IDENTIFYING AND INTERVENING UPON AMERICAN MUSLIM HEALTH DISPARITIES: A MAMMOGRAPHY SCREENING STORY

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AIMS

- **Studying American Muslim Health**
  - **Known knowns & known unknowns**
  - **Model for religious impacts upon health and healthcare-seeking**
- **Discuss a multi-year project to identify and intervene upon mammography utilization disparities among American Muslims**
  - **Engaging “religion” in the project design and implementation**

TRACKING HEALTHCARE DISPARITIES

- Legislation requires AHRQ to measure

"disparities in healthcare delivery as they relate to racial factors and socioeconomic factors"

- Across the domains of
  1) Access to care
  2) Quality

- Religion is overlooked in HCD
  - But could manifest as informing barriers to care (access metric) in healthcare-seeking behavior
  - And as a marker for meeting religious/spiritual needs of patients could be consider a quality metric

RELIGION AS A SOCIAL FACTOR

- Why Race/Ethnicity and Socioeconomic status?
  - Members of racial/ethnicity group share health relevant beliefs and values
  - Members of socioeconomic group are exposed to similar health-related experiences
- The same may apply to members of a religious community
  - May share how they think about health and illness (what is a disease?)
  - Share values that influence healthcare system expectations (acceptance of transplantation)
  - Share common practices which are health promoting (attitudes towards ETOH)
  - A sense of 'community' has health advantages

MUSLIM HEALTH IN THE UK

National Survey of Ethnic Minorities [2001]

- Muslim health disadvantage across many physical health metrics [diabetes, CVD]
- Muslims had highest rate of ill-health [SF-1]

NHS data 1994-2004

- Muslim groups had increased odds [OR 1.5-2.1] for ill health

American Muslim Health Disparities: The State of the Medline Literature

Aasim I. Padela University of Chicago
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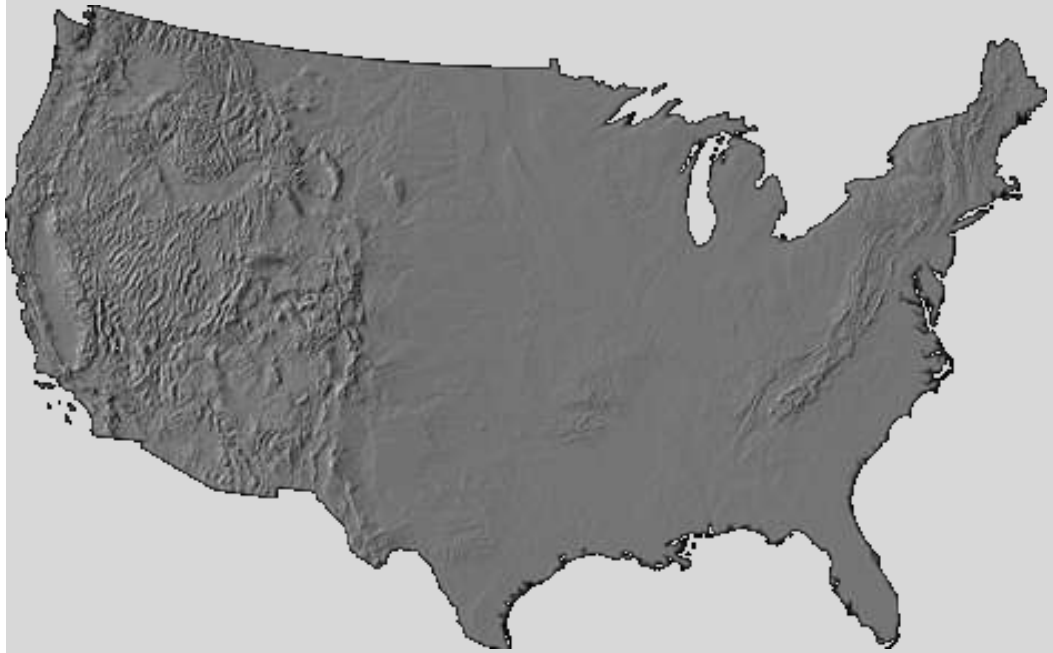

From 1970-2009

- Muslim & America & Health Disparity → 2 articles
- Muslim & America & Disparities → 10 articles

SEARCH STRATEGY

Healthcare Disparity Domain

- Health Status Disparities
- Healthcare disparities
- Minority Health
- Delivery of Healthcare
- Health Services Accessibility
- Morbidity OR Incidence

Geographic Origin or Ethnicity Domain

- National identities from Muslim majority nations, ex Indonesian
- Ethnic identities associated with Islam, examples “Arab”

Location – “America”

STUDYING ISLAM & HEALTH IN US

- Our strategy → marginal improvement
  - 171 empirical investigations of which
    - 42 studied Arab Americans; 41 South Asians
      - These populations may include non-Muslims
    - 29 mentioned Islam
      - *Only 19 considered religion to potentially contribute to health differences*

Literature is Scant

J Relig Health (2013) 52:1333–1345
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ORIGINAL PAPER

Religion and Disparities: Considering the Influences of Islam on the Health of American Muslims

Aasim I. Padela · Farr A. Curlin

- Islamic Beliefs
  - Constructions of Health, Illness & Disease
    - Pregnancy is a "blessing" → attitudes towards contraception
    - Cancer is based on God's decree → attitudes towards prevention
- Islamic Values & Ethics
  - Reduced alcohol consumption → decreased health risks
  - Gender concordance → influences healthcare seeking patterns
- A Muslim Identity
  - Discrimination → Delayed healthcare seeking patterns

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AMERICAN MUSLIMS & MAMMOGRAPHY RATES

- All Muslim samples (4 studies)
  - Mammogram Ever- 69-73%
  - Biennial (past 2 years or adherence) – 52-61%

- Not all access and education!
  - Muslims are as likely as the general population to have household incomes of > $100,000, and have higher than average levels of education
  - >80% are English-literate and have access to a physician

- No formal assessment of the impact of religion upon screening behaviors

Boxwala FI, Bridgemohan A, Griffith DM, Soliman AS. Factors associated with breast cancer screening in Asian Indian women in metro-Detroit. *Journal of immigrant and minority health / Center for Minority Public Health.* Aug 2010;12(4):534-543.

Gomez SL, Tan S, Keegan TH, Clarke CA. Disparities in mammographic screening for Asian women in California: a cross-sectional analysis to identify meaningful groups for targeted intervention. *BMC Cancer.* 2007;7:201.

Ponce N. A. GM, Brown R.E. *Health Policy Fact Sheet: Cancer Screening Rates Among Asian Ethnic Groups.* University of California;2003.

Kagawa-Singer M, Pourat N, Breen N, et al. Breast and cervical cancer screening rates of subgroups of Asian American women in California. *Med Care Res Rev.* Dec 2007;64(6):706-730.

DOES ISLAM INFLUENCE BREAST CANCER SCREENING PRACTICES?

"Islam"

Measures of religiosity

Fatalism (Belief)

Modesty (Value)

Religious Discrimination in Health (Identity)

Breast Cancer Screening

- Clinical Breast Exam
- Mammography Rates

American Cancer Society®

J Immigrant Minority Health
DOI 10.1007/s10903-014-0014-y

ORIGINAL PAPER

Associations Between Religion-Related Factors and Breast Cancer Screening Among American Muslims

Aasim I. Padela · Sohad Murrar · Brigid Adviento · Chuanhong Liao · Zahra Hosseinian · Monica Peek · Farr Curlin

Phase 1 Survey (n=240; mosques + community sites)

- Demographics:
  - Ethnicity/Race- 33% Arab, 32% S. Asian, 27% African American
  - 75% had health insurance (85% access to PCP)
- Mammography Rates
  - 77% had mammogram once in their life
  - 37% did NOT have a mammogram in the past two years
- Predictors
  - - Religious discrimination in healthcare (OR= .74; p<.05) - Positive religious coping (OR= .21; p<.05)
  - + Have PCP (OR= 20; p<.01)

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-Surveys (n=240)
- Phase 2a-Focus Groups (n=6; 50 women)
- Phase 2b-Individual Interviews (n=19)

Mosque-Based Intervention Design & Deployment

- Sermons
- Peer health education workshops

American Cancer Society®

Initiative on Islam and Medicine
The University of Chicago

ENGAGING ISLAM IN THE PROJECT

- Study Design (religious identity)
  - Sampled women from various ethnicities from MOSQUES
- Data Analysis (religious beliefs & values)
  - Sought beliefs (facilitators/barriers) to 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

PHASE 2: OBTAINING BEHAVIORAL NARRATIVES

6 FGs in mosque communities (n=50)

"Allah gave us a body to take care of… we call (it-concept)"amana" which is you know and like if someone gives you like a gift or something you take care of it."

(Arab Participant)

"I mean if Allah's going to give it to you, he's going to give it to you."

(African American Participant)

Figure 1

Qualitative Analysis Illustration

Focus Group Location & Group Ethnicity

Islamic Foundation School
Predominantly South Asian

Masjid Al-Ihsan
African American

Orland Park Prayer Center
Arab

Mosque Foundation
Predominantly Arab

Muslim Education Center
South Asian

Nigerian Islamic Assoc. of USA
Nigerian

Salience is defined as the discussion of a particular theme in three or more focus groups.

Dominance is defined as the discussion of a particular theme by half or more participants within each focus group.

Beliefs highlighted in red are both salient and dominant. They are also influenced by religion.

Theory of Planned Behavior
Behavioral Beliefs & Belief Statements

Peace of mind: A negative mammogram result relieves me from worries about my health status.

Positive experiences with technicians: I believe that I will have access to a nice technician.

Getting screened for the sake of family: I believe my family should know my health status.

Family history leads to an increased risk of breast cancer: I should get screened because breast cancer may run in my family

Fear of mammogram results: Fear makes it difficult for me to get mammogram.

Physical pain: I believe mammograms are painful.

Primary prevention actions: I believe certain health behaviors can help prevent disease.

Secondary prevention actions: I believe breast self-exams and mammograms can help detect disease and facilitate opportunities for prevention and treatment.

Perceived duty to care for one's health: I believe it is my responsibility, as a Muslim, to take care of my body.

Methods of Disease Prevention: I believe certain religious practices can help prevent disease.

Theory of Planned Behavior
Normative Beliefs & Belief Statements

Cultural taboo: I believe it is difficult to speak about mammograms and breast cancer in my community.

Positive influence from family: I believe my family members will support my getting a mammogram.

Positive influence from friends: I feel comfortable talking to my friends about mammography.

Normative beliefs: Community members support my getting a mammogram.

Comfort with Gender Concordant Healthcare: As a Muslim, I am more comfortable with a female provider.

Theory of Planned Behavior
Control Beliefs & Belief Statements

Insurance: Insurance policies or the lack of insurance makes getting a mammogram difficult.

Family over self: I put my family's needs and priorities over my own.

Fatalistic Notions about Health: It is by Allah's will whether I am sick or cured.

BARRIER BELIEFS

- **Mammography is painful**
- **Fear of positive mammography result**
- **Lack of gender concordant staff at imaging center**
- **Fatalistic Notions about health**
  - It is by Allah's will that I get sick or am cured and I cannot change that fate hence mammography is of no benefit.
- **Family over self**
  - My family's needs and priorities are (should) come first
- **Lack of Insurance (cost) is a barrier**

RELIGION-RELATED THEMES

- **Perceived religious duty to care for one's health (facilitator)**
- **Comfort (need) with Gender Concordant Healthcare** (barrier)
- **Religious Practices as a Methods of Disease Prevention (+/-)**
  - Expansive vs. restrictive views
- **Fatalistic Notions about Health (+/-)**
  - Determinism w/o agency
  - Prayer as means to change fate
  - God's decree unknown therefore duty exists

PERCEIVED DUTY TO CARE FOR ONE'S HEALTH

"Allah says you have to take care of yourself. Part of taking care of yourself is visiting the doctor, checking out yourself... you can also pray spiritually, but you still need to take your medicine."

(Nigerian Participant)

"As Muslims we should really be taking care of ourselves and our body because that's – it's a loan from Allah and we should really be taking care of that loan because we have to return it too."

(South Asian Participant)

"Allah gave us a body to take care of... we call (it-concept)"amana" which is you know and like if someone gives you like a gift or something you take care of it."

(Arab Focus Group Participant)

METHODS OF DISEASE PREVENTION

"You have to take medicine and then pray to God to give you a speedy recovery ."

(Nigerian Participant)

"I pray regularly even if I go to the doctor, asking for good health – that's one, number one in the list."

(South Asian Participant)

"I pray to Allah every day…heal this body in line whatever it is needs healing."

(African American Participant)

FATALISTIC NOTIONS ABOUT HEALTH

"They told me I might have cancer on my liver. Blah, blah, blah. I said, "Look, if this is what Allah (Arabic word for God) wants, I'm ready."

(African American Participant)

"I mean if Allah's going to give it to you, he's going to give it to you."

(African American Participant)

"I believe in God 100%. What's going to happen is going to happen."

(Arab Participant)

COMFORT WITH GENDER CONCORDANT HEALTHCARE

"If I went in there and I found out it was going to be male physician, I'll probably just walk right back out or I'll stay there until they find me somebody who's going to be a [lady]."

(South Asian Participant)

"Like if I had a male doctor, I couldn't talk him... because he's a stranger to me. Probably if it was a female, I would open up and tell everything."

(South Asian Participant)

PUTTING IT ALL TOGETHER

Survey

- Religious Coping → Decreased Mammography
- Fatalism not associated with mammography

Interviews

- Religious Practices are a Form of Prevention
- Fatalism ~ Determinism but not lack of Agency nor excludes seeking healthcare

Intervention Messaging

- Highlight religious “duty to care for body as God’s gift”
- Present mammography as an action that coheres with this duty

PUTTING IT ALL TOGETHER

Survey

- Perceived Religious Discrimination in Healthcare → Decreased Mammography
- Level of modesty not associated with mammography utilization

Interviews

- No mention of discrimination experiences informing behavioral, normative or control beliefs
- Gender concordant care is “more comfortable”

Intervention Messaging

- Patient-centered and culturally competent care delivery is an objective for healthcare system
- Patients should feel empowered to ask about gendered care provision regarding mammogram (most services are) and to share aspects of their religious beliefs with providers

OBTAINING PERSPECTIVES ON INTERVENTION STRUCTURE

- Conducted 19 semi-structured interviews with
  - English-speaking, self-identified Muslim women over the age of 40
  - Recruited from 9 mosques across the Greater Chicago area

IMAMS AND SERMONS

Imams as Messengers

"I would be really happy and ***I would encourage any imam to talk about health awareness***, especially for women, because… ***a lot of our needs are not addressed***." (South Asian participant)

"The imam has to be educated himself of what the topic and how he's going to bring it about to his people." (Asian participant)

Sermon as Modality

"In any setting that is for children and families and husbands and wives… When women also start considering it ***a community issue, as opposed to just women's health issue, like women's health affects the entire community***… (South Asian participant)

HEALTH EDUCATION MESSAGES IN SERMONS

"remember to… place upon the mother or the woman, who is the caregiver of the home that ***if she doesn't take care of herself, no one is going to take care of the family***." (African-American participant)

"Go to the religious aspect of what was said by talking of what the Qu'ran says about healthy living… say, '***This is what is mandated by our religion***. This is the practical application of it… ***Your bodies are gifts from God***. You have responsibilities towards this, this, and this…'" (South Asian participant)

PEER EDUCATORS AND GROUP EDUCATION

Characteristics of Peer Educators

"[The potential peer educator] **is very influential in the community and very well respected**… I think it would have to be women who know how to talk to other people." (Arab participant)

"[Peer educators should] have both ***knowledge from the educational side as well as the religious side***." (South Asian participant)

Benefits of Group Education Modality

"When you sit with other people and you listen to… ***it makes you open up more***." (Arab participant)

"If I feel that okay, I go there and I share something and then other women say, '***Okay, there is nothing wrong in going there***…" (South Asian participant)

HEALTH EDUCATION MESSAGES IN GROUP EDUCATION CLASSES

"It needs to be part of ***a holistic program for general health***. If it was just breast cancer, you will not have a following. You will not have people showing up. It's like it was too ostracizing. It's like having a discussion solely on infertility. ***No one's going to show up because everyone's going to be looking at them***..." (South Asian participant)

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SUMMARY

-American Muslim women welcome imams talking about health, and women believe sermons to be an effective modality

-Prefer sermons to be replete with religious examples

-Modesty concerns lead a few participants to voice disapproval of the idea of men talking about women's health issues

-Group education offers the potential to address stigma and instill culture of health in mosque

ADDRESSING BARRIER BELIEFS

The 3R Model (provisional)

- **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

BARRIER BELIEFS & RELIGIOUSLY TAILORED MESSAGES

Belief	Reframe	Reprioritize	Reform
I believe mammograms are painful	The pain incurred on the path to a good deed (caring for body) is also rewarded by God	You have a stewardly duty to care for the body God gave and screening coheres with this duty	N/A *they are painful*
I fear positive test results	Knowing cancer status earlier is better than late diagnosis	-Reading the Qur'an and prayer are ways to reduce fear of the unknown -Do not fear results; God is merciful and whatever the outcome it is best	N/A *fear is a normal experience*
It is by Allah's will that I am sick or cured and I can do nothing to change my fate	N/A *Mammography screening does not implicate God's control over disease and cure*	You have the duty to care for the body God bestowed upon you; your actions are judged not the outcome	Human actions have effect; prayer can change decree
My family's needs and priorities are more important; they "should" come first	I cannot take care of my family if I do not take care of myself first	You have the duty to care for the body God bestowed upon you	Your primary responsibility is yourself and then others

BARRIER BELIEFS & RELIGIOUSLY TAILORED MESSAGES

Belief	Reframe	Reprioritize	Reform
Gender concordant care is islamically preferred	Most mammography centers have all female staff so you can live out the concordance mandate	Duty of stewardship outweighs Islamic modesty guidelines	Gender concordance preferred but in extenuating circumstances religious exemptions exist
Insurance policies (cost) make getting a mammogram difficult	Cancer care is more costly hence early detection through mammography is preferred	-Reading the Qur'an and prayer are ways to reduce fear of the unknown -Do not fear results; God is merciful and whatever the outcome it is best	N/A *perception may be truth*

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EXTRA SLIDES

PRACTICAL AND ETHICAL CONSIDERATIONS

- Selection of Strategy (& message):
  - Reframing implies normalization of belief → When is normalizing cultural/religious ideas appropriate?
    - Ex: Family over self
  - Reforming implies unorthodoxy of held belief → Who adjucates orthodoxy & heterodoxy?
    - Ex: Determinism & fatalism
  - Reprioritizing entails a value judgment → Are we instrumentalizing religion?
    - Ex: Does duty to body supercede other religious imperatives?

PRACTICAL AND ETHICAL CONSIDERATIONS

- Selecting the messenger:
  - Do we give the peer educator the "authority" to
    - Normalize some beliefs while marginalizing others?
  - Selectively seeking out religious authorities who share values with us might
    - Marginalize other religious views from a plural system
    - Naturalize religious authority in these figures