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Relationship between the government implemented protective measures for coronavirus disease 2019 (COVID-19) during the pandemic and the understanding of religious evidence in Muslim community: A cross-sectional study from Saudi Arabia

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Abstract:

BACKGROUND: Coronavirus disease 2019 (COVID-19), which has swept across the Middle East has ignited religious tensions. Although the implementation of effective preventive measures is the best way to control the spread of COVID-19, in such countries as Saudi Arabia, these restrictions have sometimes been viewed as violations of religious practice. The present study explores the reasons for ignoring the authorities' recommendations, and the inability of the authorities to create a sense of inclusion in the protective measures they introduce against the COVID-19 outbreak.

MATERIALS AND METHODS: A cross-sectional community-based study was conducted in Saudi Arabia and data were collected from 922 participants. The questionnaire contained 17 questions on personal characteristics, compliance with governmental protective measures, and participants' understanding of religious evidence. The SPSS was used for data analysis. Categorical data was presented as frequencies and percentages. Chi-square test was used to determine the association between people's compliance to the protective measures and their understanding of religious evidence.

RESULTS: The age of the study participants ranged between 17 to 68 years with a mean age of 43.9 (±12.69) years. About half of the participants reported always complying to Mosque precautions (49.9%) and keeping distance (53.7%). However, only 34.3% participants always maintained social distancing while visiting relatives; about 25.2% often kept a social distance. We found that an adequate understanding of religious principles was significantly associated with accepted overall commitment, and inadequate understanding was significantly associated with lack of commitment. An adequate understanding of religious principles was significantly associated with a positive attitude toward future commitment and inadequate understanding was significantly associated with a negative attitude.

CONCLUSION: We recommend that the Ministry of Health in Saudi Arabia solicits the support of religious scholars to give a proper explanation of the religious evidence and eliminate misconceptions to promote compliance with the protective measures.

Keywords:

Compliance, coronavirus disease 2019, protective measures, understanding of religion

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Introduction

Coronavirus disease 2019 (COVID-19) was caused by a new form of coronavirus (SARS-CoV-2) that first appeared in China at the end of 2019 and quickly spread to all countries worldwide.[1] By the beginning of 2022, China had reported 133,404 confirmed cases and 5699 deaths.[2] The outbreak of a novel coronavirus disease in December 2019 was one of the most devastating public health emergencies since the founding of the People's Republic of China in 1949.[3] The virus spread internationally within 1 month of its being first identified, transmitted through close human-to-human contact.[4] On January 30, 2020, the World Health Organization (WHO) declared COIVD-19 a public health emergency of international concern, and 6 weeks later, the outbreak was characterized as a pandemic.[5] The pandemic has spread all over the Middle East and renewed religious controversies due to the government's decision to tighten its reins on religious practices in its efforts to fight the pandemic.[6]

The incidence of COVID-19 increased in the 1st 2 weeks in Saudi Arabia, from zero cases on March 1, 2020, to more than 15 cases/day by March 16, 2020, to a total of 133 cases.[7]

Unfortunately, the unavailability of an effective antiviral drug aggravated the situation. The implementation of effective preventive measures was one of the important options to counteract COVID-19.[8]

Immediate quarantine of the involved regions, production and supply of a large number of protective facemasks, and the prevention of its stockpiling or smuggling were the main actions suggested to deal with the present or any future COVID-19 outbreaks.[9]

The government stated on many occasions that the nonadherence of citizens to COVID-19 preventive measures has resulted in an escalation of cases once lockdowns were lifted.[10] To prove this, we included the question, "Why are many people in Saudi society unwilling to adhere to the preventive measures against COVID-19?."

At the beginning of the pandemic, the implementation of effective preventive measures was the only way to counteract COVID-19.[8] Masks appeared to be effective when used with and without hand hygiene, but combining hand hygiene with the wearing of masks offered more protection.[11]

The WHO advised the maintenance of a distance of at least 1 m (3 feet) between persons.[12] Keeping a safe distance between people during prayer in mosques was expected, but appeared to be against Prophet Muhammad's advice to "stand in straight rows and do not differ among yourselves (432 Sahih Muslim)".[13]

Some people do not follow the precautionary measures because they think it affects their trust in Allah. This Ayat from verses of the Holy Quran states that Allah said, "Nothing shall ever happen to us except what Allah has ordained for us." Surah Al-Taubah (51)[14] In countries like Saudi Arabia, some people view the restrictions as violations of religious practice.

The present study explores the reasons why people do not follow preventive measures against COVID-19 and ignore the recommendations by the authorities. The study also explores how those reasons relate to peoples' understanding of Islam.

Materials and Methods

A cross-sectional community-based study was conducted from August 11, 2020, to May 18, 2021, in Saudi Arabia. Data were collected from 922 participants. All Muslims were eligible to answer the questionnaire for this study, which was written in both Arabic and English using the Survey Monkey program and Google Sheets. It was distributed randomly through social media and as a paper questionnaire. Ethical approval was obtained from the Institutional Review Board vide Letter No. 1441-2111270 dated 10/08/2020, and informed written consent was taken from all participants.

The questionnaire consisted of 17 questions, divided into four categories.

The first category comprised three general questions on age, gender, and experience or practice in the medical field. It was believed that the responses provided by people who had a medical background could affect our statistical analysis, so their responses were analyzed separately. The second category had five questions designed to measure people's compliance with governmental protective measures. The third comprised two religious pieces of evidence that were likely to be misunderstood. The fourth group had six religious pieces of evidence in support of the protective measures. A final question was asked to determine whether people's views/commitment to the protective measures had changed after completing the questionnaire.

Three professors were requested to check the questionnaire for validation. A pilot test study was conducted, after which a few adjustments were made to clarify the questionnaire and shorten the time for its completion.

Statistical analysis compared people's compliance with protective measures with their understanding of religious evidence. Analyses were carried out using the SPSS version 21.0 (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp). Frequencies and proportions of responses were calculated. Chi-square test was used to determine the association between the understanding and commitment and attitude; $P \leq 0.05$ was considered statistically significant.

Results

The study included 922 participants with ages ranging from 17 to 68 years and the mean age of 43.9 (±12.69) years. The majority (29.6%) were aged between 35 and 44 years, and 54.4% were females, and only 11.5% worked in medical field [Table 1].

About 71% of the participants were committed to wearing face masks and 69.6% to washing their hands. Regarding the mosque precautions, 49.9% were committed to using a prayer mat, 53.7% adhered to keeping a safe distance both at work and in the mosque, and half of the participants were always committed to adhering to the measures. When the people that did not attend the mosque or were unemployed were excluded, the percentage increased to 80.4% and 76.9%, respectively. However, only 34.3% of the participants always maintained a social distance while visiting relatives and about 25.2% often kept a social distance [Table 2].

Commitment percentages were distributed among wearing masks, hand washing, mosque precautions (prayer mat), keeping a distance (at work and mosque), and distancing during visits to relatives as 91.0%, 89.5%, 55.7%, 66.1%, and 59.4%, respectively [Table 2]. We reported more than 90.0% adequate understanding of all questions [Table 3]; 97.9% had an adequate overall understanding [Table 4]. We found that after answering the questionnaire around 62.0% had positive intentions and attitudes toward future commitment [Table 4].

Table 5 shows that an adequate understanding of religious principles was significantly associated with commitment to mask wearing at $P < 0.01$, hand washing at $P < 0.01$, keeping an appropriate distance (at work and mosque) at $P = 0.26$, and keeping a distance during visits to relatives at $P = 0.43$, but the mosque precautions at $P = 0.094$. We also found a significant relationship between inadequate understanding of religious evidence and poor commitment to the wearing of masks, hand washing, keeping the appropriate distance (at work and mosque), and keeping a distance during visits to relatives.

We found that an adequate understanding of religious principles was significantly associated with overall commitment; $P = 0.001$ and inadequate understanding were significantly associated with lack of commitment [Table 5].

Table 1: Sociodemographic characteristics of the study participants (*n*=922)

Characteristics	Frequency *N* (%)
Age group (years)	
<25	112 (12.1)
25-34	163 (17.7)
35-44	273 (29.6)
45-54	218 (23.6)
≥55	156 (16.9)
Gender	
Female	501 (54.4)
Male	421 (45.7)
Works in the medical field	
No	816 (88.5)
Yes	106 (11.5)

Table 2: Study participants' adherence and commitment to the preventive measures for coronavirus disease 2019

Preventive measures	*N* (%)	Commitment	*N* (%)
Mask wearing			
Always	661 (71.7)	Not compliant	83 (9.0)
Often	178 (19.3)		
Rarely	65 (7.0)	Accepted	839 (91.0)
Never	18 (2.0)		
Hand washing			
Always	642 (69.6)	Not compliant	97 (10.5)
Often	183 (19.8)		
Rarely	77 (8.4)	Accepted	825 (89.5)
Never	20 (2.2)		
Mosque precaution			
Always	460 (49.9)	Not compliant	408 (44.3)
Often	54 (5.9)		
Rarely	34 (3.7)		
Never	24 (2.6)	Accepted	514 (55.7)
I do not go to the mosque	350 (38.0)		
Keeping distance			
Always	495 (53.7)	Not compliant	313 (33.9)
Often	114 (12.4)		
Rarely	27 (2.9)		
Never	8 (0.9)	Accepted	609 (66.1)
I do not go	278 (30.2)		
Distancing in visits to relatives			
Always	316 (34.3)	Not compliant	374 (40.6)
Often	232 (25.2)		
Rarely	120 (13.0)		
Never	53 (5.7)	Accepted	548 (59.4)
I do not visit my relatives and friends	201 (21.8)		

Table 3: Good understanding of Islamic principles related to disease preventive measures among the study participants

Islamic evidence	*N* (%)
Q1: Allah said, "Nothing will happen to us except what Allah has decreed for us." Do you understand by this Ayah that the precautionary measures for COVID-19 are against our trust in Allah?	
Inadequate	72 (7.8)
Adequate understanding	850 (92.2)
Q2: Prophet Mohammed (PBUH) said: "Know that what has come to you could not miss you and that what has missed you could not come to you." Do you understand from this religious text that the precautionary measures for COVID-19 are against our trust in Allah?	
Inadequate	59 (6.4)
Adequate understanding	863 (93.6)
Q3: Prophet Mohammed (PBUH) wore two shields during the Battle of Uhud. Do you understand from this evidence the importance of following the precautionary measures for COVID-19?	
Inadequate	23 (2.5)
Adequate understanding	899 (97.5)
Q4: A man said: "O Messenger of Allah! Shall I tie it and rely upon Allah, or leave it loose and rely upon Allah?" He said: "Tie it and rely upon Allah" Do you understand from this religious text that we should follow precautionary measures for COVID-19 and that it is part of our trust in Allah?	
Inadequate	43 (4.7)
Adequate understanding	879 (95.3)
Q5: Allah said, "and make not your own hands contribute to (your) destruction" Do you understand from this Ayah that we should follow precautionary measures for COVID-19 and that it is part of our trust in Allah?	
Inadequate	31 (3.4)
Adequate understanding	891 (96.6)
Q6: Umar bin Al-Khattab went back to Madinah during the outbreak of plague in Al-Sham and said, "We are running from what Allah had ordained (Qadar) to what Allah has ordained." Do you understand from this story that we should follow precautionary measures for COVID-19 and that it is part of our trust in Allah?	
Inadequate	38 (4.1)
Adequate understanding	884 (95.9)
Q7: When Amr ibn al Aas was appointed leader, he told that these plagues "spread like fire," so "seek refuge in the mountains." Do you understand from this story the importance of keeping a safe distance between you and others to protect yourself from COVID-19?	
Inadequate	41 (4.4)
Adequate understanding	881 (95.6)
Q8: Al-Shabi was passing the people with camels that were infected by scabies, so he said: "Oh boys: Do not see your camels!" They said: "We have an old woman and are relying on her supplication." He said, "I would like to add a bit of tar (scabies medicine) to her supplication." Do you understand from this story the importance of following the precautionary measures for COVID-19?	
Inadequate	36 (3.9)
Adequate understanding	886 (96.1)
Total	922 (100.0)

COVID-19=Coronavirus disease-2019

Table 4: Study participants' overall good understanding of Islamic principles and attitude toward the future commitment to the protective measures for coronavirus disease 2019

Overall understanding and attitude toward future commitment	*N* (%)
Overall understanding	
Inadequate	19 (2.1)
Adequate	903 (97.9)
Attitude toward future commitment (Q9)	
Negative	350 (38.0)
Positive	572 (62.0)

We found that adequate understanding of religious principles was significantly associated with a positive attitude toward future commitment and inadequate understanding was significantly associated with a negative attitude ($P < 0.001$)[Table 6].

There was no significant relationship between working in the medical field and understanding religious principles (P=0.55), but there was a significant association between working in the medical field and acceptance of preventive measures (P=0.013). There was also a significant association of a positive attitude toward future commitment ($P < 0.001$) [Table 7].

Discussion

Respiratory viruses, like SARS-CoV-2, are known to spread by direct contacts, such as touching an infected person or an infected surface.[15,16]

Table 5: The association between the overall good understanding of religious principles and the commitment toward coronavirus disease 2019 precautions by the study participants

Preventive measures	Overall understanding		Total *N* (%)	χ^2	*P*-value
	Inadequate *N* (%)	Adequate *N* (%)			
Wearing masks					
Not	7 (36.8)	76 (8.4)	83 (9.0)	18.35	<0.001
Accepted	12 (63.2)	827 (91.6)	839 (91.0)		
Hand washing					
Not	8 (42.1)	89 (9.9)	97 (10.5)	20.55	<0.001
Accepted	11 (57.9)	814 (90.1)	825 (89.5)		
Mosque precautions					
Not	12 (63.2)	396 (43.9)	408 (44.3)	2.811	0.094
Accepted	7 (36.8)	507 (56.1)	514 (55.7)		
Keeping distance					
Not	11 (57.9)	302 (33.4)	313 (33.9)	4.96	0.026
Accepted	8 (42.1)	601 (66.6)	609 (66.1)		
Distance during visits to relatives					
Not	12 (63.2)	362 (40.1)	374 (40.6)	4.10	0.043
Accepted	7 (36.8)	541 (59.9)	548 (59.4)		
Total	19 (100.0)	903 (100.0)	922 (100.0)		
Overall commitment					
Not	11 (57.9)	222 (24.6)	233 (25.3)	10.93	0.001
Accepted	8 (42.1)	681 (75.4)	689 (74.7)		
Total	19 (100.0)	903 (100.0)	922 (100.0)		

Table 6: Relation between overall good understanding of religious principles and positive attitude toward future commitment

Attitude toward future commitment Q9	Overall understanding		Total *N* (%)	χ^2	*P*-value
	Inadequate *N* (%)	Adequate *N* (%)			
Negative	17 (89.5)	333 (36.9)	350 (38.0)	21.85	<0.001
Positive	2 (10.5)	570 (63.1)	572 (62.0)		
Total	19 (100.0)	903 (100.0)	922 (100.0)		

Table 7: Relation between overall good understanding of religious principles, commitment to preventive measures and positive attitude toward future commitment, and working in the medical field

Overall understanding, commitment for preventive measures and positive attitude toward future commitment	Medical field		χ^2	*P*-value
	No *N* (%)	Yes *N* (%)		
Understanding of religion principles				
Inadequate	16 (2.0)	3 (2.8)	0.35	0.55
Adequate	800 (98.0)	103 (97.2)		
Commitment for preventive measures				
Not	217 (26.6)	16 (15.1)	6.56	0.013
Accepted	599 (73.4)	90 (84.9)		
Attitude toward future commitment				
Negative	328 (40.2)	22 (20.8)	15.05	<0.001
Positive	488 (59.8)	84 (79.2)		
Total	816 (100.0)	106 (100.0)		

Recommendations to practice good hand hygiene, physical distancing, and isolation of infected patients to prevent transmission are common in organizational guidelines for respiratory viruses.[17]

To prevent the spread of the virus that affects healthcare systems, the authorities have instituted regulations and recommendations that include social distancing, washing of hands, and the wearing of a face mask.

These measures received mixed reactions; some ignored the advice.

Mortality by COVID-19 reached more than 8500[2] in Saudi Arabia. Even workers in the medical field succumbed to the disease. Despite the regrettable situation, many people were not persuaded to follow governmental protective measures. The Ministry of Health (MOH) in Saudi Arabia broadcast the story of the spread of the disease in one family on social media and on the news.

Muslim households usually consist of relatively large families, and as per religious advice, strong relations are maintained between members. This is why the percentages of commitment to "always" and "often" were relatively low with regard to the maintenance of appropriate distance when visiting relatives [Table 2], compared to keeping the distance at work and in the mosque.

About 62.0% had a positive intention and attitude toward future commitment after answering the questionnaire [Table 4]. This shows that since questionnaires are conveniently distributed by social media or in the waiting areas of primary healthcare centers and hospitals, it could be a novel way of raising awareness in society.

We found that an adequate understanding of religious principles was significantly associated with an overall commitment, and inadequate understanding was significantly associated with a lack of commitment [Table 5]. It is very important, therefore, that in a Muslim society people are taught the proper explanation of evidence to avoid misunderstanding preventive measures for diseases.

Jang *et al.*,[18] measured the levels of preventive behaviors such as wearing face masks and hand washing. Between the surveys, respondents who reported practicing social distancing increased from 41.9% to 58.2% during the Middle East respiratory syndrome coronavirus (MERS-CoV) to 83.4%–92.3% in COVID-19. In our study, it was 66.1% [if we count always and often Table 2]. The reason is that protective measures were not applied for MERS-CoV and the people were not convinced about the government's protective measures.

Conclusion

In times of crisis, clarity of the information given in the government's policies determines social cohesion. The differences in social classes are important factors that influence decisions taken by individuals in times of crisis. A few Muslims have no grasp of disease prevention due to their inability to comprehend religious evidence, but the scholars of religion can resolve this. The scholars who are diligent in their work should have discussions of the religious evidence in society to prevent misinformation by individuals with little learning.

These discussions should be shown through the media by the MOH in support of their preventive measures for any endemic disease. Questionnaires can be distributed through the media and in hospitals to inform people and correct misconceptions.

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Conflicts of interest
There are no conflicts of interest.

References

1. Ölcer S, Yilmaz-Aslan Y, Brzoska P. Lay perspectives on social distancing and other official recommendations and regulations in the time of COVID-19: A qualitative study of social media posts. BMC Public Health 2020;20:963.
2. World Health Organization WHO. WHO Coronavirus (COVID-19) Dashboard. Available from: https://covid19.who.int/table. [Last accessed on 2022 Jan 09].
3. Zhang Z, Liu S, Xiang M, Li S, Zhao D, Huang C, *et al.* Protecting healthcare personnel from 2019-nCoV infection risks: Lessons and suggestions. Front Med 2020;14:229-31.
4. Peeri NC, Shrestha N, Rahman MS, Zaki R, Tan Z, Bibi S, *et al.* The SARS, MERS and novel coronavirus (COVID-19) epidemics, the newest and biggest global health threats: What lessons have we learned? Int J Epidemiol 2020;49:717-26.
5. Yezli S, Khan A. COVID-19 social distancing in the Kingdom of Saudi Arabia: Bold measures in the face of political, economic, social and religious challenges. Travel Med Infect Dis 2020;37:101692.
6. Brookings. Are COVID-19 Restrictions Inflaming Religious Tensions? Available from: https://www.brookings.edu/blog/order-from-chaos/2020/04/13/are-covid-19-restrictions-inflaming-religious-tensions/. [Last accessed on 2022 Jun 24].
7. Natto ZS, Alshaeri HK. Characteristics of first cases of coronavirus disease 2019 and the effort to prevent the early spread of COVID-19 in Saudi Arabia. Risk Manag Healthc Policy 2021;14:315-21.
8. Pradhan D, Biswasroy P, Kumar Naik P, Ghosh G, Rath G. A review of current interventions for COVID-19 prevention. Arch Med Res 2020;51:363-74.
9. Rahimi F, Talebi Bezmin Abadi A. Tackling the COVID-19 pandemic. Arch Med Res 2020;51:468-70.
10. Ministry of Health (MOH) News. MOH: Adhering to Preventive Measures and Vaccination Essential for Preventing COVID-19.

Available from: https://www.moh.gov.sa/en/Ministry/MediaCenter/News/Pages/News-2021-08-01-007.aspx. [Last accessed on 2022 Jun 24].

11. MacIntyre CR, Chughtai AA. A rapid systematic review of the efficacy of face masks and respirators against coronaviruses and other respiratory transmissible viruses for the community, healthcare workers and sick patients. Int J Nurs Stud 2020;108:103629.
12. World Health Organization WHO. COVID-19: Physical Distancing. Available from: https://www.who.int/westernpacific/emergencies/covid-19/information/physical-distancing. [Last accessed on 2022 Jan 09].
13. Sunnah.com. The Book of Prayers: Straightening The Rows; The Virtue of The Front Row and Then the Next; Competing With One Another for the Front Row; The People of Virtue Should Take Precedence and be Closest to the Imam. 432 Sahih Muslim (1/323). https://sunnah.com/muslim: 432a. [Last accessed on 2022 Jan 09].
14. Holy Quran: English-Sahih International the Opening Surah Al-Taubah (9-51). Available from: https://surahquran.com/aya-51-sora-9.html. [Last accessed on 2022 Jan 09].
15. La Rosa G, Fratini M, Della Libera S, Iaconelli M, Muscillo M. Viral infections acquired indoors through airborne, droplet or contact transmission. Ann Ist Super Sanita 2013;49:124-32.
16. Dhand R, Li J. Coughs and sneezes: Their role in transmission of respiratory viral infections, including SARS-CoV-2. Am J Respir Crit Care Med 2020;202:651-9.
17. Lee S, Meyler P, Mozel M, Tauh T, Merchant R. Asymptomatic carriage and transmission of SARS-CoV-2: What do we know? Can J Anaesth 2020;67:1424-30.
18. Jang WM, Jang DH, Lee JY. Social distancing and transmission-reducing practices during the 2019 coronavirus disease and 2015 Middle East respiratory syndrome coronavirus outbreaks in Korea. J Korean Med Sci 2020;35:e220.