

Examining the Impact of Medication Beliefs on Medication Adherence Among Uncontrolled Hypertensive Patients

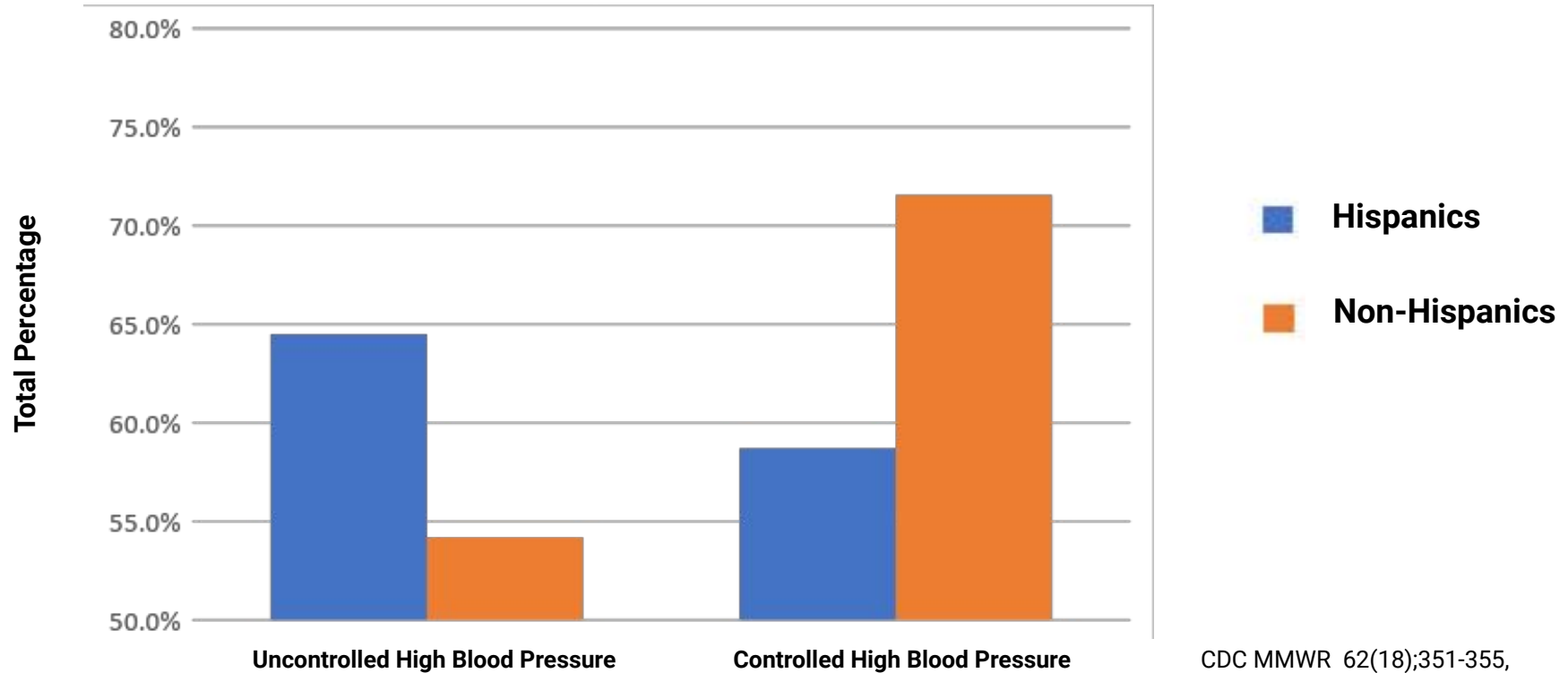
Justin Cha, Jacqueline Macias-Sandoval

Elizabeth Ordoñez, Michael Xu, Alexis Pellecer, Alejandra Villagomez, Helena Stevenson, Erick Deloera, Mimi Lam, Cristabel Nunez, Alexandra Garcia, Abhiruchi Chaulagain

Advisor: Dr. John Billimek



Hypertension in Hispanics



Medication Nonadherence

Medication Nonadherence

Over 50% of patients don't adhere to their medications



<https://screening.mentalhealthamerica.net/content/i-think-my-medication-making-me-feel-worse>

Hospitalizations

Responsible for 69% of hospitalizations and 125,000 deaths annually



<https://www.123rf.com/clipart-vector/hospitalized.html?sti=mtfpu8mswg4mk8ujxcj>

Costs

An estimated \$100–290 billion in preventable costs in the U.S.

Gellad et al. 2007.



https://www.123rf.com/clipart-vector/sell_income_expenses.html

Research Question

Do patients with **negative beliefs about medications report higher rates of nonadherence than patients with **positive beliefs**?**

Methodology

<https://cognigen-cellular.com/explore/telephone-clipart-yellow-telephone/>



Recruit participants from two sites

1. UCI Health Family Health Center- Santa Ana
2. UCI Health Gottschalk Medical Plaza



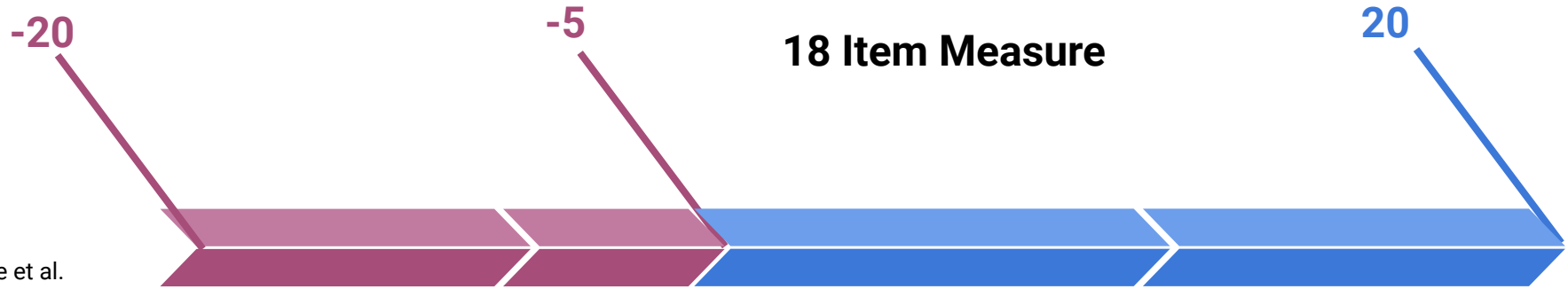
<http://clipart-library.com/ipad-cliparts.html>



Administer Questionnaire to assess:

1. Positive/Negative beliefs about medications
2. Medication nonadherence

Beliefs About Medicines Questionnaire (BMQ)



Negative Beliefs

- $BMQ \leq -5$
- Fears of dependence
- Concerns about long term benefits
- Feelings of overprescription
- Preference towards natural remedies

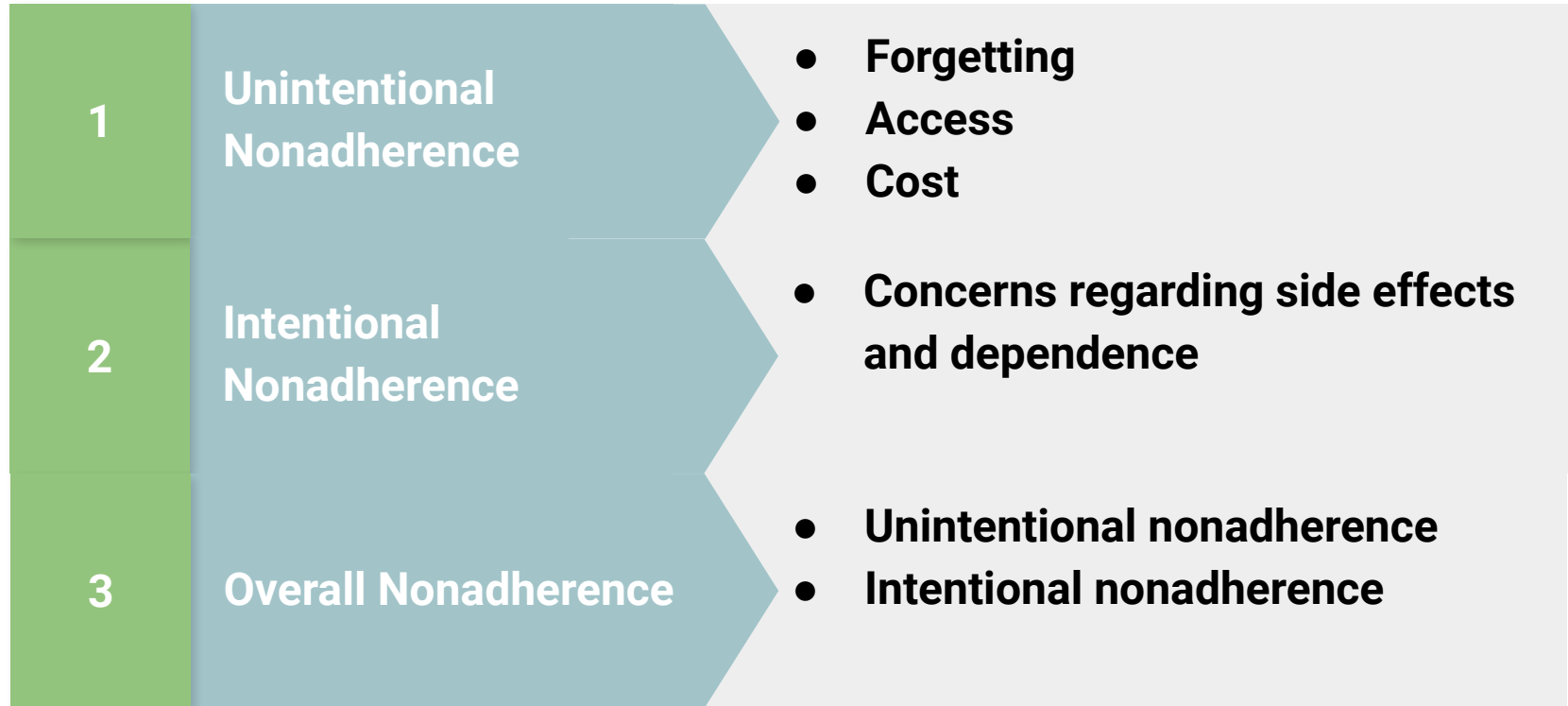
Positive Beliefs

- $BMQ > -5$
- Medicines improve one's health
- Prevent further illness

Safran Adherence Measure

Safran, et al.
2005.

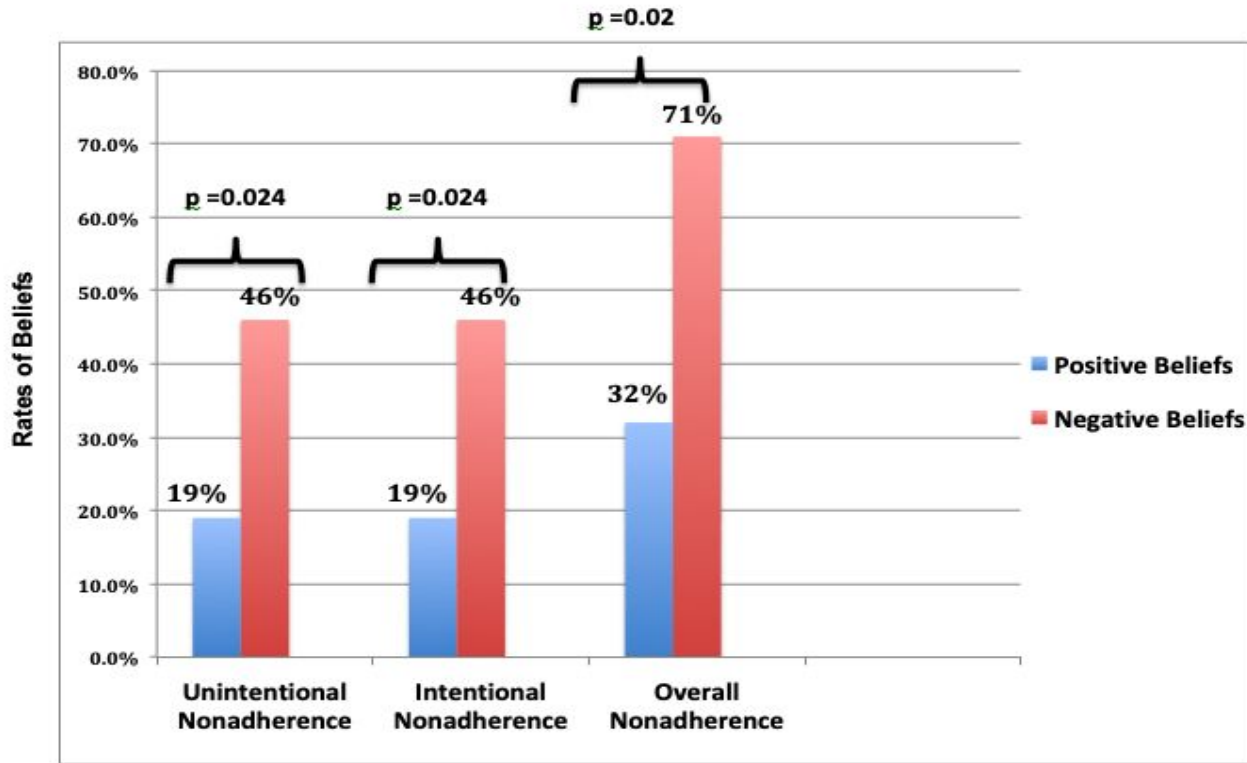
**11 Item
Measure**



Patient Demographic

Characteristic	Positive belief group (n=31)	Negative belief group (n=41)	p-value
Gender, N (%) female	26 (83.9%)	29(70.7%)	0.27
Age, mean (SD)	62.6 (10.9%)	57.9 (14.3%)	0.13
Hispanic origin, N (%)	27 (87.1%)	31 (77.5%)	0.37
Ethnicity, N (%)			0.26
Mexican-American	21 (77.8%)	23 (76.7%)	
Central-American	2 (7.4%)	5 (16.7%)	
Other	4 (14.8%)	1 (3.3%)	
Language, No. (%) Spanish	16 (59.3%)	18 (58.1%)	0.39

Medication Beliefs and Nonadherence



Calculated
using Fisher's
exact test

Unintentional Nonadherence

Variable	% of Unintentional Nonadherence	p-value
1 I forget to take my medication at least some of the time	52%	0.260
2 Getting to the pharmacy to pick up my medications is difficult at least some of the time.	16%	0.682
3 I can't afford them some of the time.	13%	0.718

Intentional Nonadherence

Variable		% of Intentional Nonadherence	p-value
1	I sometimes worry about long-term benefits on my medications.	72%	0.294
2	Doctors place too much trust on medication.	64%	0.290
3	Natural remedies are safer than medicines.	40%	0.011

Discussion

- **Thus far, we can observe the prevalence of negative beliefs towards medicines in intentional nonadherence predominantly in low-income Hispanic patients**
 - **Beliefs are as equally important in intentional nonadherence as in unintentional nonadherence**
 - **There is a need for a multifaceted approach to tackle the diverse issues in each type of nonadherence**

Limitations

<https://www.questionpro.com/blog/cross-sectional-study-vs-longitudinal-study/>

<http://diysolarpanelsv.com/pill-bottle-spilling-clipart.html>



**Cross Sectional
Analysis**

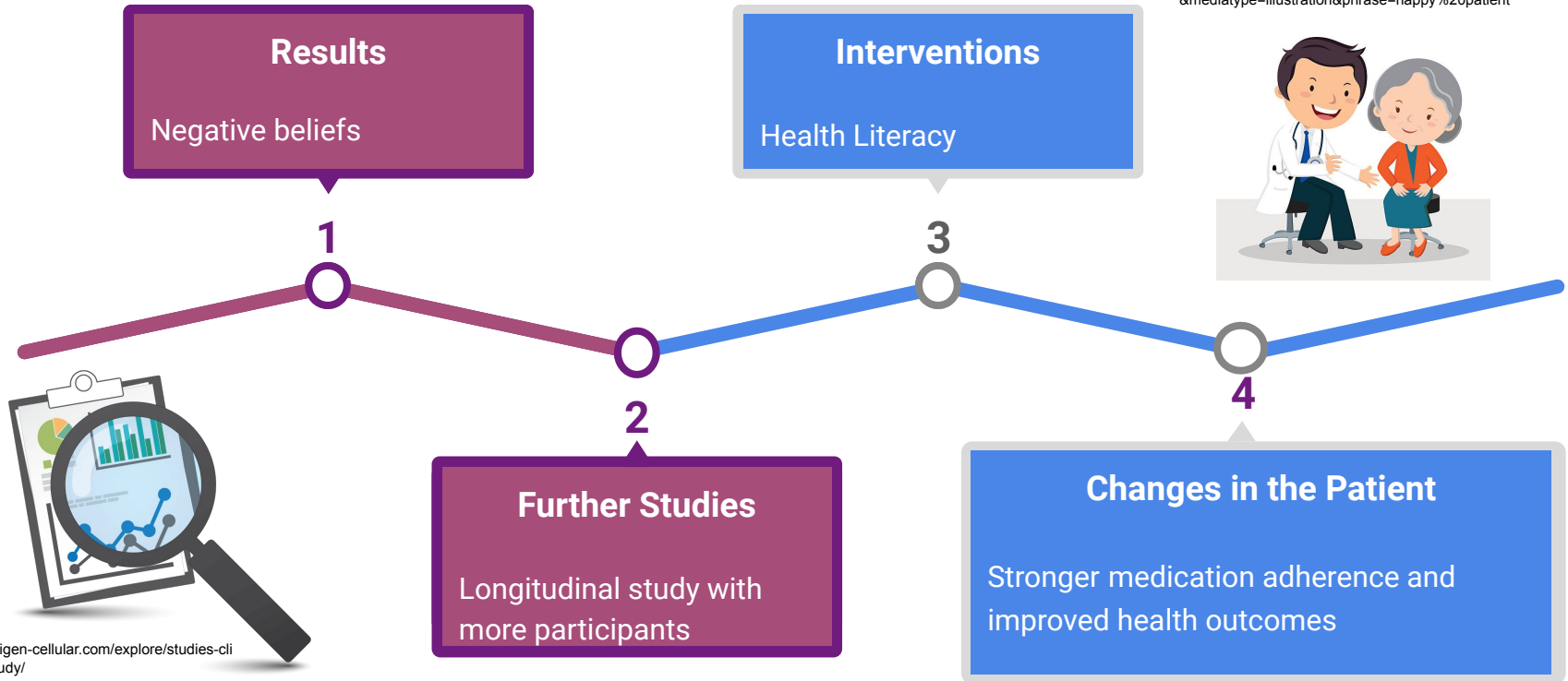


**Self Reported
Medication
Adherence**



Limited Sample Size

Future Directions



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<https://thehelioslab.org>

theHELIOslab@gmail.com

UCI Health



Questions?

Sources

1. *Race/Ethnicity and Nonadherence to Prescription Medications Among Seniors: Results of a National Study*. Gellad, Walid F., Hass, Jennifer S., and Safran, Dana. **J Gen Intern Med**. 11: 1572-1578. 2007.
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3. *The beliefs about medicines questionnaire: The development and evaluation of a new method for assessing the cognitive representation of medication*. Horne, Robert, Weinman, John, and Hankins, Maitteu. **Health Psychol**. 14:1-24. 1999.
4. *Prescription Drug Coverage and Seniors: Findings from a 2003 National Study*. Safran, Dana G., Neuman, Patricia, Schoen, Cathy, et. al. **Health Affairs**. 152-165. 2005.