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COVID-19 Pandemic: A Local Perceptual Study

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Abstract— Background: COVID-19 viral infection outbreak poses a great challenge to the global health facilities including those in Saudi Arabia. The current study aimed to evaluate the Saudi community perception and knowledge about COVID-19 pandemic. It also assessed the psychological impact and the guidelines to control the outbreak. **Methodology:**A descriptive cross-sectional anonymous Arabic language questionnaire-based survey was conducted targeting the Saudi populations. **Results:** Seven hundred and twenty one Saudi participants were included in this study. Most of them (n=503, 69.8%) reported satisfactory knowledge and information about COVID-19. Moreover, they mostly agreed (n=707, 98.1%) that implementing the Saudi Ministry of Health (MOH) guidelines is crucial to control the pandemic. Anxiety and stress were highly pronounced among 297(41.2%) of the studied sample. However, they reported different conflicting opinions about the community tools to control the infection outbreak. **Conclusion:** The current study participants were fully acquainted with COVID-19 pandemic and its preventive measures. Yet, this does not concur with the high registered number of COVID-19 in Saudi Arabia.Hence, further studies with higher population numbers may be needed for further clarity of the COVID-19 community perception.

Keywords— COVID-19, Perception, MOH guidelines, Stress and Anxiety**.**

1. Introduction

COVID-19 is a newly emerging viral infection that was initially reported in china by the end of 2019. It is a subtype of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). [1-2]It is accused for inducing different sorts of pathological and clinical disorders. These range from mild to serious illnesses within the body systems specially the respiratory tract. [3]Clear evidences have not yet been established as regards its mode of transmission. Some authors suggested its spread to occur via droplet infection, touching contaminated objects or even through the mucous membrane of the eyes.[4]In order to control the rapid propagation of this viral infection, the World Health Organization (WHO) has announced COVID-19 as a global pandemic threat to the population. This necessitates the adoption of special universal preventive guidelines. [5]Accordingly, Saudi Arabia has implemented the scanning of infected individuals, in order to isolate them. Tracing for the contact, quarantine application, social distancing and acclamation of some hygienic habits (such as hand hygiene) were also practiced as a part of the comprehensive WHO guidelines. The aim of these strategies is to control the disease spread (flattening of the spread curve). [6]However, the population lockdown and curfew have posed a higher psychological stress to the community. [7] This may be attributed to the fact that curfew restricts the movements. It also accentuates the sense of being bored due to staying at home, inability or difficulty to secure the nutritional supplies may also add to such psychological burden. [8]The current study aimed to report the Saudi public awareness and perception of COVID-19 pandemic. It was also designed to evaluate the psychological stress due to the lockdown.

2. Methodology

This descriptive cross-sectional anonymous questionnaire-based survey was conducted after being approved by our Institutional Research Board (IRB). A Special Arabic language questionnaire form was created including varieties of questions (Appendix1). This questionnaire involved the Saudi population at different geographical localities. It was electronically distributed through the social media platforms. It contains direct questions to investigate the participant's sociodemographic information as well as the effect of COVID-19 pandemic on their behavior and psychological health. The respondents' knowledge, perception and awareness about the preventive measures during the pandemic were gauged by special formulated questions. The answers of the questions were collected on an Excel sheet. Obtained data were expressed in number and percentages as per each question after being tabulated.

3. Results

Seven hundred and twenty one had participated in this study. They were 376 males (52%) and 345 females (48%). Six hundred and thirteen respondents (85%) were from the Eastern Province (Table1).

Five hundred and three respondents have proven to have enough knowledge about the virus. Furthermore, seven hundred and seven (98.1%) agreed that the Ministry of Health (MOH) instructions should be followed to overcome this pandemic. On the other hand, twenty-one of them did not believe that the curfew may have a role in controlling the pandemic. Nevertheless, two hundred and seventy-six participants (38.3%) anticipated that the gradual release of the curfew may be the best approach in dealing with the pandemic, if the proper hygienic precautions would be ideally implemented. These precautions may include the appropriate healthy protocols for hand washing, avoidance of crowdedness and applying adequate facemask (Table 2). Acclamation of stress and anxiety levels were perceived by 297 (41.2%) of the participating sample. Moreover, six hundred and eighteen (85.7%) showed a very high concern of being infected with COVID-19 during the pandemic's era (Table 3).

Overall, the study participants have reported different perceptions about circulation of information about COVID-19(Table4).

4. Discussion

Saudi health authorities have started strict measures to control COVID-19 pandemic since the announcement of the first infected patient in the kingdom. [9-11] The measures include national educational programs to create general population perception about the disease. [12-14] Guidelines were launched in accordance with WHO recommendation.

Adequate information about COVID-19 infection were reported in 69.8% within the current study. This coincides with a previously published report that stated a positive relationship between the COVID-19 prevailed information and the duly implemented preventive measures. [15]

Almost all of our study respondents 98.1% were fully convinced to consider the WHO and MOH as the most reliable sources for information. They were willing to properly follow their guidelines. This is supported by another local study that indicated a positive relationship between the population awareness and the control of COVID-19 pandemic. [16] A recent report has signified the important role of such preventive measures among the COVID-19 high risk population groups. [17]

Moreover, interest of the participants to share in social campaigns about the pandemic control was reported in 40.6% of the studied population. Nevertheless, 70.6% were indulged in many events of public awareness campaigns that were concerned with the viral infection. More than half of our sample, expressed their concerns about the dangerous effects of COVID-19 among elderlies as a higher risk group despite the literature controversy. [16, 18-21]

Our respondents were frequently following the hand hygiene protocols (89.61%). They also followed the WHO preventive guidelines against COVID-19. [22] These findings agree with another recent local study that expressed a higher percentage (81%) of their data to adequately practice the sneezing and cough etiquette. [23] This data is contradicting our relatively lower percentage (38.5%) in this regards. Furthermore, a high percent of our study sample (82.7%) were able to have self-isolation at home, based on the WHO recommendations.[24] Lockdown has been announced to decrease the infection spreading rate. [25-26] Fortunately, 86% of our study participants have appraised this notion.

Currently, Saudi Arabia has abandoned the curfew while adopting many precautions to limit the viral spread. [27-28] Surprisingly, nearly two third (62%) of our study participants have disagreed with this act, Despite, the negative psychological impact of the lockdown. [7]Curfew has widely affect the global economy with a significant decline in job opportunities. [8,29]Yet, only 14.1% of our studied sample has experienced loss of their jobs.

Social stigmatization is another psychological burden among victims of infectious diseases during the pandemic era. [30]This concept was almost remote among our study participants. Most of them (82.5%) were not afraid of being bullied or ostracized when being infected. These results were contradicted by another study that has discussed this concept and its negative impact on disease cure rate due to social negativity towards medical care. [31]

The current study results also showed that most of the sample (71.2%) were hesitated to travel by air or even decided to cancel their scheduled flights. Such cancellation may have added to their negative psychological wellbeing and stress. This is supported by a recently published report. [32]

5. Conclusion

The current study results may have simulated those of similar local studies. However, it does not justify the current increase in the newly reported cases of COVID-19 in Saudi Arabia. It is anticipated that the local custom and tradition of greetings among the local society may have played a role. Therefore, further studies need to take place in order to precisely highlight cracks in the local program that currently deals with this pandemic.

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Table 1:

Table I: Sociodemographic Details of the Participants			
		N	**%**
Gender	Male	376	52
	Female	345	48
Age	Less than 20	41	6
	20-30	221	30
	30-40	136	19
	40-50	155	21

	50-60	122	17
	More than 60	46	7
Education	Primary school	4	0.6
	Middle school	17	2.4
	Secondary school \ Diploma	96	13.3
	University	604	83.8
Social status	Divorced	11	1.5
	Married	461	63.9
	Single	239	33.1
	Widower	10	1.4
Are you?	A health care provider	36	5
	An active member in the community	65	9
	A student in a medical college	95	13.2
	A student at another college	67	9.3
	A medical/ social researcher	1	0.1
	Something else	457	63.4
How many people do you live with (including yourself)?	Less than 3	18	2.5
	3-5	231	32
	6-10	430	59.6
	More than 10	42	5.8
Are you the person responsible for taking care of your family?	Yes	395	55
	No	326	45
Socioeconomic status	Below average	34	4.7
	Average	449	62.3
	Above average	238	33
Area of living in Saudi Arabia	Eastern Region	613	85
	Central Region	45	6.5
	Western Region	42	5.8
	Northern Region	11	1.5
	Southern Region	10	1.3

Table 2:

Table II: Participants Knowledge and Practice During COVID-19 Pandemic			
		N	%
Are you in contact with COVID-19 patients, whether at home or at work?	I am a COVID-19 patient	1	0.1
	I am not in contact with COVID-19 patients	592	82.1
	I am in contact with COVID-19 patients	22	3.1
	I do not know	106	14.7
Do you feel that you have enough information regarding how to respond to the outbreak of novel COVID-19?	Yes	503	69.8
	No	18	2.5
	Probably	200	27.7
We should follow the instructions of the World Health Organization, the Saudi Ministry of	Strongly agree	614	85.2
	Agree	93	12.9

Health, and other formal guidelines during this period to reduce the incidence of the emerging coronavirus and leave untrusted media.	Neutral	10	1.4
	Disagree	4	0.5
Would you be able to isolate yourself at home if a healthcare professional asked you?	Yes	596	82.7
	I do not know	24	3.3
	No	11	1.5
	Probably	90	12.5
If you were returning from a country outside Saudi Arabia at the beginning of the outbreak and before applying the compulsory quarantine, did you isolate yourself at home for two weeks as soon as you returned?	Yes	55	7.6
	I was not outside Saudi Arabia	656	91
	No	10	1.4
Do you think the curfew is important to reduce the viral outbreaks?	Yes	623	86.4
	I do not know	3	0.4
	No	21	2.9
	Probably	74	10.3
Are you with the curfew procedure?	I am with the partial curfew.	215	29.8
	I am with the complete curfew.	230	31.9
	I am with the gradual remove of the curfew while taking precautions like washing hands, avoiding crowds and waring mask.	276	38.3

If you think that the new corona virus is dangerous, for whom exactly?	For me personally	140	19.4
	For the elderly	503	69.8
	For people with chronic diseases	512	71
	For children	284	39.4
	For the entire population	297	41.2
	I do not think it is dangerous.	17	2.4
How your behavior and attitude have changed in response to the COVID-19 pandemic?	Very little	28	3.9
	A lot	400	55.5
	To some extent	258	35.8
	I do not know	35	4.8
How did your behavior change in response to the COVID-19 pandemic?	Frequently washing hands	647	89.61
	Avoiding touching the face and eyes with dirty hands	554	76.73
	Avoiding crowded public places	670	92.80
	Using hand sanitizers	542	75.07
	being more careful about elderly people	410	56.79
	Sneezing or coughing in the elbow	404	55.96
	Food storage	135	18.70
	Changing a vacation or travelling abroad plan	260	36.01
	Working more at home	299	41.41
	Drug storage	50	69.44
	Avoiding hospitals and health care facilities	465	64.40
	Not doing anything different	36	4.98
	A change in the way of going to work	46	6.37
	Avoiding unnecessary contact with others	459	63.57
	Using face masks	437	60.53
	Repeated cleaning of surfaces	278	38.50
	Avoiding public transportation	338	46.81
	I do not know	5	0.69

Table 3:

Table III: The Effect of COVID-19 pandemic on the respondent			
		N	**%**
If you feel the symptoms of COVID-19, are you afraid to go to check due to the fear of being bullied or ostracized?	Yes	36	5
	I do not know	23	3.2
	No	595	82.5
	Probably	67	9.3
If you suspect that you are infected with the virus, do you think that you should hide the matter from people around you in order not to be bullied or ostracized?	Yes	30	4.2
	I do not know	22	3.1
	No	636	88.2
	Probably	33	4.5
Do you have a feeling that the emerging Corona virus is dangerous?	It is not dangerous at all.	17	2.4
	I did not hear about it.	4	0.6
	I do not know.	10	1.4
	It is somewhat dangerous.	426	59
	Yes, it is angerous.	264	36.6
Are you afraid of being infected with the emerging virus Corona virus?	I am not afraid at all.	79	11
	I do not know.	24	3.3
	I am a little bit afraid.	276	38.2
	I am very afraid.	90	12.5
	I am somewhat afraid.	252	35
How did COVID-19 pandemic affect you?	It did not affect me at all	35	4.85
	I am potentially exposed to the virus	188	26
	I became unable to buy home necessities	74	10.2
	I did cancel a travel plan/ social event	514	71.2
	I have lack of access to medical care	168	23
	I had anxiety/ stress	297	41.1
	I have financial issues/ unemployment	102	14.1
	I became exposed to bully/stigma	8	1.1
	Closing the nursery/school affected me	91	12.6
	I was subjected to racism or discrimination	3	0.4
	I applied social distancing	608	84.3
	I am in an isolation	448	62.1

Table 4:

Table IV: The participants and the community			
		N	**%**
To what degree you agree with this phrase: "I am more concerned about others than myself during the emerging pandemic of Coronavirus	Strongly agree	284	39.4
	Agree	267	37
	Neutral	98	13.6
	Strongly disagree	7	1
	Disagree	65	9
Would you like to participate with the emerging COVID-19 response team?	Yes	293	40.6
	I do not know	50	6.9
	No	205	28.4
	Probably	173	24
How would you like to participate?	I would advise people remotely (through an online way).	374	51.87
	I would like to participate in preventive medicine procedures like surveillance and contact tracing.	169	23.43
	I would like to support local communities in responding to the outbreak.	179	24.82
	I would like to do more online surveys.	139	19.27
	I would like to help in determining what information should be shared with the public and how to be delivered.	154	21.35
	I would like to share my personal experience with COVID-19.	11	1.52
	I would like to do more online events through social media.	50	6.93
	I want to review the ideas about the virus and use it in making decision.	145	20.11
	I do not know.	132	18.30
	Other	36	4.99
Have you contributed to widespread awareness campaigns about the infection and its symptoms?	I used posters inside my workplace.	20	2.8
	I used the social media to share trusted information about COVID-19.	194	26.9
	I just share information and advices with friends and family.	295	40.9
	I did not contribute.	212	29.4