# Lingraphica Case Studies Clinical Examples of Successful AAC Use

#### Slide 2



#### Slide 3

#### **Financial Disclosures**

Anna Reeve and Teresa Thompson are full time employees of Lingraphica and thereby receive financial compensation from the Lingraphica Company.

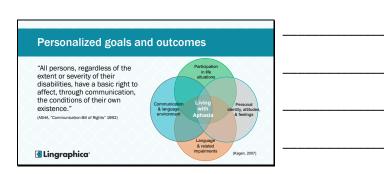
Clido 1		
Slide 4	Learning Objectives	
	Discuss candidacy for a Lingraphica AAC device Describe how patient and family goals influence AAC development State functional examples of daily use of a high tech AAC device in various clinical populations of AAC users	
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Slide 5		
Silue 5	Agenda	
	Lingraphica device overview     Personalized goals and outcome planning	
	Individual case studies     Components of success with AAC     Review	
	• Questions	
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Slide 6		
	Lingraphica Device Overview	
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#### Slide 8

Personalized Goals and Outcome Planning

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Slide 10		
	Individual Case Studies	
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Slide 11		
	Case Study 1: Michelle	
	<b>∄</b> Lingraphica <sup>*</sup>	
Slide 12	Case Study: Michelle	
	Background Info: 39-year-old female S/p acute L MCA CVA Seizure disorder, migraines Mod-severe expressive aphasia, mild receptive aphasia, mild recep	
	Personal Info: Daycare owner/director Lives with fiancé and two sons  Lingraphica*	

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#### **Strengths and Barriers**

- Strengths
   Support system
   Motivation
   Use of letter board
   Tech savvy
- Barriers
- Hospitalization, medical complications
   Reduced reading comprehension at the paragraph level



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#### Slide 14

#### **Patient Goals**

- Text, email parents and staff
- · Interview new staff
- · Advocate for business
- Apply for grant
- Provide daycare lessons through scripting
   Improve receptive and expressive language skills



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#### Slide 15

#### **Device Trial**

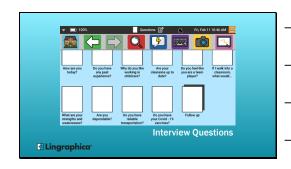
- Prolonged due to insurance coverage
   Sons or fiancé attended all sessions

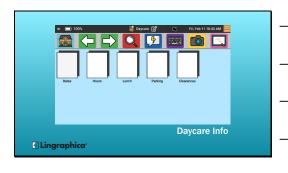
- Sons or flance attended all sessions
   Trained family during sessions
   Patient able to complete basic programming
   Programmed family names, medications, interview questions, and scripts for staff meetings
   Functional goals with role playing interviews
   Completed training on therapy activities folder

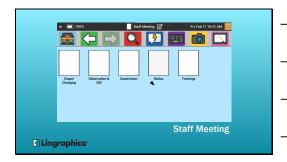




#### Slide 17







#### Slide 20

#### **Outcomes**

- Conducted interviews and hired new staff
- Obtained a grant and received a van for her students
   Communicated to staff and parents on daycare application
- Provided medical updates to doctors
- Accessed therapy exercises using device and completed at home independently





#### Slide 21

Case Study 2: Janet

# Slide 22 Case Study: Janet **₫ Lingraphica** Slide 23 **Strengths and Barriers** Strengths Writing Supportive partner Motivation Tech savvy Barriers Receptive deficits Apraxia Frustration **₫** Lingraphica<sup>®</sup> Slide 24 Patient/Family Goals Increase meaningful interactions with significant other, grown daughter and granddaughter Use device to give commands to dog Improve verbal speech

#### **Device Trial**

- Initial reluctance from significant other
- Initial reluctance from significant other
  Patient able to program icons and pages
  First session began programming in commands for dog
  Programmed in family member names, eventually expanded to pages
  High level of independence with customizing, however easily frustrated
  Trained on therapy activities page
  Mouth position videos as part of HEP





#### Slide 26





Slide 28	Outcomes	
	Improved yes/no validity Completed therapy activities independently Conversation initiation Speech improvements Gave commands to her dog with device Used device to communicate with medical staff in ICU	
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Slide 29		
Siluc 23		
	Case Study 3: Margaret	
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Slide 30		
	Case Study: Margaret	
	Background Info 57-year-old female s/p stroke Baseline CP and dysarthria Wheelchair bound Hemiplegia of dominant side	
	Personal Info Lives with her son Has consistent paid caregiver SLP described home life as "difficult"	
	<b>₫</b> Lingraphica <sup>*</sup>	

#### **Strengths and Barriers**

- Strengths:
   Familiar communication partners
   Some verbalizations
   Motivation for improved independence
   Good response to education on device

- Good response to education on device
   Barriers
   Initial reluctance to AAC
   Difficult home life
   Transient communication partners/people in home
   Requires operational assistance with device
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#### Slide 32

#### Patient/Caregiver Goals

- Order take out from Chinese food store
- Pay bills with credit card over the phone
- Order supplies needed from DME company



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#### **Device Trial**

- Initial reluctance from patient and family Limited use for first few weeks
- Functional goals with role playing over phone
- CG education with primary aid
   Flexible stylus
- W/C Mount for easier access





#### Slide 35



#### Slide 36

#### **Outcomes**

- Met functional goals
   Independent with use of device for trained phone activities
   Continued use for unfamiliar communication partners
   Reduced frustration and repetition
   Pt/family acceptance of device



Slide 37		
	Case Study 4: Ajay	
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Slide 38		
Silue 38	Case Study: Ajay	
	Background Info:	
	Personal Info:     Lives with wife     Grown, involved son	
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Slide 39	Strengths and Barriers	
	Strengths:     Strong family support	
	Customization and message banking     Barriers:     Poor awareness of breakdowns and errors     Memory decline	
	(All in manability)	
	<b>③</b> Lingraphica <sup>a</sup>	
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#### Patient/Family Goals

- Recall family names, grandchildren
- Increase communication

- Reduce errors
   Slow the progression of language loss
   Simple to use device with icons in English and primary language



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#### **Device Trial**

- Son and wife attended all sessions
- Customized pages for all daily activities
   Family photos with names labeled
   Voice banking in primary language

- Food preferences and requests
- CG training to assist with initiation, gentle cueing
   Introduced other apps and high tech
   AAC device options



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## Slide 43 **Outcomes** Reduced communication breakdowns Multimodal stimulation on communication device Improved recall of family members, grandchildren names Visual & written memory aids Personal agency **₫ Lingraphica** Slide 44 Case Study 5: Julie **₫** Lingraphica<sup>®</sup> Slide 45 Case Study: Julie Background Info: Adult female Autism & Developmental Delay Dysarthria Some ASL; poor speech intelligibility Previous speech therapy; limited functional change Personal Info: Previously living with her aging mother Group home environment d/t increased care needs **₫** Lingraphica<sup>,</sup>

#### **Strengths and Barriers**

- Strengths
   Supportive, motivated mother
   Receptive language skills
   Interested in high tech device
- Barriers

  - Limited interest in low tech AAC
     Pragmatic deficits
     Combative behaviors secondary to communication, pain, medical issues



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#### Patient/Family Goals

- Direct care
- Self advocacy
- Decrease frustration and combative behavior
- Simple to use communication aid for novel communication partners



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#### **Device Trial**

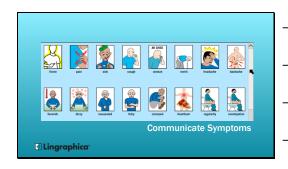
- Mother attended all sessions
   Trained group home staff during her visits
   Pt appeared engaged
- Benefited from immediate cause/effect
- Good comprehension and recall for navigation
   High turnover in group home, requiring intermittent retraining



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#### Slide 51

#### **Outcomes**

- Improved communication with novel communication partners
- Improved independence when Mom was not present
   Able to clearly communicate pain and medical issues
   Potentially reduced medical complications and behaviors
   Request to activities of interest



Slide 52		
	Case Study 6: Rose	
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Slide 53	Case Study: Rose	
	Background Info: 42 y/o female s/p stroke Down syndrome Recent onset seizure disorder Previously able to read, write communicate at college level	
	Limited verbal stereotypical responses Poor speech intelligibility  Lingraphica*	
Slide 54	Strengths and Barriers	
	Strengths Consistent and caring paid caregivers Supportive mother Interested in music and theater Barriers Endurance Fatigue with daily seizures Apraxia and significant cognitive deficits	
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#### Patient/Family Goals

- Communicate medical needs to caregivers
- Improve verbal speech, reading
- Improve quality of life
- Increase participation



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#### Slide 56

#### **Device Trial**

- Prolonged due to
  Medical complications
  Rehospitalizations
  Fluctuating alertness
  Linguistic and cognitive stimulation
  Multimodal language activities

  Technical Complete State Complete St
- Family and caregiver education



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#### Slide 59

#### Outcomes

- Improved yes/no validity
- Requesting and respected breaks from activity
- Improved family/caregiver awareness
- Access videos and music
- Communicate pain, discomfort, urinary and bowel needs



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#### Slide 60

**Components of Success with AAC** 

Slide 61	Components of success with AAC
	Patient centered goals and decision making Flexibility and highlighting patient strengths Customization Functional problem solving of CURRENT daily issues Partner and caregiver buy-in was crucial Aim for meaningful, real-life outcomes Ongoing development as user needs change
Slide 62	Conclusion
	Lingraphica device overview Personalized goals and outcome planning Individual case studies Components of success with AAC



#### **Next Steps**

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- Visit lingraphica.com to:
   Start a device trial
   Learn more: AAC Goal Setting 101
- Get hands on!
- Schedule a live device demo
   We will provide a loaner AAC device

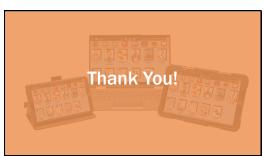


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## Questions & Answers

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#### References

- Brady, N. C., Bruce, S., Goldman, A., Erickson, K., Mineo, B., Ogletree, B. T., Paul, D., Romski, M. Sevcik, R., Siegel, E., Schoonover, J., Snell, M., Sylvester, L., & Wilkinson, K. (2016).
   Communication services and supports for individuals with severe disabilities: Guidance for assessment and intervention. American Journal on Intellectual and Developmental Disabilities, 121(2), 121–138.
- Chapey, R., Duchan, J., Elman, R., Garcia, L., Kagan, A., Lyon, J., and Simmons Mackie, N. (2001 Life Participation Approach to Aphasia: A Statement of Values for the Future. ASHA Leader. https://doi.org/10.1044/journal.2009.00.00.
- Kagan, Aura & Simmons-Mackie, Nina & Rowland, Alexandra & Huijbregts, Maria & Shumway, Elyse & Mcewen, Sara & Threats, Travis & Sharp, Shelley. (2007). Counting what counts: A framework for capturing real-life outcomes of aphasia intervention. Aphasiology. 22. 258-280. 10.1080/02687030701282595.
