Associations with the Receipt of Colon Cancer Screening Among a Diverse Sample of Arab Americans in NYC

Claudia Ayash[1], **Dalal Badreddine**[1], **Redwane Gatarny**[1], **Minlun Wu**[1], **Zeinab Alward**[1], **Nicole Roberts-Eversley**[1], **Haley Thompson**[2,3], **Francesca Gany**[1,4,5,6]

[1]Immigrant Health and Cancer Disparities Service, Department of Psychiatry and Behavioral Sciences, Memorial Sloan Kettering Cancer Center, 485 Lexington Avenue, 2nd floor, New York, NY, USA

[2]Oncology Department, Wayne State University School of Medicine, Detroit, USA

[3]Community Outreach and Engagement at Karmanos Cancer Institute (KCI), KCI's Office of Cancer Health Equity and Community Engagement, Wayne State University School of Medicine, Detroit, USA

[4]Department of Medicine, Memorial Sloan Kettering Cancer Center, New York, NY, USA

[5]Department of Healthcare Policy and Research, Weill Cornell Medical College, New York, NY, USA

[6]Department of Medicine, Weill Cornell Medical College, New York, NY, USA

Abstract

Arab Americans (AA) face increased risk for colorectal cancer (CRC), the third leading cause of cancer-related death in the US, due to low utilization of preventative care and socioeconomic disparities. This study explores associations with the receipt of CRC screening among AA in New York City. A cross-sectional survey was conducted among 100 individuals attending religious and community organizations with interviewer-administered surveys in Arabic and English. Results from 100 participants showed they were more likely to complete CRC screening with a doctor recommendation (74%) and were more likely to get a recommendation with a high school education or higher (86%). Uninsured participants and those with public insurance were the least likely to complete screening. Those with a higher mean score in Spiritual Life/Faith (13.34 vs. 11.67) were less likely to complete screening. Findings suggest the need for culturally sensitive interventions to increase CRC screening rates among AA.

Keywords

Immigrant health; Colorectal cancer screening; Colorectal cancer; Arab Americans; Minority health

Claudia Ayash ayashc@mskcc.org.

Background

It is estimated that over one million, 2.5%, of the 41.3 million immigrants in the U.S., hail from the Middle East and North Africa [1]. Since 1980, the number of people who identify as Arab in New York state has more than doubled to the current 449,187, which puts New York Arabs as one of the fastest growing Arab populations in the country. The largest number of new Arab immigrants to New York come from Egypt, Yemen and Morocco [2].

Colorectal Cancer (CRC) rates are increasing in a number of Arab countries and patients are being diagnosed at younger ages [3], as Arabs adopt a more Westernized diet, and with increasing rates of obesity [4, 5]. In the United States, colorectal cancer (CRC) is the third most common cancer diagnosed and the third leading cause of cancer-related death in both men and women [6]. In 2017, there will be an estimated 135,430 new cases of CRC in the United States and an estimated 50,260 people will die from CRC [7]. Studies in Michigan, home to the second largest Arab community in the U.S. after California, reveal high CRC incidence and mortality among Arab Americans there [8, 9].

Screening for CRC for adults between 45 and 75 years of age can lead to early diagnosis and can also be preventive. Screening test use has contributed to the decrease in CRC mortality among US men and women [9–11]. Although screening for CRC has increased significantly nationwide, studies have shown that the rate of CRC screening remains low among Arab Americans [8, 10]. In a Michigan study, only 45.6% of the eligible Arab Americans underwent CRC screening, compared to 70.9% of Michigan's total eligible population in the same year [8]. Access to screening may be hindered by lack of health awareness, non-recommendation by the primary care physician, language, cultural beliefs, and attitudes of health professionals [12]. Factors such as race, age, ethnicity, education, income, period of residence in the United States, health insurance, usual source of care, recent physician visit, use of other cancer screening tests, and recommendation from a physician for screening significantly impact access to and utilization of CRC tests [10]. Socioeconomic disparities also modulate CRC screening test use [13]. A health assessment conducted in Southwest Brooklyn, the largest Arab American area in New York City (NYC), showed that over 50% of Arab households lived below the poverty level and nearly 30% had no health insurance [13].

Spiritual beliefs may also impact cancer screening practices [14–16]. However, studies on the effects of spirituality and religion on cancer screening in Arabs in the United States are limited. In a focus group study with Muslim and Christian Arabs to examine factors that act as barriers to utilization of cancer prevention, treatment, and support services, most participants reported their belief that health is in God's hands and that cancer is a punishment by God or that the prospect of a cure is up to God [16]. A qualitative study of mammography intention with proportional numbers of Arab, South Asian and African American Muslim women over 40 showed that some women perceived taking care of their bodies and health as part of their duties towards God, and that religious practices such as praying and fasting were important in maintaining good health [15].

Arabs, despite their growing numbers and at times greater risk, such as with CRC, receive little attention in health research [4, 5]. Despite higher CRC rates [8, 16, 17], there are limited data documenting associations with the CRC screening among Arab Americans. This study explores associations with the receipt of CRC screening, including socioeconomic factors and spiritual beliefs, among Arab Americans in New York City. Results can help guide interventions to increase CRC screening rates in this high-risk population.

Methods

The Arab Health Initiative (AHI), housed at Memorial Sloan Kettering Cancer Center, addresses cultural, linguistic and socioeconomic barriers to accessing health services and conducts research to improve health outcomes among Arab communities, locally in New York City, nationally, and internationally [16, 18, 19]. AHI collaborates with community and religious-based organizations servicing the Arab community, to link community members to health resources and services.

Design

This study, designed by AHI in partnership with the Population Studies and Disparities Research Program at Wayne State University School of Medicine, Department of Oncology, was a cross-sectional survey conducted among individuals attending religious and community-based organizations (CBOs) that are part of the AHI network. The project received Memorial Sloan Kettering Cancer Center Institutional Review Board exemption and a waiver of written consent was granted.

Settings

The research team visited large Arab community sites. Participants were recruited at mosques, churches, and at Arab American CBOs which provide social services to the Arab population in Manhattan, Brooklyn, the Bronx and Queens.

Participants

Eligibility for participation included: (1) Adult between the ages of 50–75 years (according to the CRC screening guidelines at the time of recruitment), (2) Identifies as Arab, (3) Moved to the US after the age of 12 years, (4) Lives in New York City, and (5) Has self-reported proficiency in either English, Arabic or both.

Data Collection

Each person was screened for eligibility. If eligible, the participant was informed of the purpose of the study, received a study brochure and oral consent was obtained to begin the questionnaire. AHI research staff administered a questionnaire in the patient's preferred language, which was Arabic for all participants except for one who preferred to answer in English. Participants were given a $15 gift card as an incentive for their participation.

Measures

The questionnaire included sociodemographic data; health care access questions; and colorectal cancer screening and attitudes questions. Spiritual beliefs were measured using the Spiritual Health Locus of Control scale [20–22].

The sociodemographic characteristics queried included: sex, age, marital status, family size, household members, education, place of birth, income amount, employment status, and occupation. In addition, the survey asked questions related to immigration/acculturation (e.g. time in the US, preferred language, and spoken English proficiency) using the Acculturation Rating Scale of Arab Americans II (ARSAAII), a 30-item measure assessing acculturation among Arab Americans. The ARSAAII includes two subscales: 13 items measuring attraction to American culture and 15 items measuring attraction to Arab culture. This questionnaire has been validated in Arabic [23]. Participants were asked about their healthcare status, race or ethnicity of provider, language used by provider to communicate with patient, frequency of clinic and hospital visits, and overall satisfaction with healthcare [24].

The questionnaire and other study documents were translated into Arabic and then back translated into English. Two different translators conducted the translations independently. Once the back translation was completed, study personnel noted any items where content or style was in question. A final revision by the head Arabic translator was then executed to produce the final version in Arabic.

Participants were asked about their colorectal cancer screening history, and their providers recommendations regarding colorectal cancer screening, with a 17 question survey with questions taken from the Behavioral Risk Factor Surveillance Survey (BRFSS) [24]. This scale is currently validated in English. [25]. Colorectal cancer tests included colonoscopy and FOBT (fecal occult blood test) or FIT (fecal immunochemical test).

The Spiritual Health Locus of Control Scale [20] uses questions with a five-point Likert-type scale (1 = strongly disagree to 5 = strongly agree)to assess spiritual beliefs as they pertain to health. This scale is currently validated in English [20]. This 13-item multidimensional scale has 4 subscales: (1) Spiritual Life and Faith (α = .81), referring to belief that God will keep one healthy if one is faithful; (2) Active Spiritual (α = .66), referring to the idea of both God and the self each doing their part for health; (3) God's Grace (α = .63), referring to the notion of a powerful but good God that has control over health; and (4) Passive Spiritual (α = .51), referring to belief that God has control over one's health, and thus one need not do anything to impact their health. The questionnaire, which was administered by research staff, took approximately 45–60 minutes to administer.

Analysis

Statistical association between the recipient of self-reported CRC screening/ recommendations and categorical covariates were analyzed using a series of univariate Chi square statistics. SHLC were scored into 4 subscales (Spiritual Life/Faith, Active Spiritual, God's Grace and Passive Spiritual). Correlation between SHLC and self-reported CRC

screening/recommendations were calculated using point-biserial test. Mean SHLC scores were compared between Christian and Muslim participants, using ANOVA test. Statistical significance was considered at p 0.05. All statistical analyses were conducted using SPSS version 24 [26].

Results

There were 251 participants screened for eligibility. Of the 251 participants, 40 were ineligible because they were less than 50 years old or not living in NYC. One-hundred eleven were eligible but declined participation because they were either not interested (n = 51) or did not have time (n = 60). Data from one-hundred eligible participants who agreed to participate were included in the analyses. (Table 1).

The mean age of participants was 59.96 years (SD = 7.26). Most participants (80.6%) were married, and more than half (54%) had a high school degree or higher. Males and females differed in education levels, with 64% of men with a high school degree or higher compared to 44% of women. There were participants from 11 countries of origin, with the majority from Egypt (32.0%), Yemen (15.0%), and Morocco (12.0%). More than half (53%) of participants indicated that they were proficient in both English and Arabic. A larger percentage of males (74%) were proficient in both languages compared to 32% of women. Seventy two percent of participants were Muslim, and 28% Christian. The majority of respondents reported making less than $10,000 last year or between $10,000 and $20,000 (28.2% and 29.6%, respectively). Most of the male participants (87.2%) indicated that they were the main source of their family's income, compared to 28.6% of female participants. The majority of males were employed full-time (56.2%), followed by retired (16.7%), and then by part-time (14.6%), and unemployed (12.5%). Most female participants were unemployed (68.8%), followed by employed part-time (10.4%), full-time (8.3%), and retired (8.3%).

Table 2 summarizes the association between CRC screening receipt and respondent characteristics (N = 100). Our result shows participants were more likely to complete a CRC screening test if their doctor recommended one (74%), compared to those who didn't get a CRC recommendation (0%), at p < 0.001. Participants who were insured were more likely to have completed CRC screening. Among insured participants, those who had Medicaid or other public insurance (52% vs. 78% employer-based insurance, p < 0.01) were the least likely to have completed CRC screening. Similarly, insurance was also associated with getting recommendations for a CRC screening test from the doctor, as employee-based insurance holders (100%) were the most likely to get a CRC screening recommendation from their doctors, when compared to other participants (28.6% no insurance, 79.2% Medicaid or other public insurance, 80% Medicare), at p < 0.01. In addition, respondents who had a high school education or higher (86.0%) were more likely to get a recommendation for a CRC screening test than those who did not complete high school (66.7%), at p 0.05. In terms of spiritual beliefs, those who had a higher mean score in Spiritual Life/Faith (13.34 vs. 11.67, p 0.01) and God's Grace (17.95 vs. 16.63, p 0.05) were less likely to have completed CRC screening.

The impact of religious affiliation on participants' spiritual beliefs was examined (Table 3). There was no statistical significance between the responses of Christian and Muslim participants in Spiritual Life/Faith or God's grace. Muslims [13.68 SD (1.720)] had a significantly higher mean score in Active Spiritual than Christians [12.85 SD (2.033)], meaning Muslims were more likely to have the idea that both God/Allah and the self each do their part for health than Christians, at the p 0.05. In addition, Christians [7.15 SD (2.092)] had a significantly higher mean score in Passive Spiritual than Muslims [6.05 SD (2.472)], meaning compared to Muslims, Christians were more likely to believe that God has control over one's health, and thus one does not need to do anything to impact their health, at the p 0.05.

Discussion

In this sample of 100 Arab Americans living in New York City, associations with the receipt of CRC screening uptake included socioeconomic factors (i.e. education level, health insurance coverage), doctor recommendations, period of residence in the United States, and spiritual and religious beliefs. Although studies have shown high CRC incidence and mortality rates among Arab Americans [17, 27], this is one of the few studies to document associations with the receipt of CRC screening among this population [28–30].

Higher level of education was significantly associated with higher rates of getting a recommendation to have CRC screening by the primary care physician but not significantly associated with completing screening for CRC. Previous studies have shown the effect of lower education on increasing the risk of non-participation in CRC screening [31, 32]. According to a systematic review of socioeconomic factors and doctor-patient communication, more educated patients tend to communicate more actively with their physicians than patients with a lower education level, eliciting more information [33]. A study of primary care visits in New York concluded that physicians spent less time on questions from patients with lower education, and less screening tests were introduced to them [33].

There was a significant association between the length of stay in the United States and the likelihood of receiving a CRC screening recommendation and completing the test. The longer the participants lived in the United States, the more likely they received the recommendation for CRC screening, and the more likely they would have done the test. These results are consistent with a study about predictors of CRC screening among Arab Americans in Michigan [28]. Other studies found a positive association between length of stay among different immigrant groups in the US and CRC screening [34] and positive perceptions about CRC screening [35].

Participants were more likely to complete a CRC screening test if their doctor recommended one. In recent studies, the role of primary care physicians in screening for CRC has been recognized as very important [36, 37] as they play a key role in increasing the participation rate in CRC screening programs [36, 37]. Data indicate higher participation rates in CRC screening programs with the involvement of a general practitioner and reduction of barriers that discourage participation including lack of time and scheduling issues [36]. Another

study found that in addition to a recommendation from a physician, knowing someone who has/had cancer were the most common factors in patients decisions to complete CRC screening [36, 37].

Participants who lacked health insurance coverage had significantly lower CRC screening rates. Participants reported higher probability of one's PCP not recommending CRC screening if they were uninsured or had public insurance. These findings are consistent with other studies that showed a higher association between having health insurance and completing colorectal screening among Arab Americans [28, 30, 38]. According to studies conducted with other immigrants groups including Latinos and Asian Americans, participants who had health insurance were more likely to receive screening for colorectal cancer [39].

The completion of CRC screening was negatively associated with the belief that God: (a) will keep one healthy if one is faithful, and (b) has control over health. Most of the participants, whether Muslim or Christian, believed that staying healthy is a grace from God, that God works through doctors to heal them and that prayer is the most important thing they do to stay healthy. These beliefs were consistent with a previous study, where both Arab Muslim and Christian focus group participants mentioned God when talking about their health [16]. Muslims, however, were more likely to believe in the idea that both God and the self each doing their part for health while Christians were more likely to believe that God has control over their health.

New Contributions to Literature

We believe this study to be the first of its kind to examine the factors associated with the receipt of CRC screening within a solely Arab American population. The findings provide valuable information to healthcare providers and health educators in designing culturally sensitive interventions and educational materials to increase CRC screening rates in this population with a focus on the uninsured. A successful intervention that utilizes a community based participatory approach and provides culturally appropriate Arabic language breast cancer education, screening coordination, and cultural competency training for healthcare professionals to increase breast cancer screening among Arab women could be replicated for CRC education and screening coordination in an Arab community [18]. Based on what we learned in this study, educating physicians in the community, who are trusted healthcare professionals, on the importance of focusing on more recent immigrants, available community resources to assist the uninsured and underinsured, and religious and spiritual issues that may directly affect screening uptake can improve CRC screening rates in an age-appropriate Arab American population. Furthermore, culturally tailored resources should be developed and partnerships with community based and religious institutions should be forged to facilitate trust with this potentially hard to reach population, to help improve access to available CRC services.

Study Limitations

Our study has several limitations. First, the sample size was small, which resulted from difficulties in recruiting Arab American participants due to the strict age criteria. Second, the income variable was hard to collect with this population due to their limited knowledge about their household income. The income variable was also collected in categorized groups which made it hard to calculate the income for participants based on household size, therefore, we could not infer a relationship between CRC screening and income level. Also, the majority of participants were from the following three Arab countries: Egypt, Yemen, and Morocco. Although immigrants from these countries represent the majority of new Arab immigrants in New York City, this demographic composition may affect the generalizability of the results for other Arab populations. Lastly, the BRFSS and the Spiritual Health Locus of Control scales used in this study have not been validated in Arabic. Future studies should include more representation from different Arab countries.

Acknowledgements

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Table 1

Demographic Characteristics, n = 100

Characteristic	Overall n (%)	Male, n = 50 n (%)	Female, n = 50 n (%)
Age in years (mean [SD])	59.67 (SD = 7.026)	61.28 (7.41)	58.02 (6.26)
Education			
High school and above	54 (54.0)	32 (64.0)	22 (44.0)
Less than high school	46 (46.0)	18 (36.0)	28 (56.0)
Marital status			
Married	79 (80.6)	47 (95.9)	32 (65.3)
Divorced	7 (7.1)	1 (2.0)	6 (12.2)
Widowed	7 (7.1)	0 (0.0)	7 (14.3)
Other	5 (5.1)	1 (2.0)	4 (8.2)
Birth country			
Egypt	32 (32.0)	21 (42.0)	11 (22.0)
Yemen	15 (15.0)	6 (12.0)	9 (18.0)
Morocco	12 (12.0)	6 (12.0)	6 (12.0)
Lebanon	10 (10.0)	6 (12.0)	4 (8.0)
Palestine	11 (11.0)	3 (6.0)	8 (16.0)
Iraq	5 (5.0)	1 (2.0)	4 (8.0)
Jordan	5 (5.0)	2 (4.0)	3 (6.0)
Syria	4 (4.0)	1 (2.0)	3 (6.0)
Sudan	3 (3.0)	2 (4.0)	1 (2.0)
Algeria	2 (2.0)	1 (2.0)	1 (2.0)
Saudi Arabia	1 (1.0)	1 (2.0)	0 (0.0)
Are you proficient in			
Arabic	40 (40.0)	9 (18.0)	31 (62.0)
Both	53 (53.0)	37 (74.0)	16 (32.0)
Religion			
Christianity	28 (28.0)	10 (20.0)	18 (36.0)
Muslim	72 (72.0)	40 (80.0)	32 (64.0)
Household income last year			

Characteristic	Overall n (%)	Male, n = 50 n (%)	Female, n = 50 n (%)
Less than $10,000	20 (28.2)	4 (10.3)	16 (50.0)
$10,000 to $20,000	21 (29.6)	12 (30.8)	9 (28.1)
$21,000 to $30,000	14 (19.7)	12 (30.8)	2 (6.3)
$31,000 to $40,000	5 (7.0)	4 (10.3)	1 (3.1)
$41,000 to $50,000	4 (5.6)	3 (7.7)	1 (3.1)
More than $50,000	7 (9.9)	4 (10.3)	3 (9.4)
Are you the main source of your family's income?			
Yes	55 (57.3)	41 (87.2)	14 (28.6)
No	41 (42.7)	6 (12.8)	35 (71.4)
Employment status			
Full-time	31 (32.3)	27 (56.2)	4 (8.3)
Part-time	12 (12.5)	7 (14.6)	5 (10.4)
Retired	12 (12.5)	8 (16.7)	4 (8.3)
Unemployed	39 (40.6)	6 (12.5)	33 (68.8)
Other	2 (2.1)	0 (0.0)	2 (4.2)
SHLC score [mean (SD)]			
Spiritual life/faith	12.44 (2.964)	12.43 (3.358)	12.45 (2.535)
Active spiritual	13.45 (1.842)	13.65 (1.853)	13.24 (1.828)
God's grace	17.17 (3.020)	17.04 (3.379)	17.30 (2.653)
Passive spiritual	6.42 (2.519)	6.42 (2.519)	6.32 (2.332)
Total score	49.35 (7.262)	49.44 (8.247)	49.26 (6.294)

All missing values were excluded from calculating percentages and p-values

Table 2

Screening Rate and Recommendation in Association with Predictors, n = 100

	Has a doctor ever recommended that you have a CRC screening?			Have you ever gotten a CRC screening?		
	Yes n = 71[a]	No n = 21[a]	p value	Yes n = 52[b]	No n = 40[b]	p-Value
Gender						
Male	37 (80.4)	9 (19.6)	0.620	28 (60.9)	18 (39.1)	0.528
Female	34 (73.9)	12 (26.1)		24 (52.2)	22 (47.8)	
Religion						
Christianity	20 (80.0)	5 (20.0)	0.786	14 (53.8)	12 (46.2)	0.817
Muslim	51 (76.1)	16 (23.9)		38 (57.6)	28 (42.4)	
Preferred language for health communication						
Arabic	52 (74.3)	18 (25.7)	0.324	38 (53.5)	33 (46.5)	0.489
English	15 (93.8)	1 (6.3)		10 (66.7)	5 (33.3)	
French	1 (100.0)	0 (0.0)		1 (100.0)	0 (0.0)	
German	1 (100.0)	0 (0.0)		1 (100.0)	0 (0.0)	
Education						
High school and below	28 (66.7)	14 (33.3)	**0.045**	20 (46.5)	23 (53.5)	0.092
More than high school	43 (86.0)	7 (14.0)		32 (65.3)	17 (34.7)	
Household income last year						
Less than $10,000	14 (73.7)	7 (26.3)	0.612	9 (45.0)	11 (55.0)	0.244
$10,000 to $20,000	14 (73.7)	5 (26.3)		12 (60.0)	8 (40.0)	
$21,000 to $30,000	10 (90.9)	1 (9.1)		8 (80.0)	2 (20.0)	
$31,000 to $40,000	4 (80.0)	1 (20.0)		2 (40.0)	3 (60.0)	
$41,000 to $50,000	3 (75.0)	1 (25.0)		3 (75.0)	1 (25.0)	
More than $50,000	7 (100.0)	0 (0.0)		6 (85.7)	1 (14.3)	
Employment status						
Full-time	26 (83.9)	5 (16.1)	0.337	16 (53.3)	14 (46.7)	0.073
Part-time	8 (80.0)	2 (20.0)		7 (70.0)	3 (30.0)	
Retired	10 (83.3)	2 (16.7)		10 (83.3)	2 (16.7)	
Unemployed	22 (64.7)	12 (35.3)		15 (42.9)	20 (57.1)	
Other	2 (100.0)	0 (0.0)		2 (100.0)	0 (0.0)	

	Has a doctor ever recommended that you have a CRC screening?			Have you ever gotten a CRC screening?		
	Yes n = 71[a]	No n = 21[a]	p value	Yes n = 52[b]	No n = 40[b]	p-Value
Type of health insurance			0.008			0.005
No insurance	2(28.6)	5(71.4)		0(0.0)	7(100.0)	
Medicaid/other public	38(79.2)	10(20.8)		25(53.2)	22(46.8)	
Medicare	4(80.0)	1(20.0)		5(83.3)	1(16.7)	
Employer-based	9(100.0)	0(0.0)		7(77.8)	2(22.2)	
More than one insurance	14(87.5)	2(12.5)		12(75.0)	4(25.0)	
Provider's gender			1			1
Male	45 (78.9)	12 (21.1)		33 (57.9)	24 (42.1)	
Female	23 (82.1)	5 (17.9)		17 (60.7)	11 (39.3)	
Language for health communication			0.765			0.183
Arabic	43 (81.1)	10 (18.9)		28 (51.9)	26 (48.1)	
English	26 (76.5)	8 (23.5)		23 (69.7)	10 (30.3)	
French	1 (100.0)	0 (0.0)		1 (100.0)	0 (0.0)	
Overall, how much do you trust your doctor?			0.670			0.927
A lot	42 (79.2)	11 (20.8)		30 (56.6)	23 (43.4)	
A fair amount	23 (85.2)	4 (14.8)		16 (59.3)	11 (40.7)	
A little	2 (66.7)	1 (33.3)		2 (66.7)	1 (33.3)	
Not at all	0 (N/A)	0 (N/A)		0 (N/A)	0 (N/A)	
Provider's race			1			1
Arab/Arab American	43 (81.1)	10 (18.9)		30 (55.6)	24 (44.4)	
Caucasian or white	5 (83.3)	1 (16.7)		3 (50.0)	3 (50.0)	
SHLC score	Mean (SD)	Mean (SD)	Sig	Mean (SD)	Mean (SD)	Sig
Spiritual life/faith	11.67 (3.284)	13.34 (2.269)	0.160	11.67 (3.284)	13.34 (2.269)	0.008
Active spiritual	13.27 (2.031)	13.70 (1.596)	0.907	13.27 (2.031)	13.70 (1.596)	0.290
God's grace	16.63 (3.520)	17.95 (2.134)	0.236	16.63 (3.520)	17.95 (2.134)	0.047
Passive spiritual	6.45 (2.459)	6.05 (2.309)	0.312	6.45 (2.459)	6.05 (2.309)	0.451

Numbers are n (%) unless otherwise indicated. All missing values were excluded from calculating percentages and p-values

[a] 8 with no response to this question

[b] 8 with no response to this question

Table 3

The Spiritual Health Locus of Control Scale (SHLC) by religious affiliations (N = 100)

SHLC Score	Mean (SD)		Sig	Items
	Christian (N = 28)	Muslim (N = 72)		
Spiritual life/faith	12.19 (2.669)	12.54 (3.071)	0.616	Through my faith in God/Allah, I can stay healthy
				If I lead a good spiritual life, I will stay healthy
				If I stay healthy, it's because I am right with God/Allah
Active spiritual	12.85 (2.033)	13.68 (1.720)	**0.050**	Living the way the Lord/Allah says I'm supposed to live means I have to take care of myself
				Even though I trust God/Allah will take care of me, I still need to take care of myself
				God/Allah gives me the strength to take care of myself
God's grace	16.69 (3.026)	17.25 (3.037)	0.678	I rely on God/Allah to keep me in good health
				God/Allah works through doctors to heal us
				Prayer is the most important thing I do to stay healthy
				If I stay well, it is because of the grace of the good Lord/Allah
Passive spiritual	7.15 (2.092)	6.05 (2.472)	**0.048**	It's ok not to seek medical attention because I feel that God/Allah will heal me
				There is no point in taking care of myself when it's all up to God/Allah anyway
				God/Allah and I share responsibility (reverse)
Total score	51.000 (8.546)	51.84 (7.964)	0.658	