



CULTURAL FACTORS PREDICTING COLORECTAL CANCER SCREENING ON MEXICAN AMERICANS ON THE US-MEXICO BORDER

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Overview

- Why a Thesis?
- Why this Topic?
- Colorectal Cancer Background
- The Problem/ Gap in Literature
- IC Tour Description/ Design
- Research Question
- Methods
- Thesis Process (to date)
- Lessons Learned/ Personal Experience
- Question?

Why a Thesis?

- Paves the way to a potential PhD
 - *many programs focus on applicants who have completed a thesis*
 - *having publication is also a benefit to admission, therefore pursuing a manuscript thesis*

- Increase my job opportunities at PH research institutes

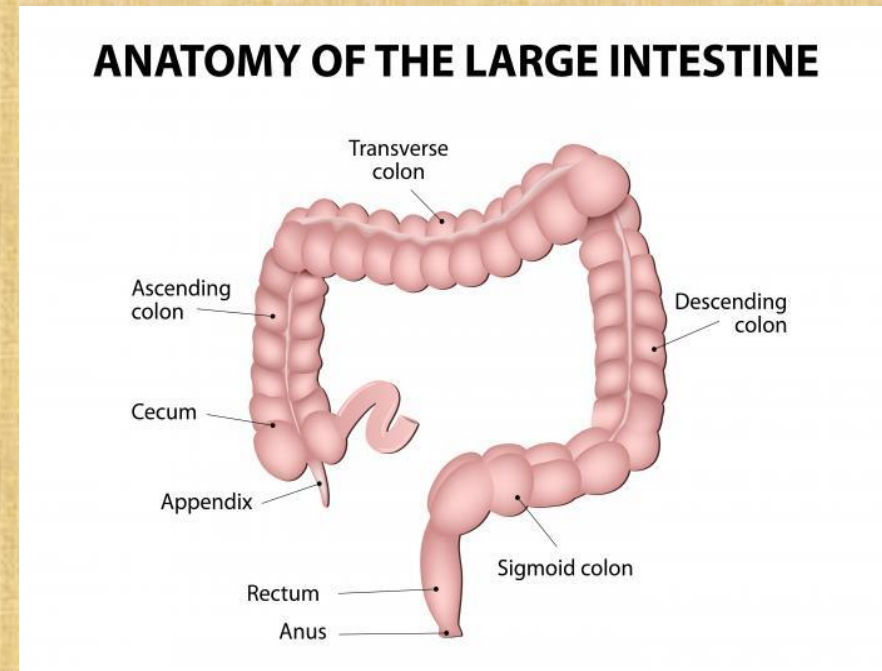
Why This Topic?

- Graduate Research Assistant on the Cancer Outreach Core
 - Testicular, Breast, Cervical, Skin Cancer Informational Booths
 - On Campus/off campus (i.e. Health Fairs)
 - Most efforts focused on CRC screening/prevention
 - CRC screening is taboo topic among Hispanic Men
 - Able to conduct a Thesis Manuscript option off data I helped collect



Background: What Is Colorectal Cancer?

- The third most common cancer diagnosed for both men and women in the United States (U.S.) (ACS, 2018)
- Cancer screening helps prevent CRC through
 - *Finding, and removing polyps*
 - *Improves treatment options when diagnosed in its early stages*
 - *Recommendations for CRC screening:*
 - *starting at age 50 – 75 years*
 - *Earlier if one has a family history of CRC, personal history of cancer, or is African American*



CRC in Hispanics in the U.S.

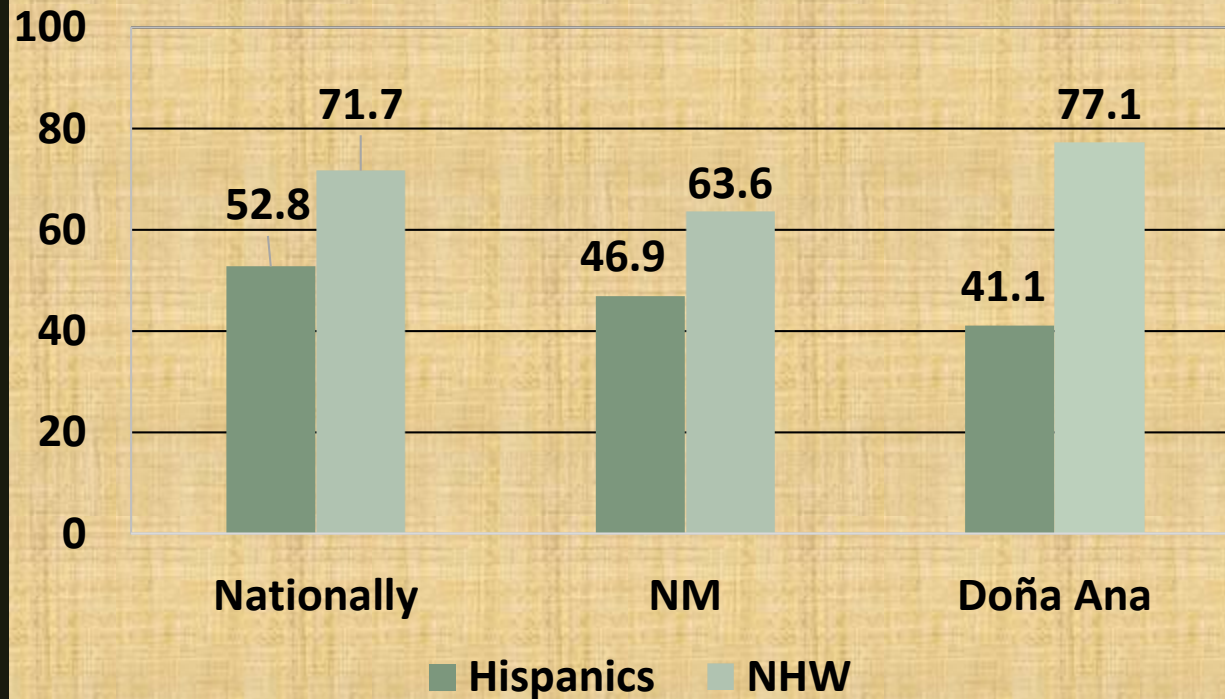
- Nationwide, Hispanics tend to have lower CRC incidence and mortality rates compared to Non-Hispanic Whites (NHWs)
- CRC is leading cause of cancer related deaths among Hispanic men and women in the U.S. (ACS, 2018)
- Hispanics age 50 years or older, exhibit lower screening rates than Non-Hispanic Whites (NHW) (ACS, 2018).

Hispanic Disparities in CRC Along U.S.-Mexico Border: Doña Ana, NM

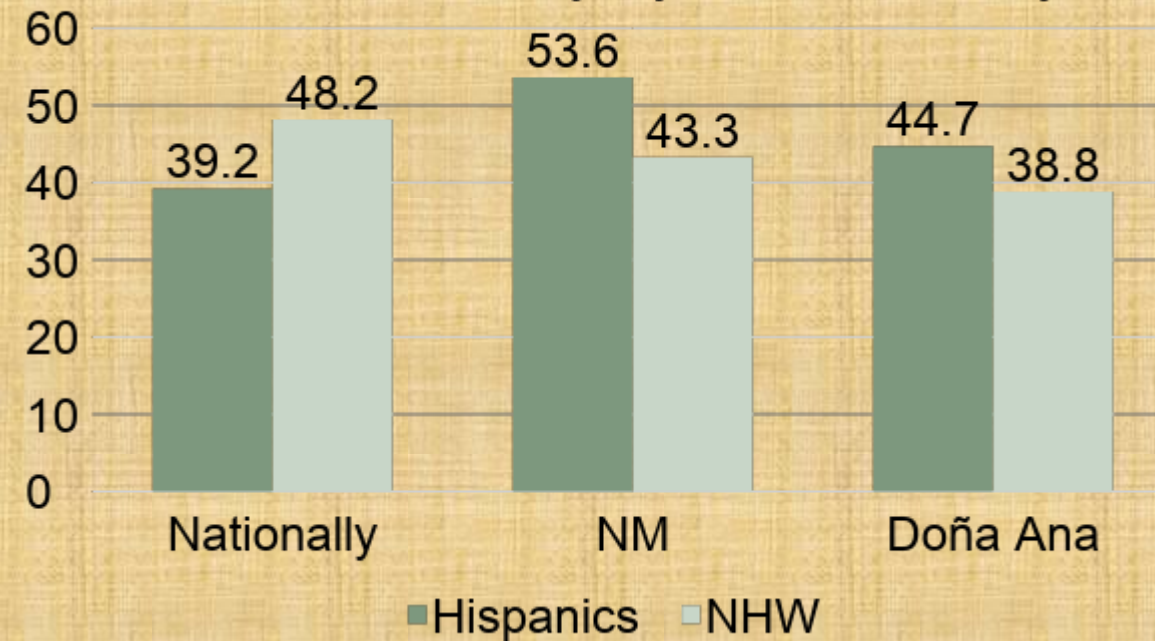
- Even though nationwide, Hispanics have lower CRC incidence and mortality rates compared to NHWs
- Hispanics begin to exhibit a greater CRC mortality rate relative to NHWs when the focus is directed to the New Mexico border region.
 - *Hispanics display **greater CRC mortality** relative to NHWs, both in the border state of NM and in the border county of Doña Ana, NM*
 - *Might be attributed to the finding that , Hispanic adults age 50 years or older, exhibit lower screening rates than Non-Hispanic Whites (NHW) in the border county of Doña Ana, NM*

Las Cruces, New Mexico

NM CRC screening in the past 10 years



NM CRC Mortality By Race/Ethnicity

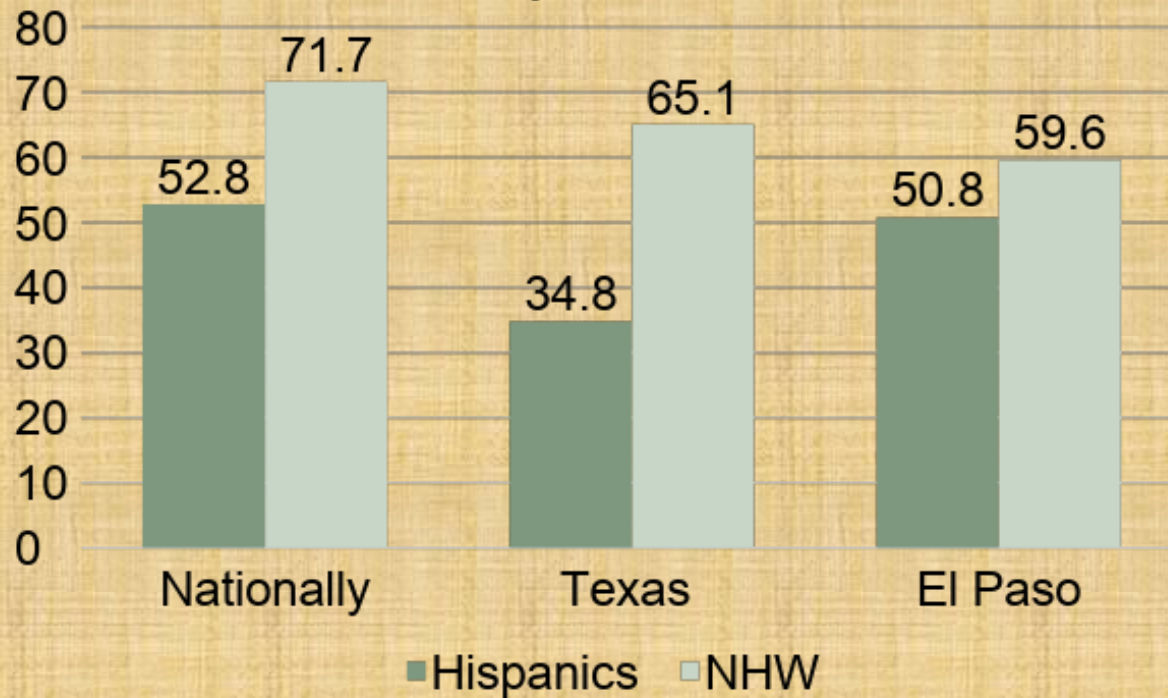


Hispanic Disparities of CRC Along U.S.-Mexico Border: El Paso, Texas

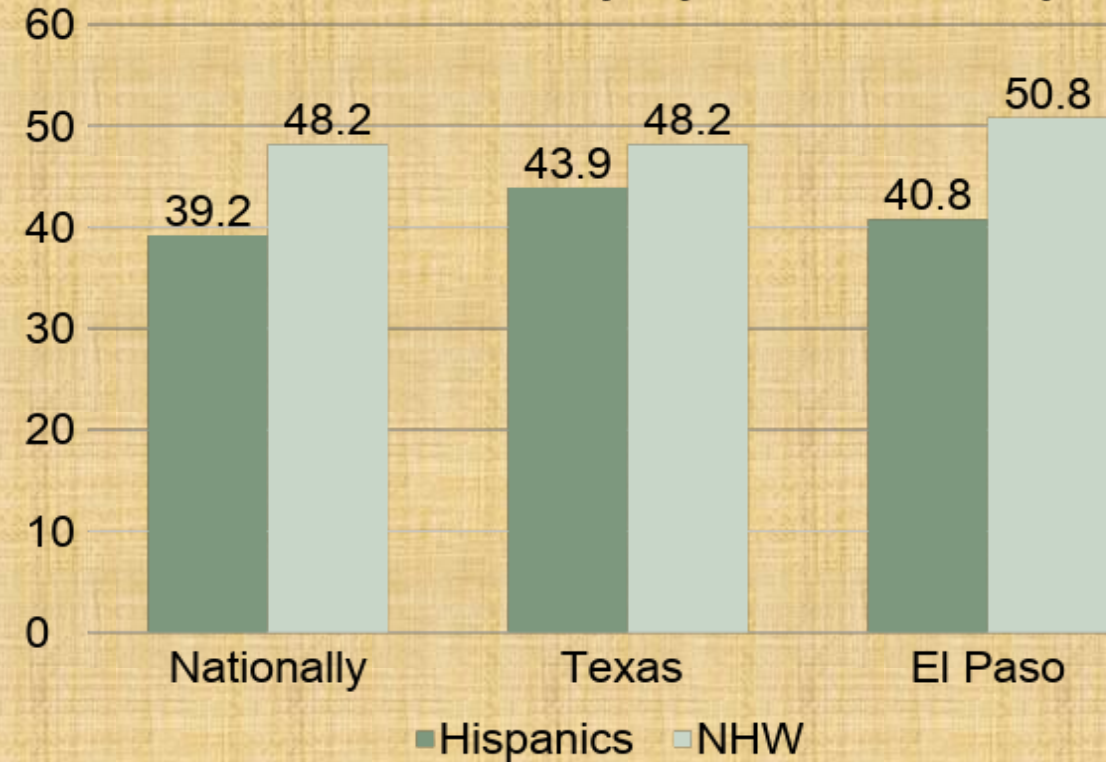
- In El Paso, TX we also find lower CRC screening rates in Hispanics relative to NHWs. (BRFSS, Healthy Paso Del Norte, 2014).
- However, we **DO NOT** find greater CRC mortality rates in Hispanics relative to NHWs in El Paso
- This is surprising considering that the
 - *Hispanic population is greater in El Paso than in Doña Ana*
 - *Hispanics are less likely to have been screened for CRC in the past 10 years at all levels (National, State, Local) (BRFSS, Healthy Paso Del Norte, 2014)*

El Paso, Texas

Texas CRC screening in the past 10 years



Texas CRC Mortality By Race/Ethnicity



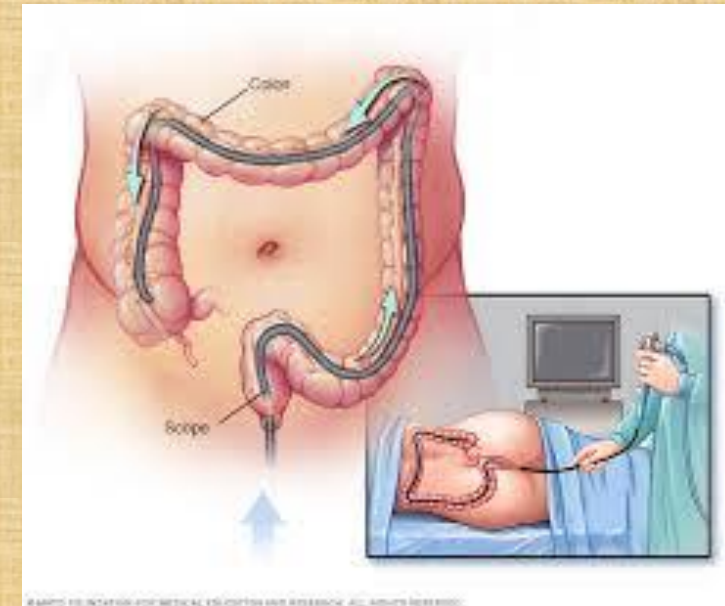
Contributing SES Factors to CRC Screening Disparities

	Doña Ana, NM	El Paso, TX	U.S.
Race			
Non-Hispanic Whites (NHW)	29.1%	13.1%	61.3%
Hispanics	66.5%	82.2%	17.8%
Poverty – All families	22.1%	19.2%	12.7%
No Health Insurance	17.4%	23.8%	11.7%
Language other than English	51.1%	72.1%	21.1%
Education: High School or less (25 years and over)	43.7%	46.3%	39.2%

Table 1. Represents Demographic information in the Doña Ana, and El Paso counties, adapted from the United States Census Bureau, American Fact Finder. 2012-2016. Retrieved September 11, 2017. (Enard, et al., 2015, & Molokwu et al., 2017, Savas, Vernon, Atkinson, & Fernandez, 2015, U.S. Census Bureau, 2017)

Cultural Barriers to CRC Screening among Hispanics

- Machismo as a barrier to CRC screening
 - *Hispanic men view Colonoscopy as a threat to their masculinity (Wang et al., 2013)*
 - *Hispanic men believed the invasiveness of the procedure could lead to Homosexuality (Getrichet et al. 2012)*
- Cancer Fatalism as a barrier to CRC screening
 - Hispanics believe cancer = sure death (Getrichet et al., 2013, Jandorf et al., 2010, Molokwu et al., 2017)
 - If you assume you are going to die then why get screened
 - I don't want to know



Cultural Barriers to CRC Screening among Hispanics

- Fear of CRC Screening

- *Fear of finding screening procedures or abnormal results (linked to fatalism) → less likely to undergo CRC screening (Jandorf et al., 2010, Wang et al., 2013)*

- Poor Patient-Provider Communication

- *Hispanics less likely to question their medical provider; providers less likely to recommend CRC screening to Hispanics (Brenner et al., 2016)*

- Acculturation

- *Low acculturated Hispanics experience low health literacy and communication challenges due to low English proficiency which contributes to low CRC knowledge/awareness & screening (Carrion et al., 2013, Getrichet et al., 2012, & Molokwu et al.*

Problems

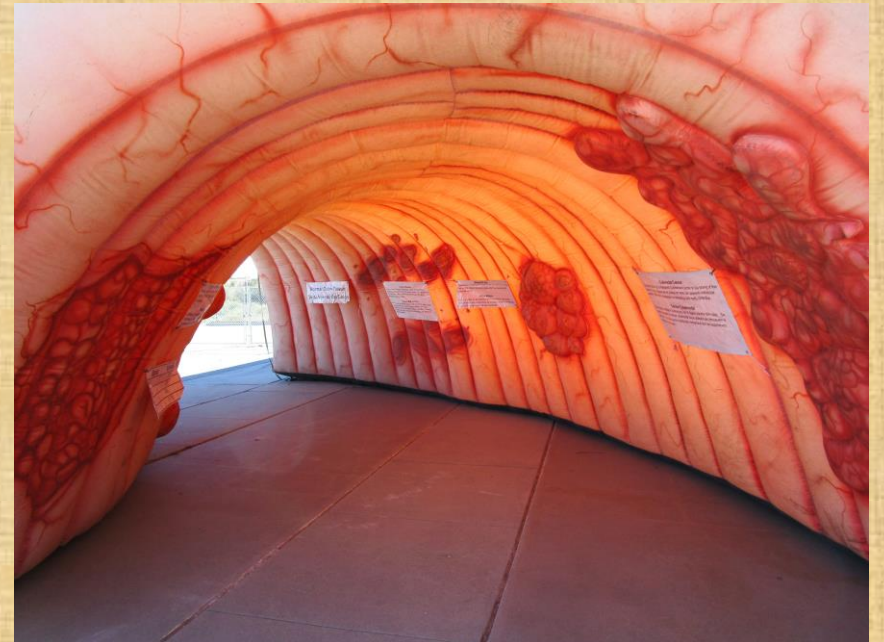
- Low SES + Cultural barriers = Low CRC Screening rates in Hispanics
 - Leads to advanced cancer stage diagnosis in Hispanics & high CRC mortality
- **Hispanics, the largest minority group in the U.S.**, are diverse in national origin and race
 - *Hispanic subgroups may vary in their cultural influences and beliefs*
 - *Researchers may be overlooking unique cultural and environmental barriers to CRC screening in varying Hispanic subgroups (Molokwu et al., 2017)*
 - Few studies focus on a specific Hispanic subgroup (e.g., Mexican Americans) or Hispanics in the border region

Research Gap

- Interventions tailored for Hispanics are not widely available
- **Most interventions tailored for Hispanics typically focus on incorporating low literacy and bilingual educational materials**
- Qualitative studies have suggested that cultural beliefs (e.g., machismo, fatalism) may act as barriers to CRC screening, therefore we need to develop culturally relevant educational interventions that address these barriers
- **Interventions that focus on cultural and environmental characteristics acting as barriers to screening in Hispanic subgroups are needed.**
- Interventions that focus on Mexican Americans (the largest Hispanic subgroup) are needed

Parent Study

- In addition to addressing knowledge gaps, language and literacy barriers, how did parent study attempt to address cultural barriers to CRC Screening?
- Addressed the Cultural Barriers
 - *Fatalism*
 - Cancer ≠ Death
 - Screening regularly = Survival
 - *Fear*
 - Describe screening approaches to remove fear
 - Address importance of screening to survival
 - Importance of family support
 - *Machismo*
 - Family First
 - CRC affect manliness/sexuality
 - *Provider-patient communication*
 - Importance of talking to your doctor
 - Instructions for asking questions



Tour types

- 1. Cancer Stages Tour (n = 87 participants)
 - *included cancer stages and probability of survival if diagnosed at that stage*
 - *Delivered in both Spanish and English*

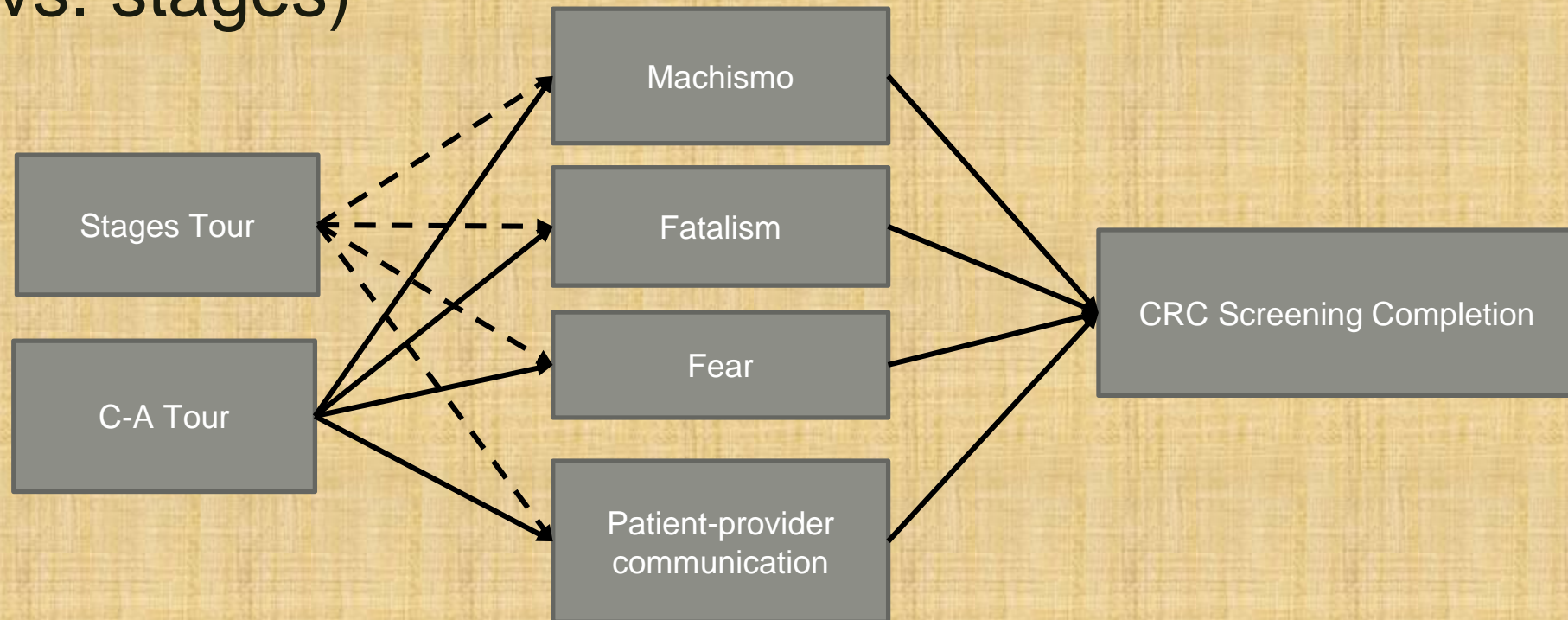
- 2. Culturally Adapted IC-CRC Educational Tour (n = 83 participants)
 - *included cancer stages and probability of survival if diagnosed at that stage*
 - *Addressed cultural barriers (machismo, fear, fatalism, patient provider communication)*
 - *CRC Knowledge*
 - *Delivered in both Spanish and English*

Purpose of Parent Study

- To examine the efficacy of the Culturally Adapted IC-CRC tour for Hispanics in promoting CRC screening and healthy lifestyle practices relative to the Cancer stages tour

Purpose of Manuscript Thesis Study

- To examine the mediating effects of cultural screening barriers on CRC screening following alternate forms of the IC Tour (culturally adapted vs. stages)



Research Question

- Did the Culturally Adapted IC Tour for Hispanics increase participants screening rates more so than the Cancer Stages Tour?
- Did the Culturally Adapted IC Tour for Hispanics reduce cultural barriers to CRC screening more than the cancer stages tour?
- Are the cultural barriers related to CRC screening rates?

Measures

- CRC Knowledge (19)

28. Do you know what colorectal cancer is?

Yes

No

- CRC Cultural Beliefs

- *Acculturation (5)*

82. What language(s) do you usually speak at home?

Only Spanish Spanish better than English Both equally

English better than Spanish Only English

- *Cancer Fatalism (5)*

61. If someone gets colorectal cancer, their time to die is soon.

Strongly agree

Agree

Disagree

Strongly disagree

- *Fear of CRC Screening (4)*

58. I fear a colonoscopy will be painful.

Strongly Agree

Agree

Disagree

Strongly Disagree

- *Machismo (10)*

67. It would be shameful for a man to cry in front of his children.

Yes

No

Measures

- *Patient Provider Communication*

56. How comfortable would you be talking to your doctor about colorectal cancer?

- Very Comfortable Comfortable Uncomfortable Very Uncomfortable

- *Behavioral Intent to get Screened*

53. How confident are you that you can obtain colorectal cancer testing even if you are afraid?

- Very Confident Confident Somewhat Confident Not at all confident

- *CRC Screening Completion*

22. Have you ever been tested for colorectal cancer?

- Yes No Don't know

Participants

- Eligibility Criteria

- *Hispanic*
- *50-75 years*
- *Never been diagnosed for CRC*
- *Not screened in the past 10 years*



- 170 participants

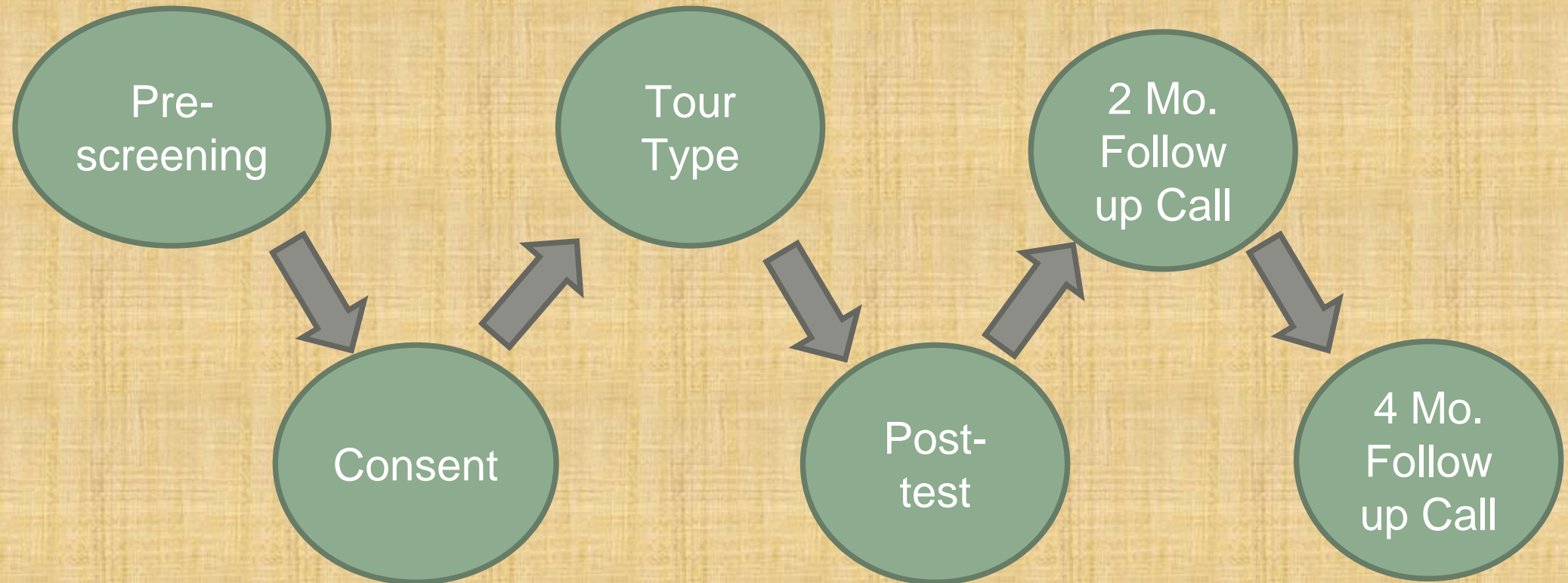
- 24 cluster sites randomly assigned to a tour type across 2 U.S. border counties

- El Paso, TX and Doña Ana, NM

Study Design

Follow Up Calls were to Assess Participants':

- CRC Screening Completion
- CRC risk factors



Participants received \$10.00 at post and \$5 at 2 & 4 month FU

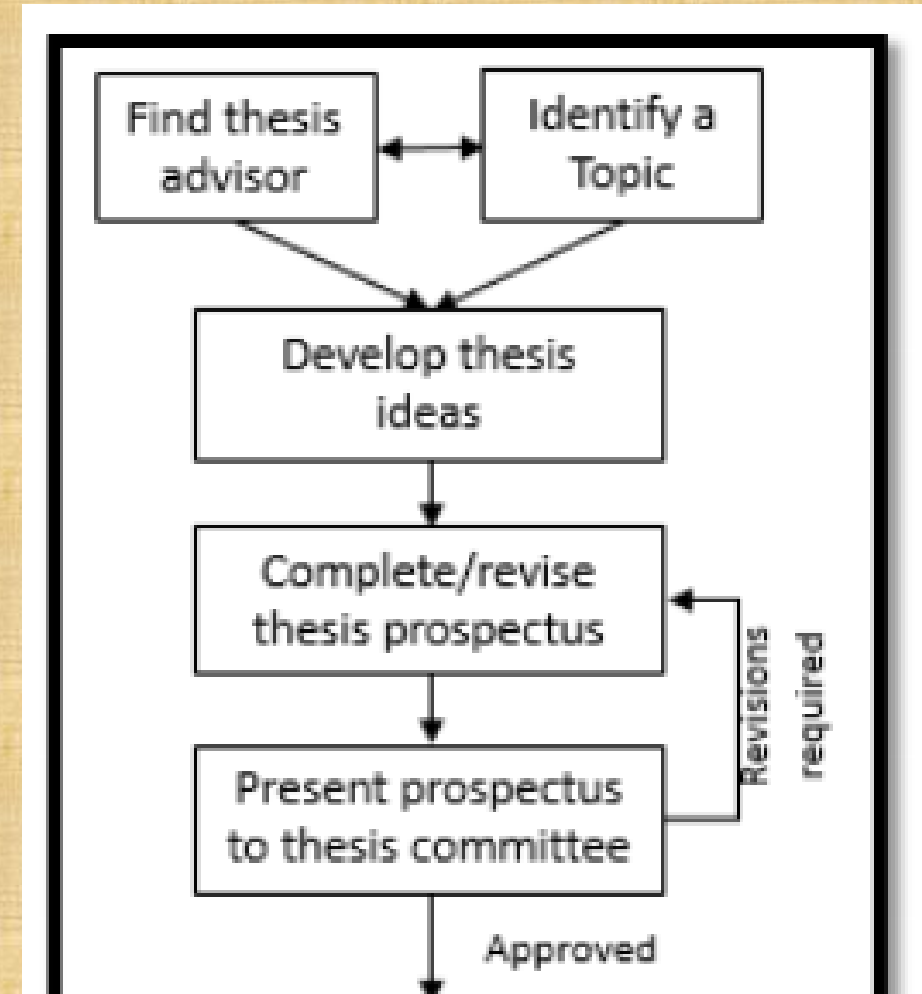
Total: \$20.00

Analysis

- Secondary Data Analysis
 - *Regression to assess predictive variables of CRC screening*
 - *Correlational matrix of cultural barriers and CRC completion*

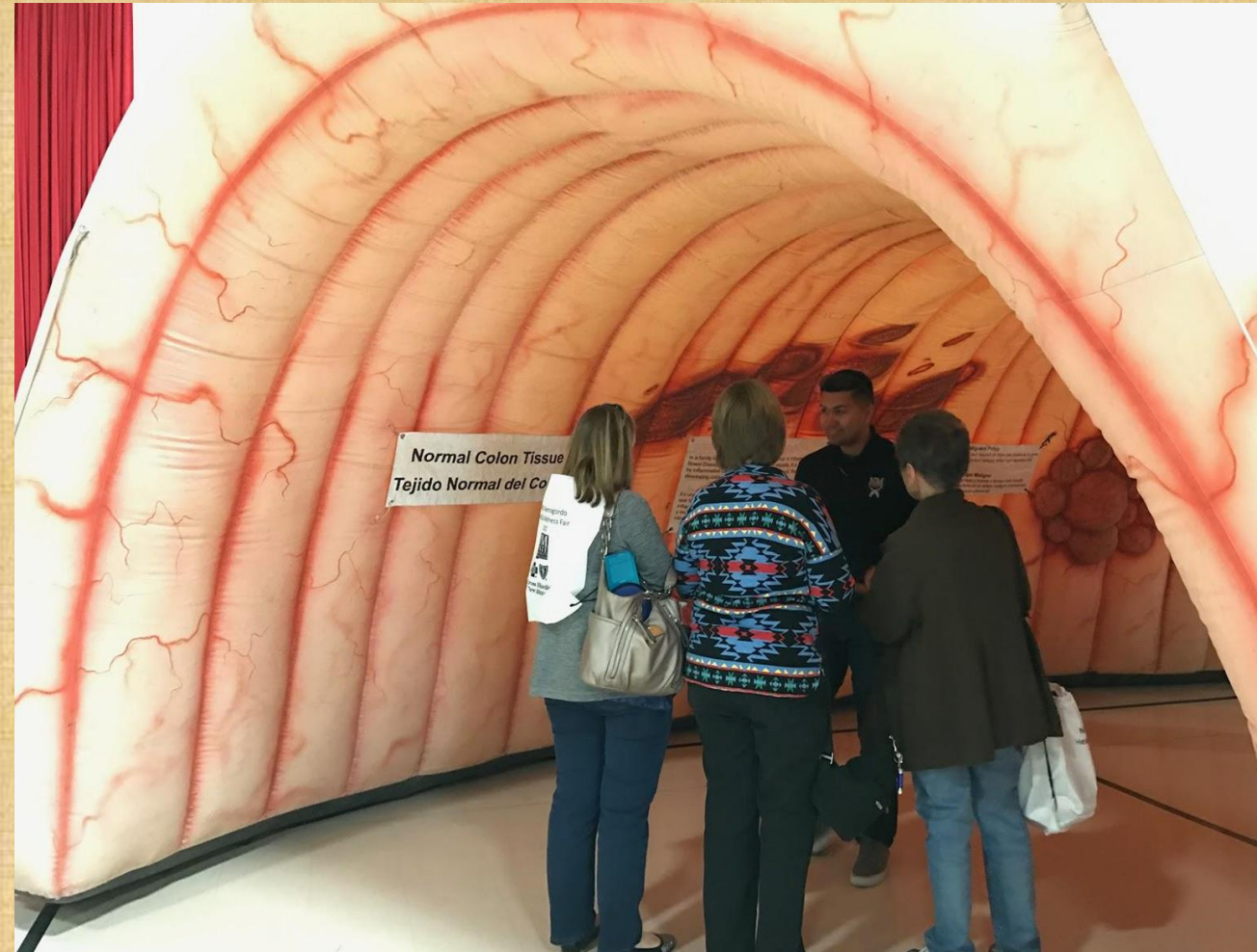
Thesis Process

- Drafted Prospectus
- Setting up meeting to present Prospectus to Committee



Lessons Learned

- Need to focus on the specific needs of the Hispanic subgroups
 - Mexican American men & women on the border
- Cultural Barriers exist
 - *machismo, fatalism*
- Research on Mexican American men:
 - Is needed
 - Male health educators needed to conduct outreach with men



Questions?

Feel free to contact me via
email.

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