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Muslim women's perspectives on designing mosque-based women's health interventions—An exploratory qualitative study

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Abstract

Mosques could serve as a promising setting for health interventions. However, little empirical data are available to guide the development of mosque-based health interventions, especially for women. We aimed to assess Muslim women's views on effective strategies for mosque-based educational interventions to promote women's health. A sample of Muslim women of diverse ethnicity and race was recruited from mosques in Chicago to participate in semi-structured interviews. In interviews, nineteen participants (aged 41–67 years) discussed characteristics of the imam and peer educator, aspects of the intervention modality, and content of health messaging that would be effective in mosque-based health programs. Participants reported that imams should have health-related knowledge to deliver to be successful, while peer educators should be respected women, educated in both religion and health. Sermons and group education classes were believed to be modalities that could reach a large portion of the community for discussions of women's health issues. Participants also suggested that sermons should use scriptural sources to convey the importance of women's health. Participants supported imam-led sermons and peer-led educational classes as effective strategies to promote women's health. Our study results speak to strategies for leveraging religious concepts to promote health among Muslim women.

Keywords

Group education; health intervention; Islam; mosque; women's health

Introduction

Religion plays a central role in American Muslim women's perceptions of health and well-being and their health-seeking behaviors. For example, Muslim women who endorse fatalistic attitudes toward health (such as believing God decides who will get sick) might also view preventive actions to have no influence on their health outcomes (Ghebre et al. 2014). Religious guidelines rooted in conceptions of modesty lead many Muslim women to prefer gender-concordant care (Shahawy, Deshpande, and Nour 2015; Yosef 2008), and one study found that a significant proportion of women reported delaying seeking care when they perceived an unavailability of female physicians (Vu et al. 2016). Moreover, Muslims view worship practices, such as praying or reading the Quran, as methods of disease prevention as well as a means of healing (AlRawi et al. 2012; Ghebre et al. 2014), and these beliefs may also affect health-seeking behaviors. Given these religious influences on American Muslim health beliefs, preferences, and practices, health educational programs that are based in mosques use religious leaders, and leverage religious concepts have the potential to increase health knowledge and positively affect health behaviors in this population.

Mosques are important religious centers for American Muslims, offering worship services, lectures on religious teachings, and full-time or weekend Islamic school programs (Nguyen et al. 2013). Many mosques also serve the social needs of the community (Bagby, Perl, and Froehle 2001), providing a wide range of activities, programs, and services, including but not limited to civic and interfaith dialogues, marital and social counseling services, and basic needs assistance (Nguyen et al. 2013). Scant research has demonstrated that mosques might be effective venues for health promotion campaigns and programs. For example, pilot mosque-based health campaigns in England and Austria successfully attracted a large number of Muslim attendants (Ghouri 2005) and showed statistically significant decreases in study participants' unawareness of cardiovascular risk factors as well as their blood pressures (Bader et al. 2006), respectively. In addition, positive effects have been found of Muslim religious leaders in educating congregants on health issues during sermons and religious gatherings. Evidence has included an improvement in community members' knowledge of HIV/AIDS risks and prevention methods in Uganda (Kagimu et al. 1998) and increase in sermon attendees' malaria control practices in Tanzania (Mfaume et al. 1997), community members' tuberculosis screening rates in Bangladesh (Rifat et al. 2008), and actions related to family and reproductive health taken by sermon attendees in Jordan (Underwood and Kamhawi 2015). Imams have also successfully facilitated a mosque-based methadone maintenance treatment program for substance users in Malaysia (Rashid et al. 2014).

While the aforementioned studies show potential for mosques and religious leaders in health promotion, these studies took place outside of the United States and thereby limit our understanding of how to design health interventions in the American mosque setting. In addition, and importantly, these studies point to a need to explore further whether more novel strategies should be developed to specifically encourage women's attendance at and participation in mosque-based health interventions. Several of the aforementioned papers reported that their study populations that received health information were predominantly

Muslim men, because more men attended Friday sermons than women (Ghouri 2005; Underwood and Kamhawi 2015). Certain health messages and formats, for example Friday sermon messages on malaria control, also seemed to resonate more with male congregants (Mfaume et al. 1997). Moreover, preferences for non-mixing of women and men at health fairs have been noted, thus making problematic health interventions that might seek to speak to both male and female members of the community at the same time (Ghouri 2005).

Given the gap in the literature on health educational programs developed in the mosque setting specifically for American Muslim women, this study assessed Muslim women's views on effective strategies for mosque-based educational interventions to promote women's health.

Methods

Study design and population

This study focused on qualitative data obtained as part of a study of Muslim women's attitudes toward, and practices of, preventive health. Data collection for that larger study took place in two phases. In the first phase, we recruited English-speaking, self-identified Muslim women over the age of 40 years from nine mosques across the Greater Chicago area to participate in focus groups between August 2013 and January 2014 (Padela et al. 2016). We rotated our recruitment sites to obtain near-equal representation of Arab, South Asian, and African-American participants. We primarily used in-person recruitment via tables at events at these nine mosques. Of the 122 individuals recruited, 77 confirmed availability to attend the focus groups, and 50 (65 percent of those confirmed and 41 percent of the total pool) participants eventually participated in 6 focus groups. The present manuscript focuses on interview data obtained during the second phase of data collection. Between November 2014 and April 2015, forty women from the total pool of already recruited potential participants for focus groups who did not participate in focus groups were invited to participate in semi-structured one-on-one interviews, of whom fifteen participated (38 percent). After these women were interviewed, to achieve thematic saturation on the areas of interest to this study, five additional participants were recruited from the aforementioned mosques sites in Phase 1 and according to the same inclusion criteria, of whom four participated (80 percent). For the purposes of this study, a total of forty-five women were invited to participate in interviews, of whom nineteen (42 percent) participated. Data collection continued until thematic saturation on the areas of interest to the study was met. We strove for thematic saturation, regardless of the ethnicity of participants.

Of the nineteen interviewees, one participant was interviewed in person and provided written informed consent, while the rest of the interviews took place via phone, and oral informed consent was obtained. Participants received \$20 as a token of appreciation upon completing the interview. The study protocol was approved by the University of Chicago's Institutional Review Board.

Data collection

Two female researchers trained in qualitative methods conducted semi-structured individual interviews with each study participant. Interviews, lasted between 45 and 90 min, were scheduled at the convenience of participants, and all but one interview were conducted via phone. Participants' sociodemographic characteristics, levels of religiosity, and health services use information were collected at the end of the interview.

Interview questions explored women's thoughts on the effectiveness of using imam-led sermons as well as peer-led educational sessions for health promotion in mosque communities and how they might be used to improve Muslim women's health knowledge and preventive health behaviors.

Data analysis

Interviews were audio-recorded and transcribed verbatim. Data analysis was conducted using a grounded theory approach to identify inductively analytical categories emerging from the data (Glaser and Strauss 1967; Pope, Ziebland, and Mays 2007). First, three researchers read through interviews as a whole, and two researchers created content summaries for each interview with direct quotes included. After every two to three interviews, interview summaries were reviewed by the research team for emergent themes, and decisions to continue interviewing were made until no new themes were obtained. During this process, the research team also indexed data and identified emerging concepts. A coding scheme was created from the list of emerging concepts. A single researcher then applied this coding scheme to all interviews. In subsequent team meetings, new interview summaries were generated by code and reviewed, and disagreements in interpretations were resolved through team discussions. Based on team consensus, codes were then grouped into higher order conceptual themes. To ensure quality control of transcript coding, two research team members, in addition to the coder, independently reviewed interview summaries generated by codes and themes. NVivo 10 software was used to facilitate data analysis (NVivo qualitative data analysis software 2012).

Results

Participant characteristics

Of the nineteen participants, six were Arab/Arab-American, nine were South Asian, three were African-American, and one southeast Asian (Table 1). The median age of the study participants was 45 years. On a scale of 1–10, with 1 being the lowest and 10 being the highest level of religiosity, fourteen women (74 percent) rated themselves as 7 or above.

Transcript analyses were grouped into themes relevant to the conveyor of health-related messaging (messengers), the modalities, and the messages of a health intervention focused on promoting women's health.

Emergent themes

Imams as health messenger—Fourteen women mentioned that health-related discussions in the mosque setting currently either did not exist or only targeted general

issues, such as the religious duty of Muslims to take care of their health or announcements of upcoming health fairs. Eleven participants expressed a desire for imams to initiate or participate in conversations on women's health. A 44-year-old South-Asian participant said: "I think [conversations on women's health] would be refreshing and long overdue. 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."

In addition, participants also put forward recommendations for skills and knowledge that would be prerequisites for an imam to lead conversations on women's health. These skills and knowledge included the oratory ability to captivate congregants and the possession of accurate health-related knowledge. For example, a 41-year-old Asian participant said: "[The topic] has to be ... researched properly by the imam. It can't just be a hodgepodge discussion, like, 'Let's do this.' The imam has to be educated himself of what the topic and how he's going to bring it about to his people. He needs to know ... his audience, definitely he would have to make it appealing to them." A 62-year-old Arab participant described: "If you want the people to know [more about health], they have to have a good speaker. The way [the imam] presents it, it has to be ... when the whole [sermon] you listen and you feel you want to learn more and more."

It should be noted that while the majority of women were receptive of imam-led sermon on women's health, three participants expressed disapproval of this idea. Concerns about modesty were most frequently mentioned as a reason for why imams as well as other men should not be participating in discussions on women's health in the Muslim community. A 42-year-old African-American participant shared: "I just think in Islam, everything is about modesty. So, when you think about modesty, those types of female issues, women [not men] should address. ... You still got people culturally that they don't talk to men about stuff."

Friday sermons as health education modality—Eight participants agreed that Friday sermons could be an appropriate modality for learning about women's health. A 49-year-old South-Asian participant proposed: "Especially for the Muslim people, I think it is a very good idea to talk about [health] in the mosque like Friday sermon and all other programs." Reasons given included the idea that health education interventions should use any mosque space that offers the potential to target the whole community. Another 44-year-old South-Asian participant explained: "[Health education] in any public setting, it's going to be advantageous. 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. ... [Concerns about women's health] actually has to belong to the community. So any public setting I think, mixed genders."

Health education messages in sermons—Participants suggested messages that should be incorporated in Friday sermons to encourage the community to pay more attention to women's health. For example, a 51-year-old African-American participant noted that sermons should address the issue of women giving priority to their family's needs over their own needs: "Hopefully there are masjids ... that will remember to ... place upon the mother or the woman who is the caregiver of the home [the idea] that if she doesn't take care of

herself, no one is going to take care of the family.” In addition, a 43-year-old South-Asian participant recommended that sermons should highlight the importance of women’s health to male family members: “I think it would just be mutually motivating because it’s not just the woman being educated. It’s their husband being educated or it’s their son being educated or it’s the daughter being educated, saying that, ‘It’s time to get [health preventive practices] done now. I mean you heard what the imam said.’”

Women mentioned approaches to interweave religious concepts into sermons, noting that when health-related messages are framed as concordant with Islamic scriptures, they are more likely to resonate with community members. For example, a 43-year-old South-Asian participant said that sermons should attend to the concept of a Muslim’s religious duty to take care of their health: “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.’ If it’s just a lecture on breast cancer, then it’s so not going to go through it, but if it’s saying ‘Your bodies are gifts from God. You have responsibilities towards this, this, and this...’ and why it’s an obligation for them to get [breast cancer screening].” A 43-year-old Arab participant brought up the concept of religious fatalism, or the idea that God controls one’s health outcomes, as another topic to be targeted during sermons: “[Imams discussing women’s health] might help those that think, ‘Oh, I’m going to get what I’m going to get because God gave it to me.’ But there are still things that we have to do.”

Peer educators as conveyors of health messages—Twelve women indicated that they were receptive to having other community women, or “peer educators,” deliver lectures on women’s health. Five participants also indicated that they preferred female peer educators to imams when thinking about the most appropriate messengers for women’s health education. For example, a 66-year-old Arab participant said: “There’s no need [for an imam]. ... You’ve got a lot of ladies out there. They’re educated. ... A woman likes to talk to another woman.”

Participants described that the ideal female peer educators should be women who are involved in the community and/or respected by the community. A South-Asian participant said: “Who will be best for giving this type of education? Any people in the community, who are working in the community, who are involved in the community.” A 66-year-old Arab participant explained: “I know [community women] trust somebody that they’ve known for a long time. ... It’s like when a friend of yours gives you an advice, or somebody that you’ve just seen for the first time. You’re going to take more seriously somebody you know more.” Another 50-year-old Arab participant stated that “[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 people.”

In addition, some participants thought that peer educators should also have both clinical and religious training and knowledge. A 40-year-old South-Asian participant explained: “[Peer educators should] have both knowledge from the educational side as well as the religious side. Those types of women are more helpful. ... Because if someone’s like, okay, so she’s

only religious, but she doesn't know anything about health. And then she just knows about health but she's not talking with them, that is—our religion does not accept.”

Group education classes as health education modality—Participants described that the modality of group education could facilitate community women into conversations about women's health and normalize any fear that women might have about discussing health issues in the community. A 50-year-old Arab participant stated: “When you sit with other people and you listen to ... it makes you open up more. ... I do believe in sharing and talking about things.” A 40-year-old South-Asian participant said: “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,’ and then now they're looking at me, ‘Join this one.’ I feel like there's nothing wrong in doing that....”

Health education messages in group education classes—A few participants reported that their community currently placed a low priority on preventive care and said that group education classes should highlight informational and access resources for preventive care for women as well as topics such as fear of diagnosis or positive outcome expectations of preventive screening. Moreover, in thinking about marketing the classes to the general community, a 43-year-old South-Asian participant noted that the Muslim community would be more accepting of health messages that did not focus solely on a specific illness or disease: “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. So it would be more about healthy eating, preventative medicine.”

Discussion

Our study elicited perspectives from nineteen American Muslim women about the design of health programs addressing women's health in mosque communities. To our knowledge, our study is the first to examine Muslim women's views on mosque-based health intervention programming. We found that our study participants voiced support for having imams and peer educators leading sermons and group classes on women's health, respectively. Participants proposed that imams should have the ability to give captivating sermons and should possess proper health-related knowledge. According to participants, Friday sermons would be a modality that could enable health information to reach the whole Muslim community. They also reported that health messages included in sermons should help male family members understand the importance of women's health, address the idea of women putting family's needs over their needs, and leverage religious concepts such as one's duty to take care of their body. In addition, participants suggested that female peer educators should be women who are involved in or respected by the community and have both religious training and health education qualifications. Participants also mentioned that group education classes could help normalize any stigma or hesitation to discuss women's health issues, and that group education classes health messages should introduce them to access resources for women's health and address holistic dimensions of women's health.

Our work has important implications for researchers looking to integrate imams and Friday sermons in health promotion interventions for Muslims, and especially in the American context. The limited literature on this topic has shown promising results with regard to interventions taking place outside of the United States. For example, a study in Tanzania using religious preachers to deliver malaria control health messages during Friday prayers showed that many congregants expressed favorable opinions of the sermons, and they later discussed the messages in the sermons heard with other family members and friends (Mfaume et al. 1997). In addition, Rashid and colleagues documented a mosque-based intervention for methadone users in Malaysia that included a component of religious leaders discussing reliance on faith to overcome obstacles (Rashid et al. 2014). They found that participants' drug use, social dysfunction, and health problems score all significantly decreased after 12 months (Rashid et al. 2014). To our knowledge, no interventions in the United States to date have engaged imams as key players in promoting health. Our previous qualitative inquiry demonstrated that American Muslims in that study perceived imams to be important spiritual counselors who could encourage healthy behaviors through using scriptural sources and who could advise on health-care decisions using an Islamic worldview (Padela et al. 2011). Our findings thus extend this literature by providing confirmation that American Muslim women welcome imams talking about health, and that women believe sermons to be an effective modality for health education.

Study participants indicated a preference for health messages in Friday sermons to be replete with religious examples. In the previously mentioned study on malaria control in Tanzania, Mfaume and colleagues demonstrated that the congregants considered sermons to have more impact if health education messages were linked to the Qur'an and *hadith* (the statements, actions, and tacit approvals of Prophet Muhammad). Several studies have suggested that this approach of framing health messages alongside scriptural sources is effective in promoting health practices' knowledge in other minority populations, for example, the promotion of breast, cervical, and colorectal cancer screening among Latinas (Allen et al. 2014), cancer screening in Samoans (Aitaoto et al. 2007), and breast and cervical cancer screening and cardiovascular disease health education in African-Americans (Matthews et al. 2006; Tettey et al. 2016). Our finding continues highlighting the importance of integrating relevant theological concepts and spiritual beliefs into health promotion campaigns (Bopp et al. 2013).

While the majority of our study participants welcomed imam-led Friday sermons on health, a few women did voice disapproval of the idea of men talking about women's health issues due to modesty concerns. As such, we recommend that researchers pay attention to culturally and religiously informed notions of modesty (Vu et al. 2016) and incorporate health messages in imam-led sermons in a way that they do not dwell on any specific women's health topics that can make female congregants feel embarrassed. In addition, we also emphasize peer-led group classes in which women can talk to other women in private as an important complement to imam-led sermons in mosque-based health interventions. Peer-led group education also can address concerns that had been raised in aforementioned studies about health information not reaching community women due to the low number of women attending sermons (Ghouri 2005; Underwood and Kamhawi 2015). Our participants were receptive of peer-led group classes, and some indicated their preference to have other

community women, rather than men, deliver women's health lectures. We also again underscore the importance of religious knowledge in selecting peer educators for the Muslim community, since women in our study expressed a desire for the peer educators to have not only health knowledge but also religious training.

The literature on church-based peer-led group education has demonstrated that this form of education can offer participants opportunities for social interactions and meeting people in the community with different health statuses and experiences (Baig et al. 2012). Similarly, our study results indicated that participants saw group education as a modality that could ease Muslim women into conversations with other community women about health and normalize any stigma of discussing women's health.

Strengths and limitations

The strengths of our project included the use of a mosque-community-based approach to recruitment as well as the sampling of Muslim women from different racial and ethnic backgrounds. Nevertheless, our strategy targeted English-speaking women aged 40 years and older who frequented worship, educational, and social events at mosques, and this strategy might have limited the generalizability of our findings. In addition, the project used convenience sampling, and data on the total number of women over the age of 40 years who attended the mosques from which we recruited were not available. This sampling method and lack of estimate of the total of population as well as the relatively poor participation rate (nineteen of forty-five women) may have introduced selection and participation biases into the study so that the results may not accurately reflect those of Muslim women. Moreover, because our interview questions elicited perspectives on health promotion, the possibility of social desirability bias in individual self-reported interviews was also present.

Implications for practice

American Muslims are a growing population (Center, Pew Research 2015), and mosques in America have experienced a 74 percent increase in number from 2000 to 2011 (Bagby 2012). We believe that mosque-based interventions have the potential to improve health behaviors and outcomes for Muslim women. Future studies should integrate imams and peer educators and use theologically framed messages about health in sermons and group education classes to promote health in this population most effectively.

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Table 1

Characteristics of interview participants.

Characteristic	<i>N</i> = 19
	No. (percent)
Sociodemographic characteristics	
Racial/Ethnic background	
African American/Black	3 (15.8)
South Asian	9 (47.4)
Arab/Arab American	6 (31.6)
Southeast Asian	1 (5.3)
Age group (years)	<i>n</i> = 18 ^a
40–49	11 (61.1)
50–74	7 (38.9)
Mean (range)	45 (range: 41–67)
Marital status	<i>n</i> = 19
Married	17 (89.5)
Highest level of education	<i>n</i> = 19
High school/GED or less	4 (21.1)
Associates	3 (15.8)
Bachelors	7 (36.8)
Advanced degree (masters or higher)	5 (26.3)
Duration in the United States	<i>n</i> = 19
Less than 15 years	3 (15.8)
16–20 years	3 (15.8)
More than 20 years	13 (68.4)
Annual household income	<i>n</i> = 16 ^b
Less than \$60,000	7 (43.8)
\$60,000–\$90,000	6 (37.5)
Over \$90,001	3 (18.8)
Health services utilization	
Have a primary care physician	<i>n</i> = 19 19 (100)
Religiosity	
Islamic affiliation	<i>n</i> = 19
Sunni	15 (78.9)
Rating of religiosity (on 1–10 scale)	<i>n</i> = 18 ^a
5 (somewhat religious)	2 (11.1)
6	2 (11.1)
7	7 (38.9)
8	3 (16.7)
9	1 (5.6)
10 (very religious)	3 (16.7)

<i>N</i> = 19	
Characteristic	No. (percent)
Wear hijab	<i>n</i> = 19
Yes	18 (94.7)

^aData were missing for one participant.

^bData were missing for three participants.