

Integration of Cognitive-Communication Strategies for Interdisciplinary Management of Complex Stroke Patients

Alyssa Spiegel, M.S. CCC-SLP

Disclosures

No relevant financial or nonfinancial relationships to disclose.

The opinions expressed in this presentation are solely those of the presenter and may not necessarily reflect AHA/ASA's official positions. This presentation is intended for educational purposes and does not replace independent professional judgment. AHA/ASA does not endorse any product or device.

Objectives

1. Describe patient interventions and modifications used to increase independence of the post-acute stroke patient as it relates to mobility, ADLs, and communication.
2. Identification of cognitive-communication strategies to improve ADLs, IADLs, mobility, and communication outcomes for post-acute stroke patients
3. Describe various cognitive-communication strategies to improve ADLs, IADLs, mobility, and communication outcomes for post-acute stroke patients
4. Integrate various cognitive-communication strategies to improve ADLs, IADLs, mobility, and communication outcomes for post-acute stroke patients

About Me

- Practicing SLP for approximately 4.5 years
- Completed undergraduate and graduate degrees at Minnesota State University, Mankato
- Worked in variety of treatment settings including acute care, inpatient rehabilitation, outpatient, SNF, and LTC
- Practicing SLP in my current position at the University of Iowa Rehabilitation Hospital over a year

Overview of Inpatient Rehabilitation Setting

- Post-acute to continue with intensive rehabilitation during stroke recovery
- 15 hours of therapy per week
 - 3 hours over 5 days
 - 15 hours over 7 days
- Length of stay dependent upon number of approved days based upon diagnosis, mobility and self-care scores, and co-morbidities.
- Speech therapy, physical therapy, occupational therapy
- Physician oversight
- Nursing, wound care, respiratory therapy, dietician

Patient Classification – NIHSS

National Institute of Health Stroke Scale

- Commonly used to measure stroke severity
- Complex stroke patients classified as having multiple areas of impairment including motor, sensory, cognition, communication, etc.
- Generally falling under NIH Stroke Scale of moderate, moderate-severe, severe

Table 5. National Institutes of Health Stroke Scale score.

Stroke severity	Score
No stroke symptoms	0
Minor stroke	1–4
Moderate stroke	5–15
Moderate-to-severe stroke	16–20
Severe stroke	21–42

Brown, J., Kaelin, D., Mattingly, E., Mello, C., Miller, E. S., Mitchell, G., Picon, L. M., Waldron-Perine, B., Wolf, T. J., Frymark, T., & Bowen, R. (2022). American speech-language-hearing association clinical practice guideline: Cognitive rehabilitation for the management of cognitive dysfunction associated with acquired Brain Injury. *American Journal of Speech-Language Pathology*, 31(6), 2455–2526. https://doi.org/10.1044/2022_ajslp-21-00361

Interdisciplinary Team

Patient

Family & Caregivers

Physician

Nursing

Therapies (SLP, PT, OT)

Respiratory Therapy

Dietician

Case management

"Care coordination as part of an integrated and holistic approach to cognitive rehabilitation and collaboration with an interdisciplinary team or to appropriate professionals with training and expertise in adults with acquired brain injury (ABI). The interdisciplinary team should include SLPs when cognitive-communication skills are affected following ABI." (Brown et al., 2022)

"Cognitive rehabilitation is shown to be most effective when administered using a coordinated, patient-centered interprofessional team approach with the patient and their family included as active members of the rehabilitation team." (Brown et al., 2022)

Cognitive-Communication Strategies Overview

Brain Breaks & Therapy Times

Low Stimulation Environment

Orientation Strategies

Attention Strategies

Memory Strategies

Communication Modifications & Strategies

Family and Caregiver Education

Brain Breaks & Therapy Schedule

Utilized to allow for appropriate brain rest and recovery between therapy sessions

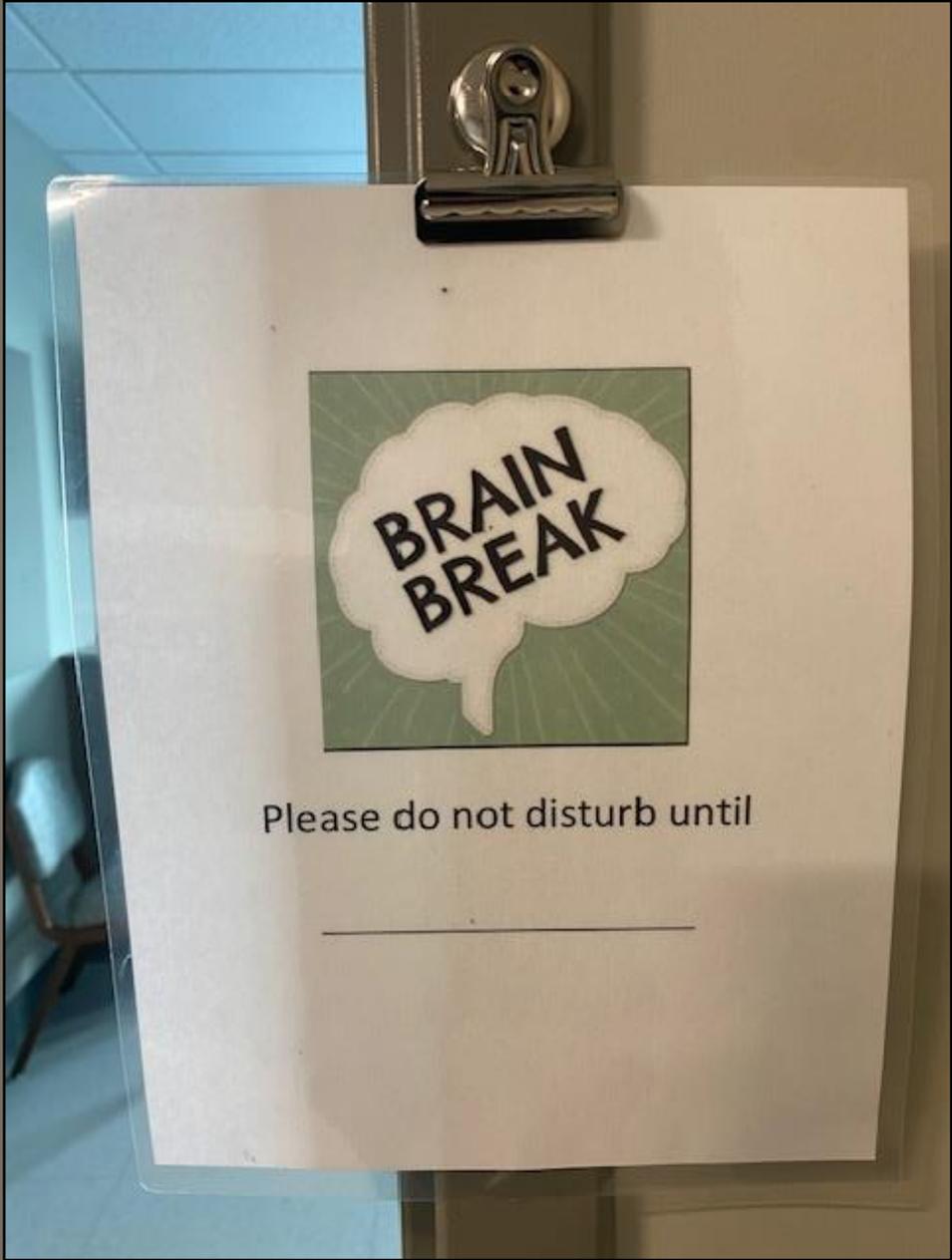
Collaboration between therapists, nursing, doctors, and patient/family, etc. regarding most appropriate time for therapies

Signs set up on patient doors

Generally updated by PT/OT/SLP following therapy session to inform others of brain break times

Staggered times to ensure therapy sessions aren't back-to-back to allow for rest and recovery

Education provided to families regarding low-stimulation environments, reasoning for brain breaks for recovery



Low Stimulation Environment

A low stimulation environment is important to allow for brain rest, healing, and recovery

Reduce visual and auditory stimuli

- Limit noise or turn off noise such as TV and music
- Close door to hallway
- Turn off or reduce lighting
- Shut blinds
- Limit duration and number of visitors

Allow for frequent rest breaks

Working to encourage regular daily routines including mealtimes, morning routines, etc.

Utilized throughout all disciplines

- E.g. Patient is seen for physical or occupational therapy in a quiet space vs. gym

Orientation Strategies

Implement large print monthly calendar

Large print digital clocks

Personally relevant pictures

Routine Development



How to create an orientation station – adult and pediatric printable resources for speech and occupational therapists. Therapy Insights. (2023, June 19). <https://therapyinsights.com/clinical-resources/how-to-create-an-orientation-station/>

Attention Strategies

Reduce distractions -
turn off TV, shut
doors, adjust lighting,
adjust temperature

Create a clean and
clutter free
workspace

Attempt one task at a
time

Written list of tasks

Take short breaks
between tasks

Slow down

Memory Strategies

Memory Log

- Information related to inpatient rehabilitation stay (name of hospital, date of arrival, therapist names, doctor's names, reason for stay, goals of stay)
- Daily logs – times of therapy session, consolidation of completed tasks and important information to recall related to daily therapy activities, medical changes, etc.
- Goal is to be completed by all therapies with patient
- Training use of cell phone (e.g. notes app, talk-to-text, Siri, etc.)

Other External Memory Strategies

- Lists
- Visual trackers (e.g. pain medications, toileting schedule)
- Alarms (e.g. clock, smart phone)
- Picture & step by step guides for transfer steps
- Adding colored tape to draw attention to specific reminders (e.g. where to grab on walker, hand placement on wheelchair, anchor line with patients with left neglect/inattention etc.)

Communication Strategies for the Communication Partner

Be Supportive

Allow the person extra time to finish their thought

Let them speak without trying to finish their sentence or speak for them

Mistakes are okay; Don't insist that every word, phrase, or sentence be perfect

Remember it is okay to take a break and come back to it later

Structured Conversations

Get their attention before you start speaking

Ask one question at a time

Discuss one topic at a time

Write down key words

Give options

Establish a topic change

Environmental Awareness

Use straight forward but no childlike speech

Use shorter sentences and speak at a slower rate

Speak in a normal volume

Reduce background noise

Use Visuals

Use gestures and pointing to help get your point across

Use objects, drawings, and facial expressions to help get your point across

Clarify & Confirm

Ask yes/no questions to communication and clarify as needed

Let them know if you don't understand

References

72 functional compensatory strategies to increase independence with cognitive-linguistic skills – adult and pediatric printable resources for speech and occupational therapists. Therapy Insights. (2023a, May 23). <https://therapyinsights.com/clinical-resources/72-functional-compensatory-strategies-to-increase-independence-with-cognitive-linguistic-skills/>

AAC Communication Board. Medical SLPs. (2022, March 13). <https://medicallslps.com/speech-therapy-materials/worksheets/aac-communication-board/>

Brain Injury and rest – adult and pediatric printable resources for speech and occupational therapists. Therapy Insights. (2023, June 19). <https://therapyinsights.com/clinical-resources/brain-injury-and-rest/#cell-0>

Brown, J., Kaelin, D., Mattingly, E., Mello, C., Miller, E. S., Mitchell, G., Picon, L. M., Waldron-Perine, B., Wolf, T. J., Frymark, T., & Bowen, R. (2022). American speech-language-hearing association clinical practice guideline: Cognitive rehabilitation for the management of cognitive dysfunction associated with acquired Brain Injury. *American Journal of Speech-Language Pathology*, 31(6), 2455–2526. https://doi.org/10.1044/2022_ajslp-21-00361

Health Care Disposable Communication Board. Health Care Communication Boards. (n.d.). <https://www.alimed.com/health-care-communication-boards.html>

How to create an orientation station – adult and pediatric printable resources for speech and occupational therapists. Therapy Insights. (2023, June 19). <https://therapyinsights.com/clinical-resources/how-to-create-an-orientation-station/>

Low stimulation following brain injury – adult and pediatric printable resources for speech and occupational therapists. Therapy Insights. (2023b, June 16). <https://therapyinsights.com/clinical-resources/low-stimulation-following-brain-injury/>

References

Memory log template – adult and pediatric printable resources for speech and occupational therapists. Therapy Insights. (2023c, June 16). <https://therapyinsights.com/clinical-resources/memory-log-template/>

Memory Strategies – Adult and pediatric printable resources for speech and occupational therapists. (n.d.). Therapy Insights. Retrieved March 18, 2024, from <https://therapyinsights.com/clinical-resources/memory-strategies/>



UNIVERSITY OF IOWA
HEALTH NETWORK

**Rehabilitation
Hospital**

a venture with Encompass Health