

An Investigation into Religious Awareness as a Crucial Factor in Adherence to COVID-19 Medical Directives in Palestine

Munther Saeedi

An- Najah National University

Nihad Al-Othman (✉ n.othman@najah.edu)

An- Najah National University

Maha Rabayaa

An- Najah National University

Saeed Dwaikat

An- Najah National University

Research Article

Keywords: COVID-19, Religious, Awareness

Posted Date: February 25th, 2022

DOI: <https://doi.org/10.21203/rs.3.rs-1208669/v1>

License: © ⓘ This work is licensed under a Creative Commons Attribution 4.0 International License. [Read Full License](#)

Abstract

Background: Coping with the pandemic caused by the SARS-COV- 2 has been a global challenge. To this end, several measures have been adopted to control the transmission of the disease and to ensure public safety. One factor that has greatly affected the community's behaviors, attitudes, and practices in Palestine has been religious beliefs.

Aim: This study aims to investigate the role of religion as a factor in adherence to the COVID-19 medical directives in Palestine.

Methods: A descriptive cross-sectional study was performed from August to October 2021. In this study, 1,353 participants were asked to complete a questionnaire that consisted of 20 items that measured the impact of religious beliefs and the role played by religious scholars in the promotion and application of medically-approved health directives and the rectification of COVID-19 related information. The data were analyzed by using SPSS version 22 software.

Results: More than 50% of the participants agreed that religion has a positive impact on community adherence to the health instructions in the majority of studied items. The responses were significantly variable based on the age and place of residence in most of the questions (p -value <0.05). However, gender and to a lesser extent, the level of education affected the responses to many research aspects less significantly.

Conclusions: Religion could be an effective tool in dealing with challenging health issues such as COVID-19. Intervention programs can be developed based on the community's religious beliefs, attitudes, and practices, to dispel myths regarding the disease and to encourage community commitment and adherence to health directives.

1. Background

In 2019, several cases of pneumonia of an unknown etiology were detected for the first time in China, which were then identified to be caused by the novel severe acute respiratory syndrome coronavirus – 2 (SARS-CoV-2). Henceforth, the disease was named COVID-19 (1). Since the identification of the initial cases, the number of SARS-CoV-2 cases has increased drastically worldwide, and on March 11, 2020, the World Health Organization (WHO) announced a global pandemic state (2). Nowadays, the SARS-CoV-2 is affecting more than 200 countries, and the number of cases increased globally from less than a hundred thousand in February 2020 to more than 250 million cases, with more than 5 million deaths recorded by 7 November 2021, according to the American Library Association certified Worldometer.

SARS-CoV-2 is a highly contagious virus since it is transmitted easily through coughing, sneezing, and the spread of respiratory droplets or aerosols (3). As with all pandemics, the control of disease transmission is achieved through controlling the source of the disease, cutting off the transmission routes, and protecting the susceptible population (4). In the case of the COVID-19 pandemic, it has been a global challenge to apply the strategies effectively which includes defeating non-scientific information about the cause of the disease and to convince individuals to implement preemptive strategies, such as maintaining social distancing and other safety measures. In addition, once vaccines were made available, governments had to overcome widespread popular distrust in order to persuade citizens to get themselves vaccinated against the disease (4).

Due to the rapid rate of transmission, it became challenging for governments to provoke policies and execute them effectively to control the spread of the disease. The Center of Disease Control and Prevention (CDC) has estimated the COVID-19 mortality rate to be 1.8–3.4% and the hospitalization rate to be 20.7–31.4% (5).

The unprecedented global health concern caused by COVID-19 has shown cooperative work between epidemiologists, scientists, politicians, educators, and healthcare workers to tackle the pandemic properly (6). Since the beginning of the pandemic, several strategies have been adopted to prevent disease transmission; social distancing and lockdowns were prioritized in the times when the vaccine was not developed yet or made available in some countries (7). However, the application of these strategies coincides with two major issues. First, they are unsustainable in the long term with the social, economical, religious, and psychological needs of the community (7). Secondly, they were rejected by those in the population who were deeply suspicious of the protective measures and treatments advocated by the medical community and who had developed or had been

influenced by alternative non-scientific theories regarding the disease (8, 9). It should be taken into account that the previous experiences in other outbreaks such as Ebola have proven that health-promoting policies and disease preventive measures are worthless without taking into consideration the religious and cultural variabilities among communities since The lack of mutual trust between the health officials and the affected community would eventually worsen the outcomes (10, 11). In the recent pandemic caused by the highly contagious SARS-CoV-2, raising awareness is a critical aspect of curbing the transmission of the disease effectively.

The role of religion in the social determinants of health is underestimated even though religion matters in public health (12). Religion affects daily social activities globally (13). Therefore, medical protocols which include banning large gatherings in mosques or churches for worship as a means of prevention of the transmission of COVID-19, are in opposition with the popular religious sentiment. This makes the role of religious scholars especially vital in instilling confidence in their congregations in the medical guidelines they are asked to observe (12, 14).

This study aims to investigate the role of religion in adherence to health-related instructions used in dealing with the COVID-19 pandemic in Palestine. The study investigated the impact of religious beliefs, the popular response to mandatory constraints upon religious activities, the role played by the government, religious leaders as well as social media in spreading awareness of the need to implement safety measures.

2. Materials And Methods

2.1. Ethical Consideration

This study received official ethical approval from the Institutional Review Board at An-Najah National University located in Nablus/Palestine. The study abided by "the Declaration of Helsinki (DOH)." All ethical considerations for medical research concerning human subjects were enforced. The confidentiality and the rights of the subjects of the study were preserved throughout the study. Written informed consent was provided and handed to each participant. The form described the study procedure, duration, benefit, and lack of any harmful intentions.

Moreover, the form indicated that all data collected would be used for research purposes only, while any information related to the participants would be kept confidential from all parties except the research investigators. The participants were fully informed that participation in the study was voluntary and that no penalty would be enforced in case of nonparticipation.

2.2. Study Sample

Following an explanation of the purpose of this cross-sectional study, Palestinian citizens were randomly selected and recruited in August and October 2021 to participate in the study. Upon signing the informed consent, the researchers adopted Jekel's equation to estimate the nonprobability sample size. A minimum sample size of 384 was estimated based on the 0.5 probability of individuals following the religious instructions with a 95% confidence level. To eliminate the standard error of the mean and calculate the non-response rate, the researchers decided to increase the sample size. Ultimately, 1353 participants completed the questionnaire and participated in the study.

2.3. Inclusion and Exclusion Criteria

The inclusion criteria included participants who have religious beliefs and the mental ability to participate in the study. The patients were from different age groups, residential areas (city, camp, or village), and levels of education. The exclusion criteria included individuals who refused to participate in the study and individuals with psychological and mental disabilities.

2.4. Study Instrument.

A self-administered questionnaire in Arabic was used for data collection and was distributed to the study population. The questionnaire was made up of two sections: sociodemographic factors including age, level of education, gender, place of residence, health information regarding COVID-19 infection, and vaccination. The second section included 20 questions about the role of religious instructions as a factor in adherence to COVID-19 medical directives from the Ministry of Health in Palestine.

This section included four parts: religious beliefs, application of the health instructions on the religious activities, the role of religious figures, and religious awareness through social media, government officials' employment of religion, and religious sermons. Due to the absence of a validated instrument that measures the role of religion in health practices and to ensure the validity of the study instrument, the questionnaire was given to five experts in the field of public health. There was an agreement among them regarding the content of the questionnaire.

2.5. Pilot Study.

A pilot study was conducted and administered on 30 people of different age groups to ensure the effectiveness of the questionnaire in terms of language, structure, relevance, responses and the time needed to complete it.

2.6. Statistical Analysis.

Statistics were analyzed using SPSS version 22; descriptive statistics were employed to analyze the sociodemographic characteristics. Using univariate analysis, variables related to religious instruction and sociodemographic variables were compared. To find out whether the association between the sociodemographic variables and religious instructions is statistically significant at $p < 0.05$, Chi-Square Test was used.

3. Results

3.1. Demographic Characteristics of the study sample:

The data were analyzed and tested for normality and found to be normally distributed. With the use of a suitable available sample composed of 1506 participants, 1353 had completed the questionnaire and were included in the study. The response rate was 89.8%. Around 53.7% of them were females, and 57.7% were from the age group 21 to 40 years (all participants age was from 18 years old and above), 42.9% of the participants were holding bachelor's degrees and 49.2% of them were from cities. Of the 1353 participants, 33.9% had been infected with COVID-19, and 62.9% had received the COVID-19 vaccine. Demographic data are shown in Table 1.

Table 1
Demographic characteristics of the study sample (n = 1353)

Variable		Frequency	Percentage (%)
Gender	Male	627	46.3
	Female	726	53.7
Age group (years)	18–20	142	10.5
	21–40	781	57.7
	41–60	356	26.3
	More than 60	74	5.5
Place of residence	City	666	49.2
	Refugee camp	106	7.8
	Village	581	42.9
Level of education	Tawjih or less	91	6.7
	Diploma	92	6.8
	Bachelor	864	64
	Graduated studies	305	22.5
COVID-19 infection	Yes	458	33.9
	No	895	66.1
COVID-19 vaccination	Yes	851	62.9
	No	502	37.1

3.2. Religious attitudes:

The religious attitudes were included in 20 items demonstrating the various ways in which religious awareness contributed to the adherence to the COVID-19 related health instructions. The items cover the impact of religious beliefs (items 1, 2, and 3), application of the health instructions on the religious activities (items 4, 5, and 6), the role of religious figures (items from 7 to 11), and the general religious awareness through multimedia, government officials' employment of religion, and religious sermons (items from 12 to 20) as shown in Table 2.

Table 2

The proportion of different religious attitudes toward COVID-19 among the study sample in Palestine (n = 1353)

Question	Strongly agree n (%)	Agree n (%)	I do not know n (%)	Disagree n (%)	Strongly disagree n (%)	Gender (p-value)	Age groups (p-value)	Level of education (p-value)	Place of residence (p-value)
Religious beliefs									
1. Religious awareness has contributed to the knowledge that not complying with Covid-19 health-related instructions is suicidal.	193 (14.3%)	606 (44.8%)	266 (19.7%)	237 (17.5%)	51 (3.8%)	0.000	0.000	0.153	0.009
2. Religious awareness has clarified that not complying with COVID-19 health-related instructions represents disobedience to God	214 (15.8%)	631 (46.6%)	237 (17.5%)	211 (15.6%)	60 (4.4%)	0.000	0.000	0.004	0.000
3. Religious awareness has clarified that ignoring COVID-19 health-related instructions brings harm to others around us	561 (41.5%)	621 (45.9%)	71 (5.2%)	71 (5.2%)	30 (2.2%)	0.246	0.000	0.008	0.000
Application of the health instructions on the religious activities									
4. Religious awareness has contributed to encouraging the public to observe social distancing during the performance of prayers and worship, thereby reducing the incidence of corona cases	248 (18.3%)	753 (55.7%)	145 (10.7%)	154 (11.4%)	53 (3.9%)	0.046	0.000	0.445	0.000

Question	Strongly agree n (%)	Agree n (%)	I do not know n (%)	Disagree n (%)	Strongly disagree n (%)	Gender (p-value)	Age groups (p-value)	Level of education (p-value)	Place of residence (p-value)
5. Religious awareness has contributed to encouraging the public to accept the idea of suspending religious congregations in mosques and churches.	146 (10.8%)	625 (46.2%)	195 (14.4%)	290 (21.4%)	97 (7.2%)	0.103	0.001	0.211	0.000
6. The suspension of religious rituals such as Haj, Omra, or Christmas celebrations has contributed to reducing covid - 19 infections.	160 (11.8%)	518 (38.3%)	198 (14.6%)	311 (23.0%)	166 (12.3%)	0.240	0.021	0.214	0.033
The role of religious figures									
7. Appeals and statements by religious figures have contributed to people's adherence to covid-19 health-related instructions for the prevention of corona.	163 (12.0%)	699 (51.7%)	243 (18.0%)	205 (15.2%)	43 (3.2%)	0.041	0.000	0.269	0.000
8. The guidance of Religious scholars has made the public adhere more to covid-19 preventive measures	148 (10.9%)	670 (49.5%)	300 (22.2%)	193 (14.3%)	42 (3.1%)	0.000	0.000	0.656	0.000
9. The numerous Fatwas and appeals of religious scholars have contributed to the rebuttal of the conspiracy theory that accompanied the Corona outbreak	102 (7.5%)	501 (37.0%)	414 (30.6%)	256 (18.9%)	80 (5.9%)	0.000	0.000	0.018	0.000

Question	Strongly agree n (%)	Agree n (%)	I do not know n (%)	Disagree n (%)	Strongly disagree n (%)	Gender (p-value)	Age groups (p-value)	Level of education (p-value)	Place of residence (p-value)
10. The public appearance of religious figures adhering to prevention measures has encouraged people to emulate and adhere to health instructions.	142 (10.5%)	591 (43.7%)	330 (24.4%)	240 (17.7%)	50 (3.7%)	0.006	0.000	0.009	0.000
11. Under the guides of religious scholars, the public has been encouraged to accept the idea of suspending religious rituals such as Hajj, Omra, or Christmas celebrations to prevent infection.	163 (12.0%)	605 (44.7%)	189 (14.0%)	296 (21.9%)	100 (7.4%)	0.172	0.000	0.060	0.036
Religious awareness through social media, government officials' employment of religion, and during religious activities									
12. Friday sermons and church preachings have contributed to encouraging people to adhere to covid-19 health-related instructions, and so helped reduce the incidence of injuries and deaths.	181 (13.4%)	627 (46.3%)	335 (24.8%)	171 (12.6%)	39 (2.9%)	0.000	0.006	0.074	0.000

Question	Strongly agree n (%)	Agree n (%)	I do not know n (%)	Disagree n (%)	Strongly disagree n (%)	Gender (p-value)	Age groups (p-value)	Level of education (p-value)	Place of residence (p-value)
13. Religion-related posts on social media have contributed to greater adherence to covid-19 health-related instructions to prevent the disease.	164 (12.1%)	709 (52.4%)	243 (18.0%)	199 (14.7%)	38 (2.8%)	0.125	0.000	0.505	0.000
14. Religion-related TV shows on space channels and local radio have contributed to raising public awareness of COVID-19 health-related instructions and so reduced the incidence of the corona.	145 (10.7%)	672 (49.7%)	288 (21.3%)	204 (15.1%)	44 (3.3%)	0.010	0.000	0.446	0.000
15. The use of religious terms and phrases by the government officials has contributed positively to influencing people to adhere to health instructions to counter the Corona pandemic	156 (11.5%)	673 (49.7%)	267 (19.7%)	202 (14.9%)	55 (4.1%)	0.002	0.084	0.999	0.000
16. Religious awareness has contributed to clarifying the truth and refuting misinformation about COVID-19.	92 (6.8%)	610 (45.1%)	360 (26.6%)	229 (16.9%)	62 (4.6%)	0.018	0.000	0.004	0.000

Question	Strongly agree n (%)	Agree n (%)	I do not know n (%)	Disagree n (%)	Strongly disagree n (%)	Gender (<i>p</i> -value)	Age groups (<i>p</i> -value)	Level of education (<i>p</i> -value)	Place of residence (<i>p</i> -value)
17. Religious awareness has contributed to raise the public's awareness of the gravity of COVID-19 related situation	210 (15.5%)	639 (47.2%)	162 (12.0%)	249 (18.4%)	93 (6.9%)	0.953	0.001	0.147	0.010
18. Religious awareness has contributed to encouraging the public to take COVID-19 vaccines as a form of prevention	119 (8.8%)	607 (44.9%)	332 (24.5%)	242 (17.9%)	53 (3.9%)	0.017	0.000	0.207	0.000
19. Religious rhetoric has had a major impact in motivating health workers to make a greater effort to confront the Corona pandemic	166 (12.3%)	592 (43.8%)	358 (26.5%)	178 (13.2%)	59 (4.4%)	0.361	0.000	0.263	0.000
20. Religious awareness has contributed to people's acceptance of the idea of observing social distancing in weddings, during condolence visits, and other social events.	138 (10.2%)	678 (50.1%)	187 (13.8%)	283 (20.9%)	67 (5.0%)	0.370	0.000	0.123	0.000

The five-point Likert scale was used to reveal the proportion of answers on the different religious attitudes during the COVID-19 pandemic. The majority of the study sample agree that religious awareness has influenced the community's adherence to the COVID-19 medical directives during the pandemic. More than 50% of the study sample either agree or strongly agree on all items except item 9 (44.5%). Less than 30% of the study sample responses either disagreed or strongly disagreed on all items as shown in Table 2.

3.3. The Impact of Demographic Factors on the Religious Attitudes

Religious beliefs

Items 1, 2, and 3 connect the nonadherence to the COVID-19 health-related instructions with the basic religious beliefs, such as the commission of suicide, disobedience to God, and harming others, respectively. There was a significant difference in responses to the first item between genders, different age groups, and the place of residence (p -value < 0.05). However, the levels of education did not significantly affect the responses (p -value > 0.05). The responses to item 2 were significantly variable between genders, age groups, level of education, and place of residence (p -value < 0.05). For item 3, there were significant differences in responses among different age groups, levels of education, and places of residence (p -value < 0.05) while it was not significant between genders.

Application of the health instructions on the religious activities

Items 4, 5, and 6 revealed the role of religious awareness in accepting social distancing during religious activities, banning religious congregations in mosques and churches, and suspending religious rituals to reduce the incidence of the disease, respectively. The responses to item 4 were significantly variable in terms of gender, age, and place of residence (p -value < 0.05). The responses to items 5 and 6 were significantly variable in terms of age and place of residence (p -value < 0.05). It was observed that the level of education and gender did not significantly affect the responses regarding the application of health-related instruction in religious activities.

The role of religious figures

The items from 7 to 11 represent the role of religious leaders: Item 7 (appeals and statements by religious figures have contributed to people's adherence to health-related instructions for the prevention of covid-19); item 8 (religious scholar's guidance has influenced the public to adhere more to Covid-19 preventive measures); item 9 (the numerous Fatwas and appeals of religious scholars have contributed to the rebuttal of the conspiracy theory that followed the Corona outbreak); item 10 (religious figures who publicly adhered to the preventive measures as a means to encourage people to emulate the example); and item 11 (The contribution of religious scholars in encouraging the public to accept the suspension of religious rituals such as Hajj, Omra, or Christmas celebrations to prevent the spread of the infection), these items shed light on the extent of the influence of religious leaders through their sermons and activities in educating the public about COVID-19, the safety guidelines, and encouraging its cooperation in adhering to them. The responses to items from 7 to 11 were significantly variable in terms of age and place of residence (p -value < 0.05). Based on gender, the responses were significantly variable regarding the role of religious figures except for item number 11. The level of education was the least variable that significantly affected the responses. It was only significant in items 9 and 10 (p -value < 0.05).

Religious awareness through social media, government officials' employment of religion, and religious activities.

Items from 12 to 20 covered the various aspects of religious awareness that were carried out in religious places (item 12), on social media (items 13 and 14), and during the government official's employment of religion (item 15) to promote adherence of the community to the health directives. Moreover, religious awareness had been used to refute the misinformation about COVID-19 (item 16), raise the public awareness of the gravity of the COVID-19 (item 17), encourage people to take the COVID-19 vaccine (item 18), motivate the healthcare workers (item 19), and to increase the community acceptance of distancing during social activities (item 20). In terms of gender, the significant difference in responses regarding these items (from 12 to 20) was observed in items 12, 14, 15, 16, and 18. Except for item 15, the responses to items from 12 to 20 significantly varied between different age groups. There was no significant difference in responses based on the level of education except for item 16 concerned the refutation of misinformation regarding COVID-19. The place of residence significantly affected the responses to all the items from 12 to 20 (p -value < 0.05).

4. Discussion

Since the beginning of the COVID-19 pandemic in 2020, the disease has transmitted rapidly all over the world, affecting all aspects of life, including health, economy, psychology, and social life. Several evidence-based guidelines have been applied by governments globally to decrease the viral spread and to improve the community's wellbeing. These strategies, such as lockdowns, distancing, isolations, testing, and vaccinations, have been announced and applied. However, community

acceptance and adherence to these health-related instructions were a critical challenge. Therefore, this study investigated the role of religious awareness in adherence to health directives during the COVID-19 pandemic in Palestine.

This study has revealed that popular religious beliefs regarding obedience to God, non-compliance with COVID-19 health guidelines being tantamount to the commission of suicide, maintaining the safety of others are influential in the public's acceptance of and adherence to the safety measures. Additionally, the impact of religious awareness on these areas varied according to gender, age group, level of education, and place of residence. Our findings are in acceptance with what was reported in that the presence of more religious affiliation is associated with less suicidal behaviors (15). Addressing the patients' religious beliefs during medical care is important and had been proven in dealing with other infectious diseases (16).

Nevertheless, some studies have shown a decreased adherence to the COVID-19 mitigation policies in communities with higher religiosity (17). But a high level of consensus has been observed in our study regarding the role of religious awareness in accepting the social distancing during religious activities, suspending religious congregations in mosques and churches, and participation in religious rituals such as Haj, Omra, or Christmas celebrations, as a means to reduce disease transmission. Our findings have been observed in Saudi Arabia, where a high level of compliance is reported in terms of social distancing (18) and suspension of religious activities that gather a large number of the population simultaneously (19). These practices are essential during the current situation because the gathering of different nationalities during religious rituals, such as Haj, is dangerous and will worsen the pandemic because SARS-CoV-2 has shown rapid evolution and highly transmissible mutations that can span rapidly around the world.

Our study indicates that religious figures play a vital role in promoting adherence to health-related instructions either by statements, appeals, or personal examples. The widespread reliance on conspiracy theories regarding COVID-19 has affected adherence to health-related instructions and the acceptance of diagnosis and treatment (20). Our study shows an agreement about the role of religious figures in rebutting these conspiracy theories regarding the COVID-19, which have also been elicited in other countries (21). This is explained by the role of religiosity in mediating trust in science which represents a vital part in community acceptance and adoption of health-related strategies (22).

A previous study revealed a significant positive correlation between the awareness, attitudes, and practices concerning COVID-19 (19). This proves the importance of organizing proper awareness programs that target the community based on gender, age, educational level, and place of residence, and this is supported in our study since significant variations in responses based on these demographic variables have been revealed, and these findings are consistent with other studies (23, 24). It has been reported in other studies that there is a gap in the knowledge, attitudes, and practices concerning the COVID-19 pandemic, such as social distancing and the wearing of protective masks (24). Our study reported a high agreement from the community regarding the vital role of various aspects of religious awareness through social media, governmental officials, and participation in less risky religious activities in line with the health instructions. Other studies have shown the importance of the harmony between religious, community, and educational leaders in promoting awareness, increasing community compliance with health protocols, overcoming the vaccination hesitancy, and provoking trust in science (21, 25, 26).

The observed role of religion in helping the public cope with the COVID-19 pandemic proves what has been previously reported about dealing with health crises. A multidisciplinary approach, where culture, religion, and the state collaborate, should be adopted to mitigate the virus transmission and maintain public health during the pandemic (27–29). Furthermore, an inverse correlation between the mitigating effect of religion and adults' mental health problems was revealed in another study (30) and this proves the importance of integrating religion as a major discipline in dealing with health crises such as COVID-19.

5. Conclusions And Recommendations

The implementation of health directives should take into account religion as a vital aspect of the community's daily activities, attitudes, and beliefs. Introducing health directives by religious scholars through religious activities could improve the community's commitment to health-related instructions. Proper health awareness campaigns that target different genders, age groups, residential areas, and levels of educations should be further studied and developed.

Abbreviations

COVID-19: coronavirus disease of 2019

DOH: Declaration of Helsinki

CDC: Center of Disease Control and Prevention

SARS-CoV-2: severe acute respiratory syndrome coronavirus-2

WHO: World Health Organization

Declarations

Ethics approval and consent to participate

This study received official ethical approval from the Institutional Review Board at An-Najah National University Nablus/Palestine. Dear Respondent: We would be thankful if you kindly take few minutes of your valuable time to fill the questionnaire regarding this study about (An Investigation into Religious Instruction as a Factor in adherence to Covid-19 Medical Directives in Palestine). Your participation will be highly appreciated. Confirming you that the data collected, will be dealt with in a high degree of secrecy, and only will be used for the purposes of this research. Thank you for your cooperation.

Consent for publication

All authors give consent for the publication of identifiable details, which include details within the text ("Material") to be published in PMC Public Health Journal and Article. All participants agreed to publish the collected data.

Data Availability

All the utilized data to support the findings of the current study are included in the article.

Author contribution

All authors contributed the same in all aspects of the study.

Competing interests

There is no conflict of interest to declare.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Authors contributions

All authors have made a substantial contribution to the concept, design of the article, the acquisition, analysis, and interpretation of data for the article.

Acknowledgments

The authors would like to offer their gratitude to the Faculty of Medicine at An-National University.

References

1. Jiang S, Xia S, Ying T, Lu L. A novel coronavirus (2019-nCoV) causing pneumonia-associated respiratory syndrome. Cellular & molecular immunology. 2020;17(5):554-.

2. Cucinotta D, Vanelli M. WHO declares COVID-19 a pandemic. *Acta Bio Medica: Atenei Parmensis*. 2020;91(1):157.
3. Lotfi M, Hamblin MR, Rezaei N. COVID-19: Transmission, prevention, and potential therapeutic opportunities. *Clinica chimica acta*. 2020;508:254-66.
4. Yu X, Yang R. COVID-19 transmission through asymptomatic carriers is a challenge to containment. *Influenza and other respiratory viruses*. 2020;14(4):474.
5. Cade BE, Dashti HS, Hassan SM, Redline S, Karlson EW. Sleep apnea and COVID-19 mortality and hospitalization. *American journal of respiratory and critical care medicine*. 2020;202(10):1462-4.
6. Woodall J. COVID-19 and the role of health promoters and educators. *Emerald Open Research*. 2020;2(28):28.
7. Chowdhury R, Luhar S, Khan N, Choudhury SR, Matin I, Franco OH. Long-term strategies to control COVID-19 in low and middle-income countries: an options overview of community-based, non-pharmacological interventions. *European journal of epidemiology*. 2020;35(8):743-8.
8. Kebede Y, Birhanu Z, Fufa D, Yitayih Y, Abafita J, Belay A, et al. Myths, beliefs, and perceptions about COVID-19 in Ethiopia: A need to address information gaps and enable combating efforts. *PloS one*. 2020;15(11):e0243024.
9. Maraqa B, Nazzal Z, Rabi R, Sarhan N, Al-Shakhra K, Al-Kaila M. COVID-19 vaccine hesitancy among health care workers in Palestine: A call for action. *Preventive Medicine*. 2021;149:106618.
10. Manguvo A, Mafuvadze B. The impact of traditional and religious practices on the spread of Ebola in West Africa: time for a strategic shift. *The Pan African Medical Journal*. 2015;22(Suppl 1).
11. Organization WH. Responding to community spread of COVID-19: interim guidance, 7 March 2020. *World Health Organization*; 2020.
12. Oman D. *Why religion and spirituality matter for public health: Evidence, implications, and resources*: Springer; 2018.
13. Barmania S, Reiss MJ. Health promotion perspectives on the COVID-19 pandemic: The importance of religion. *Global Health Promotion*. 2021;28(1):15-22.
14. Kumar AS, Indira R. Role of Religion During Covid-19. *International Journal of Innovative Research and Advanced Studies*. 2020;7(8):126-30.
15. Dervic K, Oquendo MA, Grunebaum MF, Ellis S, Burke AK, Mann JJ. Religious affiliation and suicide attempt. *American journal of psychiatry*. 2004;161(12):2303-8.
16. Parsons SK, Cruise PL, Davenport WM, Jones V. Religious beliefs, practices and treatment adherence among individuals with HIV in the southern United States. *AIDS Patient Care & STDs*. 2006;20(2):97-111.
17. DeFranza D, Lindow M, Harrison K, Mishra A, Mishra H. Religion and reactance to COVID-19 mitigation guidelines. *American Psychologist*. 2020.
18. Algahtani FD, Alzain MA, Haouas N, Angawi K, Alsaif B, Kadri A, et al. Coping during COVID-19 Pandemic in Saudi Community: Religious Attitudes, Practices and Associated Factors. *International Journal of Environmental Research and Public Health*. 2021;18(16):8651.
19. Alahdal H, Basingab F, Alotaibi R. An analytical study on the awareness, attitude and practice during the COVID-19 pandemic in Riyadh, Saudi Arabia. *Journal of infection and public health*. 2020;13(10):1446-52.
20. Freeman D, Waite F, Rosebrock L, Petit A, Causier C, East A, et al. Coronavirus conspiracy beliefs, mistrust, and compliance with government guidelines in England. *Psychological medicine*. 2020:1-13.
21. Khan YH, Mallhi TH, Alotaibi NH, Alzarea AI, Alanazi AS, Tanveer N, et al. Threat of COVID-19 vaccine hesitancy in Pakistan: the need for measures to neutralize misleading narratives. *The American journal of tropical medicine and hygiene*. 2020;103(2):603.
22. Plohl N, Musil B. Modeling compliance with COVID-19 prevention guidelines: The critical role of trust in science. *Psychology, Health & Medicine*. 2021;26(1):1-12.
23. Tadese M, Mihretie A. Attitude, preparedness, and perceived self-efficacy in controlling COVID-19 pandemics and associated factors among university students during school reopening. *PloS one*. 2021;16(9):e0255121.

24. Asmelash D, Fasil A, Tegegne Y, Akalu TY, Ferede HA, Aynalem GL. Knowledge, attitudes and practices toward prevention and early detection of COVID-19 and associated factors among religious clerics and traditional healers in Gondar Town, Northwest Ethiopia: a Community-Based Study. *Risk Management and Healthcare Policy*. 2020;13:2239.
25. Galang JRF. Science and religion for COVID-19 vaccine promotion. *Journal of Public Health*. 2021.
26. Tyas EH, Naibaho L. A harmony among of religious community is required amidst the covid-19 pandemic. *International Journal of Research-GRANTHAALAYAH*. 2020;8(9):422-8.
27. Gozum IE, Capulong HG, Gopez JM, Galang JR. Culture, Religion and the State: Towards a Multidisciplinary Approach to Ensuring Public Health During the COVID-19 Pandemic (and Beyond). *Risk Management and Healthcare Policy*. 2021;14:3395.
28. Hatah E, Lim KP, Ali AM, Shah NM, Islahudin F. The influence of cultural and religious orientations on social support and its potential impact on medication adherence. *Patient preference and adherence*. 2015;9:589.
29. Meza D. In a pandemic are we more religious? Traditional Practices of Catholics and the COVID-19 in Southwestern Colombia. *International Journal of Latin American Religions*. 2020;4(2):218-34.
30. Mahamid FA, Bdier D. The association between positive religious coping, perceived stress, and depressive symptoms during the spread of coronavirus (covid-19) among a sample of adults in palestine: Across sectional study. *Journal of religion and health*. 2021;60(1):34-49.