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Knowledge, attitude and practices of islamic scholars on cancer care and preventive measures in Ile-Ife, Nigeria: Implication for policy action

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Abstract

Background: Cancer is currently one of the leading causes of morbidity and mortality, especially among adults globally. It is important to understand the perspectives of religious leaders on cancer prevention and care since their doctrines have tremendous impacts on the behaviour of their followers. This study assessed the knowledge, attitudes, and practices of Islamic scholars/clerics on cancer care and prevention.
Methods: A cross-sectional design using a mixed-method approach and a two-stage sampling technique was used to recruit 128 consenting Islamic scholars. An interviewer-administered questionnaire and focus group discussion guide were used for data collection. Quantitative data were analysed using the SPSS software version 20 with $p \leq 0.05$ taken as significant. Qualitative data from 36 participants with the results analysed using thematic content analysis.
Results: The majority of the respondents had heard of cancer, and 60% of them had poor knowledge of cancer care and prevention. The statistically significant predictors of good practice among the respondents include being not married (AOR 3.64; 95%CI 1.26-10.47; p=0.017), being new members of an Islamic congregation (AOR 6.00; 95%CI 2.22-16.19; p=0.0001) and having good knowledge (AOR 4.85; 95%CI 1.66-14.11; p=0.004). The FGD sessions revealed several myths and misconceptions about cancer.
Conclusion: This study revealed predominantly poor cancer knowledge, negative preventive attitude, and poor cancer care/preventive practices. It underscores the need for an educational intervention targeting Islamic scholars to equip them with the right cancer-related information, which can be passed down to their followers.
Keywords: *attitude, cancer awareness, islamic scholars, knowledge, practice*

Abstrak

Latar Belakang: Kanker saat ini merupakan salah satu penyebab utama morbiditas dan mortalitas, khususnya pada populasi dewasa di seluruh dunia. Pemahaman terhadap perspektif para pemuka agama terhadap pencegahan dan perawatan kanker sangat penting, mengingat ajaran mereka memiliki pengaruh besar terhadap perilaku para pengikutnya. Penelitian ini bertujuan untuk menilai pengetahuan, sikap, dan praktik para ulama atau cendekiawan Islam mengenai perawatan dan pencegahan kanker.
Metode: Penelitian ini menggunakan desain potong lintang dengan pendekatan *mixed-method* dan teknik pengambilan sampel dua tahap untuk merekrut 128 ulama Islam. Pengumpulan data menggunakan kuesioner wawancara terstruktur dan panduan *focus group discussion* (FGD). Data kuantitatif dianalisis menggunakan perangkat lunak SPSS versi 20 dengan tingkat signifikansi $p \leq 0,05$. Data kualitatif dari 36 peserta dianalisis menggunakan analisis isi tematik.
Hasil: Sebagian besar responden pernah mendengar tentang kanker, namun 60% di antaranya memiliki tingkat pengetahuan rendah terkait perawatan dan pencegahan kanker. Prediktor yang berhubungan bermakna dengan praktik baik di antara responden meliputi status tidak menikah (AOR 3,64; 95% CI 1,26–10,47; p = 0,017), menjadi anggota baru dalam komunitas Islam (AOR 6,00; 95% CI 2,22–16,19; p = 0,0001), serta memiliki pengetahuan yang baik (AOR 4,85; 95% CI 1,66–14,11; p = 0,004). Sesi FGD mengungkap berbagai mitos dan kesalahpahaman mengenai kanker.
Kesimpulan: Sebagian besar ulama Islam memiliki pengetahuan yang rendah tentang kanker, sikap pencegahan yang negatif, serta praktik perawatan dan pencegahan yang kurang memadai. Diperlukan intervensi edukatif kepada para pemuka agama Islam untuk membekali mereka dengan informasi yang benar mengenai kanker, agar dapat disampaikan secara efektif kepada para pengikutnya.
Kata Kunci: sikap, kesadaran kanker, ulama Islam, pengetahuan, praktik.

Background

Like in other developing nations, cancer is still a major public health concern in Nigeria, where high death rates are a result of late-stage diagnosis and inadequate health-seeking practices. Cancer is a group of diseases emanating from abnormal cellular growth which could spread to some other parts of the body and is a major cause of death all over the world.[1-3] Common types of cancer include breast cancer, skin cancer, lung cancer, cervical cancer and prostate cancer.[4,5] The Global Cancer Observatory (GCO) recorded 115,950 new cancer cases in Nigeria and 70,327 cancer deaths, of which 22.7% (26,310) were attributable to breast cancer.[6] The increasing global prevalence of these cancers makes them remain on the campaign list of various health organisations, ranging from governmental to non-governmental organisations.[7-9] The GCO statistics record that breast cancer cases increased by 37%, while cervical cancer increased by 21% among Nigerian women.[6] Once cancer is diagnosed, the patient may require medical treatment and specialised care such as surgery, radiotherapy, and chemotherapy for months and often years. Muslims are encouraged to seek treatment for illness and relief from distress.[10-12]

Breast cancer screening is the medical screening of asymptomatic women for breast cancer, and early detection of the tumour can be cured with appropriate treatment, which can reduce the morbidity and mortality rate.[13] Several screening tests have been employed, which include self-breast examination, clinical breast examination, mammography, ultrasound, and magnetic resonance imaging.[11,13] Self-breast examination should be done by every woman after their menstruation period, The American Cancer Society recommends mammograms be done yearly for women who are 40 years and above, and women between the ages of 20 and 30 should go through clinical breast examination (CBE) every 3 years.[3-5] Screening mammography is the most acceptable and effective screening procedure adopted for the early detection of breast cancer, and it is prominently practised in developed countries but less practised in Nigeria and other developing countries.[8,12] Early detection of breast cancer improves the chances of survival and lessens the need for invasive treatment[13-15]. Also, the uptake of cervical cancer screening tests is quite low among Nigerian women due to poor awareness and lack of cervical cancer screening centres, especially in the rural areas of Nigeria, which therefore results in increased morbidity and mortality.[16,17]

The most common cancer found among men according to GOBOCAN 2018 is prostate cancer with 13,078 new cases recorded.[6] The awareness and knowledge of prostate cancer and screening uptake are very low among people living in rural communities in Nigeria compared to urban communities.[18]

Religious leaders play a significant role in influencing the health practices and beliefs of their communities. The Islamic scholars are individuals who have vast knowledge of the Qur'an and teachings of Prophet Muhammad, who practice and teach the ethics of Islam and who hold esteemed positions in the mosques. In Nigeria, Faith-Based Organisations have since inception delivered educational, social, and health services globally.[19-22] Few studies, nevertheless, have looked at their knowledge of cancer, attitudes toward prevention, and capacity to promote early detection and treatment. This study explores a critical yet under-researched area of public health by assessing the knowledge, attitudes and practices of Islamic scholars on cancer care and preventive measures. These are factors that influence their role in shaping community perspectives on cancer awareness, prevention, and treatment.

This research provides baseline information which can be used by policymakers to design cost-effective cancer prevention awareness campaigns for religious leaders which can be disseminated to their followers. It also offers insightful information about the misunderstandings and knowledge gaps that could affect how the community behaves regarding cancer care and prevention. By emphasising these areas, our research can help develop culturally aware and cost-effective health education initiatives and cancer prevention awareness campaigns for religious leaders which can be disseminated to their followers to improve cancer awareness and outcomes.

Methods and Material

Description of Study Site: The study was conducted in Ile-Ife, Nigeria. It consists mainly of the Yoruba ethnic group. It is made up of two Local Government Areas (LGA), namely Ife Central and Ife East. Major religions practised are Christianity, Islam, and Traditional religion. Cancer screening services and care are available at the Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife (OAUTHC). Islamic scholars comprised the Imam,

deputy Imam, Mufasir (paraphraser), deputy Mufasir, and others working in the Mosque.
Study design: The study employed a descriptive cross-sectional design using a mixed-method approach.
Study population: Islamic scholars in Ile-Ife, Osun State.
Inclusion criteria: Islamic scholars aged ≥18 years working at the selected mosques.
Exclusion criteria: The respondents that were not available or not willing to participate in the study.
Sample size determination: One hundred and twenty-eight Islamic scholars participated in the quantitative aspect of the study after sample size calculation using the statistical formula for descriptive health studies ($n=Z^2pq/d^2$) with 91.7% of Islamic scholars having poor knowledge of cancer preventive care and non-response/attrition rate taken into consideration.[23] Thirty-six Islamic scholars participated in the qualitative aspect.

Sampling technique

The study respondents were selected using a multi-stage sampling technique.

1. **First stage**: The list of the mosques in Ile-Ife was obtained from the Chief Imam of the Ife Land Muslim Community. Fifty-nine mosques were purposively selected from the list based on viability and attracting a large number of worshippers at the Jumat service.
2. **Second stage**: Fourteen out of the 59 mosques were selected with seven mosques selected per LGA based on the number of Islamic scholars higher than Ratib (district mosques),
3. **Third stage:** A simple random sampling technique (balloting method) was used to select respondents proportionately based on the number of Islamic scholars from each selected mosque. Each participant was then approached to participate in the study.

Thirty-six Islamic scholars were purposively selected for the focus group discussions (FGD) conducted.

Research instruments

Quantitative data were collected from the participants using a pretested, semi-structured interviewer-administered questionnaire. The questionnaire gathered information on the respondents' socio-demographic characteristics, awareness and knowledge of cancer, attitudes, and practices towards cancer care and prevention. Qualitative data were collected using an FGD guide to moderate the FGD sessions. The guide introduced the topic and its objectives; asked questions on awareness, knowledge, attitude, Islamic beliefs about cancer, spiritual means of cancer care and perception of Islamic scholars on cancer care and prevention; requested contributory information from the participants. This was conducted amongst respondents who were not included in the quantitative study.

Face validity of the questionnaire and FGD guide were undertaken by the authors to ensure that the questions asked answered the set objectives. The questionnaire and FGD guide were then piloted among Islamic scholars with ambiguous questions rephrased or removed. These Islamic scholars were not included in the main study. The questionnaire and FGD guide were written in English, translated to Yoruba for the non-English speaking population and back-translated to English to preserve the original meanings.

Data collection method:

Data were collected by the principal investigators and four trained research assistants who were undergraduate students. The training lasted four days and involved practical sessions. The questionnaire was administered to the selected Islamic scholars in the central mosques. The researcher explained the study to the respondents and the questionnaire was administered to those who consented. The data was collected over three weeks. Focus group discussion was conducted among four sets of participants, each set comprised of 8 participants, based on their age and gender differences in conducive environments within their central mosques after Jumat services. Each FGD session lasted one hour with a moderator and a notetaker. Permission was obtained from study participants to record each FGD session. Grounded theory was used in exploring information on each question asked. The information recorded by the notetaker was triangulated on the recorded ones.

Data analysis

The quantitative data were analysed using SPSS version 20.0 software. Simple and inferential statistics were done. Knowledge, attitude, and practice scores were computed with ''+1'' assigned for correct responses and ''0'' assigned for incorrect responses. These scores were graded as appropriate or inappropriate knowledge, positive or negative attitude, and good or poor practice using their mean score as the cut-off point. The bivariate analysis with chi-square statistics was used to establish the association between the outcome variables at $p \leq$

0.05 for all analyses and further multivariate analysis was done with binary logistic regression.

The qualitative data was transcribed and the result was analysed using detailed content analysis. All interviews were audio-recorded and transcribed verbatim. The first stage of analysis took place during data collection. This involved memo writing by the assistant researcher. Comments were written down following each discussion, after which the researcher listened to each audio to confirm the accuracy of the transcripts. These were then read through, and general notes were made. The final stage involved collating the data and presenting the findings.

Ethical consideration

A written informed consent was obtained from all participants and serial code numbers were used instead of names. Also, the Institute of Public Health Ethics and Research Committee granted permission to conduct the study with protocol number IPHOAU/12/1312. Confidentiality of collected data was maintained as only the investigators stored and accessed the data collected.

Results

Quantitative study

A total of 128 Islamic scholars participated. Their mean age (SD) was 37.2 (7.39) years. Most respondents were within the age group of 40 to 49 years (46.9%), male (69.5%), married (85.2%), Yoruba (89.8%), had secondary education (40.6%), Traders (41%), earned income <$1/day (69.5%) and worked as Islamic scholar for >5 years (70.3%) (Table 1).

Respondents' knowledge towards cancer care and prevention

Table 2 shows the respondents' knowledge towards cancer care and prevention. A total of 115 (89.8%) have heard about cancer with the main sources of information being the Radio (86%), Health workers (82.6%) and Hospitals (63.5%). The majority (53.9%) have heard of cancer screening services, with breast cancer (72.6%), cervical cancer (43.5%) and prostate cancer (24.2%) the types of cancer screened for. About one-fifth (20.9%) defined cancer correctly as an uncontrolled division of abnormal cells in a part of the body. The most common risk factor for cancer reported by the respondents was evil spirit (79.1%) followed by alcohol ingestion (55.7%). The majority of the respondents reported that cancer is preventable (82.6%) with preventive measures including prayers (54.7%), and fasting (23.4%). Only 18% reported cancer screening as a means of preventing cancer. Also, the respondents reported that the most effective ways to cure cancer include using Islamic medicines (100%), going to spiritual homes (90.4%), and fasting and praying (89.6%).

Table 1: Distribution of the Respondents' Socio-demographic Characteristics

Variable	Frequency (N=128)	%
Age (years)		
30-39	58	45.3
40-49	60	46.9
≥50	10	7.8
Sex		
Male	89	69.5
Female	39	30.5
Marital status		
Single	9	7.0
Married	109	85.2
Divorced	8	6.1
Widow	2	1.7
Qur'anic education	128	100
Level of formal education		
None	13	10.2
Primary	18	14.0
Secondary	52	40.6
Tertiary	45	35.2
Service period in mosque		
Full term	26	20.3
Part term	102	79.7
Other functions/occupation (n=102)		
Trader	52	51.0
Civil servant	25	24.5
Schooling (undergraduate/postgraduate)	25	24.5
Income (US$1/day)		
<1	89	69.5
≥1	39	30.5

Table 2: Respondents' knowledge towards cancer care and prevention

Variable	Frequency	%
Have heard of cancer		
Yes	115	89.8
No	13	10.2
*Sources of information about cancer (n=115)		
Radio	99	86.0
Health workers	95	82.6
Hospital	73	63.5
Newspaper	46	40.0
Internet	39	34.0
Have heard of cancer screening services (n=115)		
Yes	62	53.9
No	53	46.1
*Type of cancer screening services heard (n=62)		
Breast cancer	45	72.6
Cervical cancer	27	43.5
Prostate cancer	15	24.2
Definition of cancer (n=115)		
Cancer is a curse	65	56.5
Cancer is sexually transmitted	26	22.6
Cancer is uncontrolled cell division in any part of the body	24	20.9
*Risk factor of cancer (n=115)		
Evil spirit	91	79.1
Alcohol	64	55.7
Poor diet	52	45.2
Promiscuity	52	45.2
*Common types of cancer (n=115)		
Breast cancer	58	45.3
Cervical cancer	48	37.5
Prostate cancer	12	9.4
Lung cancer	10	7.8
Cancer is preventable (n=115)		
Yes	95	82.6
No	20	17.4
*Preventive measures of cancer (n=115)		
Prayer	70	54.7
Fasting	30	23.4
Uptake of cancer screening service	23	18.0
Healthy diet	19	14.8
Lifestyle	19	14.8
How to cure cancer (n=115)		
Use Islamic medicine	115	100
Go to spiritual home	104	90.4
Fasting and prayer	103	89.6
Use local herbs	101	87.8
Go to Hospital	58	50.4

*Multiple response

Respondents' attitudes and practices towards cancer care and prevention

Table 3 shows respondents' attitudes and practices towards cancer care and prevention. Islamic scholars agreed that only Allah cures and prevents cancer through fasting and prayers (100%), agreed that cancer is a spiritual problem that is curable spiritually (91.3%), and a dead sentence from almighty Allah (84.3%). The respondents agreed that Islamic medicines cure and prevent cancer (100%) and that herbs (91.3%) and antibiotics (88.7%) cure cancer. They agreed that cancer only affects older women (91.3%), and disagreed that men can also have breast cancer (77.4%). They disagreed that it was a family disease (88.7%). They agreed that cancer screening wastes time (86.1%).

The respondents' practice shows that 33% knew someone who has/had cancer. The majority of the cancer patients sought care at Islamic spiritual homes (47.4%). The most commonly diagnosed cancer among the said patients was breast cancer (39.5%). Regular use of local herbs, Islamic medicines, and prayer were considered to be the most effective ways of cancer prevention. Only female respondents had undergone cancer screening services for the breast (57.1%) and cervix (42.9%).

Predictors of practice towards cancer care and preventive measures

Table 4 shows the predictors of practice towards cancer care and preventive measures. The statistically significant predictors of good practice among the respondents include being not married (AOR 3.64; 95%CI 1.26-10.47; p=0.017), being new members of the congregation (AOR 6.00; 95%CI 2.22-16.19; p=0.0001) and having good knowledge (AOR 4.85; 95%CI 1.66-14.11; p=0.004).

Qualitative study

Thirty-two respondents participated in the FGD conducted two days after Jumat. Ages ranged from 18 to 65 years; 10 participants were new congregation members. All had Arabic and formal education.

Awareness and knowledge about cancer

It was observed that even though the participants had heard about cancer, their knowledge of cancer was inadequate. Causes of cancer mentioned include eating roasted and canned foods, wearing tightly fitted clothes, keeping money in a bra, and stress especially in the elderly. Other causes include silver coating on the recharge cards, cosmetics and lightening cream which are linked to skin cancer while multiple sexual partners could cause cervical cancer.

Table 3: Respondents' beliefs, attitudes and practices towards cancer care and prevention

Variable	Frequency	%
Beliefs		
Only Allah cures and prevents cancer	115	100
Cancer can be cured by fasting and prayers	115	100
Cancer is a spiritual problem cured by spiritual means (agree)	105	91.3
Cancer is a merciful test of faith by Almighty Allah (agree)	105	91.3
Cancer is a death sentence from the almighty (agree)	97	84.3
Cancer is an affliction from evil spirits (agree)	91	79.1
Attitude		
Islamic medicine cure cancer (agree)	115	100
Islamic medicines prevent cancer (agree)	115	100
Herbs cure cancer (agree)	105	91.3
Cervical cancer only affects older women (agree)	105	91.3
Antibiotics cure cancer (agree)	102	88.7
Cancer is a family disease (disagree)	102	88.7
Cancer screening is a waste of time (agree)	99	86.1
Early breast development can lead to breast cancer (agree)	97	84.3
Men can have breast cancer (disagree)	89	77.4
Practice		
Know anyone who have/had cancer (n=115)		
Yes	38	33.0
No	77	67.0
*Relationship with the person who has/had cancer (n=38)		
Member of the mosque congregation	18	47.4
Family	12	31.6
None	12	31.6
Type of cancer (n=38)		
Breast cancer	15	39.5
Lung cancer	13	34.2
Cervical cancer	10	26.3
Place of diagnosis		
Hospital	38	100
Referral care centre (n=38)		
Islamic spiritual home	18	47.4
Hospital	12	31.6
Traditionalist	8	21.0
*Advise given to congregation members on cancer care and preventive measures (n=115)		
Praying regularly	115	100
Regular use of Islamic medicines	106	92.2
Regular use of local Herbs	104	90.4
A regular visit to the hospital for a check-up	78	67.8
Ever undergone any cancer screening services (n=115)		
Yes	28	24.3
No	87	75.7
Sex of respondents that undergone cancer screening (n=28)		
Female	28	100
*Type of cancer screening undergone (n=28)		
Breast	16	57.1
Cervix	12	42.9

*Multiple Responses

Table 4: Predictors of practice towards cancer care and preventive measures

Variable	Practice		Test statistic χ^2; p-value	AOR; 95%CI; p-value
Marital status	Poor (%)	Good (%)		
Not married	11(57.9)	8 (42.1)	6.215; 0.013	3.64; 1.26-10.47; 0.017
Married (Ref.)	80(83.3)	16 (16.7)		1
Level of education				
No formal education (Ref.)	11 (91.7)	1 (8.3)	1.275; 0.455	1
Had formal education	80 (77.7)	23 (22.3)		3.16; 0.39-25.80; 0.282
Duration in congregation (years)				
<5	13 (52.0)	12 (48.0)	14.238; 0.0001	6.00; 2.22-16.19; 0.0001
≥5 (Ref.)	78 (86.7)	12 (13.3)		1
Knowledge				
Poor (Ref.)	51 (91.1)	5 (8.9)	9.424; 0.002	1
Good	40 (67.8)	19 (32.2)		4.85; 1.66-14.11; 0.004

The Islamic scholars had never heard of prostate cancer screening. Regarding the attitudes and practices of the Islamic scholars towards cancer care and preventive measures, some participants believe in using herbs to cure cancer. Due to the fear of the unknown, most participants will prefer not to undergo any cancer screening. The female discussants feel uncomfortable undressing or being examined by male health practitioners, and they cannot encourage their members to undergo clinical cancer screening either unless they are certain that they will be examined by a female. A participant sees cancer as a spiritual sin; hence, cancer patients need spiritual help. Faith, destiny and the will of Allah play crucial roles in the attitude and practice of the respondents

Discussion

The current study examined Islamic scholars' knowledge, attitudes and practices about cancer care and preventive measures. It showed that most participants were aware of cancer care and preventive measures. This was similarly reported by Narimah *et al.,* which implies that cancer awareness is high among Islamic scholars.[24]

Despite awareness, many Islamic scholars had poor knowledge, which is in contrast with previous studies among Muslim residents in developed countries that reported better knowledge.[21-23] This disparity could be due to differing education and exposure to cancer information. The current study revealed a high level of misconceptions and myths regarding the causes and prevention of cancer as the respondents believed that cancer is caused by evil spirits and could only be treated spiritually, believing that cancer screening is not preventive. These findings are in keeping with reports from previous studies.[15,25] Also, most Islamic scholars studied had negative attitudes towards cancer care and preventive measures. This finding is at variance with a report from a study conducted among Muslims in Jordan by Ahmad *et al*., which indicated positive attitudes among their study participants.[26] This underscores the need for educational interventions focusing on dispelling myths and misconceptions and improving cancer knowledge and attitude as better knowledge and positive attitude will motivate people to accept cancer screening, leading to early detection and prompt treatment.

Also, this study revealed that most Islamic scholars studied had poor practice towards cancer care and preventive measures. This was reported by Ahmed *et al.,* which indicated that most Islamic scholars studied had poor practices.[27] Improvement in cancer-related knowledge and attitudes will further improve practice regarding cancer prevention and care. Thus, the Nigerian Cancer Control Programme (CCP) needs to focus its attention on Islamic scholars who are key stakeholders in influencing the behaviour of their teeming followers. Due to the increasing burden of cancer in Nigeria, there is a need for the establishment of one-stop shops near Mosques and other religious centres where cancer-related information and preventive services can be readily accessed.

The current study reported that most Islamic scholars believed that cancer can be prevented and/or cured by prayers to Allah, Islamic medicines, herbal preparation and the use of antibiotics. Previous studies reported that the Islamic faith plays a crucial role such as religious values and beliefs influencing health behaviours significantly despite

racial and ethnic diversity.[22,26,28] Thus, Islamic Scholars who are well-trained by public health experts can be recruited as champions of cancer prevention through counselling cancer patients to accept orthodox care for better treatment outcomes.

Many of the respondents in the current study believed that food causes cancer and that some specific foods can cure cancer. This is similar to the findings of Norhasmilia *et al.* in their study on the Islamic healing approach to cancer treatment in Malaysia.[29] Cancer awareness campaigns should thus emphasise healthy eating. Adults should be counselled to eat more fresh fruits and vegetables. Some of these fruits and vegetables are promoted by Islamic doctrines. Nigerian adults should also desist from alcohol abuse, cigarette smoking and consumption of refined food products, which are some of the most predominant modifiable risk factors of cancers.

Limitation of the study

This study is limited by social desirability bias, which was reduced by the proper explanation of the study purpose.

Conclusion

Though the Islamic scholars studied were aware of cancer, they had poor knowledge, negative attitudes and poor practice towards cancer care and preventive measures. There is an urgent need for policymakers to design and implement a robust, cost-effective awareness campaign aimed at equipping Islamic scholars with the correct cancer-related information which can be passed down to their followers.

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References

1. Ojo J, Adeola M, Awe O, et al. Analyses and distribution of various types of cancers recorded in Ife-Ijesha Cancer Registry in the five years 2010-2014. IJS. 2016;18(4):1005-1017
2. El-Khodary MSM. Quranic Verse No. 8 of Surat Al-Jumu'ah Describes Cancer as a Complete and Accurate Description and Leads Us to Determine the True Cause of Cancer. Part-1. CellBio. 2018;7(1):1-11. doi: https://doi.org/10.4236/cellbio.2018.71001
3. Idowu A, Olowookere SA, Olumide A, et al. Breast cancer awareness, knowledge and screening practice among women resident in an urban local government area of Oyo State, Nigeria. J Cancer Policy. 2019;20:100179. doi:https://doi.org/10.1016/j.jcpo.2018.11.001
4. Idowu A, Olowookere SA, Fagbemi AT, Ogunlaja OA. Determinants of cervical cancer screening uptake among women in Ilorin, North Central Nigeria: a community-based study. J Cancer Epidemiol. 2016;2016(1):6469240. doi:http://dx.doi.org/10.1155/2016/6469240
5. Smith RA, Andrews KS, Brooks D, et al. Cancer screening in the United States, 2018: a review of current American Cancer Society guidelines and current issues in cancer screening. CA Cancer J Clin. 2018;68(4):297-316
6. Cancer IAfRo. GOBOCAN 2018: Estimated cancer incidence, mortality and prevalence worldwide in 2018. 2019
7. Sowunmi A, Alabi A, Fatiregun O, Olatunji T, Okoro US, Etti AFD. Trend of cancer incidence in an oncology centre in Nigeria. West Afr J Radiol. 2018;25(1):52-56
8. World Health Organization. WHO position paper on mammography screening. Geneva: World Health Organization; 2014
9. Ginsburg O, Bray F, Coleman MP, et al. The global burden of women's cancers: a grand challenge in global health. Lancet. 2017;389(10071):847-860
10. Mobin-Uddin A. An Islamic perspective: Suffering and meaning in cancer. Clin J Oncol Nurs. 2018;22(5):573-575
11. DeSantis CE, Fedewa SA, Goding Sauer A, Kramer JL, Smith RA, Jemal A. Breast cancer statistics, 2015: Convergence of incidence rates between black and white women. CA Cancer J Clin. 2016;66(1):31-42
12. Adegbenro C, Ajala A, Ajayi O, et al. Awareness of breast cancer and practice of breast self-examination among rural women in Ife-North local government area, Osun state, South-West Nigeria. JCMPHC. 2014;26(1):76-87
13. Torre LA, Siegel RL, Ward EM, Jemal A. Global cancer incidence and mortality rates and trends—An update. CEBPE4. 2016;25(1):16-27. doi:https://doi.org/10.1158/1055-9965.EPI-15-0578
14. Elshami M, Qawasmi MA, Ghithan RJ, et al. Barriers to Timely Seeking of Breast Cancer Care Among Palestinian Women: A Cross-Sectional Study. JCO Glob Oncol. 2024;10:e2300373. doi:https://doi.org/10.1200/GO.23.00373
15. Elshami M, Naji SA, Dwikat MF, et al. Myths and common misbeliefs about colorectal cancer causation in Palestine: A national cross-sectional study. JCO Glob Oncol. 2024;10:e2300295. doi:https://doi.org/10.1200/GO.23.00295
16. Adejuyigbe FF, Balogun BR, Sekoni AO, Adegbola AA. Cervical cancer and human papilloma virus knowledge and acceptance of vaccination among medical students in Southwest Nigeria. Afr J Reprod Health. 2015;19(1):140-148
17. Olowookere S, Abioye-Kuteyi E, Airewele E, et al. Awareness and uptake of human papilloma virus vaccination and cervical cancer screening among

female undergraduate students in a tertiary institution in Nigeria. Niger J Fam Pract. 2012;3(1):27-32
18. Agbugui J, Obarisiagbon E, Nwajei C, Osaigbovo E, Okolo J, Akinyele A. Awareness and knowledge of prostate cancer among men in Benin City, Nigeria. J Biomed Res. 2013;12(2):42-47
19. Holt CL, Roth DL, Clark EM, Debnam K. Positive self-perceptions as a mediator of religious involvement and health behaviors in a national sample of African Americans. J Behav Med. 2014;37:102-112
20. Karunakaran U, Thekkandathil N, Joseph M, Kannankai S, Kumaran JA. Clinical breast cancer screening-A camp-based study among rural women in north Kerala. J Evid Based Med Healthc. 2017;4(54):3323-3328. DOI:10.18410/jebmh/2017/660
21. Padela AI, Peek M, Johnson-Agbakwu CE, Hosseinian Z, Curlin F. Associations between religion-related factors and cervical cancer screening among Muslims in greater Chicago. J Low Genit Tract Dis. 2014;18(4):326-332. doi:DOI: 10.1097/LGT.0000000000000026
22. Arozullah AM, Padela AI, Volkan Stodolsky M, Kholwadia MA. Causes and means of healing: An Islamic ontological perspective. J Relig Health. 2020;59(2):796-803
23. Islam N, Patel S, Brooks-Griffin Q, et al. Understanding barriers and facilitators to breast and cervical cancer screening among Muslim women in New York City: perspectives from key informants. J Community Med. 2017;3(1):1-14
24. Samat N, Ghazali S, Atang C. Cancer Awareness and knowledge: A community survey in Kedah and Perlis. Asian Soc Sci. 2014;10(21):10-18
25. Suhami N, Muhamad MB, Krauss SE. Why cancer patients seek Islamic healing. J Relig Health. 2016;55:1507-1518
26. Ahmad MM, Dardas LA, Ahmad H. Cancer prevention and care: A national sample from Jordan. J Cancer Educ. 2015;30:301-311
27. Ahmed SA, Sabitu K, Idris SH, Ahmed R. Knowledge, attitude and practice of cervical cancer screening among market women in Zaria, Nigeria. Niger J Med. 2013;54(5):316-319
28. Rezaei S, Peikanpour M, Zarei L, Mohammadnezhad G, Salamzadeh J. An adapted model of cost-related medication nonadherence among older adult patients with chronic diseases: an Iranian qualitative study. BMC Geriatr. 2023;23(1):208
29. Krauss NSMMSE. The Islamic Healing Approach to Cancer Treatment in Malaysia. Journal of Biology, Agriculture, and Health Care. 2014;4(6):106-107