

# Assessing the Health Literacy Environment in a Pediatric Clinic

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# Pediatric Diabetes Clinic

- Large, urban, academic center
- 70 clinicians: MDs, RNs, NPs, RDs, CDEs, SW
- Provide care to 2300 children with diabetes



# Pediatric Diabetes Care

- Parents are primary learners of care
- Older children and adolescents learn care too
- 1 in 4 parents with low health literacy
- A lot to learn and do for diabetes care
  - BG monitoring
  - Meal planning
  - Insulin dose adjustment
  - Exercise management
  - Ketone management
  - Pump management
  - Insurance coverage

# Diabetes Education Team

- Multidisciplinary
- ADA diabetes education recognition program
- CQI= Health Literacy efforts
  - Print materials
  - Develop HL expertise of team
  - Pfizer grant- Janet Ohene-Frempong consultant
- Shift in concept of health literacy
  - Individual capacity → fn of indiv capacity x health care system demands
- Health Literate Organization

# Latest CQI cycle

	Instrument	Sample Frame
<b>Suitability</b>	SAM	Random 5/137 PEMS
<b>Readability</b>	Fry formula Flesch-Kincaid	
<b>Provider communication</b>	AMA HL/Communication Tool	Emailed to 70 clinicians; reminder email day 7, survey open 21 days. 39 completed (56% response rate)
<b>Ease of patient navigation</b>	Navigation rating scale (Rudd & Anderson, 2006)	Walk thru assessment from main entrance to clinic room

# Grade Level and Suitability Assessment

<b>Title</b>	<b>FRY grade</b>	<b>Flesch- Kincaid grade</b>	<b>Suitability</b>
Meal Planning for T1DM Basal/Bolus Insulin	9	4.8	59% ADEQUATE
Infusion Site Care	5	6.2	71.8% SUPERIOR
Advanced Home Mgmt: Basal/Bolus Insulin	7	6.8	90% SUPERIOR
The Emotional Side of Diabetes	6	4.1	71% SUPERIOR
Ketone/Sick Day Rules, Basal/Bolus Insulin	7	5.7	56% ADEQUATE

# Rank Order of Communication Techniques Routinely Used

	Routine Use n(%)	MD n=8	Fellows n=7	RN n=11	CDE n=9	Staff n=4
Using simple language	36 (92.3)	100.0	100.0	100.0	100.0	25.0
Handing out printed material	33 (84.6)	62.5	100.0	90.9	100.0	50.0
Reading aloud instructions	25 (64.1)	62.5	100.0	90.9	100.0	50.0
Underlining key points in handouts	24 (61.5)	50.0	57.1	81.8	66.7	25.0
Writing out instructions	23 (59.0)	37.5	100.0	63.6	66.7	25.0
Ask how follow instructions at home	22 (56.4)	50.0	0.0	63.6	44.4	25.0
Presenting 2 or 3 concepts at a time	20 (51.3)	50.0	71.4	45.5	66.7	25.0
Speaking more slowly	19 (48.7)	50.0	71.4	54.5	66.7	0.0
Asking if a family member included	16 (41.0)	62.5	28.6	81.8	66.7	0.0
Teach Back	15 (38.5)	12.5	42.9	63.6	44.4	75.0
Follow up with a telephone call	12 (30.8)	12.5	0.0	45.5	66.7	25.0
Using models to explain	10 (25.6)	37.5	0.0	9.1	77.8	0.0
Drawing pictures	9 (23.1)	50.0	14.3	18.2	44.4	0.0
Follow up to review instructions	6 (15.4)	0.0	0.0	27.3	11.1	50.0

# Navigation Rating

- 1= This is something that is not done
- 2= This is done, but needs some improvements
- 3= This is done well

TELEPHONE SYSTEM	1	2	3
When a phone call is answered, there is an option to hear information in a language other than English	X		
If there is an automated phone system, there is an option to speak with an operator or help desk	X		
If there is an automated phone system, there is an option to repeat menu items	X		
Information is offered (by person or automated phone system) with plain, every day words			X

# Navigation Rating

ENTRANCE	1	2	3
The healthcare facility's name is clearly displayed on the outside of the building		X	
All entry signs are visible from the street		X	
The signs use plain, everyday words such as "Walk-In" rather than formal words such as "Ambulatory Care".		X	

LOBBY	1	2	3
There is a map in the lobby	X		
The map includes a key	X		
The map shows the present location with a "you are here" and/or a star or symbol			X
There is a welcome or information desk	X		
A sign indicates the welcome or information desk	X		

HALLWAYS: NAVIGATION EASE	1	2	3
Maps are posted at various locations around the facility	X		
Words used for locations on signs throughout the facility remain consistent			X
Consistent symbols/graphics are used on signs throughout the facility			X
Overhead signs use large, clearly visible lettering		X	
Wall (eye level) signs use large, clearly visible lettering		X	
Signs are written in English and Spanish	X		
Color codes are used consistently on the walls or floors throughout the facility to mark paths to and from various sections of the facility	X		

# Navigation Rating

STAFF ASSISTANCE	1	2	3
Staff or volunteers are available at or near the main entrance to help visitors			X
Multilingual staff or volunteers are available at or near the main entrance to help visitor		X	
Staff or volunteers are present at the welcome or information desk			X
Multilingual staff or volunteers are available at the welcome or information desk		X	
Staff or volunteers wear identification such as a button, uniform, or nametag			X
SERVICE AND SPECIALTY AREAS	1	2	3
The name of the service area is clearly posted			X
Sign-In procedures are clearly indicated			X
Staff offer help for completing any needed paperwork		X	
Materials provided to patients have been assessed for their reading grade level (8 <sup>th</sup> grade or below)			X
Materials provided to patients are written in the primary languages of the populations being served	X		

# Opportunities for Improvement

- PEMS
  - Readability down to 5<sup>th</sup> grade
  - Use Fry Formula
  - Use CDC Simply Put guide
- AHRQ HL Toolkit Communicate Clearly
  - Communication assessments
  - Journal clubs
  - In-house training
- Recommend to hospital administration
  - Increase signage; Add other languages
  - Wall and handheld maps
  - Improve phone system

# Continuous Quality Improvement and Health Literacy

- Iterative process
- Action plan
- Busy clinician in a busy practice
- Changing demands on clinicians → metrics, less program time



# References

- Doak, C. C., Doak, L. G., & Root, J. H. (1996). Teaching patients with low literacy skills. *AJN the American Journal of Nursing*, 96(12), 16M.
- Schwartzberg, J. G., Cowett, A., VanGeest, J., & Wolf, M. S. (2007). Communication techniques for patients with low health literacy: A survey of physicians, nurses, and pharmacists. *American Journal of Health Behavior*, 31 Suppl 1, S96-104. doi:10.5555/ajhb.2007.31.suppl.S96
- Rudd, R.E. and Anderson, J.E.(2006). The health literacy environment of hospitals and health centers. National Center for the Study of Adult Learning and Literacy. Downloaded from:  
<http://files.eric.ed.gov/fulltext/ED508596.pdf>