

Article

Exploring health impact and safety measures against transmission of COVID-19 pandemic in Saudi Arabia

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Abstract

The pandemic of Covid-19 at the global level cannot be underestimated. Arab world including Saudi Arabia is affected with the pandemic of Covid-19. More importantly, the surge of the numbers of infected individuals in Iran has brought fear and anxiety in the whole region in general and Saudi Arabia in particular. Several studies have investigated the prevalence of the virus in different countries from various perspectives. Nonetheless, little focus is given to academic research on health challenge of the virus resulting to fear and anxiety in the recent time in the context of Saudi Arabia. This study primarily aims at exploring the health effect of Covid-19 in Saudi Arabia despite the fact that, the World Health Organization (WHO) has clamored for preventive measures in addressing global health effect of the virus. The methodology of the study is systematic literature review (SLR) and content analysis of the secondary data on health impact of Covid-19 and preventive measures against its transmission in the country are critically analyzed. The results of secondary data of the study indicated that a number of confirmed cases, active cases and deaths in Saudi Arabia manifested negative impact of Covid-19 on citizens' health especially fear and anxiety despite the fact that records have showed steady recovered cases in the country. More specifically, the findings indicated that, health impact of Covid-19 are as follows namely: fear or anxiety, negative attitude among health workers and women in health workforce. Similarly, Saudi Arabia has put in place various preventive measures such as: preventive measures against transmission of Covid-19 which are as follows: institutional preparedness and strengthening mechanism, curfews and lockdowns and suspension of activities and order of social distancing. In conclusion, this paper has lucidly highlighted the health effect of Covid-19 and safety measures against the transmission of Covid-19 have been elaborated in the context of Saudi Arabia. It is thereby suggested that, the outcome of this study can be helpful to the health workers and policymakers in the country to be acquainted with the magnanimity of the novel coronavirus as well as putting effective safety mechanisms in place in curtailing the spread of Covid-19 in Saudi Arabia.

Introduction

There are multifarious challenges in human society and of such social challenges is flood. In addition, there are health related pandemic such as HIV, LAZA fever among others at the global level. More recently, the outbreak of COVID-19 which emerged as a result of the spread of severe acute respiratory syndrome coronavirus that started in the late 2019 in Wuhan in China.¹ Corona virus has been considered as neo century pandemic. It is noteworthy to say that, most of the countries that are severely affected with the spread of Covid-19 are faced with challenges such as: complexity of emergency nature of Covid-19, fragile health system, poor surveillance of disease, inadequate capacity of response to the Covid-19, lack of public health preparedness against coronavirus which has been identified in the earlier literature before the global outbreak.^{2,3} It should be mentioned that Saudi Arabia is also affected with the aforementioned factors in connection with outbreak of Covid-19.⁴ It should be reiterated that, despite of the aforementioned challenges, Saudi Arabia has been proactive in preparing national action template against Covid-19 specifically with the support of WHO in order to curtail the spread.

Further still, coronavirus otherwise known as Covid-19 has posed a big challenge to the global health. Arab world including Saudi Arabia is not left untouched with the threat of the pandemic.⁵ More specifically, as of June 2020, Hilton reported that, Saudi Arabia had over one hundred thousand cases of Covid-19.⁶ World Health Organization has been making effort in addressing any virus that threat the health of the entire world including the ongoing Covid-19.⁷ Nonetheless, the outbreak of Covid-19 posed a big shock even to the World Health Organization. Undeniably, Covid-19 is regarded as an infection that eventually causes abnormal respiratory system specifically shortness of breath, dry cough and fever.⁸ It is not disagreeable to say that the virus is easily transmitted through contact from one person to another as literature contends.⁹

According to the epidemiological update on weekly basis by the World Health Organization provides statistical records on cases and deaths of Covid-19 across the world.¹⁰ It is pertinent to note that, epidemiological information on Covid-19 pandemic as of 2nd November, 2020, World Health Organization (WHO) provides report through Ministry of Health that Saudi Arabia has 347,

Significance for public health

The present paper represents the health effect of Covid-19 and safety measures against the transmission of Covid-19 have been elaborated in the context of Saudi Arabia. The finding of the paper demonstrates the negative impact of Covid-19 among populace. The importance of the topic is that it would guide the health workers and policymakers to be acquainted with the magnanimity of the novel coronavirus as well as putting effective safety mechanism in place in curtailing the spread of Covid-19 in Saudi Arabia.

656 confirmed cases, 334 and 5420 deaths cases.⁷ However, the Saudi Arabian Statistical Research Department provides that as at 3rd November, Covid-19 cases in the Kingdom has reached 348 thousand, 335 recovered cases and 5, 456 deaths.¹¹ Table 1 shows Covid-19 pandemic and statistical record of confirmed cases, active cases, recovered cases and death in Saudi Arabia.

Based on Table 1, it is clear that there is minor difference in the statistical record between the data obtained from World Health Organization through Saudi Ministry of health and Statistical Research Department in Saudi Arabia. However, the figures of confirmed cases, recovered and death cases are closely related in the context of Saudi. Hence, the most important thing is to address the health impact of Covid-19 because it is an essential requisite for attaining overall development. It is important to note that health and welfare of the citizens are essential indicators of development in different parts of the world and undoubtedly, Covid-19 has significant negative impact on medical profession or healthcare industry. Generally, Covid-19 has negative impact on individual's health and living condition. It is as a result of this that the experts have emphatically stresses on the need for personal hygiene, self-isolation and social distancing because it is respiratory syndrome.⁷

Thus, several studies have investigated the prevalence of Covid-19 in different countries and it has been concluded that, it has consequence on global health.^{12,13} And Several precautionary measure have been put in place by World Health Organization.⁷ The study by Sallam *et al.* posits that there is low knowledge and high level of anxiety pertaining to the Covid-19 in Arab country.¹⁴ In spite of the precautionary or preventive measures emphatically stressed by the World Health Organization (WHO) and with the finding of previous studies on Covid-19¹⁴, there is yet an academic research in the recent time that meticulously examines the health impact of Covid-19 and preventive measures in Saudi Arabia in order to effectively and efficiently curtail further spread of the virus. This paper therefore primarily explores health impact of Covid-19 and preventive measures against transmission of Covid-19 in the context of Saudi Arabia.

Literature review

This part explores related studies on coronavirus or otherwise known as Covid-19 with specific focus on medical or health impact of Covid-19 as well as preventive measures against transmission of Covid-19 in the context of Saudi Arabia. Literature considers that, coronavirus clinical respiratory infections that can be transmitted from one person to the other.¹⁵ In a nut shell, the effort of the government in curtailing the transmission of the virus cannot be underestimated. On the 2nd March, 2020, Ministry of Health reported the first case of Covid-19 with a citizen that returned from Iran in Qatif, the Eastern part of the Kingdom of Saudi Arabia and subsequently, fifty-one tested positive of the virus which later led to the lock of Qatif.¹⁶

Moreover, literature have affirmed that, Covid-19 has caused

fear or anxiety as well as physical and mental disturbances.¹⁴ More importantly, the healthcare workers have high risk of the anxiety as a result of their direct contact with the patients of Covid-19 and previous studies have posited that social support can be instrumental in reducing the high risk of anxiety caused by Covid-19 among the health workers.¹⁷ Nonetheless, misuse of social media in disseminating wrong or fake information about Covid-19 can further trigger the fear of the Covid-19. More so, it should be stressed that negative attitude in attending to the patients of perceived symptoms of Covid-19 is terrifying in the context of Saudi Arabia. Nonetheless, studies have shown that Saudi Arabia government has been making tremendous in changing the negative attitude of health workers as well as proactive action in attending to the patients of Covid-19 by providing special hospitals for the treatment of Covid-19 cases.¹⁷

More specifically, literature such as World Health Organization posited that, 70% of women in the global health workforce.¹⁰ However, the current challenge of Covid-19 threatens the commendable percentage of women in the healthcare workforce.¹⁰ It has been confirmed in the literature that a total number of one thousand seven hundred and sixteen (1716) health workers have been infected with the Covid-19 epidemic in China as at February, 2020.^{8,9} As a result of the large percentage of women in the healthcare industry plus their matrimonial responsibilities which has been serving as hindrances in rendering or discharging their duties during pandemic.¹⁸

Similarly, Centre for American Progress has submitted that millions of health workers especially women have challenge of attending to their children, thereby, managing between work and family remains terrifying for them. Hence, the article on Al Arabiya notes that coronavirus has affected jobs and has led to giving priority to health more before.¹⁹ An inference can be made from this that, there is persistent challenge for women to involve in matrimonial responsibilities and fulfilling the employment needs in the context of Saudi Arabia. Onwards, it is noted earlier that, the first case of Covid-19 in Saudi was on the 2nd March, 2020.²⁰ Thus, in order to address further transmission of Covid-19, the government of Saudi Arabia used different mechanisms. More importantly, on the 8th March, 2020 the government placed a total lockdown in the region.²¹ It should be mentioned that, after the first case of Covid-19 in Saudi Arabia, the subsequent months witness the proliferation of confirmed cases in the entire Arab state of the Persian Gulf. In addition, at the early period of Covid-19 cases, the Ministry of Foreign Affairs of Saudi Arabia declared that citizens from Gulf Cooperation Council (GCC) should not be allowed to enter Saudi Arabia except that those that have been in the country more than fourteen days without any symptoms of the virus would be excluded for the suspensions.²² Furthermore, Saudi Arabian Ministry of Education closed down the activities of schools and tertiary institutions. On the 13th March, 2020, the government banned social gatherings and wedding ceremonies²³ and on the 15th March, 2020, there was suspension of domestic and international flights.²² Nonetheless, all unavoidable travelers were being put in quarantine for two weeks. As part of proactive step in cur-

Table 1. Covid-19 pandemic and statistical records (confirmed cases, active cases, recovered cases and death) in Saudi Arabia.

	Statistical records in Saudi Arabia by the World Health Organization through the Ministry of Health	Statistical records in Saudi Arabia by the Statistical Research Department
Confirmed cases	347,656	348,000
Recovered cases	334	335
Death	5,420	5,456

tailoring the transmission, the government placed a ban on bus transportation, train and local flights in the Kingdom.²² Since social and religious public gatherings have potential on the infectious outbreak of Covid-19 whereby the noticeability of the infection was identified, the government suspended all activities including social gatherings in order to avoid the risk of Covid.^{23,24} In addition, Al-Jazeera¹⁶ asserts that, with the prevalence of Covid-19, Saudi Arabia banned prayers in mosques as a result of fear of coronavirus pandemic. Also, Arab News contends that, as a result of Covid-19 pandemic, grand and prophet's mosque were closed between night and morning prayers.²⁵ As there was drastic reduction of cases of the virus, the Hajj of this was limited to ten thousand worshippers but with strict precautionary measures despite the fact that the existing literature anticipated for total cancellation of 2020 Hajj pilgrimage.²⁶ It is essential to reiterate that, isolation and preventive measures were given priority by the government of Saudi Arabia and the country just like many other countries have challenges of inadequate capacity of laboratory for testing symptoms of Covid-19 and the virus is regarded as high-threat contagious pathogens.²⁷ Onward, when there was reduction in the cases of Covid-19, the government planned to re-open mosques in Mecca as literature posits.²⁸ But when the government re-opened mosque in Makkah, the study by Ebrahim and Memish posits that, the country should expect super spread of Covid-19 in the country.²⁹ This assertion was later confirmed with severity of cases which made the government to re-impose restrictions and curfew in different parts such as Jeddah.²¹ According to Saudi Press Agency, the government has planned to lift the curfew but the ban on Umrah and international flights continued.²⁸ But with current scenario in the country, the government has put guidelines in place for opening malls and industrial sector.³⁰ In spite of several measures, Hydroxychloroquine is considered as clinical trial and therapeutic remedy for treating Covid-19 even in Saudi Arabia.³¹ To sum up, literature has explored different issues relating with the health impact of Covid-19 and various preventive measures put in place by the government in the context of Saudi Arabia have been explored.

Methodology

This study is exploratory in nature and the methodology of the study is done with specific focus on systematic literature review (SLR)³² and content analysis of the secondary data on health impact and safety measures of Covid-19 in the context of Saudi Arabia which are critically analyzed. In this study, two main variables are explored which are as follows: i) health impact of Covid-19; and ii) preventive measures against transmission of Covid-19. Based on the use of systematic literature review and content analysis, themes were generated in relation to each of the aforementioned variables, i.e., i) health impact of Covid-19, and ii) preventive measures against transmission of Covid-19. On one hand, in relation to health impact of Covid-19, there are three main themes generated namely: fear or anxiety, negative attitude among health workers and women in health workforce. On the other hand, there are four themes relating to preventive measures against transmission of Covid-19 which are as follows: institutional preparedness and strengthening mechanism, curfews and lockdowns and suspension of activities/order of social distancing and therapeutic remedy. The analysis of secondary data that were obtained was done based on the themes generated in the paper. Furthermore, the analysis of the secondary is based on thirty-seven articles that were explored in this paper because the use of SLR enable the researchers to clarify ideas as literature explains.³²

Results/Findings

This part presents the results/findings of the study. The prime aim of this study is to explore the health impact of Covid-19 and preventive mechanisms put in place against the spread of Covid-19 in the context of Saudi Arabia. Notably, the results of systematic literature review and content analysis are presented based on the two main variables alongside with the themes generated on each variable explored in this study. Themes were generated in relation to each of the aforementioned variables, i.e., i) health impact of Covid-19, and ii) preventive measures against transmission of Covid-19. There are three main themes related with the factor of health impact of Covid-19, whereby the themes are: fear or anxiety, negative attitude among health workers and women in health workforce. Similarly, there are four themes pertaining to preventive measures against transmission of Covid-19, the themes generated are as follows: institutional preparedness and strengthening mechanism, curfews and lockdowns and suspension of activities/order of social distancing and therapeutic remedy.

Results on health impact of Covid-19

The sub-part presents the findings on health impact of Covid-19 based on the generated themes (i.e., fear or anxiety, negative attitude among health workers and women in health workforce) which are explained in the subsequent paragraphs.

First, concerning fear or anxiety, there is fear or anxiety being experienced by healthcare workers because most of them did not rest or take their meal break. Onwards, there is an anxiety among healthcare worker pertaining to the risks being posed to their family members as result of their exposure to the patients with symptoms of coronavirus. Similarly, there is also a risk at the place of work and the proactive response of the government in managing epidemic is essential in addressing the challenge of Covid-19. Onwards, physical and mental disturbances, literature contends that, there is effect of Covid-19 among health care workers especially it leads to physical and mental disturbances in their attempt to take care of patients with symptoms of Covid-19 because of their direct dealing with the patients with Covid-19 cases, they have potential risk of being contacted with the virus and consequently transfer the virus to others. Literature contends that, medical personnel have greater fear and anxiety compared to administrative staff. This assertion in line with the finding of this research where literature affirms the condition of work by the healthcare workers contribute to high risk of anxiety caused by Covid-19 in the context of Saudi Arabia.¹⁴ It is not disputable to say that mass and social media significantly contributes positively in the aspect of information dissemination on Covid-19. In addition, the use of social media cannot be underestimated in the dissemination of information to the masses especially during the critical period of enlightening the citizens with respect to the danger of the transmission of coronavirus which studies have shown that it plays significant impact in daily activities of the modern world.⁵ Nonetheless, the spread of fake news that can further triggers the fear and anxiety of Covid-19. In other words, the spread of fake information *via* social media contribute negatively to the anxiety about Covid-19 which affect the psychological wellbeing of the citizens in the country. Hence, accessibility to social support by the healthcare workers can be helpful in solving the mental and physical challenges experienced by the healthcare workers in order to minimize the level of anxiety by the health workers in the country.¹⁷

Second, regarding negative attitude by health workers, previ-

ous studies showed that, most healthcare workers have negative attitude towards treating patients with symptoms of Covid-19 in Saudi Arabia.¹⁷ The findings of this study demonstrated that, there is negative attitude among healthcare workers in Saudi Arabia especially with respect to the lack of support for their physical and mental well-being during Covid-19. Despite the fact that, health impact of Covid-19 cannot be underrated, literature posits that, Saudi Arabia is regarded as a country with proactive step especially which has prepared hospital for treating the cases of Covid-19 which is in consonance with an empirical evidence showed in the existing literature in the country.¹⁷

Third, women's involvement in health workforce is growing in the context of Saudi Arabia. Literature posits that, women in health workforce which according to a report made by, it was stressed that 70% of women are in health workforce globally and as a result of this, it exposes them to pitiable risk of getting infected with coronavirus.¹⁰ At the international level, there has been agitation for gender equality especially by addressing the problem of poverty and vulnerability to discrimination against women for their participation in the workforce remain great concern since few decades ago. Prior to Covid-19, it has been acknowledged that, women are making up of three-quarters of international healthcare professionals were not given adequate respect or regard that they deserve. This has been confirmed by World Health Organization that, there different types of negligence towards women as a result of the existing biasness towards gender.¹⁸ This challenge may not be ruled out in the context of Saudi Arabia especially, there is an existing religious-cultural discrimination against women in most Arab countries in the workforce.

Results on preventive measures against Covid-19

This sub-section presents the findings on preventive measures against transmission of Covid-19 in the context of Saudi. The themes generated on this variable are institutional preparedness and strengthening mechanism, curfews and lockdowns and suspension of activities/order of social distancing and therapeutic remedy which are explicated in the subsequent paragraphs.

First, institutional preparedness and strengthening mechanism for safety against Covid-19 essential. It is important noted that World Health Organization has demonstrated the need for institutional preparedness against the effect of likely outbreak of pandemic such as Covid-19. Hence, the country is expected to provide holistic approach and response in combatting the transmission of the virus as literature posits.³² It can only be achieved in the context of Saudi Arabia when personal hygiene and protective measures are promoted as well as to put in place compliance or control against the disease. The finding further indicates that, the government is expected to strengthen the mechanism for safety against Covid-19 especially by using available preventions such as the use of face mask in public gathering and adequate implementation of curfew in order to avoid the spread of Covid-19 in the country.^{22,25} The magnanimity of the Covid-19 pandemic has shown in the fear by most health workers in the context of Saudi Arabia despite the fact that, some countries like Thailand where healthcare workers were concern about taking risk of taking care of people with perceived symptoms of Covid-19.

Second, curfews and lockdowns are used as preventive measures. As a result of the proliferation of the confirmed cases, the government implemented curfews and lockdowns throughout the country and both domestic and international traveling were suspended.³³ However, there is exception in the case of Makkah. Nonetheless, despite of the challenge of high numbers of cases of

Covid-19, literature posits that there were drastic recoveries from the cases at the middle of July, 2020.¹⁷

Third, there is suspension of activities and order of social distancing. Fundamentally, there is constant religious mass gathering in Saudi Arabia such as Hajj, Umrah etc. which literature considers as one of the largest mass gatherings in the entire world. Nonetheless, local and foreign transmission of Covid-19 cannot be underestimated. Thus, these mass gatherings have extensively studied in many researches. For instance, research shows that in 2012, the total number of 3,161,573 participated in pilgrimage.²⁶ With the aforementioned figure of pilgrims, it has tendency of transmitting the infection of the virus. Nonetheless, these mass gatherings have been instantly suspended in the country in order to address the likely risk that may be posed to the spread of Covid-19. It is not only Umrah and Hajj that were suspended but daily and Friday prayers were also suspended in Makkah and Madinah as part of precautionary measures against the transmission of Covid-19. With the recoveries in the Kingdom, it was declared that on the 19th June, 2020 that mosques will be reopened by 21 June, 2020 provided that preventive measures are strictly adhered to against Covid-19 in the country. The suspension of Umrah pilgrimage on the 27th February, 2020 is considered as the first time in eighty years in the history of pilgrimage to the holy land. In addition, on 5th March, Saudi Arabia cancelled the initial slated Riyadh International Book Fair, Saudi Arabia International Horse Festival and e-Visa among others. As a result of the fact that, there was dramatic recovery, the Kingdom open the opportunity for Hajj only just only ten thousand pilgrims against huge number of participants in previous years. With the numbers of pilgrims, there was an implementation of social distancing. With this scenario, it created fear and anxiety among the citizens which consequently cause a kind of psychological disturbance.

Fourth, therapeutic remedy is considered as an important preventive measure in the context of Saudi Arabia. There is no actual or specific therapeutic solution to the infected persons of Covid-19 but all the foregoing measures put in place by the WHO in general and Saudi Arabia in particular are considered as preventive measures. However, in the context of Saudi Arabia, the current therapy for patients of Covid-19 is hydroxychloroquine in addition with lopinavir/ritonavir with those with high severity of Covid-19 as literature posits.³⁰ Similarly, several healthcare institutes have adhering to the protocols put in place in Saudi Arabia especially when clinical testing is adopted to determine improvement in patients of Covid-19. It is therefore important to state that, with the emergence and rapid contagiousness of Covid-19, Saudi Arabia has been making tremendous effort in curtailing the further spread of the virus by providing necessary training as well as laboratory supplies and diagnostic kits.

Discussion of major results/findings

This part presents the discussion of the health is an important element or indices of development in various parts of the world. The current outbreak of Covid-19 has affected the global health which consequently affected multifarious spheres of development including the health. This scenario is also explored in the context of Saudi Arabia. Secondary data were explored in this paper with specific focus on health impact of Covid-19 and preventive measures against transmission of Covid-19. The overall findings of this study have demonstrated that, the Covid-19 is a global pandemic that has affected all countries of the world including Saudi Arabia which literature refers to as new century pandemic.¹⁷ Literature such as World Health Organization posits that Covid-19 threat the

global health.¹⁰ It was found that Saudi Arabia had the first case of Covid-19 on the 2nd March, 2020 in Qatif in the Eastern part of the Kingdom.²⁰ More specifically, the epidemiological information as of 2nd November, 2020, Covid-19 pandemic according to WHO which provides statistical record on the confirmed cases as 347, 656 and 5420 as death cases.⁷

Based on the spread of Covid-19 in the kingdom, it can be said that, there are negative effects of Covid-19 in Saudi Arabia. The findings of this study have demonstrated that there is fear or anxiety of Covid-19 mostly among the healthcare workers. This assertion is in agreement with the previous studies that indicated that, there is high risk of anxiety among healthcare worker in the Kingdom.¹⁷ It should be reiterated that; the spread of fake news contributes maximally to the anxiety of Covid-19. Thus, the health workers should be provided with social support in order to address the problem of anxiety against Covid-19.

More so, the findings have shown that, there is negative attitude among healthcare workers in treating the patients of Covid-19. This finding is in consonance with previous studies which posited that, there is lack of adequate support for mental and physical well-being of the healthcare workers in attending to patients of Covid-19 in Saudi Arabia.¹⁴ Nevertheless, the government has taken step in curtailing the further spread of Covid-19 by providing special hospitals for treatment of Covid-19 patients as literature expounds.¹⁷ It should be reiterated that, the challenge of Covid-19 has drastically women participation in the workforce in general and health sector in particular. This assertion is in line with the position of United Nations. It can therefore be said that, 70% of women are in workforce at the international level which make them prone to the problem of infectious disease of Covid-19.¹⁰ Furthermore, as part of effort in curtailing the transmission of infectious disease of Covid-19, various preventive measures have been put in place. In the light of this, the findings have shown there is institutional preparedness in the context of Saudi Arabia which is in relation with the assertion of World Health Organization that emphatically stressed on institutional preparedness against Covid-19. For instance, special hospitals for treatment of Covid-19 patients is considered as part of institutional preparedness in the context of Saudi Arabia.¹⁷ In addition, the findings have further indicated that, curfews and lockdowns are integral part of strategies used in preventing the spread of Covid-19. As a result of the cases of Covid-19 in the Kingdom of Saudi Arabia, there was a total lockdown on the 8th March, 2020. Further still, the findings have shown that there are suspensions of various activities such as: religious mass gathering, Hajj, Umrah, *etc.* which are regarded as precautionary measures in curtailing the spread of Covid-19. Specifically, the government banned social gatherings and wedding ceremonies on the 13th March, 2020 and there was suspension of international flights on the 15th March, 2020. Onwards, the finding of this research indicated that, hydroxychloroquine plus lopinavir/ritonavir are regarded as therapeutic remedy is an integral part of preventive measure and other measures provided are training, laboratory supplies and diagnostic kits as literature contends.^{27,30}

Limitation and study forward

It should be specifically mentioned that this paper cannot claim total accuracy. Hence, it is affirmed that certain limitations are associated with this paper. In spite of the exploratory nature of the paper, methodologically, the use of systematic literature review (SLR) and reliance on secondary data rather than primary data that will investigate in-depth understanding of the citizens regarding

health impact of Covid-19 in Saudi Arabia is another limitation of the paper. In addition, there are several variables relating to the health impact and preventive measures against Covid-19 but selected variables on the impact as well as preventive measures that are explored in this research is another limitation. Based on the foregoing explication, it does not mean that citizens have complete assurance with respect to the safety measures against transmission of Covid-19 because they still have fear and anxiety against coronavirus. Nonetheless, the plan for the Saudi's government preparedness cannot be underrated where its effectiveness and efficiency cannot be adequately guaranteed. It is therefore posited that, there is need to conduct another study that will investigate the correlation between institutional plan and level of compliance with the preventive measures against Covid-19 in the context of Saudi Arabia.

Conclusions

This paper has explicitly explored the health impact of Covid-19 and preventive measures against transmission of coronavirus. The pandemic of Covid-19 has come to stay and its consequences on the health of citizens cannot be underestimated despite the fact that World Health Organization in general and Ministry of Health in Saudi Arabia in particular have been making tremendous effort in solving this problem. In order to minimize the further health challenge of Covid-19, it is significant to note that, the government has put in place safety measures such as curfew or restriction of movement in order to address health impact of Covid-19 in particular and minimize the spread of the pandemic in Saudi Arabia in general.

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Suggestions

1. In minimizing the health effect of Covid-19, the government is expected to provide benefits and support to the healthcare workers and their families which will serve as motivation for them in discharging their responsibility while attending to Covid-19 patients in Saudi Arabia.
2. The government should boost training, laboratory supplies and diagnostic kits for effective and efficient way of curtailing the negative health impact of COvid-19 in the country.
3. The government should intensify effort in alleviating fear or anxiety, negative attitude among health workers as well as enhance involvement of women in health workforce.
4. The government should foster institutional preparedness and strengthen mechanisms for preventing the spread of Covid-19.
5. The government should review its preventive measures such as: curfews/lockdowns and suspension of activities/order of social distancing and therapeutic remedy as part of efforts in solving the problem of Covid-19 in the country.
6. It is paramount that, the government should create robot to support medical professionals and he

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