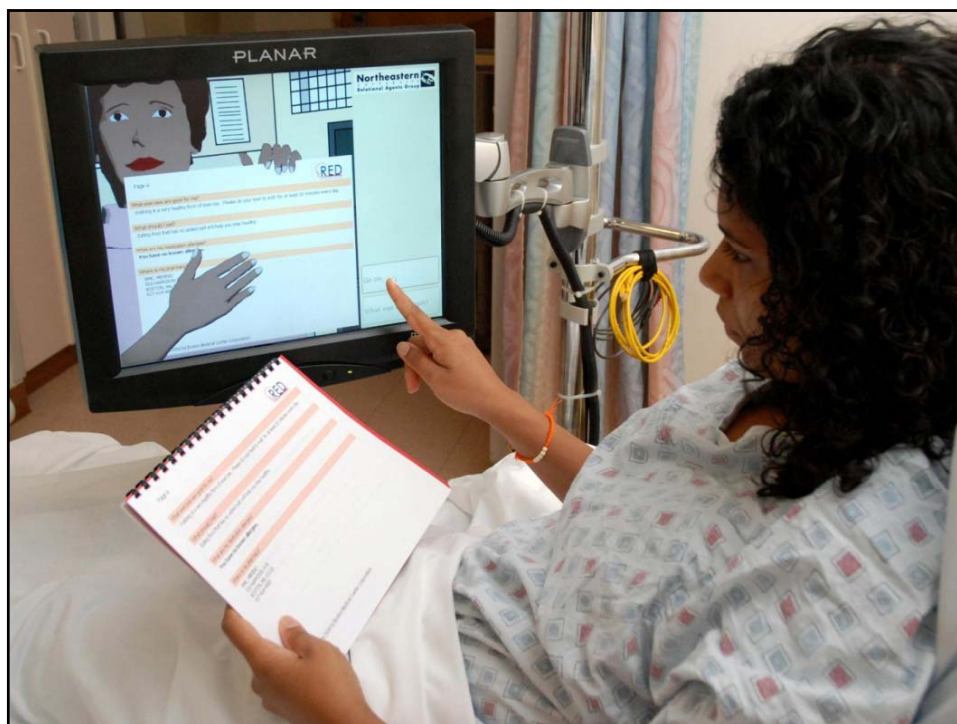


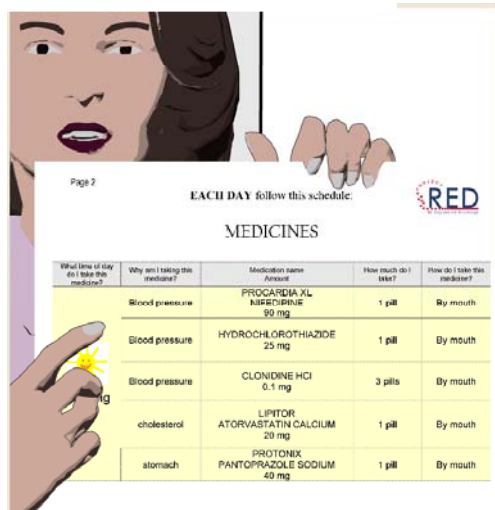
Addressing Health Literacy with Relational Agents

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Advantages



Page 2

EACH DAY follow this schedule.

RED

What time of day do I take the medicine?	Why am I taking this medicine?	Medication name Amount	How much do I take?	How do I take this medicine?
	Blood pressure	PROCARDIA XL Nifedipine 90 mg	1 pill	By mouth
	Blood pressure	HYDROCHLOROTHIAZIDE 25 mg	1 pill	By mouth
	Blood pressure	CLONIDINE HCl 0.1 mg	3 pills	By mouth
	cholesterol	LIPITOR ATORVASTATIN CALCIUM 20 mg	1 pill	By mouth
	stomach	PRITONEX PANTOPRAZOLE SODIUM 40 mg	1 pill	By mouth

- Approachability
- Relationship
- Health Literacy

Models of Gesture Stroke

New Topic Level	Gesture		
	NONE	POINT	REGION
No Change	80.8%	13.1%	6.1%
PAGE	63.6%	13.6%	22.8%
SECTION	48.3%	32.8%	18.9%
ITEM	31.2%	65.9%	3.9%

The image is a composite. On the left, a woman with dark hair and purple lipstick is shown from the chest up, wearing a purple shirt. Her right hand is raised, with her index finger pointing towards a document on the right. The document is titled 'Human Genetic Cell Repository' and 'INFORMED CONSENT FORM'. It contains several paragraphs of text, some of which are highlighted in yellow. The document is partially obscured by the woman's hand and the edge of the frame.



Page 1

**** Bring this Plan to ALL Appointments ****

BOSTON MEDICAL CENTER

RED

After Hospital Care Plan

Discharge Date: 10/23/2007

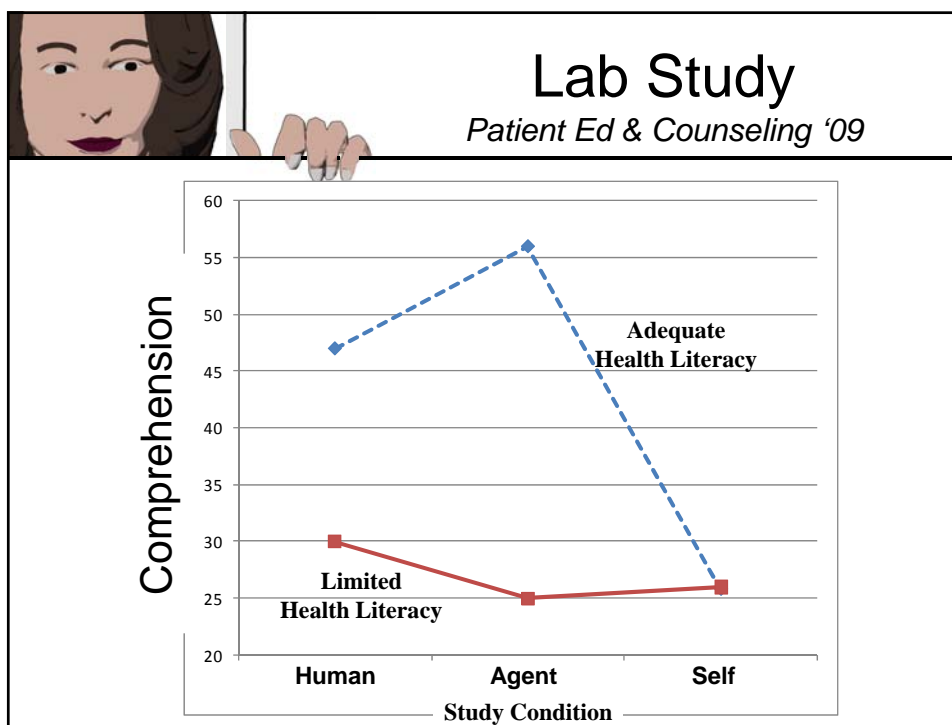
For more information about this Packet? Call your Ann Lindsey: (617) 414-6822


For your health problem? Call Dr. Brian Jack: (617) 414-2080

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OK

Excuse me?






Lab Study: Satisfaction



- ALL Most satisfied with Agent ($p < .05$)
- ALL Most likely to sign with Agent ($p < .05$)

“For me, you know, when it’s on the computer I can do it five times over if I want to. I can just hit repeat, wait I didn’t understand it, I can just repeat it again. You know, but I wouldn’t do that with you [a human] because if I didn’t understand it I might ask you one time to repeat it, and if I still didn’t understand it I wouldn’t ask you to repeat it. Because I wouldn’t want to seem stupid.”

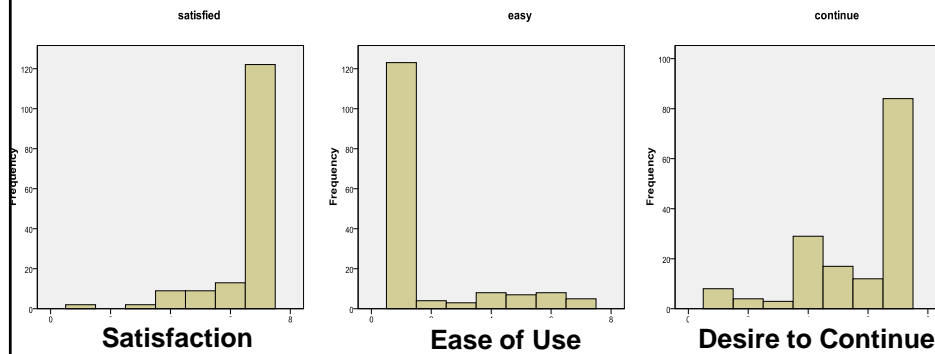


Clinical Trials Underway

- Virtual Hospital Discharge Nurse
 - NHLBI, N=750, HL-stratified
- Walking Promotion for Geriatrics Patients
 - NIA, N=264, HL-stratified

Hospital Discharge Clinical Trial Results (N=157)



Patients with limited health literacy

- Had higher working alliance with agent ($p < .05$).
- Asked significantly more questions ($p < .05$).



Research Agenda

- Automated Document Explanation
 - Gisting/Summarization/Translation
 - Association of concepts & FAQs with text
 - ITS & other media for teaching concepts
- Automated Assessment of Patient Understanding
 - Better emulation of “teach back”
 - Nonverbal “grounding” behavior
- Author Support
 - Structured document templates
- Automated Assessment of Health Literacy

Conclusion

- Automating explanations of medical text to patients with limited health literacy should be based on the best role models we have... people!

