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Knowledge, awareness, and attitudes of population in Eastern Province during outbreak of novel coronavirus (COVID-19)

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ABSTRACT

Objective: Coronavirus disease (COVID-19) has been declared a pandemic. The current study aimed to assess public's knowledge, perception, and attitude during COVID-19 outbreak. *Methods*: An online survey was administered during the rapid outbreak of COVID-19 in Saudi Arabia. Questions focused on the signs, symptoms, transmission, prevention, and control of COVID-19. In addition, the attitudes and practices of the participants were explored. Descriptive statistics, t-test, and one-way analysis of variance (ANOVA) which followed by Tukey post-hoc test was conducted. *Results*: 2453 respondents participated in this study. 90.6% of them represent eastern of Saudi Arabia. Most of them had good knowledge about COVID-19. Better knowledge was among female, attitude improve significantly with age and knowledge was significantly higher among higher educational level. The practices of wearing a mask (80.6%) and keeping a safe distance from people in public places (82.5%) were common among the participants. *Conclusion*: Participants demonstrated good knowledge, optimistic attitudes, and practices toward most aspects of the COVID-19 outbreak. Suggesting that governmental efforts of health education about COVID-19 is helpful and important to control the disease.

Key words: Knowledge, Attitude, Practice, COVID-19, Saudi Arabia

1. INTRODUCTION

In December 2019, outbreaks of coronavirus disease (COVID-19) occurred in Wuhan, China. From which it spread explosively to threaten numerous countries around the world (Perlman, 2020) and soon declared a global pandemic (Zhu et al., 2020). (COVID-19) is a highly infectious disease caused by a novel coronavirus (2019-nCoV) from the family Orthocoronavirinae. It contains an enveloped, single-strand RNA on its surfaces, and distinctive "crown-like" spikes (Huang et al., 2020: Munster et al., 2020). COVID-19 belongs to the Extreme Acute Respiratory Syndrome (SARS-COV) family of viruses and to the Middle East Respiratory Syndrome (MERS-COV). It is stated to be more infectious, but does not fully understand its pathogenesis (Munster et al., 2020). COVID-19's most important encoded structural protein is the Spike Glycoprotein (S) (Wu et al., 2020: WHO-director 2020) consisting of three S1-S2 heterodimers binding to an angiotensin-converting enzyme 2 (ACE2) receptor on pneumocyte type II (WHO situation report 70: World meter 2020).

In the kingdom of Saudi Arabia, the ministry of health (MOH) reported the first case of 2019-nCoV infection on March 2, 2020 in a citizen who returned via the Kingdom of Bahrain from Iran. By May 31, 2020, the total number of confirmed cases reached up to 85,261 cases, including 22,316 active cases (MOH report 2020: MOH report 2020).

Manifestations of COVID-19 usually start with non-specific symptoms including fever, dry cough, and fatigue. The disease can progress rapidly to acute respiratory distress syndrome (ARDS), (Perlman, 2020). Older Patients or those with chronic medical conditions such as heart, lung, kidney, liver diseases and immunosuppressed patient such as diabetic and cancer patients have higher risk of mortality due to organ failure within a short period of time (Yang et al., 2020).

To date, there is no approved vaccination or standard treatment of COVID-19. It is essential to prevent further spread of the disease by following the preventive measures such as social distancing, proper hand hygiene and the use of facemask. These measures have been encouraged by governments, MOH, physicians and celebrities to avoid any kind of gathering including sports, religious ceremonies and attending classes in schools (McCloskey et al., 2020).

Awareness and attitude of the public are essential for the adherence to the social protection measures and eventually on the clinical outcomes (Roy et al., 2020). Previous lessons learned during the 2003 SARS outbreak indicate that attitudes towards infectious diseases are correlated with the degree of fear among people, which may complicate further attempts to prevent the spread of the disease (Hung, 2003).

The increase in numbers which is dependent on multiple contributing factors such as life style practices and behaviors, underestimation the seriousness of the disease and its effect combined by the low measures followed by people with low knowledge about it, making the battle in fighting such an infection complicated (Zhong et al., 2020: Wu et al., 2020).

Our study aimed to assess awareness, practice and attitude of a community and the potential risk patients for COVID-19 infection to ultimately lower burden and reduce new cases instead of wasting time and resources on non-beneficial approaches.

2. METHODS

Study design and population

An observational cross-sectional study was conducted using survey instrument to obtain responses from the general population who are 18 years and older living in Saudi Arabia. As result of the current circumstances of social distancing, a suitable tool that's achieved a minimal contact was used to collect the data needed in this study, and it was an online Google form questionnaire distributed through the use of different types of social media apps including What's up, Twitter and Telegram.

Survey Tool, Instrument, Dissemination and Validation

The survey questionnaire was designed in Arabic, as it is the native language in Saudi Arabia. This study generally assesses the knowledge, perception, and attitude towards protective measures against COVID 19. The survey consist of 23-items were developed and published during the period between May 2020 and June 2020 with 2,453 responses. Some of those items has been conducted and validated by the Regional Office for Europe of the World Health Organization. A minor modification was made as required to facilitate better comprehension and to organize the questions before the final survey was distributed to the population via Google link to the whole kingdom of Saudi Arabia focusing, especially on the eastern province.

The survey may take approximately 3-4 minutes to be completed. The 23-item questionnaire was divided into six parts: participant characteristics (7 items), awareness of COVID-19 (7 items), source of information (1 item), knowledge about symptoms of COVID-19-affected patients (1 item), different modes of transmission (2 items), precautions and risk prevention (3 items). Knowledge and perception were assessed by questions focusing on COVID-19 signs and symptoms, transmission, high risk group and risk prevention.

Sample

The sample size that Google form shows was 2,453 responses with margin of error of 5% and 95% confidence interval. A minimum 2000 responses were required for the study.

Validation of the Study

For validation purposes the questionnaire was first proposed to three experts in the field of research to check if the questions in the questionnaire adequately measure knowledge and attitude toward COVID-19. After that the questionnaire was pretested by distributing the questionnaire on 20 participants who were excluded from the study later. The internal consistency of these data from these questionnaires was assessed using Cronbach's alpha. The result showed appropriate internal consistency (Cronbach's alpha = 0.82).

Statistical Analysis

Microsoft Excel was used for data cleaning and management. After management, data were exported to Statistical Packages for Social Sciences (SPSS) version 23 analysis. Descriptive statistics were presented using frequency and percentages for categorical variables and continuous variables were summarized using means ± standard deviations. The associations of knowledge and attitudes scores with socio-demographic characteristics of participants were tested using independent t-test and ANOVA test. ANOVA tests were followed by Tukey post-hoc test to determine where the exact difference between subgroups exists. Level of significance was set at 0.05.

3. RESULTS

Two thousand, four hundred and fifty-three participants from different areas in Saudi Arabia completed the survey. Table 1 displays the demographical data of the participants. The gender contribution of the participants was nearly equal (50.1%) by males and (49.9%) for females. For the age distribution, the largest proportion of the participants were between 18-39 years (59%) followed by those between 40-60 years (35.6%) and the least responses (1.9%) came from participants aging 60 years and more. Only 89 (3.60%) were non-Saudi. As regard to educational level, most of the participant had an education higher than school level. 1020 (41.6%) had

a non-health related bachelor's degree. On the other hand, 544 (22.2%) had a high school education while 174 (7.10%) had primary education. As for place of residency, 2222 (90.60%) were from the eastern region of Saudi Arabia, the rest were from central region, western region, and other regions of Saudi Arabia.

Table 1

Socio-demographical Profile of The Participants (n =2453)

Demographical Characteristics	**n**	**%**
Gender		
Male	1230	50.10
Female	1223	49.90
Age		
Less than 18	85	3.50
18 – 39 Years	1448	59.00
40 – 60 Years	873	35.60
More than 60	47	1.90
Nationality		
Saudi	2364	96.40
Non-Saudi	89	3.60
Educational Level		
Primary	174	7.10
Highschool	544	22.20
Diploma	284	11.60
Bachelor (non-health related)	1020	41.60
Bachelor (Health related)	346	14.10
High Education (Master/PhD)	85	3.50
Place of Residency		
Eastern Region	2222	90.60
Central Region	105	4.30
Western Region	37	1.50
Other	89	3.60
Where have you been working during the lockdown period?		
I don't Work	1557	63.50
Health practitioner	139	5.70
I work out of home and I make contact with many people	176	7.20
I work out of home and I make contact with few people	215	8.80
I work in home (online)	366	14.90
Have you traveled to any country affected by the outbreak of the novel corona virus (COVID-19) in the last few months?		
Yes	73	3.00
No	2380	97.00
Have you heard about the symptoms of the novel corona virus (COVID-19) and its preventive measures?		
Yes	2120	86.40
No	81	3.30
I heard about the symptoms only	176	7.20
I heard about the preventive measures	76	3.10
Risk Assessment of Participants (Based on Chronic disease & Medication)?		
Low Risk Group	1953	79.60
High Risk Group	500	20.40

When asked about where they have been working a variety of responds was observed. Most did not work 1557 (63.5%), 366 (14.9%) worked in home, 139 (4.7%) were health practitioner and the rest worked out of home. 73 (3%) had been in a country affected by the pandemic.

Most participants 2120 (86.40%) claimed that they had heard about COVID-19. The most stated sources of knowledge were social media and health workers (75.6%) and (55.1%) respectively, followed by personal efforts (20.9%), attending gathering courses (13.4%), (Figure 1).

Regarding risk of having COVID-19 based on the presence of chronic diseases and/or usage of medication associated with increased risk and severity of infection**,** most of our participants did not have any chronic disease. 500 (20.4%) were categorized as high risk of increase the severity or risk of having COVID-19 based on the presence of chronic diseases and/or usage of medication associated with increased risk and severity of infection. The most prevalent diseases were hypertension (7.3%) and diabetes mellitus (6.8%). Regarding medication usage of the participants, the vast majority (87.9%) did not use any medication, (2.1%) used immunosuppressants or cortisol containing medications and (0.4%) were using chemotherapy.

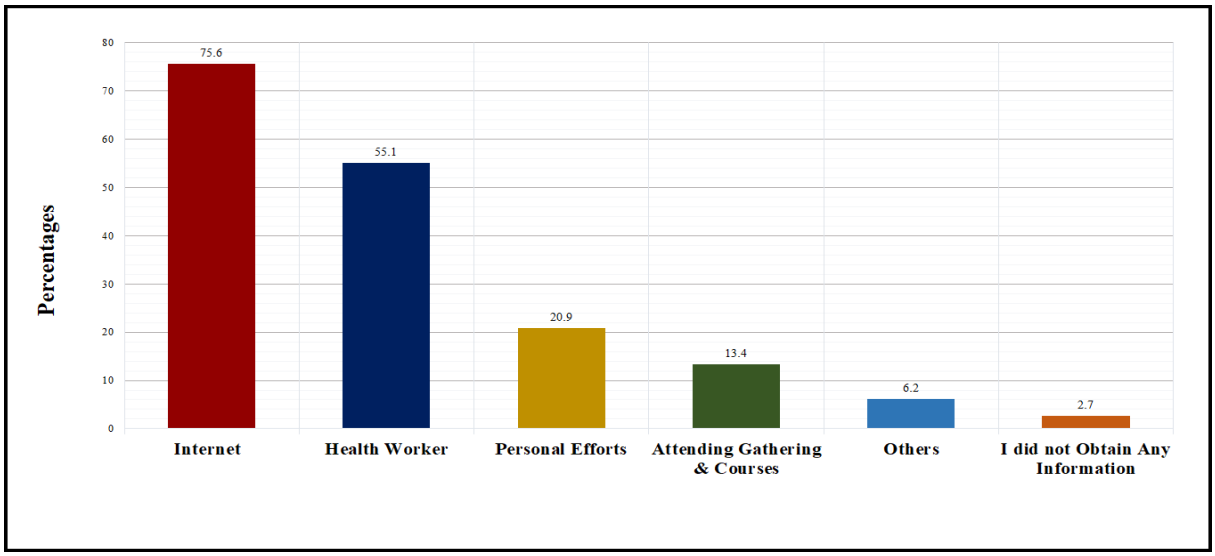

Figure 1 Sources of information reported by participants

Results of knowledge assessment of the participants regarding incubation period of corona virus, its survival on surfaces, ways of spread and safe distance that reduce transmission of disease are shown in Table 2. Considering participants' knowledge about common symptoms of corona virus, fever (96.8%), shortness of breath (89.5%) and dry cough (84.7%) were the most thought of as symptoms of COVID-19. With (6.2%) have wrongfully identified cough with blood as a symptom of COVID-19. The 3 most correctly identified preventive measures were staying in home (94.9%), continuously disinfecting hands (90.5%) and wearing a facemask (8.3%), (Figure 2).

Table 2

Participant Responses Toward Knowledge Questions

	n	%
Q1/ What is the incubation period of the virus (the period of time between catching the virus and the appearance of symptoms/ contagious phase?)		
3 days or less	89	3.6
A week	120	4.9
Up to two weeks (Correct Answer)	2028	82.7
I don't know	216	8.8
Q2/ Does the novel corona virus (COVID-19) live on surfaces for long time?		
Yes	1137	46.4
No (Correct Answer)	916	37.3

I don't Know	400	16.3
Q3/ Can the novel corona virus (COVID-19) spread through touching things like money?		
Yes (Correct Answer)	2024	82.5
No	224	9.1
I don't Know	205	8.4
Q4/ What is the safe distance that reduces the chances of transmitting the corona virus from an infected person to a healthy person?		
Less than one meter	63	2.6
from 1 – 2 meters (Correct Answer)	2227	90.8
3 meters and more	163	6.6

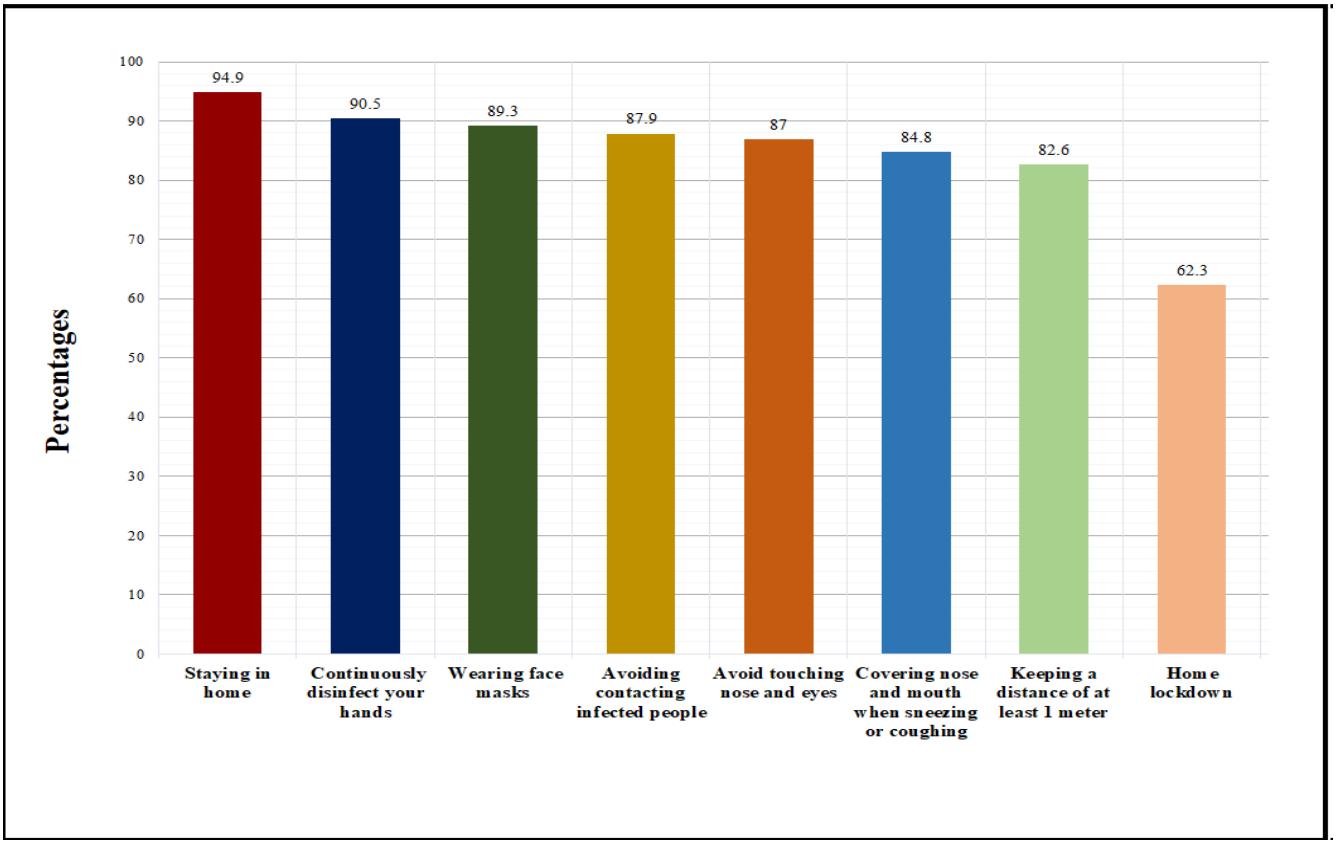

Figure 2 Participants Perception toward Practices that prevent COVID-19

The attitude of the participants towards the preventive measures to limit the spread of COVID-19 and their responses are presented in Table 3. The overall attitude was positive for most of the practices of the inquired preventive measures. The most common reason for leaving home during the pandemic was getting supplies (61.8%), (Figure 3).

Table 3
Participant Responses Attitude Questions

	n	%
Q1/ Do you leave home?		
Yes	1137	46.4
No	916	37.3
Rarely, when necessary	400	16.3
Q2/ When you leave home, which of the following do you regularly practice?		
Wearing a face mask.	2035	83

Washing and disinfecting hands continuously and after touching surfaces	2133	87
Keeping a safe distance from others	2103	85.7
Avoiding touching nose, mouth and eyes when hands are not clean	2040	83.2
I don't practice any of the previously mentioned measures	58	2.4
Q3/ Assess your practice Toward the following: Using hand sanitizer when you are out of home?		
Always	1382	56.3
Sometimes	846	34.5
Never	225	9.2
Q4/ Assess your practice Toward the following: Using tissues when coughing or sneezing		
Always	1628	66.4
Sometimes	747	30.5
Never	78	3.2
Q5 Assess your practice Toward the following: Using your forearm to cover your mouth when sneezing or coughing when there are no tissues.		
Always	1714	69.9
Sometimes	632	25.8
Never	107	4.4
Q6/ Assess your practice Toward the following: Immediate disposal of used tissues by throwing it in trash can.		
Always	2200	89.7
Sometimes	246	10
Never	7	0.3
Q7/ Assess your practice Toward the following: Avoiding touching nose and eyes.		
Always	1602	65.3
Sometimes	803	32.7
Never	48	2
Q8/ Assess your practice Toward the following: Wearing face masks when leaving home or in gathering/crowded places.		
Always	1976	80.6
Sometimes	402	16.4
Never	75	3.1
Q9/ Assess your practice Toward the following: Wearing gloves when leaving home.		
Always	1034	42.2
Sometimes	1039	42.4
Never	380	15.5
Q10/ Assess your practice Toward the following: Keeping a safe distance from people in public places?		
Always	2023	82.5
Sometimes	412	16.8
Never	18	0.7
Q11/ Assess your practice Toward the following: Avoiding handshakes and cheek kisses when greeting people.		
Always	2073	84.5
Sometimes	337	13.7
Never	43	1.8
Q12/ Assess your practice Toward the following: Disinfecting surfaces continuously like door knobs.		
Always	915	37.3
Sometimes	1157	47.2
Never	381	15.5
Q13/ Assess your practice Toward the following: Disinfecting personal belongings (like phones, keys) continuously		
Always	958	39.1
Sometimes	1067	43.5
Never	428	17.4
Q14/ Assess your practice Toward the following: Avoiding home visits and avoiding gathering as much as possible.		

Always	1748	71.3
Sometimes	641	26.1
Never	64	2.6
Q15/ Assess your practice Toward the following: Maintaining personal hygiene.		
Always	2375	96.8
Sometimes	73	3
Never	5	0.2
Q16/ Assess your practice Toward the following: Maintaining healthy diet.		
Always	1785	72.8
Sometimes	617	25.2
Never	51	2.1

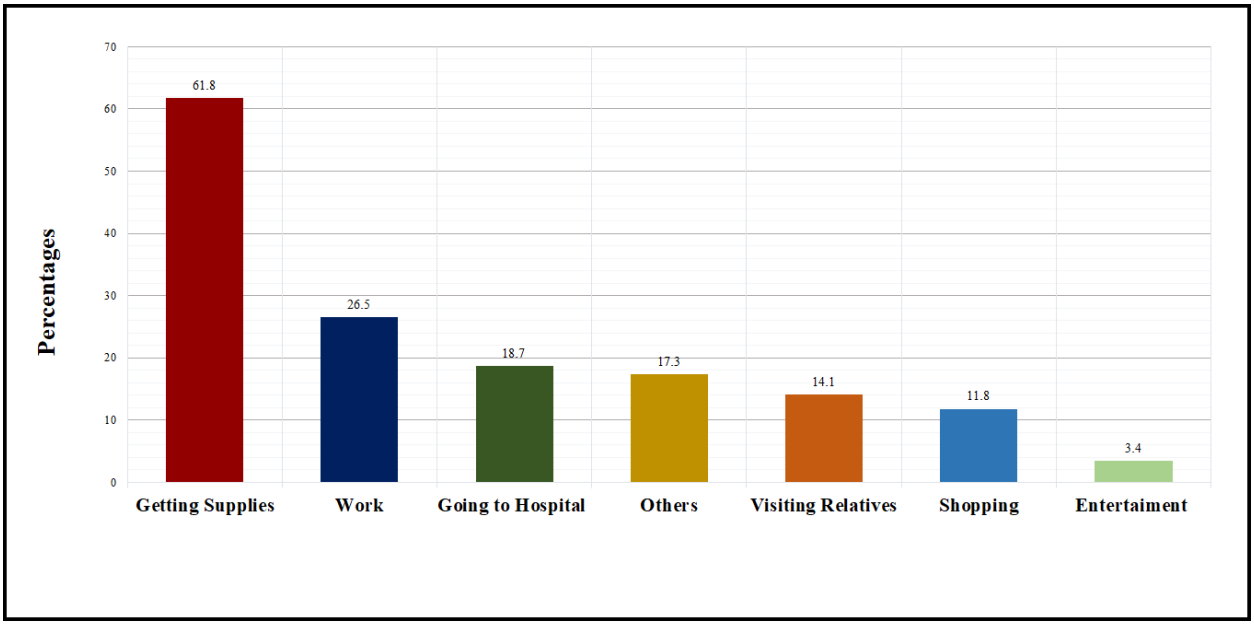

Figure 3 Reported Causes of Leaving Home among participants

Table 4

Knowledge & Attitude Scores and Classification

Variable	**Measures**	
Scores	Mean	SD
Knowledge Score (Total = 22)	17.0057	2.97
Attitude Score (Total = 33)	26.9095	4.51
Knowledge Classification	n	%
Low Knowledge Level	155	6.30
Moderate Knowledge Level	647	26.40
High Knowledge Level	1651	67.30
Attitude Classification	n	%
Low Attitude Level	83	3.40
Moderate Attitude Level	713	29.10
High Attitude Level	1657	67.50

Table 4 shows the knowledge and attitude scores and levels. The Mean score for knowledge was 17 (Total = 22) and the mean score for attitude was 26.91 (Total = 33). As for the knowledge and attitude level, 1651 (67.30%) had a high knowledge level and 1657 (67.50%) had a high attitude level. Low level of knowledge was found only in 155 (6.3%) and low level of attitude was found only in 83 (3.4%).

Table 5

Association of Socio-demographical Profile of The Participants with Knowledge & Attitude Scores (n =2453)

Demographical Characteristics	Knowledge	Attitude
Gender	p = 0.062	p < 0.001*
Male	17.11 +/= 2.90	26.2 +/- 4.48
Female	16.89 +/- 3.02	27.62 +/- 4.43
Age	p = 0.969	p = 0.001*
Less than 18	17.09 +/- 2.67	26.23 +/- 4.8
18 – 39 Years	17.02 +/- 2.94	26.68 +/- 4.66
40 – 60 Years	16.97 +/- 2.98	27.26 +/- 4.19
More than 60	16.98 +/- 3.81	28.36 +/- 2.86
Educational Level	p < 0.001*	p = 0.105
Primary	16.17 +/- 3.39	27.5 +/- 4.98
Highschool	16.64 +/- 3.08	26.49 +/- 4.98
Diploma	16.74 +/-3.22	26.94 +/- 4.26
Bachelor (non-health related)	17.07 +/- 2.92	26.92 +/- 4.38
Bachelor (Health related)	17.88 +/- 2.28	27.19 +/- 4.21
High Education (Master/PhD)	17.6 +/- 2.5	26.95 +/- 3.72
Risk Assessment of Participants (Based on Chronic disease & Medication)	p = 0.94	p = 0.361
Low Risk Group	16.98 +/- 2.99	26.91 +/- 4.54
High Risk Group	17.11	26.9 +/- 4.39
Level of Knowledge		p < 0.001*
Low Knowledge Level	-	25.44 +/- 5.18
Moderate Knowledge Level		26.63 +/- 4.67
High Knowledge Level		27.16 +/- 4.35

* Significant at level 0.05.

The relation between socio-demographic characteristics and knowledge about COVID-19 is demonstrated in Table 5. Females have a significant higher score in their attitude, while no significant difference between gender in knowledge scores. When comparing scores across age groups, older group were significantly higher in attitude scores. Tukey Post-hoc test revealed the presence of significant difference in attitude between those older than 60 compared to those younger than 18 (p = 0.048) and between those between 40 – 60 years and those between 18 – 39 (p = 0.014) in favor for the older group in both comparisons. On the other hand, no significant difference in knowledge score was noted across age groups. As regard educational level, a significant difference in knowledge score is present between those with primary education and those with (Bachelor non-health related p = 0.003, bachelor health related p < 0.001 and high education p = 0.004) in favor to the second groups. A significantly higher level of knowledge scores was also noted to the favor of health-related bachelor when compared to (high school, diploma, and non-health related bachelor) all with p < 0.001. However, no significant difference was present in attitude scores. It has also been noticed that there is a significant difference in attitude scores across the different knowledge levels (p < 0.001). Post-hoc test demonstrated a significant difference in attitude between high knowledge level and (low level of knowledge p < 0.001 and moderate level of knowledge p = 0.03) also between moderate level of knowledge and low level of knowledge (p = 0.009), all in favor of the higher level of knowledge. No significant difference was observed neither in attitude nor in knowledge scores across nationality and risk groups (based on chronic diseases and medication usage).

4. DISCUSSION

Saudi Arabia considered one of the largest countries in the Middle East region of more than 34 million people (World meter 2020). It is the highest populated country within the Gulf region. Hence, the risk of spread of infection is high, especially among high-risk group of people (Abdelhafiz et al., 2020). Up till now, no vaccine or treatment proved and available. So, prevention is the best

solution. Huge effort has provided from all ministries particularly the Ministry of Health. Since it is crucial to adhere to the preventive protocols, knowledge, and attitude are of upmost importance to be studied to guide the efforts of different authorities (Azlan et al., 2020). Here our study aims to measure and evaluate the knowledge, attitude, and practices of population in Saudi Arabia, particularly in the eastern province.

Knowledge and perception

In general, most participants in this study are knowledgeable about the disease, its symptoms, preventive measures, incubation period and its transmission. Most notably, the perception of those who are at high risk of being affected and the relation of COVID-19 and their chronic diseases or medications they are receiving. This is a good indicator of a positive impact to involve the public in fighting COVID-19 (Sima et al., 2020). The average knowledge score was 17 out of 22 ~ (77.2%). in comparison to other scores in other similar studies that have been conducted in Saudi Arabia in western region (81.64%), China (70.2 to 98.6%) and Malaysia (80.5%), (Abdelhafiz et al., 2020: Azlan et al., 2020: Zhong et al 2020). In contrast to other studies conducted in other countries, nearly half of the Bangladesh population is not aware enough of COVID-19 and the common dangerous situation (Haqueet al., 2020). When asking our participant about the source of their knowledge, internet represented the most important sources of information 75.6% followed by healthcare workers 55.1%. This is best interpreted by the large proportion of the participants (59%) being around 18-39 years of age, who are more likely to use the internet and social media platforms. This finding is like other study conducted In Iran where most people acquire their knowledge from social media (Kakemam et al., 2020). It is important to remember that the Saudi Arabian MOH started working with the media in taking early actions by encouraging the public in following the preventive measures (Al-Hanawi et al., 2020). Despite the efforts done by MOH and availability and easy accessibility of obtaining the information through different platforms, they can also be a source of misunderstanding and false information. Around 46.4% of the participant thought that the virus can live for long period of time on the surfaces; while 16.3% answered I do not know. Large numbers of our participants are aware about the most important preventive measures such as staying at home; disinfect the hands and wearing a mask although some considered that consuming garlic and herbal tea can be a preventive measure as well. Again, this illuminates the drawback of using social media platforms as a source of information. And it is also indicating that information overload can lead to confusion and difficulty in finding the correct answer (Azlan et al., 2020). This emphasizes the Importance of fighting the rumors and false information regarding these aspects.

Attitude

This study showed that most of the participants held positive attitude toward the preventive measures of COVID-19 that reduce risk of transmission. Most of the participant wear mask when going outside, disinfect their hands, keep safe distance from others and avoid touching their faces. Only 2.4% state that they do not practice any of these. Overall, the average attitude score is 27 out 33 ~ (82%) and 67.50% of the participants had high attitude level, while only 3.4% showed low attitude level. High attitude levels also were reported in other similar studies conducted in Saudi Arabia, China, and Malaysia (Azlan et al., 2020: Zhong et al 2020: Al-Hanawi et al., 2020).

On similar study conducted in Saudi Arabia the participants showed positive attitude toward COVID-19 with average score of 28.3 out of 30 (94%), (Al-Hanawi et al., 2020). However, in this current study lower attitude level with score of 26.9 out 33 (81.5%) were seen and this can be explained by the rapid increase in number of reported cases in Saudi Arabia and my indicate that there is decline in attitude levels.

Association of demographic factors and KAP towards COVI-19

Results of other studies reported that older participants and females are more knowledgeable about the emerging communicable diseases (Al-Mohrej et al., 2020). In fact, this study results show no association between the gender and the age group of the participant when talking about the knowledge. When dividing the level of knowledge into different levels, high, moderate, and low. There is clear association between participants' knowledge and their level of education. Higher level of knowledge was noted to be in favor of participant with a health-related bachelor when compared to high school, diploma, and other non-health related bachelor. This is probably due to better background on medical sciences among participants with a health-related studies. In agreement of this study, other studies found similar findings, as higher knowledge score was found to be greatly associated with positive attitude towards the preventive measures (Zhong et al 2020: Huynh et al., 2020: Alahdal et al., 2020). Since most participants have education higher than school level, this has been reflected on their adherence to the protective measures. These findings clearly indicate the importance of improving residents' knowledge about COVID-19 via health education, which can improve their attitudes and practices towards COVID-19 (Zhong et al 2020).

The result of this study showed that women are having higher attitude levels toward the preventive measures than men ($p < 0.001$) and was reported on similar studies conducted in china, Riyadh, western of SA, and Bangladesh (Zhong et al 2020: Haque et al., 2020: Al-Hanawi et al., 2020: Alahdal et al., 2020). This can be explained by the different activities related to gender in the practice and family responsibilities (Alahdal et al., 2020). There is significant relationship between age and attitude levels ($p < 0.001$) older people have higher attitude levels and this also was found on similar studies conducted in Saudi Arabia (Al-Hanawi et al., 2020).

Study Strengths and Limitations

The study was conducted by using online Google form and was sent to different media platforms such as WhatsApp, telegram, twitter. As a result, only people who have access to these platforms had been involved in this study and participation of people with limited access could affect the result of certain aspects. The tool used to collect the data is self-reported survey and there is possibility that the population may give socially desirable answers especially on attitude questions because they are expected to held positive attitude, as they perceive (Mortel, 2008).

5. CONCLUSION

To sum up, the current study revealed good knowledge, positive attitudes, and practices of public toward most aspects of the COVID-19 outbreak which is very important to limit the spread of disease. However knowledge was lower among less educated and attitude toward protective measures was lower in younger age. This necessitates more efforts or using different ways to reach to these groups and communicate with them. Such assessment survey is important for ensuring that the general public is well informed in a condition like COVID-19 outbreak and directing efforts of health education towards the needy group. Hopefully, with combined efforts of Ministry Of Health and all residents, Saudi Arabia surely will win the battle against COVID-19 nearly.

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Author contribution

Eman Elsheikh**:** Conception, design, data interpretation and review**,** Hassan H. Alhamoud**:** Data collecting, writing, Ahmed Z. Alkhars: Statistical analysis, Abdullah Albeladi**:** Data collecting, writing and review, Norah F. AlEid: Data collecting, writing, Ahmad A. Almuhanna: Data collecting, Writing, literature review, Fatimah M. Alabdulmuhsin: Data collecting, writing, Mohammed A. Alabdullah: Data collecting and analysis

Informed consent

Written & Oral informed consent was obtained from all individual participants included in the study. Additional informed consent was obtained from all individual participants for whom identifying information is included in this manuscript.

Competing interests

Authors declare, No conflict of interest.

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Ethics approval and consent to participate

This study was approved by the Ethics Committee of King Fahd Medical City. Before filling the survey, and according to Helsinki declaration, there was a statement that declares that Participant's secrecy and privacy were guaranteed. Submission of complete answered survey was considered as agree to share in the study (Ethical approval code: 20-368E).

Data and materials availability

All data associated with this study are present in the paper.

Peer-review

External peer-review was done through double-blind method.

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