



Knowledge and Attitudes about Methods to Prevent Infection with Corona Virus for A Sample of General Population in Baghdad City

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ABSTRACT

Objective: To evaluate people's knowledge and attitudes toward Corona virus prevention in Baghdad city. **Method:** A sectional descriptive questionnaire was sent via the Internet on the websites of Facebook, Telegram, WhatsApp and Faber in the city of Baghdad in order to know people's knowledge and beliefs about ways to prevent corona virus. The period for completing the sample collection was from April 16, 2020 to September 16, 2020, and the questionnaire's accuracy was confirmed. by presenting it to experts in this field. **Results:** The sample size is 2000, the majority of the participants were females, and their numbers reached 85%. As for the ages of the participants in the study, they ranged from (20 – 30) years, and their percentage was 60%. As for the level of education, the majority of the sample was of high level Education Bachelor's and postgraduate graduates with a percentage of (31%) with regard to the place of residence. The majority of the participants were from Al-Mansour area, Baghdad city and whose percentage was (60%). As for the social status, most of the sample had an average social and economic level, and their percentage of (80%) regarding the profession was The majority of the sample is government employees, which amounted to (65%). **Conclusions:** majority of the sample knew and those who answered yes that infection with the Corona virus is more dangerous when there are chronic diseases, as for the mask, which is the source of infection with the virus Their answer was also yes, and their numbers amounted to 1,000, and the percentage was (20%). As for health education through social media, the majority of the participants were females, As for the ages of the participants in the study, they ranged from (20 – 30) years, As for the level of education, the majority of the sample was of high level Education Bachelor's and postgraduate graduates with regard to the place of residence. The majority of the participants were from Al-Mansour area.

1. Introduction

The 2019 Coronavirus Disorder Epidemic (COVID-19) is a newly discovered serious infection brought on by a coronavirus [1]

In Wuhan, China, 1 COVID-19 first was discovered in Dec. 2019, The 'Health Organization (WHO)' COVID-19 has been designated as a global event. epidemic illness on Jan. 30, 2020 Or more 2.5

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million declared mass killings and over 149 million cases have indeed been reported globally up to this point, It is recognized that COVID-19[2] can distributed from person to person through coughing or sneezing and human touch, or from human host like bats to humans, The most common ways to come into into contact with the infected drops are through touching the mouth,[3] eyes, nose, and mouth, touching contaminated surfaces, and touching hands [4].[5]. Influenza, wheeze, and breathing difficulties COVID-19 infectious disease's the more common signs and symptomshas an incubation of 2-14 days following exposure[6].[7].[8] According to preliminary results, elderly folks and people with disabilities, Those with fundamental medical issues or a weakened immune system may be more susceptible to this virus's serious[9].[10]. conditions Up until October 4, 2020, and over 2.5 million incidents in the Middle East region were reported Some countries have seen an increase in COVID-19 appearances over the others. in the recent months (October 2020), Jordan has seen a sudden increase in the amount of case scenarios,[11].[12]. with much more than 15,000 cases being reported As of the time this document was being written, up to 5,000 cases had been reported from other nations, including Syria and Yemen. To develop a successful program to safeguard and start preparing against COVID-19 and stop this pandemic, it is imperative[13][14]. that all levels of government and the general public work together. Numerous studies have demonstrated that taking personal precautions, such as wearing a face mask, washing one's hands, using sanitizer, establishing good distance, and staying home, can help stop the spread of virus [15][16] On the contrary hand, the WHO published a few really psychological health guidelines that must be followed throughout this crisis. These guidelines include avoiding[17][18]. constant news exposure, staying in touch with family and friends via digital technology,, comforting and going to support one another, as well as as caring for one's personal well-being by engaging in regular exercise, consuming a nutritious diet, and getting enough sleep. [19] [20] The level of sentimental show of force among the populace is correlated with general populace compliance to these control laws, and that level is influenced by their understanding and opinions of COVID-19. The population's psychological and behavioral

answers can then be impacted by this. Therefore, assessing how the general public feels about such epidemics is crucial, especially given the volume of erroneous information and misconceptions about COVID-19 [21][22] transmitting and acquirement methodologies that are circulating on social media . Numerous studies have been published to date [23][24]exploring the pandemic's mental and behavioral effects as well as how the public perceives them in the Middle East and around the world. Such findings would give the public health authorities the information they need to update their policies on how to handle the COVID-19 disease outbreak in the Mideast [25].

2. Methods

Study design:

"A cross-sectional summer study was conducted in order to know people's knowledge and attitudes about ways to prevent corona virus from April 16, 2020 to September 16, 2020. In Baghdad Governorate, Iraq".

Development of surveys and information gathering

The information was collected through a questionnaire that was published via the Internet on the social networking sites What Sapp, Facebook, Telegram and Faber. The questionnaire included several axes related to the field of research, the first axis includes demographic characteristics, the second axis includes people's knowledge of the Corona virus, and the third axis includes people's attitudes about ways to prevent the virus .

Corona and the fourth axis includes the source of information on ways to prevent the Corona virus.

Sample size and sampling technique

Through social networking sites, a suitable participant survey was encouraged to take part in the study in the city of Baghdad (Facebook, What App, Telegram, viber) The attached letter reaffirmed confidentiality and anonymity while outlining the goals and purposes of the study For completing the survey, people who participated did not receive any incentives or compensation . Participants in the research had to meet the

following inclusion criteria, Those who are Baghdad residents, over the age of eighteen, and who are literate in Arabic The study used a representative sample of participants" With a 5% margin of error, a 95% confidence level, and a 50% response distribution, the sample size calculation resulted in a minimum sample size of 2,000 participants, The study used a representative sample of participants."

Statistic evaluation

"With the help of SPSS version 24, data were analyzed The survey's Cronbach's alpha was calculated to evaluate the internal reliability, Frequency/percentage was used in the descriptive analysis for qualitative variables, Age data was presented as a mean (SD).").

3. Results

Table 1: The study sample's demographic details (n= 2000)

		Number	Percentage
Sex	Female	1855	85%
	male	45	15%
age	20-30	1000	60%
	35-40	350	10%
	45-50	500	30%
education level	Reads and writes	300	15%
	Elementary graduate	200	%5
	Middle school graduated	500	30%
	high school graduate	502	31%
	Prep graduate	498	29%
Residence	Mansour	1000	60%
	Kadhimiya	500	20%
	New Baghdad	300	15%
	Hurriyah	200	5%
Economic Status	poor	300	15%

Table 1: shows the demographic characteristics of the sample, which numbered 2000 participants in

relation to gender, the majority of the participants were females, and their numbers reached 85%. As

for the ages of the participants in the study, they ranged from (20 – 30) years, and their percentage was 60%. As for the level of education, the majority of the sample was of high level Education Bachelor's and postgraduate graduates with a percentage of (31%) with regard to the location of one's residence ..

The vast majority of participants were from Al-Mansour area, Baghdad city and whose percentage was (60%). As for the social status, most of the sample had an average social and economic level, and their percentage of (80%) regarding the profession was The majority of the sample is government employees, which amounted to (65%).

Table 2: Knowledge people about ways to prevent corona virus (Defining the disease and its causes) (n= 2000)

Paragraphs	Yes	Percentage	No	Percentage
Do you know the cause of Corona?	144	2.8	1746	34.9
Corona is also a "serious mental illness?"	200	4	1800	36
Smoking in all its forms is considered one of the types of infection prevention	300	6	1700	34
Corona is a bacterial disease?	1000	20	1000	20
Injury is more dangerous when there are chronic diseases?	1750	35	250	5
The muzzle is a source of infection with the Corona virus	1000	20	1900	37
The use of disinfectants and alcohol helps to get sick	1000	2	1900	37
Using the correct methods of prevention prevents us from getting sick	200	4	1800	36
Have you had close contact with a person infected with Corona?	300	6	1700	34
Corona infection can be treated or reduce the severity of symptoms with medication?	400	8	1600	32
Can a person who has contracted corona get infected again?	800	16	1200	24
Health education through social media, seminars and lectures on ways to prevent corona virus	900	18	1100	22
Health education through social media, seminars and lectures on ways to prevent corona virus reduces infection with the disease.	99	1.9	1901	38
Does the body's immunity have an important role in preventing disease?	600	12	1800	36

Regard to table 2;, which concerns methods of prevention from the Corona virus and knowledge of the Corona virus and its causes, the majority of the sample knew and those who answered yes that infection with the Corona virus is more dangerous when there are chronic diseases, who

numbered 1750, which was (35%), as for the mask, which is the source of infection with the virus Their answer was also yes, and their numbers amounted to 1,000, and the percentage was (20%). As for health education through social media, scars and lectures on ways to prevent

corona virus, the majority of the eyes were 18%.
For the question: Does a person infected with

corona become infected again, their answer was
also yes, and their numbers were 800(16%).

Table 3: People's knowledge about ways to prevent corona virus (Means or ways of transmission of the corona virus) (n= 2000)

paragraphs	Yes	Percentage	No	Percentage
sneezing	1746	34.9	144	2.8
cough	1800	36	200	4
Air mist transmission	1700	34	300	6
Oral and nasal fluids	1000	20	1000	20
direct contact	250	5	1750	35
sexual intercourse	1900	37	1000	20
the mask	1900	37	100	2
paws	1800	36	200	4
Contact with surfaces and tools contaminated with the virus	1700	34	300	6
Strong smelling disinfectants	1600	32	400	8

Table 3: Shows the ways of transmission of the Corona virus, the majority of the sample answered that the ways of transmission of the virus were through sneezing, which amounted to 1746 and their percentage was 34%. His answer is that the

protection from a virus can be by wearing the paws, who also amounted to 18 by wearing paws, and whose percentage reached 18 0 00 and their percentage was 34%, or what about touching surfaces and tools contaminated with the virus.

Table 4: knowledge people about ways to prevent the Corona virus Causes of infection with the Corona virus(n= 2000))

Failure to adhere to home quarantine	1746	34.9	100	2
Curiosity and experience	1800	36	200	4
Not wearing a mask	1700	34	300	6
Not wearing a mask	1000	20	400	8
Do not use alcohol and sanitizers	250	5	800	16
low body immunity	1900	37	900	18
virus and touch your mouth, nose or eyes	1900	37	99	1.9
When you touch a surface contaminated with the	1800	36	600	12

Table 4: shows the causes of infection with the corona virus. The majority of the sample answered yes, that failure to adhere to the home stone leads to infection with the corona virus, who numbered 1946 and their percentage is 34.9%, and also 1800 answered that curiosity and

experience lead to infection, who accounted for 36% and also answered some others that not Wearing the muzzle, whose percentage reached 34%, and the low immunity also answered with the word "Yes" and those whose numbers reached 1900 and their percentage was 37%.

Table 5: Assessment of Participants in the study' Attitudes about COVID-19 pandemic (n= 2000))

	"Correct answer"	%	I do not" know"	%
I am not worried because adhering to the preventive measures will avoid me from contracting the virus	1700	34	300	6
measures will avoid me from contracting the virus	1000	20	1000	20
Prevention methods have permanently corrected rumors	250	5	1750	35
Follow social media about ways to prevent the virus	1900	37	1000	20
Infection with the virus increases the status of the individual or the young man among his friends	1900	37	100	2
Avoid leaving the house unless necessary	1800	36	200	4
Encourage people to avoid crowded places	1700	34	300	6
Family control over their children pushes them to contract the virus	1600	32	400	8
Infection with the virus harms the individual, family and society	1200	24	800	16
People's interest in ways to prevent the virus is a waste of time	1100	22	900	18
Avoid anyone who does not wear a mask or gloves or shows any symptoms of infection	190 1	38	99	1.9

Table 5: As for the assessment of sick attitudes about ways to prevent corona virus, the trends answered in the word "true" or their answer was "correct," which was 17 00 answered. As for a question that is not anxiety or commitments to preventive measures that will save us from infection, their percentage was 34%, and those who answered that they did not know was 6% As for the measures to prevent a virus, their answers were correct, they numbered 1000, and their percentage was 20%, and regarding a question regarding methods of protection permanently, their answers were also correct, and their percentage was 35% .

4. Discussion

The study sample's demographic details (n= 2000)

The demographic characteristics of the sample, which numbered 2000 participants in relation to gender, the majority of the participants were females, and their numbers reached 85%. As for the ages of the participants in the study, they ranged from (20 – 30) years, and their percentage was 60%. This study is consistent with a study conducted Huangi C, Wanig Y, Li iX, et al in China in 2019 [1] It was found that the majority of the participants were women and their percentage was 80% and their ages ranged between (20-35). As for the level of education, the majority of the sample was of high level Education Bachelor's and postgraduate graduates with a percentage of (31%) with regard "to the place of residence. The majority of the participants were" from Al-

Mansour area, Baghdad city and whose percentage was (60%). As for the social status, most of the sample had an average social and economic level, and their percentage of (80%) regarding the profession was The majority of the sample is government employees, which amounted to (65%) This study corroborates with the study conducted Wanig D, Huu B, Hui C, et al in China 2019 and found that the majority of participants are from urban areas with an average standard of living and graduates of higher studies.[26]

Knowledge people about ways to prevent corona virus (Defining the disease and its causes) (n= 2000)

Prevention of corona virus and knowledge of corona virus and its causes, the majority of the sample and those who answered yes knew that infection with corona virus is more dangerous when there are 1750 chronic diseases, which was (35%),) as for the mask, which is the source of infection with the virus, their answer was yes as well, and their number reached 1000 and the percentage percentile (20%). As for health education through social media, scars and lectures on ways to prevent corona virus, the majority of eyes were 18%. Regarding the question: Does a person infected with corona get infected again, his answer was also yes, and their numbers are 800 (16%). This study differs with the study he conducted by Sasoiud AiT, Zaiazouee MS, Elhsayed S,M, et al in China 2021 . It was also found that the mask was the source of infection by 20% and the infected person was infected again and their percentage was 4 %. [27]

People's knowledge about ways to prevent corona virus (Means or ways of transmission of the corona virus) (n= 2000)

Causes of infection with the Corona virus. The majority of the sample answered yes, that not adhering to the home quarantine leads to infection with the Corona virus, which numbered in 1946 and their percentage was 34.9%, and 1800 people answered that curiosity and experience lead to infection, and their number reached 36 people. Others also answered that their percentage of not wearing a muzzle was 34%, and the weak immunity answered with the word "yes." And those who numbered 1900 and 37%. 34 this

study similar study Al-Hanuawi Mh, Angiawi Ki, Alsihareef N, et al in the Kingdom of Saudi 2020 It was also found that weak immunity also caused infection with the Corona virus, and their percentage was 35% [28]

Assessment of Participants in the study' Attitudes about COVID-19 pandemic (n= 2000)

Assessment of satisfactory attitudes about ways to prevent corona virus, and answering directions with the word "correct" or their answer was "correct" which was 17 00. As for a question that is not concern or commitment to preventive measures that will save us from infection, their percentage was 34% 6%, who answered that they do not know, as for the measures to prevent the virus, their answers were correct, their number was 1000, and their percentage was 20%, and with regard to a question about permanent protection methods, their answers were also correct, and their percentage was 35%. This study does not agree with the study made by Mouradzadeh Ry, Nauzari J, uShamsii M, Aomini S 2019 in the Central Area of Iran:[29].

5. Conclusions

majority of the sample knew and those who answered yes that infection with the Corona virus is more dangerous when there are chronic diseases, as for the mask, which is the source of infection with the virus Their answer was also yes, and their numbers amounted to 1,000, and the percentage was (20%). As for health education through social media, the majority of the participants were females, As for the ages of the participants in the study, they ranged from (20 – 30) years, As for the level of education, the majority of the sample was of high level Education Bachelor's and postgraduate graduates with regard to the address of residence . The vast majority of participants were from Al-Mansour area.

6. References

- [1]. 1-Wiang C, Hjorby PW, Hoayden FG, Goao GF. A novel coronavirus outbreak of global health concern [published correction appears in Lancet. 2020 Jan 29;:]. Lancet. 2020;395(10223):470-473. [https://doi.org/10.1016/s0140-6736\(20\)30185-9](https://doi.org/10.1016/s0140-6736(20)30185-9)

- [2]. 2. Epiology Working Group for NCIP Epidemic Response, Chinese Center for Disease Control and Prevention. *Zhonghua Liu Xing Bing Xue Za Zhi*. 2020;41(2):145-151.
<https://doi.org/10.3760/cma.j.issn.0254-6450.2020.02.003>
- [3]. 3. World Health Organization. Risk communication and community engagement readiness and response to coronavirus disease (COVID-19): interim guidance,
<https://apps.who.int/iris/bitstream/handle/10665/331513/WHO-2019-nCoV-RCCE-2020.2-eng.pdf?sequence=1&isAllowed=y> (accessed Jan 12 2021).
- [4]. 4. World Health Organization. Coronavirus disease (COVID-19)
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019> (accessed Jan 12 2021).
- [5]. 5. Panidey SJJCMR. Gupta A. Bihansali R, Bialhara S, Kiatira P, Fernandes G. Corona virus (COVID-19) awareness assessment-a survey study amongst the Indian population. *J Clin Med Res*. 2020;2(4):1-11.
[https://doi.org/10.37191/Mapsci-2582-4333-2\(3\)-041](https://doi.org/10.37191/Mapsci-2582-4333-2(3)-041)
- [6]. 6. Huaong C, Waing Y, Li X, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet*. 2020;395(10223):497-506.
[https://doi.org/10.1016/s0140-6736\(20\)30183-5](https://doi.org/10.1016/s0140-6736(20)30183-5)
- [7]. 7. Waong D, Hiu B, Hu C, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China [published correction appears in *JAMA*. 2021 Mar 16;325(11):1113]. *JAMA*. 2020;323(11):1061-1069.
<https://doi.org/10.1001/jama.2020.1585>
- [8]. 8. Miasoud AT, iZaazouee MS, Eilsayed SM, et al. KAP-COVIDGLOBAL: a multinational survey of the levels and determinants of public knowledge, attitudes and practices towards COVID-19. *BMJ Open*. 2021;11(2):e043971.
<https://doi.org/10.1136/bmjopen-2020-043971>
- [9]. 9. Goicalone A, Roocco G, Rupberti E. Physical Health and Psychosocial Considerations During the Coronavirus Disease 2019 Outbreak. *Psychosomatics*. 2020;61(6):851-852.
<https://doi.org/10.1016/j.psych.2020.07.005>
- [10]. 10. Tajchfouti N, Silama K, Bierraho M, Neijjari C. The impact of knowledge and attitudes on adherence to tuberculosis treatment: a case-control study in a Moroccan region. *Pan Afr Med J*. 2012;12:52.
- [11]. 11. Baosheti IA, Niassar R, Biarakat M, et al. Pharmacists' readiness to deal with the coronavirus pandemic: Assessing awareness and perception of roles. *Res Social Adm Pharm*. 2021;17(3):514-522.
<https://doi.org/10.1016/j.sapharm.2020.04.020>
- [12]. 12. Baolkhi F, Niasir A, Ziehra A, Riiaz R. Psychological and Behavioral Response to the Coronavirus (COVID-19) Pandemic. *Cureus*. 2020;12(5):e7923.
<https://doi.org/10.7759/cureus.7923>
- [13]. 13. Liao JT, iYang X, oTsui H, Kim JH. Monitoring community responses to the SARS epidemic in Hong Kong: from day 10 to day 62. *J Epidemiol Community Health*. 2003;57(11):864-870.
<https://doi.org/10.1136/jech.57.11.864>
- [14]. 14. Keboede Y, Yjitayih Y, Biirhanu Z, Mekonen S, Ambelu A. Knowledge, perceptions and preventive practices towards COVID-19 early in the outbreak among Jimma university medical center visitors, Southwest Ethiopia. *PLoS One*. 2020;15(5):e0233744.
<https://doi.org/10.1371/journal.pone.0233744>
- [15]. 15. Mhoradzadeh Rj, Nkazari J, Sihami M, kAmini S. Knowledge, Attitudes, and Practices Toward Coronavirus Disease 2019 in the Central Area of Iran: A Population-Based Study. *Front Public Health*. 2020;8:599007.
<https://doi.org/10.3389/fpubh.2020.599007>
- [16]. 16. Al-Hajjawi MjK, Angjawi K, Ailshareef N, et al. Knowledge, Attitude and Practice Toward COVID-19 Among the Public in the Kingdom of Saudi Arabia: A Cross-Sectional Study. *Front Public Health*. 2020;8:217.
<https://doi.org/10.3389/fpubh.2020.00217>
- [17]. 17. COVID-19 Knowledge, Attitudes and Practices (KAP) Survey: Northwest Syria.
<https://reliefweb.int/report/syrian-arab-republic/covid-19-knowledge-attitudes-and-practices-kap-survey-northwest-syria-5> (accessed Jan 12, 2021).
- [18]. 18. gQutob N, Awartani F, Aisia M, Kohaidar IA. Knowledge and practices towards COVID-19 among Palestinians during the COVID-19 outbreak: A second round cross-sectional survey. <https://www.medrxiv.org/content/10.1101/2020.1.13.20211888v1> (accessed Jan 12, 2021).
- [19]. 19. Sahllam M, Dvababseh D, Yvaseen A, et al. COVID-19 misinformation: Mere harmless delusions or much more? A knowledge and attitude cross-sectional study among the general public residing in Jordan. *PLoS One*. 2020;15(12):e0243264.
<https://doi.org/10.1371/journal.pone.0243264>
- [20]. 20. Abjdel Wahhed WY, Hjiefzy EM, Ahmed MI, Hamed NS. Assessment of Knowledge, Attitudes, and Perception of Health Care Workers Regarding COVID-19, A Cross-Sectional Study from Egypt. *J Community Health*. 2020;45(6):1242-1251.
<https://doi.org/10.1007/s10900-020-00882-0>
- [21]. 21. Iojrfa SK, Ohttu IFA, Obgunyayoj R, et al. COVID-19 Knowledge, Risk Perception, and Precautionary Behavior Among Nigerians: A Moderated Mediation

- Approach. *Front Psychol.* 2020;11:566773. <https://doi.org/10.3389/fpsyg.2020.566773>
- [21]. 22. Olajpegba PO, Ijorfa SK, Kkolawole SO, et al. Survey data of COVID-19-related Knowledge, Risk Perceptions and Precautionary Behavior among Nigerians. *Data Brief.* 2020;30:105685. <https://doi.org/10.1016/j.dib.2020.105685>
- [22]. 23. Ohlum R, Chhekwech G, Wjekha G, Niassozi DR, Bkongomin F. Coronavirus Disease-2019: Knowledge, Attitude, and Practices of Health Care Workers at Makerere University Teaching Hospitals, Uganda. *Front Public Health.* 2020;8:181. <https://doi.org/10.3389/fpubh.2020.00181>
- [23]. 24. Aili KF, Whjitebridge S, iJamal MH, Alisafy M, Aitkin SL. Perceptions, Knowledge, and Behaviors Related to COVID-19 Among Social Media Users: Cross-Sectional Study. *J Med Internet Res.* 2020;22(9):e19913. <https://doi.org/10.2196/19913>
- [24]. 25. Koakemam E, Gohoddoosi-Noejad D, Choegoini Z, et al. Knowledge, Attitudes, and Practices Among the General Population During COVID-19 Outbreak in Iran: A National Cross-Sectional Online Survey. *Front Public Health.* 2020;8:585302. <https://doi.org/10.3389/fpubh.2020.585302>
- [25]. 26. Al-Dimour H, Miasa'deh R, Soalman A, Aobuhashesh M, Al-Domour R. Influence of Social Media Platforms on Public Health
- [26]. 27-Huangi C, Wanig Y, Li iX, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet.* 2020;395(10223):497-506. [https://doi.org/10.1016/s0140-6736\(20\)30183-5](https://doi.org/10.1016/s0140-6736(20)30183-5)
- [27]. 28-Wanig D, Huu B, Hui C, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China [published correction appears in *JAMA.* 2021 Mar 16;325(11):1113]. *JAMA.* 2020;323(11):1061-1069. <https://doi.org/10.1001/jama.2020.1585>
- [28]. 29-Sasoiud AiT, Zaiazouee MS, Elhsayed S,M, et al. KAP-COVIDGLOBAL: a multinational survey of the levels and determinants of public knowledge, attitudes and practices towards COVID-19. *BMJ Open.* 2021;11(2):e043971. <https://doi.org/10.1136/bmjopen-2020-043971>
- [29]. 30-Al-Hanuawi Mh, Angiawi Ki, Alsihareef N, et al. Knowledge, Attitude and Practice Toward COVID-19 Among the Public in the Kingdom of Saudi Arabia: A Cross-Sectional Study. *Front Public Health.* 2020;8:217. <https://doi.org/10.3389/fpubh.2020.00217>
- [30]. 31-Mouradzadeh Ry, Nauzari J, uShamsii M, Aomini S. Knowledge, Attitudes, and Practices Toward Coronavirus Disease 2019 in the Central Area of Iran: A Population-Based Study. *Front Public Health.* 2020;8:599007. <https://doi.org/10.3389/fpubh.2020.599007>
- [31]. Abbood Abbas Abbood. (2022). Medical and Dental Science Radiation Therapy Use Perhaps for Viruses Treatment: Review. *The Journal of Global Scientific Research Multidisciplinary.* 7(11), 2762-2765.