What is multi-level treatment?
Targets microstructural and macrostructural aspects of discourse in an integrated way with the explicit goal of improving discourse production

Microstructural aspects include
- Word retrieval
- Sentence formulation

Macrostructural aspects include
- Organizational structure
- Relationship of utterances to each other
- Relationship of utterances to the topic

What is discourse?
“... a unit of language larger than a sentence and which is firmly rooted in a specific context” (Halliday & Hasan, 1985, p.41)

Language that is “beyond the boundaries of a sentence” (Ulatowska & Olness, 2004, p.300)

Rationale for a multi-level treatment approach
Discourse production is a frequent communicative activity in everyday life (Davidson et al, 2003)

Improved discourse is an outcome prioritized by people with aphasia (Wallace et al., 2016)

Assumption: the success of discourse depends on both microstructural and macrostructural levels
- Impairment in word retrieval and/or ability to formulate grammatical sentences affects the coherence and cohesion, and thus the partner’s ability to understand it (Marini et al., 2011)
Emerging Models for Multi-level Treatment in Aphasia

**Integrated Discourse Treatment for Aphasia (IDTA) (Milman, 2016)**

Goal: promote transfer of impairment-based language learning to everyday communicative use

Uses problem-based learning

- Centers learning tasks on everyday real-world problems/challenges
- Maximizes personal relevance
- Systematically trains complex component skills and integrates them into whole-task performance

ID’d personal communication goals for each participant and combined with data from standardized assessments to design treatment protocols tailored to individual participant

Participants were involved in selecting

- Stimulus material
- Conversational topics
- Language goals

3 to 4 sessions (1 hour long) per week, lasting from 4 to 20 weeks depending on acquisition of targets

Each tx session included core set of 3 topic-focused intervention tasks:

- Word retrieval, using phonological-orthographic cueing hierarchy
- Sentence production training
  
  Used vocabulary from word-retrieval task
Used cueing hierarchy that included syntactic, reading, & repetition prompts

**Discourse training**

Structured discourse: clinician asked question to elicit target vocabulary and sentence structure in conversation-like exchanges about participant’s activities, opinions, or interests

Modified Response Elaboration Training used to scaffold correct response

Moved from discourse with clinician to discourse in aphasia group or with authentic conversation partner

**Interactive Storytelling Therapy (Carragher et al., 2015)**

Goal: targeting a combination of key ingredients to facilitate generalization of behaviors targeted in tx to untrained everyday communication tasks

Targets micro- & macrolinguistic skills, shapes nonverbal & compensatory strategies to optimize communication of new info

Uses principles of “thinking for speaking” to improve narrative planning & production

Includes conversation partners (CP) to prime them to be receptive to compensated storytelling

Targets information exchange within everyday task of storytelling

PWA viewed YouTube video clips involving minimal/no language

Six 1.5-hour sessions/week

45 min. focused on PWA

30 min. focused on working with CP

Remainder: feedback and discussion with couple
Session 1. Review of baseline storytelling by PWA to CP, reflecting on behaviors & strategies, setting goals

Sessions 2-6:

PWA:

Viewed video clip without CP
SLP facilitated segmenting narrative into main events (beginning, middle, end)
PWA prompted to begin by introducing the story, then prompted to tell what happened next in segments
Encouraged agent-verb constructions with prompts and modelling
PWA told story 3 times: 1) maximal support, 2) moderate support, 3) independently

Sessions 2-6 cont’d:

CP joined session, PWA’s telling of story to CP videotaped
SLP intervened when trouble arose that PWA could not solve independently
Couple:
CP watched the YouTube video
Couple watch video recording of them discussing the story and evaluated their use of the agreed-upon goals for each of them
HW: practice using goal behavior in everyday conversation and reflecting on whether strategies had been useful

A Novel Approach to Real-life communication: Narrative Intervention in Aphasia (NARNIA) (Whitworth, 2015)
Targets word retrieval, sentence production, and discourse macrostructure across different discourse genres:
Narrative
Recount/retell
Explaining procedures
Expressing opinions (expository)

4 sessions (60-90 minutes long) per week x 5 weeks

Discourse topics personally tailored to participant

For each topic:

- Identified main events/ideas, accessing verbs and nouns with prompting/cueing as necessary
- Create a complete argument structure around each verb using sentence cue cards
- Used story grammar framework to scaffold discourse production, using mind maps to retrieve and link ideas, events, and words, then organizing material into discourse

**Linguistic Underpinnings of Narratives in Aphasia (LUNA) (Dipper et al., in review)**

Incorporates existing efficacious treatments from multiple levels and focuses on personal stories to target everyday discourse

- **Word:** Semantic Feature Analysis Therapy
- **Sentence:** Mapping Therapy
  - Complex sentences – connectives
- **Discourse:** Story Grammar
  - Link elements to key words and practice sentences
  - Practice story using Story Grammar prompt cards

“What story is one that you’d like to tell someone else?”

Baseline story produced and used to

- Profile strengths and difficulties
- Identify treatment goal areas
- Generate a list of treatment targets

6 (60-90 minute) weekly sessions

Sessions progressed from targeting word retrieval, to sentence formulation and linkage, to narrative structure
Visual supports used at each level and carried over from one level to the next

References


