A RELIGIOUSLY-TAILORED INTERVENTION TO ENHANCE MAMMOGRAPHY UPTAKE AMONG MUSLIMS: DESIGN ELEMENTS AND OUTCOMES

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AIMS

- Describe the “religion-based” design elements of a mosque-community based intervention
- Describe the 3R Model for developing religiously-tailored messages
- Share preliminary participant-level outcomes

AMERICAN MUSLIMS & MAMMOGRAPHY

- Population: ~5-7 million
  - Ethnically/Racially Diverse (20-24% African American, 18-26% South Asian, 24-26% Arab)
  - 50% attend mosque community weekly

- Mammography Rates- Scant research
  - Mammogram Ever- 69-73%
  - Biennial– 52-61% [37% not adherent in our prior study]

- Religion Impacts Healthcare Decisions
  - Framework for understanding disease and means for its removal
  - Ethico-legal guidelines inform healthcare choices
  - Religious Identity/Religiosity increases exposure to discrimination

DEVELOPING A RELIGIOUSLY-TAILORED MAMMOGRAPHY INTERVENTION IN MOSQUE COMMUNITIES

Community Partnership Building

-Council of Islamic Orgs of Greater Chicago

-Muslim Women Resource Center

-Arab American Family Services

-Compassionate Care Network

Evidence Gathering

- Phase 1- Community Surveys (n=240)

- Phase 2-Mosque-based Focus Groups (50 women)

- Phase 3-Key Informant Interviews (n=19)

Mosque-Based Intervention Design & Deployment

- 3 Sermons in 2 Mosques

Post-Surveys (n=74)

Post-Interviews (n=32)

- 2-session Peer-led health education workshops

(n=58)

American Cancer Society®

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ENGAGING ISLAM IN THE PROJECT

- Study Design (religious identity)
  - Sampled women from various ethnicities from MOSQUES
- Data Analysis (religious beliefs & values)
  - Identified beliefs (facilitators/barriers) informing mammography intention by analyzing shared (salient & dominant) beliefs appearing across racial/ethnic diversity in the FGs
- Intervention Design (religious community)
  - Set in mosque communities (group education classes + sermons)
  - Community Advisory Board of Muslim community stakeholders

CARING FOR BODY & SOUL: A WORKSHOP ON WOMEN'S HEALTH

- 2 half-day sessions held at 2 mosque communities (1 S. Asian dominant, 1 Arab)
- Utilized peer-educators and guest lecturers, including a religious scholar and female physician, to deliver didactics and facilitated discussion sessions
- Topics included:
  - Breast cancer
  - Mammography guidelines
  - Religion and health
  - Resources and access for breast cancer screening

ADDRESSING BARRIER BELIEFS

The 3R Model

- **Reframe**: "switch train tracks"
  - Keeping the belief intact but change the way one thinks about it so it is consonant with the desired health behavior
  - Normalizes the barrier belief

- **Reprioritize**: "show them a better train"
  - Introduce a new belief and create higher valence for it than the barrier belief.
  - Normalization of the barrier belief is optional

- **Reform**: "breakdown the train carriage"
  - Negate the barrier belief by demonstrating its faults by appealing to authority structures

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BARRIER BELIEFS & TAILORED MESSAGING

Barrier Belief (Relation to TPB)	Possible Strategy to Craft Messages		
	Reframe	**Reprioritize**	**Reform**
I believe mammograms are painful. (Behavioral belief)	The pain incurred on the path to completing a good deed (e.g. caring for my body) is rewarded by God.	Introduce the notion that Islam considers there to be a stewardship responsibility to care for one's body and that obtaining mammography screening fulfills this responsibility.	***Reforming the barrier belief is not applicable*** because mammograms are actually painful.
As a Muslim woman, I am more comfortable with a female provider. (Normative Belief)	Most mammography centers have all female staff so I can live out the concordance mandate.	Introduce the notion that the duty of stewardship outweighs Islamic modesty guidelines.	Introduce the notion that although gender concordance is preferred, in extenuating circumstances religious exemptions exist.
My family's needs and priorities are more important to me than my own needs OR they "should" come first. (Control Belief)	I cannot take care of my family if I do not take care of myself first.	Introduce the notion that you have the duty to care for the body God bestowed upon you.	Introduce the notion that the Quran and hadith support making dua for yourself first and the idea of self-preservation. Your primary responsibility is yourself and then others.

BARRIER BELIEFS & TAILORED MESSAGING

(CONTINUED)

Barrier Belief (Relation to TPB)	Mapping Messages to Group Education Activities
I believe mammograms are painful. (Behavioral belief)	-The *reframing & reprioritization messages* were delivered by a female religious scholar in a didactic entitled “religious dimensions of health”.
As a Muslim woman, I am more comfortable with a female provider. (Normative Belief)	-The *reframing message* were delivered by a female religious scholar in didactic -The *reprioritization message* was also part of the religious scholar didactic and in a breast cancer survivor led didactic entitled “Survivorship story.”
My family’s needs and priorities are more important to me than my own needs OR they “should” come first. (Control Belief)	-The *reframing message* was utilized during a peer educator led icebreaker session. -The *reframing & reforming messages* were delivered by a female religious scholar in a didactic entitled “religious dimensions of health”.

DEMOGRAPHIC CHARACTERISTICS

Racial/Ethnic background (n=52)	n	%
African American	1	1.92%
European/ White	2	3.85%
Arab/ Arab American	18	34.62%
South Asian	27	51.92%
Mean Age (years)	50.36	
Education Level (n=56)		
Less than high school	7	12.50%
High school diploma/GED	11	19.64%
Associates/2 year degree	11	19.64%
Bachelor's level	19	33.93%
Advanced degree	8	14.29%
Annual household income (n= 46)		
Less than $20,000	17	36.96%
$20,000 - 49,999	17	36.96%
$50,000 - $74,999	6	13.04%
$75,000 or more	6	13.04%

FEASIBILITY & ACCEPTABILITY

- Feasibility:
  - 1 mosque site pulled out last minute as did a religious scholar
  - Priorities of mosque leaders ever-changing (“under siege”)

- Acceptability:
  - Sermons reviewed by Imams no changes (positive comments)
  - Peer educators and advisory board members helped develop messages and curricula without controversy
  - Participants (sermon+group education) found content overwhelmingly important and desire more health focus in the mosque communities

RESULTS

6-month follow up mammography status:

42.22% (n= 19/52) of participants had obtained a mammogram

Change in intention, likelihood, confidence (pre-post):

Outcome	Change	p-value
Changed intention	0.20	0.15
Changed likelihood	0.30	0.006
Changed confidence	0.18	0.24
Barrier beliefs	0.75	0.18
Facilitator beliefs	0.85	0.15

Intention to obtain mammogram at post-test

Effect	Odds ratio	p-value
Positive Religious Coping Subscale	1.257	0.0073
Negative Religious Coping Subscale	1.195	0.0075
Duke DUREL Scale	0.657	0.0143

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