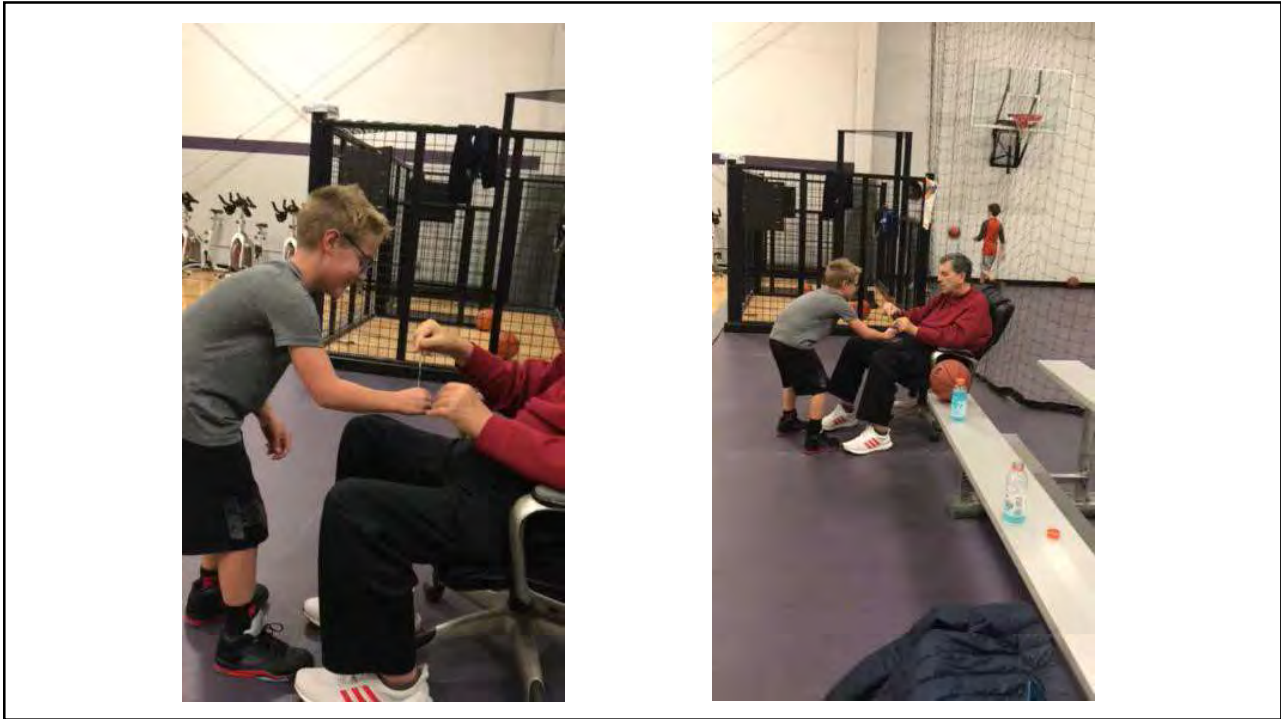
Definition

- The ability of the brain to reorganize neural pathways based on new experiences
- Relates to adding or rerouting connections in response to experiences
- Enhanced by engagement, training, and repetition

10



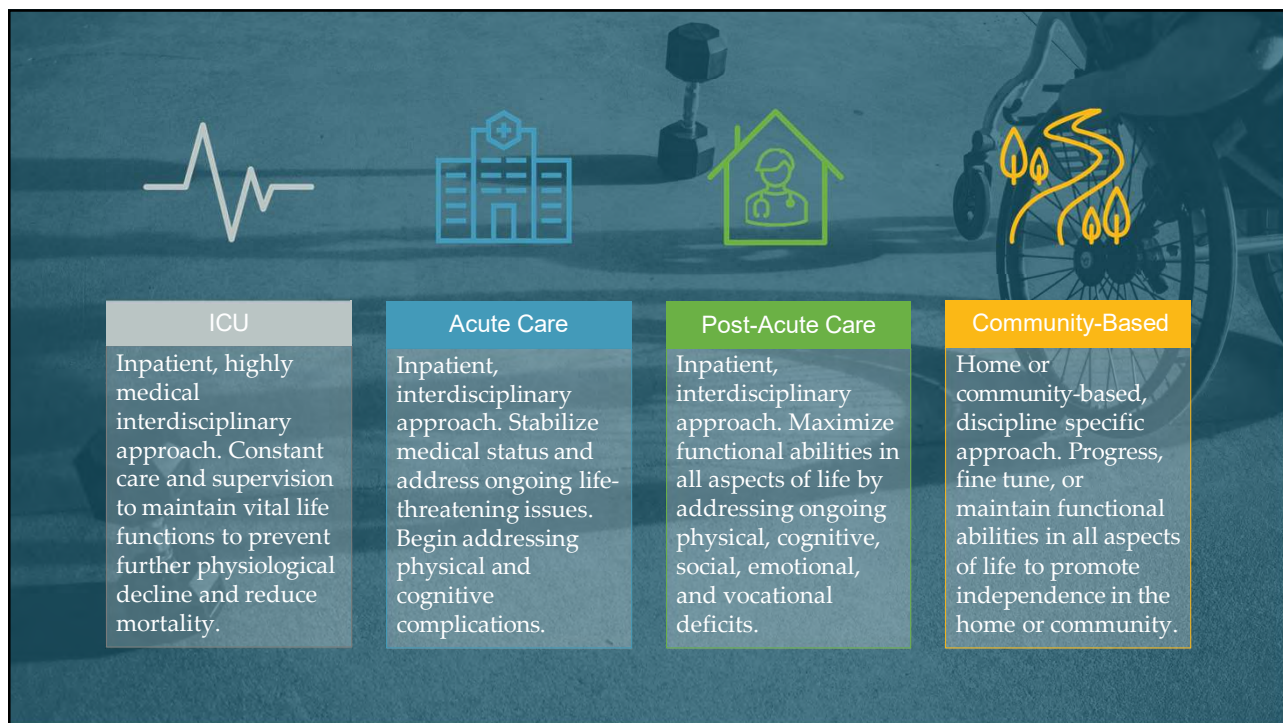
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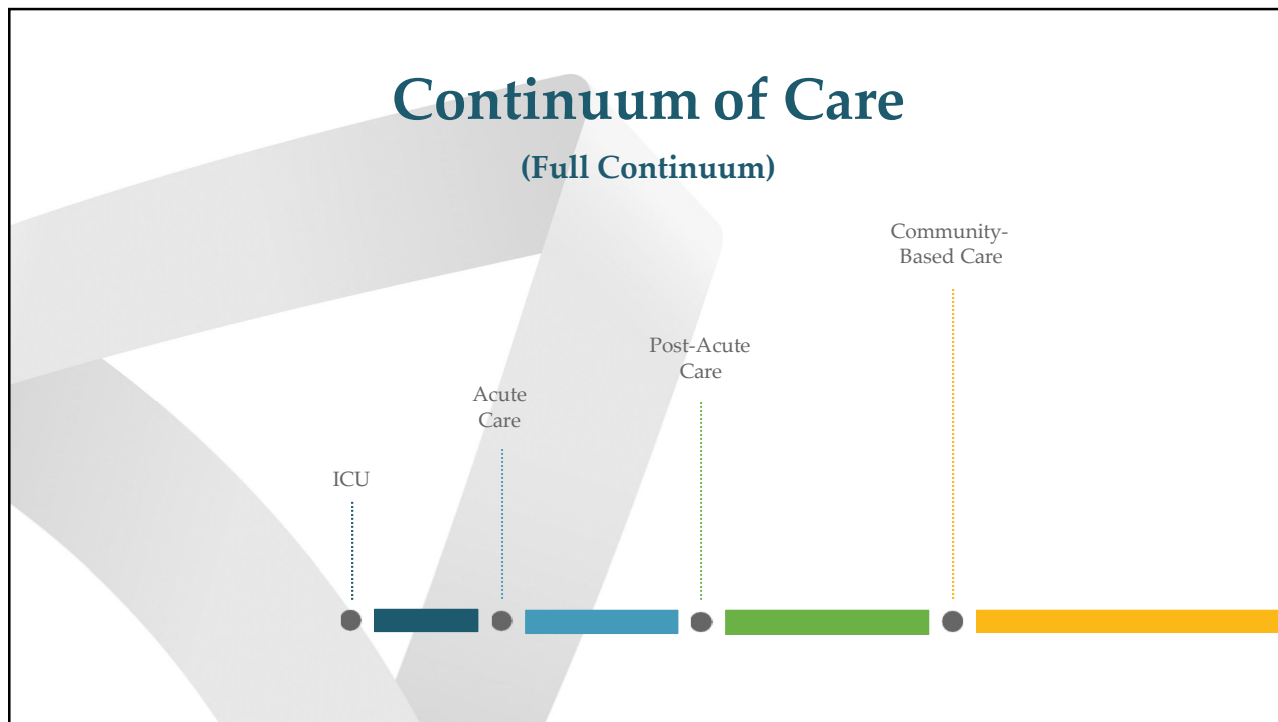
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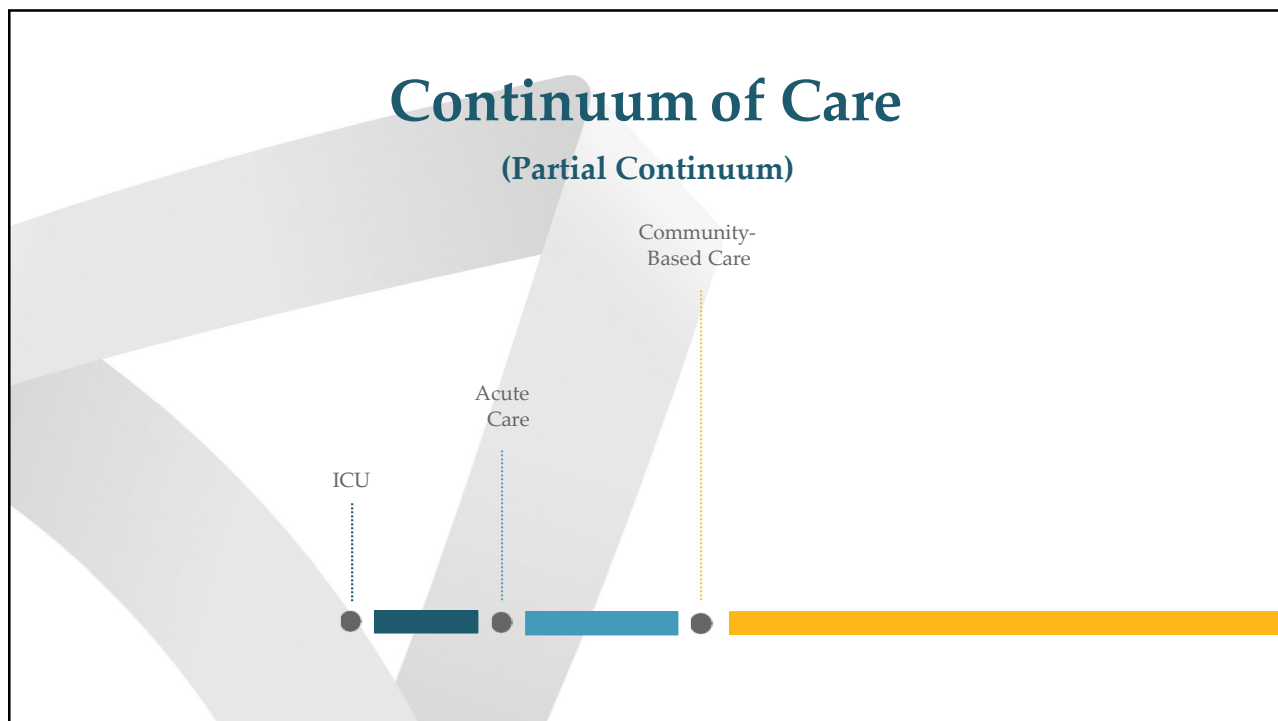
13



14




15



16

ICU – Post Acute Care

(Therapy Team)

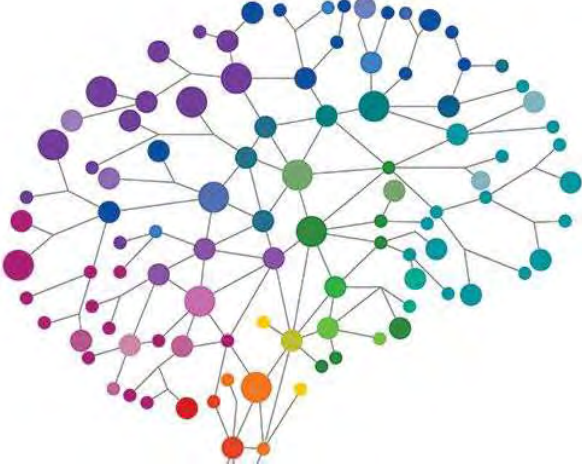


- Injured Worker
- Support System
- Care Coordination
- Physician(s)
- Nursing
- Physical Therapy
- Occupational Therapy
- Speech Therapy
- Psychology
- Life Skills Training
- Life Path Services
- Vocational Services
- Nutrition

17

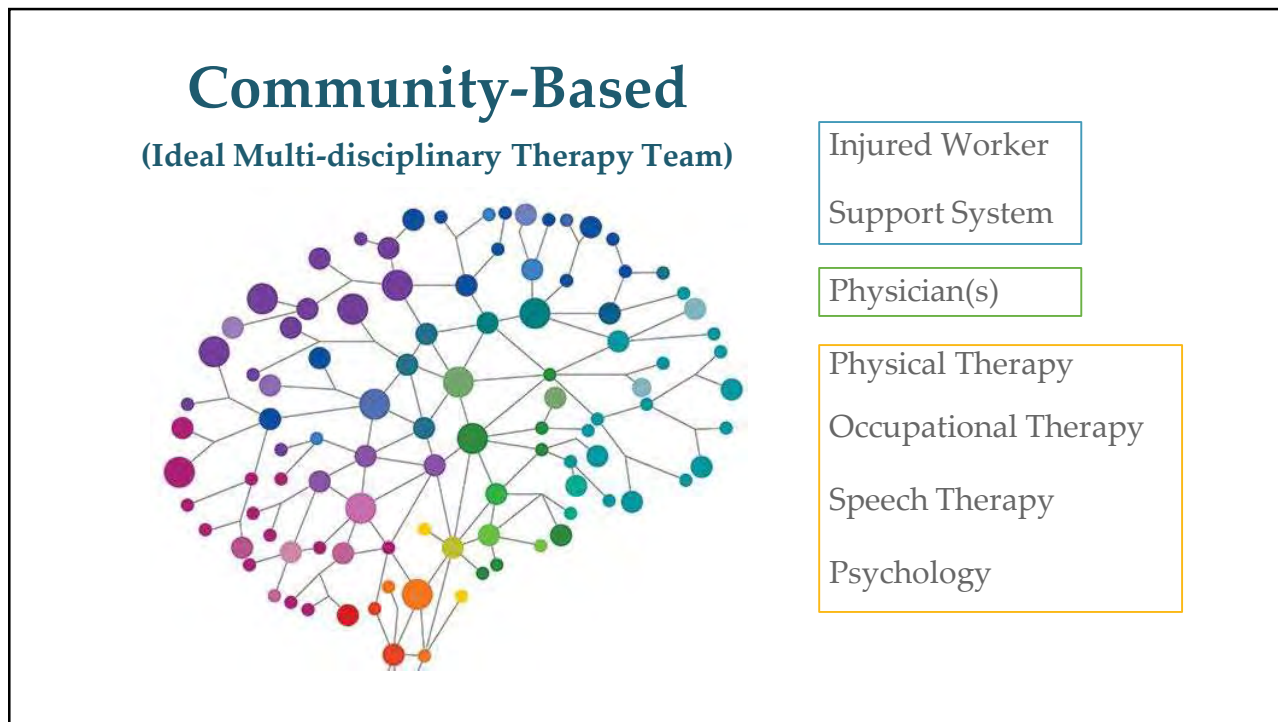
Community-Based

(Traditional Therapy Team)

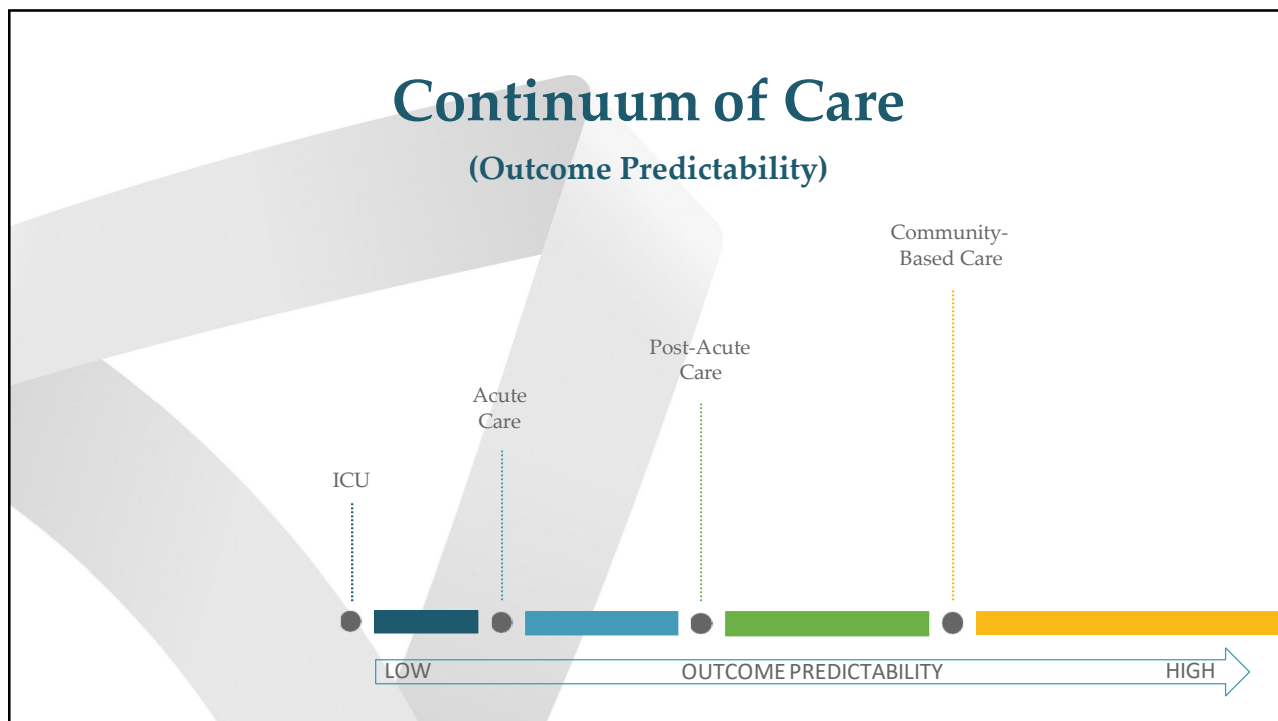


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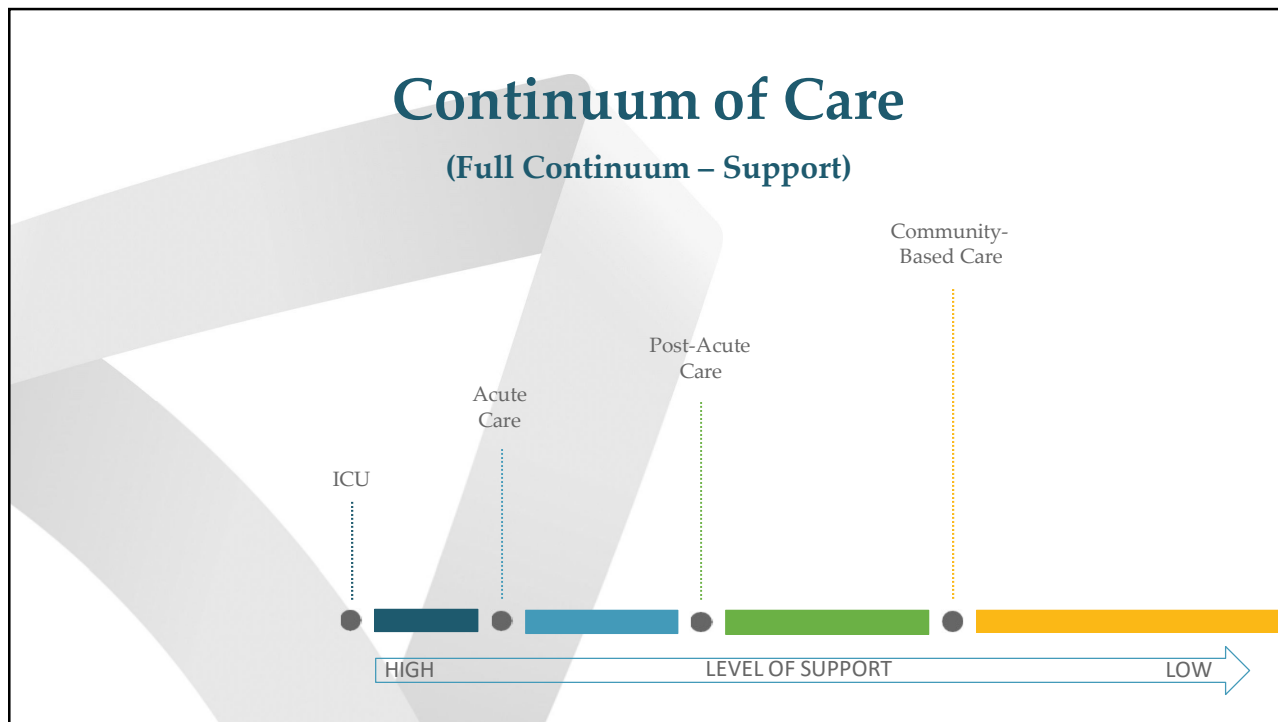
18



19



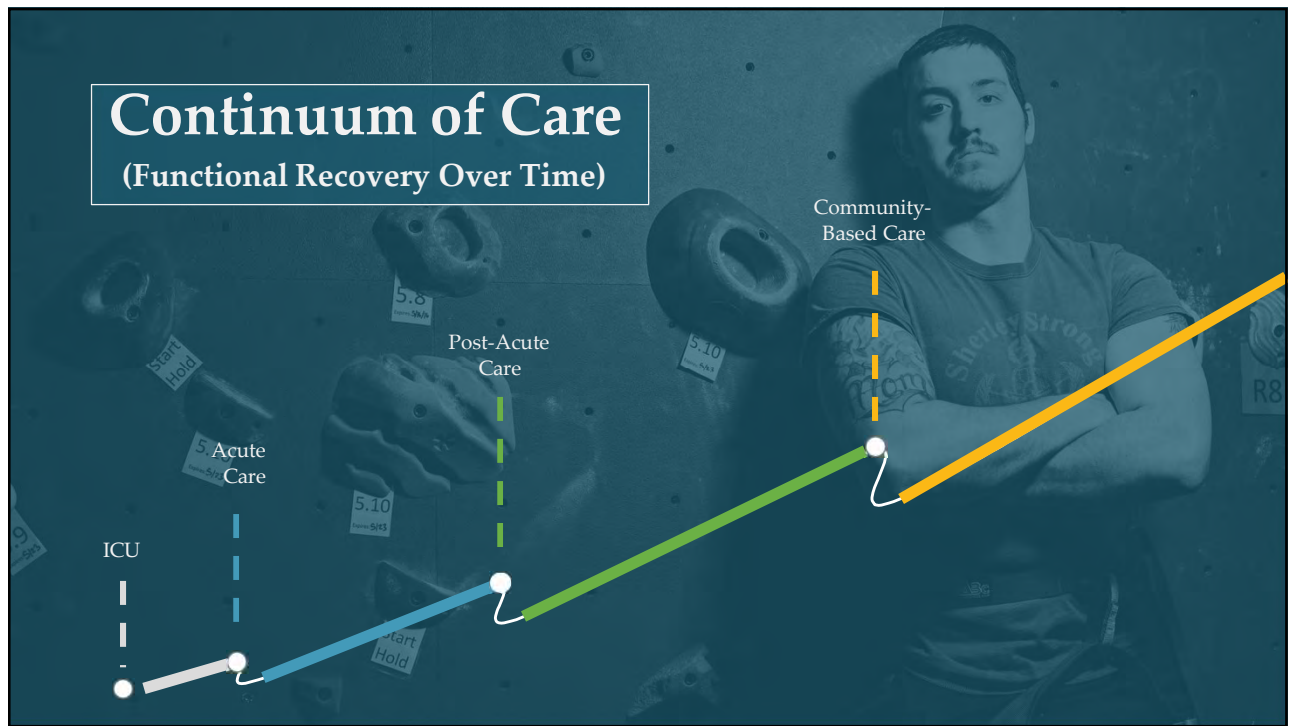
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21

Intensity is the path to excellence.
As medical intensity decreases, therapeutic intensity increases.

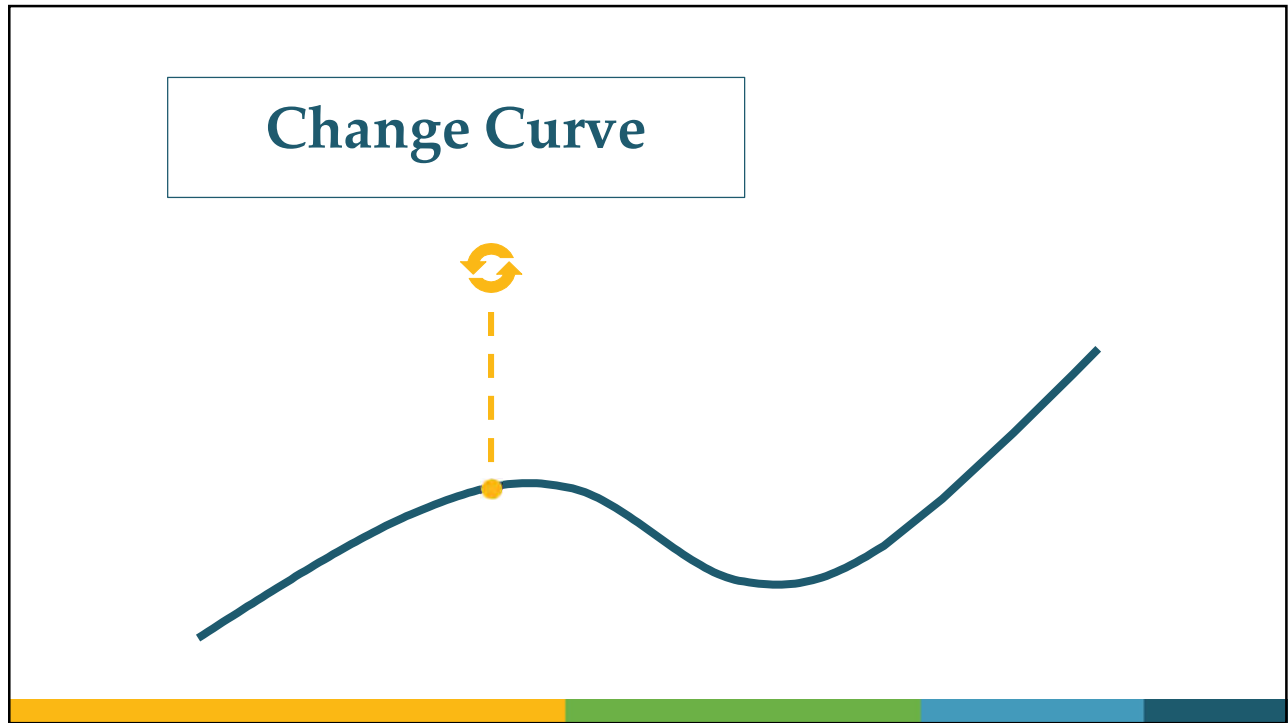
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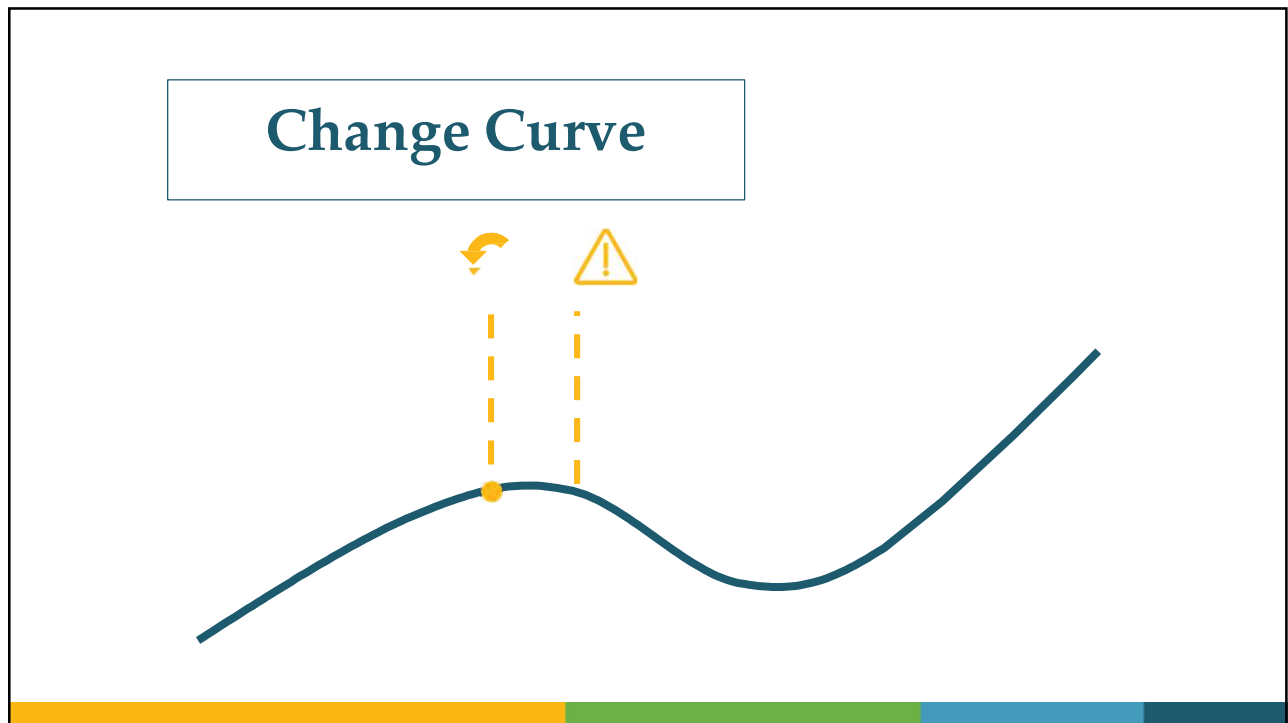
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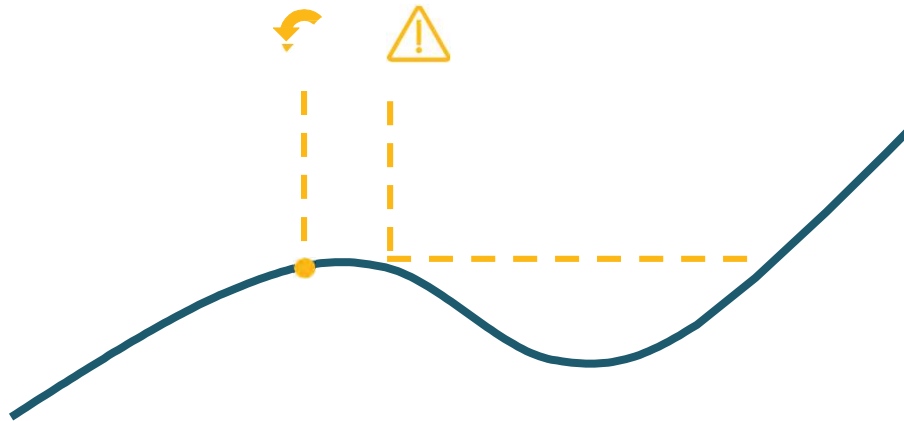


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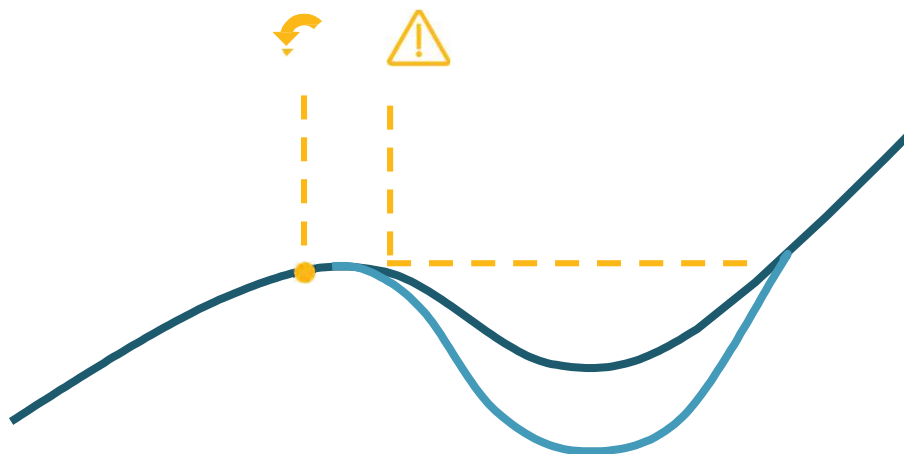
26

Change Curve



27

Change Curve



28

Navigating the Continuum Risks & Considerations

- Overwhelmed (Outside Comfort Zone/Interferences)
- Lack of purpose and identity (Motivate w/ Meaning)
- Difficulty w/ skill generalization (Tie it to the Task/Repetition)
- Lack of support and routine (Support for Success)



29

Navigating the Continuum Risks & Considerations

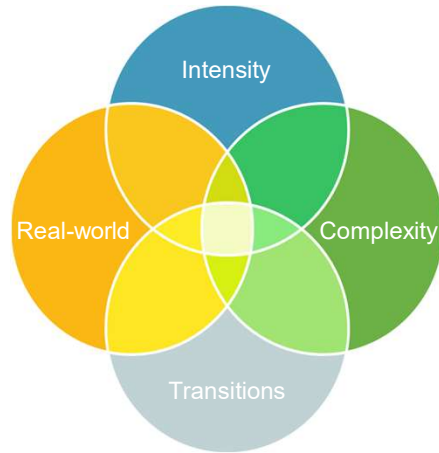
- Slow or prolonged recovery
- Long-term outcomes are compromised
- Greater/extended care needs & caregiver burnout
- Increased cost of care



30

Provider Considerations

What to look for...



- Center of Excellence v. Local Provider
- Clinical expertise & outcomes
- Therapy equipment & technology
- Service coordination & discharge planning
- Physician oversight & nursing care
- Family housing

31



Steve Kerschke

(402) 253-4508

steve.kerschke@QLIomaha.com



32



Resources

Cope, et al. (2004) – Rehabilitation

- Comprehensive, multidisciplinary approach has value
- Early access to comprehensive rehabilitation is important
- Advantage of treatment in multiple settings beyond the hospital

Braunling-McMorrow et al., (2010) – Post-Hospital Rehab

Significant gains (averaging approximately 1.5 levels) demonstrated across 10 functional outcome measures

Cicerone, et al. (2005) – Cognitive Rehabilitation

- Strategy training for mild memory impairment
- Strategy training for attention deficits
- Interventions for functional communication deficits



33



Resources

Rafferty, MR, et al. (2021) - Health Promotion and Wellness

- Therapy delivery models
- Decision making for long-term management of chronic disease

Kerschke, et al., (2021) – CM Perceptions of Telerehab

- Comparing the perceptions of telerehab v. clinic-based rehabilitation
- Despite anecdotal outcomes, significant incongruity between the two approaches exists



34