CITY UNIVERSITY LONDON

Language, functional communication, and communicative participation with aphasia

Madeline Cruice PhD
Senior Lecturer in Aphasia
Department of Language and Communication Science
City University, London
m.cruice@city.ac.uk

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Outline for the day

- Scope of practice
- Differentiating levels of language
- Evidence & goals for communicating for quality in life (discussing qualitative data)
- Goals, measures/outcomes
  - Small group discussion about measures
- Therapy approaches & ideas

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Clinical guidelines from UK

"Aphasia is a long term life changing condition, which affects both the individual and others around them. Living with aphasia involves individuals and those in their environment in a process of adaptation to change, in terms of communication style, lifestyle, and sense of self…" (RCSLT Clinical Guidelines, p101)

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

"Recent research in the UK has shown that the health-related quality of life of people with aphasia after stroke is significantly affected by their emotional distress, their activity level, the severity of their communication disability and their overall health.

Speech and language therapists need to take these factors into consideration if they are to deliver interventions that address the key aims of stroke rehabilitation, and target the improvement of people's quality of life.

Long-term services for people with aphasia should aim to minimise communication disability, address emotional health, and enable participation in an individual's social context and in the community and society more generally" (RCSLT Clinical Guidelines, p102)

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Scope of practice? (recommendations for Ax)

- Assessment of an individual's communication strengths and weaknesses
- Process can include interview, conversation, observation, and selective use of formal and informal assessment tools
- Nature & extent of impairment and preserved abilities; functional and pragmatic aspects of communication including compensatory strategies; psychosocial wellbeing
- Encompass perception of individual and others of impact of communication disability
- May include assessing skills of communication partner(s)

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Is the differentiation between language functioning, functional communication, communicative activity, and communicative participation relevant to the clinical practice of aphasia clinicians in Portugal?

University of Aveiro Workshop 14 June 2008

Language functioning

- ICF Structure of the brain s110 & Mental functions of language b167 (McCormack & Worrall, 2008)
- Specific mental functions of recognizing and using signs, symbols and other components of a language.
- Inclusions: functions of reception and decryption of spoken, written or other forms of language such as sign language; functions of expression of spoken, written or other forms of language; integrative language functions, spoken and written, such as involved in receptive, expressive, Broca's, Wernicke's and conduction aphasia

Functional communication

- Traditionally viewed as set of skills of speaking, listening, reading, writing
- ? ICF Chapter 3 of Activities and Participation
  - Communicating - receiving
  - Communicating - producing
  - Conversation and use of communication devices and techniques

  (type of message, modality & # people engaged; context, e.g. place and purpose not considered)

CITY UNIVERSITY LONDON

Continued

- ? ICF Chapter 7 of Activities and Participation - Interpersonal interactions and relationships
- Others?
- Qualified by performance (in current environment), capacity (highest probable level), and additional assistance
- Observable & countable (O'Halloran & Larkins, 2008), whereas participation is subjective exp.

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Continued

- ASHA-FACS: social communication; communication of basic needs; reading, writing and number concepts; daily planning
- CADL-2: social interactions; reading, writing, using numbers, divergent communication; convergent communication; nonverbal communication; sequential relationships; humour/ metaphor/ absurdity
- FCP: movement; speaking; understanding; reading; other

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Communication activity

- 6 factors: function (transactional/ interactional), partner, place or setting, time and duration, topic, and modality
- 8 types of communication activity observed in real-life: conversations, greetings, questioning or inquiring, commenting, listening only, reading and writing, informing, and other (Worrall et al., 2002 from Dr Davidson's work)

CITY UNIVERSITY LONDON

Communicative participation

"taking part in life situations where knowledge, information, ideas, or feelings are exchanged. It may take the form of speaking, listening, reading, writing, or nonverbal means of communication…may occur in multiple life situations or domains and includes, but is not limited to, personal care, household management, leisure, learning, employment and community life…

CITY UNIVERSITY LONDON

Continued

"…is measured in a social context...involves more than one person and must involve a communicative exchange (i.e. a message and the opportunity for a response from a communicative partner)…may take place for a defined social goal (e.g. establishing relationships), for a function/ role (e.g. job-related), and/or in a particular context (e.g. restaurant)" (Eadie et al., 2006, p.309)

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Context in communicative participation

- Context (communication partner, the environment, the topic of communication & its importance, and pace) influences how people with spasmodic dysphonia responded to questions (Yorkston et al., 2007)
- Participants disliked "satisfaction" and preferred "interference" capturing the barriers concept (Yorkston et al., 2007)

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Communication in context

- Watching the communication changes
  - Life is not what it was
  - Acknowledging the change in communication

- It's about participating in my life
  - Participation in important
  - Communicative participation has changed
  - Communicative participation is limited by many factors

- Communication is unpredictable
  - Communication problems are variable
  - People treat you differently
  - Old strategies fail   (Yorkston et al., 2001)

CITY UNIVERSITY LONDON

Evidence for communicating for quality in life

CITY UNIVERSITY LONDON

Evidence for language functioning

Better overall language (higher WAB AQ scores) AND better naming (higher BNT scores) predicted better emotional (COOP Feelings) and social HRQOL (COOP Social activities)

Better overall language also predicted better Positive relations with others & Self-acceptance (0.62 & 0.35 variances)

Better spontaneous speech (WAB subtest) predicted better Personal Growth (0.29: Cruice et al., 2003)

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Evidence for language functioning

<u>Handout</u>

• According to PWA: characterised by *words*

• According to FF: characterised by words, people's names, sentences, understanding, & expressing thoughts

• According to HP: characterised by more concern for eyesight and hearing (although still minimal evidence in sample); 2 mention words & sentences

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Evidence for functional communication

Better functional communication ability (higher CADL-2 scores) predicted

better social HRQOL (higher SF-36 Social Functioning subscale, 0.25 variance; COOP Social activities),

better overall Quality of Life (COOP), and

better Personal Growth (Ryff, 0.29 variance: Cruice et al., 2003)

Higher communication disability (ASHA-FACS) predicts poor HRQOL (SAQOL-39: Hilari et al., 2003)

CITY UNIVERSITY LONDON

Evidence for functional communication

Handout

- According to PWA: characterised by speaking/ talking to people/ on phone, reading, writing, and qualifiers about speaking
- According to FF: characterised by *as above,* & speed, group conversation, interactional elements, and emotional reactions*
- According to HP: characterised by interaction, forms of communication, reading and hearing problems

CITY UNIVERSITY LONDON

Evidence for functional communication

- PWA (Zemva): difficulty speaking, reading, writing, making oneself understood
- FF (Zemva): effort in communicating
- *Social functions of communication*: sharing information (including expressing opinions and discussing ideas), maintaining and establishing relationships, and telling one's own story (Davidson et al., 2003)

CITY UNIVERSITY LONDON

Evidence for communicative participation

- Limited PWA & HP: volunteering, roles; leisure, roles
  (Nb. don't agree with Eadie et al definition)
- Possible involvement in a life situation, emphasizes involvement in society with roles, and refers to the lived experience (O'Halloran & Larkins, 2008)
- Possible parameters: level of difficulty of performance, frequency & intensity of interference (see Eadie et al., 2006), satisfaction & importance

CITY UNIVERSITY LONDON

Goals - discussion

Relationship between information gathering process, measures, goals, and therapies

(1) What goal/s are clients working towards?

(2) How are these goals derived?

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Continued

(3) Do you consciously use frameworks/ your professional knowledge base to structure or reflect on the goals set for clients with aphasia?

(4) How relevant are frameworks/knowledge base in guiding the information gathering and goal setting process?

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Example frameworks/ knowledge bases

- PALPA cognitive neuropsychological processing model
- Spon Speech, Comp, Rep, Naming
- ICF Chapter 3 Communication; other chapters of A&P; Environmental factors; Personal factors
- Functional communication: speaking, listening, reading, writing
- Byng et al (2003) Framework for therapy interventions
- Pragmatic approaches (communicative acts)…
- Cognition

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Measures for information gathering

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Measures for information gathering

- *Communication Interaction Rating Scale*
- *Informal Discourse Rating Scale*
- *Compiling an inventory of patient's residual communicative abilities*
- *Describing communicative acts and spontaneous communicative behaviour*
- *Interactive Communication Scales*
- *Pragmatic communication skills: Rating scale*

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Continued

- *Social Skills Checklist*
- *BOSS Communication Difficulty & Communication Associated Psychological Distress scales*
- *COMACT*
- *Minimal cognitive-communication competencies*
- *Lubinski questions*
- *Design own based on ICF Codes, communication activities from Davidson et al 2003, OR based on parameters from theory (next 2 slides)*

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Parameters for communication activity

- Effectiveness and efficiency of communication
- In/dependence or assistance
- Frequency of engaging in communication activity
- Duration, environment, & communication partner (Worrall et al., 2002)

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Parameters for rating communication skills

- Severity of impaired behaviours
- Presence or absence of specific behaviours
- Consistency & appropriateness of behaviours
- Inadequacy to excellence of performance
- Ratings of socially skilled conversationalist
- Ratings of competence as an interactant
- Ratings of effectiveness as an interactant
- Limitations in use of behaviours (Gillis, 1999)

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Therapy approaches & ideas

CITY UNIVERSITY LONDON

Key references/ resources

- Key resource: *Clinical guidelines*, section 5.11 on Aphasia, produced by the RCSLT (pp97-110, plus EB pp 274-337)
- Aphasia Therapy File (#1 Byng, Swinburn, & Pound; #2 Byng, Duchan, & Pound)

- Chapter 15 by Hildred Schuell on stimulation approach to rehabilitation in Chapey textbook, especially pp369-372
- *Beyond aphasia: Therapies for living with communication disability* by Pound et al 2000

Therapy types - all draw on <u>Clinical Guidelines</u>

- **Focusing on improving language functioning** - reduce disability, promote increased participation, modifying aspects of impaired language
- Single word auditory processing
- Spoken word production
- Single word reading
- Single word writing
- Sentence processing
- Includes working with the communication environment, for example, training conversation partners to simplify their spoken language to increase someone's auditory word processing (p102)
- Very high levels of research supporting these therapies; typically developed in single case studies too

University of Aveiro Workshop 14 June 2008

Continued

- **Focusing on compensatory strategies** - capitalize on communication strengths to maximize communication potential
- Assess spared linguistic and nonverbal abilities
- In real life settings
- Training to develop and refine strategies is needed
- Typically "generalization" is needed - often because therapy is never actually carried out in normal everyday communication environments

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Continued

- **Focusing on the skills of conversation partners** - work with others to develop appropriate and effective communication strategies to accommodate changed communication
- Working with family members and carers
- Working with volunteers
- Awareness (self & other), strengths and weaknesses (self & other), training
- Understanding, knowledge of techniques, and skills to use those techniques
- Focusing on **group therapy** - multiple benefits, diff types of aphasia, benefits for carers too
- Focusing on **computer therapy** - much more needed here…

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Continued

- **Focusing on participation** - supporting people and others to achieve immediate and long term life goals
- Facilitate autonomy, roles & lifestyle
- Provide information about aphasia
- Refer to sources of information & support
- Facilitate access to goods & services
- Facilitate changes in the environment
- Raise awareness on all levels by providing training & education
- Support individual's involvement in healthcare issues such as consent

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Aphasia Therapy File

- Part 1: alternative forms of output
  - Multiple language impairment, drawing, total communication
- Part 2: word retrieval therapies
  - Strategy based approach for impaired spelling, naming therapy, reading function words
- Part 3: beyond the single word therapies
  - Verb impairment, early stages, sentence production, sentence processing deficit
- 10 case examples with rationales, aims, assessment, therapy, outcomes, & supporting materials in appendices

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Examples of therapy aims/ goals

- To achieve reliable comprehension of written single words in the hope that comprehension of spoken single words would also improve
- Improve listening; improve self monitoring; improve insight into comprehension difficulties; encourage D to reduce meaningless jargon; encourage D to request repetitions
- To be able to use communication charts with written words collated in a small file to express needs and to interact with familiar others

University of Aveiro Workshop 14 June 2008

Continued

- To improve MF's ability to write down a letter from dictation
- To improve MF's ability to spell a word out loud letter by letter
- Develop familiarity with keyboard
- Develop strategy in full (stages 1 & 2 at same time on computer)
- Develop ability to use dictionary
- Apply strategies to sentence level
- Transfer strategies and tasks to computer based sentence level work to develop confidence in abilities and spontaneous strategy use

University of Aveiro Workshop 14 June 2008

Aphasia Therapy File 2

Overarching themes in aphasia therapies described:

- Therapies that enable people to understand their language change and makes changes
- Goal understanding and agreement is complex, constantly negotiated process
- Involve families and others in therapy
- Work with preserved language & communication skills as starting point
- Evaluating outcomes from POV of PWA raises complexities

University of Aveiro Workshop 14 June 2008

CITY UNIVERSITY LONDON

Continued

Overarching themes in aphasia therapies described:

- Is confidence a critical component or outcome of therapy?
- Whose role is it for therapies that encourage connecting with life?
- ++ time is needed for learning to live with aphasia
- How best do we use precious resources, and how can roles that are therapeutic be extended to others?
- Importance of identities (in this book, person with aphasia and aphasia therapist)

CITY UNIVERSITY LONDON

Continued

- Covers individual & group
- Rehabilitation and longitudinal
- Communication & identity
- Mild and more complex, including bilingual, and so on

Excellent final chapter 15 - 3 parts to therapy framework
- Part 1. Person with aphasia (facilitators, barriers, checks)
- Part 2. Description of therapy (content, process, context)
- Part 3. Rationale of therapy (relationship between the above)

CITY UNIVERSITY LONDON

Being a reflective therapist - p 276, Byng et al

- Did you indicate factors that facilitate therapy? Do you need to?

- Did you describe barriers? When doing so, did you talk about barriers outside the person, such as ones due to context or interlocutors? Should you have? Why?

- When describing your activities did you talk about how the activities were done and in what contexts?

CITY UNIVERSITY LONDON

Continued

- Which of the barriers and facilitators served as a rationale for designing your activities?

- Which facilitators and barriers did not apply to your decisions and why?

- Did you describe how the person with aphasia was involved in determining the development of therapy? Could you have done more to involve him or her? Would this have been a good idea?

CITY UNIVERSITY LONDON

Continued

- What outside influences affected your choices of factors to include in your description and your choices of therapy activities? For example, did you consider evidence based research, ease of tracking data and evaluating progress, methods promoted by a mentor or your place of work?

- Other?

CITY UNIVERSITY LONDON

Therapies for living with aphasia

- Enhancing communication
- Identifying and dismantling barriers to social participation
- Adaptation of identity
- Promoting a healthy psychological state
- Promoting autonomy and choice
- Health promotion/ illness prevention

At the levels of the Individual/ immediate social context/ communities/ society & citizenship

(pp 19-28 *Beyond aphasia* textbook)

Personal examples

- Script generation & practice
- Conversational scripting (weekend events) combined with who, what, where story structure approach
- Video letter to London
- Public transport project
- Semantic maps (written word fluency)
- Supporting people to write newsletter bulletins
- Writing letters & Christmas cards to family
- High level tasks in nursing scenarios

University of Aveiro Workshop 14 June 2008

Summary of day

- Substantial evidence for focusing on functional communication in quality of life with aphasia
- Relationship between information gathering & goal setting
- Range of informal measures spanning several areas
- Therapy approaches - need to consider what, how and who

University of Aveiro Workshop 14 June 2008