Cultural Health Beliefs and Practices that Shape Health Literacy and Chronic Illness Outcomes in Four Populations: Preliminary Findings

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Background

- NCI-funded 4 year project "The Impact of Culture on Health Literacy and Chronic Illness Outcomes"
- To explore cultural factors associated with health literacy and health outcomes
- Place health literacy in a broader context of socioeconomic and cultural differences between patients and providers

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What is Health Literacy?

1. Working Definition: The ability to understand and act on a doctor/health provider's instructions

2. Traditional Definitions: Related to and determined by patient literacy; often a marker for patient's educational level and a proxy of patient's SES

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How does culture influence health literacy?

- Cultural health beliefs and practices influence patient/provider perceptions of:
  - Causes of illness
  - Appropriate treatments
  - Compliance/adherence practices
  - Self-care and disease prevention
  - How the body and mind work
  - Symptoms
  - Appropriate doctor/patient conduct and communication

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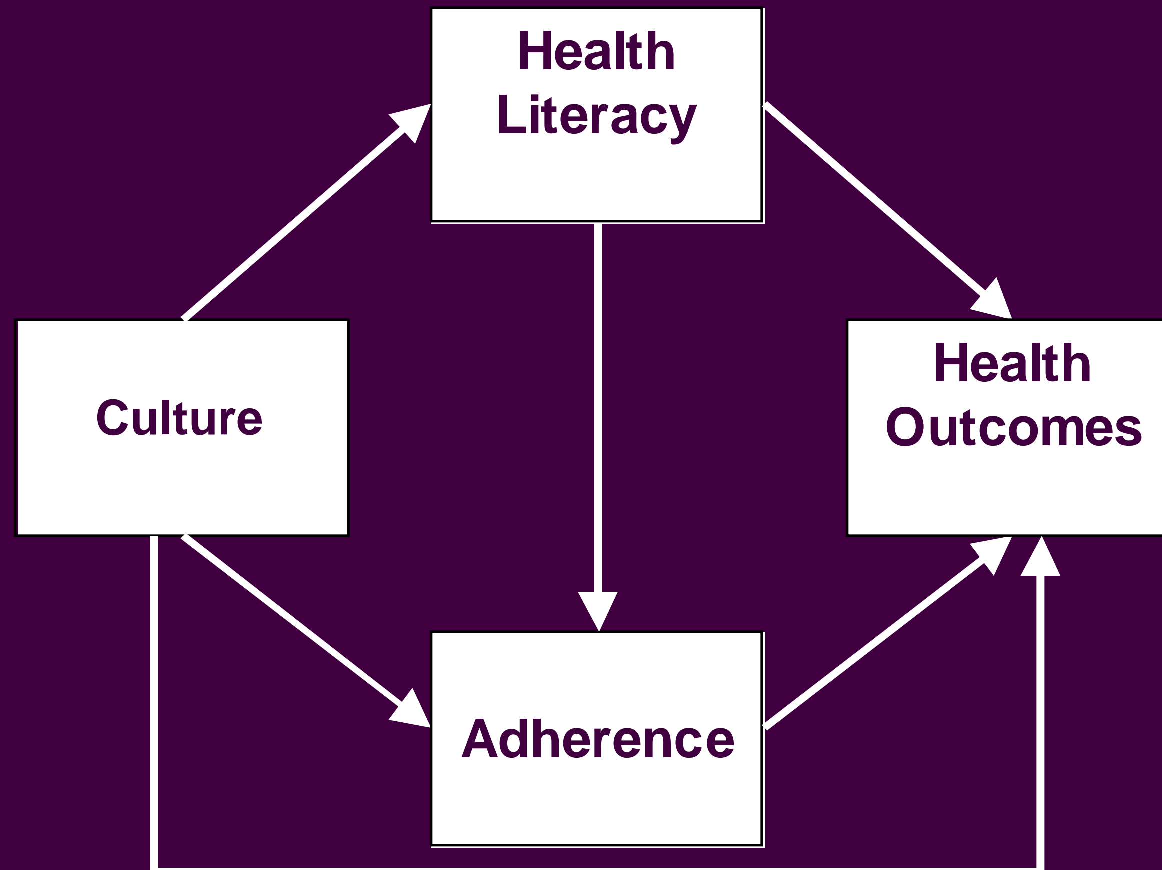
Theoretical Model



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Study Site: Caring Health Center, Springfield, MA

- Section 330 federally qualified health center
- Main Street & Forest Park
- Medically Underserved Area
- CHC serves low to no income, uninsured or underinsured, immigrants and ethnic minority groups

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Community Served

- 70% non-White
  - 49% Latino
  - 15% African American/Black
  - 6% Asian/Pacific Islander
- Increasing numbers of refugees from Somalia, Sudan, Liberia, Turkey, the former Soviet Union and Eastern Europe
- Many face cultural and linguistic barriers to accessing health care

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Community Served: Pilot Study "Closing the Gap"

African American and Latino CHC patients with diabetes (N=122)

- 89% Puerto Rican (Latino participants: n=77)
- 55% speak Spanish at home
- 89% have not completed high school
- 64% unemployed
- 89% rate their health as fair to poor
- 54% describe themselves as disabled

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Community Served: Pilot Study "Closing the Gap"

- 53% 1 to 3 days and 32% up to 6 days of high blood sugar in last month
- 95% test blood sugar
- 57% keep a record of results
- 60% share results with their doctor
- 18% told by doctor that diabetes had affected their eyes or that they have retinopathy

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Community Served: Pilot Study "Closing the Gap"

- Diabetes Knowledge: Participants scored fairly low
  - 81.7% could not name the food that was highest in carbohydrates of 4 choices
  - 72% thought Hemoglobin A1C measured average blood glucose over last 6 months
  - 90% thought unsweetened fruit juice had no effect on blood sugar
  - 83% thought best way to care for feet was to buy shoes a size larger than usual

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Methods

- Multi-method design combining qualitative and quantitative approaches to data collection
  - Epidemiological Survey (Baseline, 18 months)
  - Medical Chart Abstraction (Baseline, 12, 24 months)
  - Formative focus groups, In-depth interviews, Chronic Disease Diaries, Home Observations
- Triangulation of qualitative data with survey data and chart abstraction data to identify cultural factors associated with low health literacy and poor adherence

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Overall Design: (N = 400)

	White	African - American	Latino	Vietnamese
Diabetes	(n=50)	(n=50)	(n=50)	(n=50)
Hypertension	(n=50)	(n=50)	(n=50)	(n=50)

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Core Variables in the Study:

- Culture/ Ethnicity
- Chronic Disease (Diabetes/Hypertension)
- Health Literacy
- Adherence
- Health Outcomes
- Cancer Screening Utilization

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Survey Design: Process

- One seamless survey
- Consulted with health care providers
- Piloted survey with staff
- Formative focus groups with each ethnic group
- Implemented focus group results
- Piloted with English-speaking patients from four ethnic groups
- Professionally translated into Spanish and Vietnamese

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Survey Design: Challenges

- TOFHLA Numeracy:
  - Prescription bottle labels translated into each language. Scores need to be interpreted with caution because prescription labels are often only printed in English
- REALM:
  - Replaced TOFHLA reading comprehension with REALM. “Test” format of not suitable for patient population.
- SAHLSA:
  - Replaced REALM in Spanish survey with the Short Assessment of Health Literacy in Adults (SAHLSA)
- For Vietnamese survey, currently exploring, researching, consulting to figure out how best to measure health literacy

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Test of Functional Health Literacy in Adults (TOFHLA Numeracy)

GARFIELD IM 16 Apr 93
FF941858 Dr. LUBIN,MICHAEL

PENICILLIN VK
250MG 40/0
Take one tablet by mouth four times a day

If you take your first tablet at 7:00 a.m., when should you take your next one?

1 Correct
0 Incorrect

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Rapid Estimate of Adult Literacy in Medicine (REALM)

List 1-3 Sample:

List 1	**List 2**	List 3
Fat	Prescription	Diagnosis
Flu	Notify	Potassium
Pill	Gallbladder	Anemia
Dose	Calories	Obesity
Eye	Depression	Osteoporosis
Stress	Miscarriage	Impetigo

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Short Assessment of Health Literacy in Spanish-speaking Adults (SAHLSA)

próstata

Glándula   circulación

ictericia

amarillo   blanco

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Qualitative Data Collection:

- ✓ 1. Formative Focus groups
- ✓ 2. In-depth Interviews
- 3. Chronic Disease Daily Diaries
- 4. Home Observations (Food shopping, meal preparation, access to safe space for physical activity)

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Latino Focus Group:

- **Home remedies:**
  - Black coffee for eye infection, coffee grinds wrapped in a bandana for a headache, potato peels on the bottom of feet for fever
  - Savila, hoja de tomate, ajo, parcha, yerba bruja
  - Now easier to access doctor and rely on medical treatment than to grow, access, and use home remedies of Puerto Rico

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Latino Focus Group:

- **Diet/Nutrition:** "Hay que comer la comida!" Economically, it is difficult to cook separate meals for family members.
  - **Fast food defined**: Time it takes to cook thoroughly, time it takes to eat completely, where it is eaten, what it is eaten in combination with, and how long it has been sitting out
- **Physical Activity:** Stretches in the bed and/or against the wall; yoga ball while watching T.V.; walking with children in the park, caring for small children/grandchildren

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African American Focus Group:

- **Diet/Adherence**: Reason for noncompliance with recommended diet is because food is not good. Eat what you are served. Family (wife) tends to give large portion.
- **Mindfulness**: Pay a lot of attention to the body and how it feels. If something feels wrong, take a couple of days to observe it. If not resolved, go to the doctor. Notices changes in the body when does not take medication. Body lets him know that he should be taking the pills.
- **Social Support**: Important to consult with wife, pastor, friends, and family about health

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Vietnamese Focus Group:

- **Acculturation**: Acculturation and impact on adherence and use of home remedies; traditional healing versus seeing the doctor, "join them" attitude.
  - **Home Remedies**: Receive things from Vietnam from family members. Choose to follow doctors orders rather than use home remedies.
- **Diet/Nutrition**: Has different impact on health in Vietnam versus in U.S. Sedentary lifestyle/environmental factors impact daily physical activity. Diet becomes more significant factor in health in the absence of enough movement.

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Vietnamese Focus Group:

- **Physical Activity**: Walking in neighborhood and Forest park; Combine physical activity with religion (e.g. sweep and pray); listening to doctor and taking medications is not enough, have to also do physical activity.

- **Mindfulness:** Body reacts to what is in the mind. Stressful thoughts present as neck pain or rise in blood pressure. Main reason for not feeling well, usually, is in the mind—stress. Need to sing, listen to music, garden, dance, laugh, to distress.

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Barriers to Care

- Transportation
- Health Insurance
- Lack of social support system (particularly regarding chronic illness)
- Depression
- Lack of information
- Childcare
- Poverty
- Homelessness
- Language Barrier

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Preliminary Recommendations: Health literacy research with low-income/ ethnic minority populations

- Stigma associated with (il)literacy makes rapport even more essential
- CBPR ensures greater acceptability of instrument to diverse participant groups
- Qualitative methods collect linguistically & culturally relevant concepts & terms

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Preliminary Recommendations: Health care providers caring for diverse, low literate populations

- **<u>Express</u>** respect for patients' health practices and beliefs
- Explore reasons for non-adherence
- Recognize diverse health beliefs as a critical aspect of health *literacy* (e.g., What is fast food?)
- Provide education materials (videos & handouts) for lower literacy (to include visuals/images)
- Practice **<u>active listening</u>**: Check back in w/ patient re: patient's understanding of instructions
- Ensure availability of trained medical interpreters

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