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Knowledge and Awareness Towards COVID-19 Pandemic Among the General Public in Benghazi, Libya 2020.

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Abstract: The current COVID-19 pandemic, which was initiated regionally at Wuhan, China, has become a global pandemic by infecting people of almost around the world. Human societies are facing threats for their survival and livelihood.

Aim: To determine the knowledge and awareness of COVID-19 among the general public in Benghazi City. **Methods:** A cross-sectional study was conducted over four months period from the first of July till the end of October 2020. Five hundred participants were selected by using a convenient sampling technique. **Results & Conclusion:** The age distribution ranged from 15 – 65 years with a mean age of 35yrs (SD ±12.54), (53%) were females and (47%) were males. (44.4%) of the participants got their information from social media. In general, the overall knowledge score of the majority of the respondents was good knowledge regarding COVID-19. As for deficiency of information about the preventive measures, we need to intensify awareness by conducting seminars to increase the knowledge among the population to tackle the spread of diseases in the community.

Keywords: Knowledge; Awareness; COVID 19; General public.

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Introduction

A cluster of severe pneumonia unknown etiology in Wuhan City, Hubei province in China emerged on the first of December 2019. Novel coronavirus named severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) was isolated from the lower respiratory tract sample as the causative agent. The current outbreak of infections with SARS-CoV-2 is termed Coronavirus Disease 2019 (COVID-19) by the World Health Organization (WHO) (1).

Coronavirus disease (COVID-19) is distressing different countries all over the world with great variation in infection rate and death ratio. Knowledge of the causative agent and the disease methods of transmission is important to develop effective control (2). Public awareness is important in managing the spread of infectious diseases. Personal actions, such as self-hygiene and avoiding being in crowds, can reduce the spread of the disease. Therefore, awareness facilitates the rapid identification and treatment of new cases (3). The national response plan should adopt the five pillars of action including enhancing surveillance and contact management, strengthening laboratory capacity, reinforcing infection control precautions in health care settings, and improving risk communications and Community engagement (4).

Aims of the study:

To determine the knowledge and awareness of COVID-19 among the general public in Benghazi City 2020.

Subjects and Methods:

A cross-sectional study was conducted over four months period from the first of July till the end of October 2020. Five hundred participants were selected by using a convenient sampling technique. Data were collected by using a pretested questionnaire to assess the knowledge and awareness of COVID-19 among the

general population in Benghazi.

The questionnaire was divided into two parts. The first part included the following socioeconomic variables: age, gender, occupation, marital status, and educational level. While the second part included questions related to the public's knowledge and awareness of COVID-19.

Responses to the questionnaire were reported as "Yes", "No", and "Do not know". The participant was given a score = 1 mark for the correct answer, while zero is given when the participant answered incorrectly by saying no or do not know. The answers of the participants were classified as: déficient (poor) knowledge if the score was 33% or less, whereas, sufficient (average) knowledge represented from 40% - 66% and optimum (good) knowledge about the disease, if the answers were correct in 73% or more.

Data analysis: Statistical Package for the Social Sciences (SPSS) version 25 was used for analyzing the study data. For each respondent, the knowledge score was the total of all the correct responses with the total score ranging from 0 to 15.

Ethical consideration: Informed consent was obtained from each participant before their participation.

Results:

The demographic data of the five hundred participants were shown in **table (1)** in which the age distribution of the respondents was ranged from 15 – 65 years and it was categorized into four groups as follows: 15 – 35 years represented (59.6%), 36 – 45 years represented (21.8%), 46 – 55 years and 56 – 65 years represented (9.6%),(9%) respectively. The mean age was 35 years and the standard deviation

was 12.54. The marital status of the study group was found as follows: (50.4%) of them were married, (41.4%) were single, (5.6% and 2.6%) were divorced and widow respectively. Furthermore, (50.6%) of the participants were governmentally employed, (15%) were non-governmentally employed, (32.6%) were unemployed and the remaining (1.8%) were retired.

This study demonstrated that (53%) of the study group were females and (47%) were males; so, we got the balance response in gender-wise as shown in **figure 1**. According to the educational level of the study group, we found that (4.6%) were illiterate, while (9.4%) had an elementary education, (28.6%) had secondary education and the highest percentage of the participants (57.4%) were college graduated as shown in **figure 2**. Regarding the source of information on COVID-19, the study found that the vast majority of the participants got their information from social media (44.4%), followed by (36.4%) from news media, TV, and radio, whereas the official international health organization as a source of information represented (14.2%) and the remaining (5%) got their information from official governmental sites, **figure 3.**

Table (2) included three sections: **Section 1**: represented the knowledge and awareness of COVID-19 among the study group, almost all the participants (87%) reported that COVID-19 is viral in origin and (91%) said that the virus is contagious. About (92%) of the study group knew the modes of transmission of infection while (8%) of them did not know. Furthermore, (82.8%) of them knew the correct incubation period and (89.8%) reported that COVID-19 had many symptoms. Approximately (70%) of the participants said that COVID-19 can cause massive fatality and (75%) revealed that supportive treatment can help inpatient recovery.

Section 2: represented the extent of study group awareness of the preventive measures and the proper procedures towards COVID-19 as follows: the main

method of prevention was washing hands with soap and rubbing hands by alcohol (94%), followed by (93.2%) by avoidance of crowded places and (91%) of them keeping social distance while (87%) of the participants used the facial mask as one of the protective measures.

Section 3: represented the study group awareness about quarantine, the majority of the participants (92.8%) agreed that person who was in contact with infected people should be isolated, (80.2%) of them said that the quarantine must be in a separate place and (84.2%) knew the correct quarantine period.

Figure 4: represented the knowledge of participants about the high-risk group to COVID-19 in which most of the participants stated that there is more than one category of the person at risk from COVID-19. In more details (72.7%) of respondents confirmed that high-risk people were those who had chronic diseases, people with extreme age represented (10%) and (9.2%) indicated people with respiratory diseases, in addition to that (8.6%) represented people with immune diseases. In general, the overall knowledge score of the majority of the respondents (73%) presented with good knowledge regarding COVID-19 whereas, (27%) of them had poor knowledge about COVID-19 and deficient information about the preventive safety measures.

Age	No.	%
15-35 years	298	59.6
36- 45 years	109	21.8
46-55 years	48	9.6
56-65 years	45	9.0
Marital status	**No.**	**%**
Single	207	41.4
Married	252	50.4
Divorce	28	5.6
widow	13	2.6
Occupation	**No.**	**%**
Governmental	253	50.6
Non-governmental	75	15.0
Retired	9	1.8
Un employed	163	32.6

Table (1): Demographic characteristics of study group.

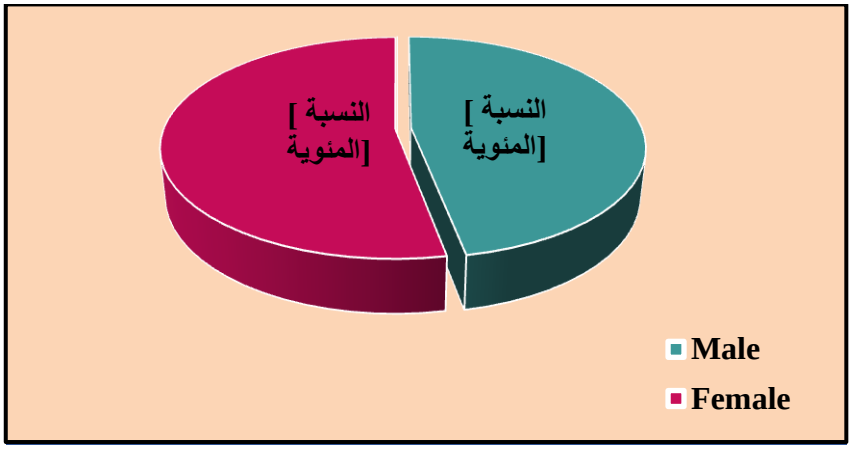

Figure 1: Distribution of gender among the study group.

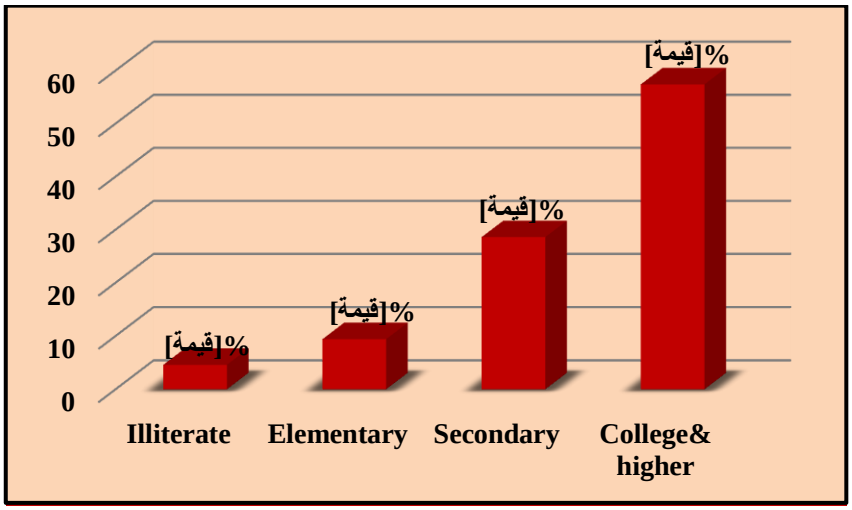

Figure 2: Distribution of educational level among study group.

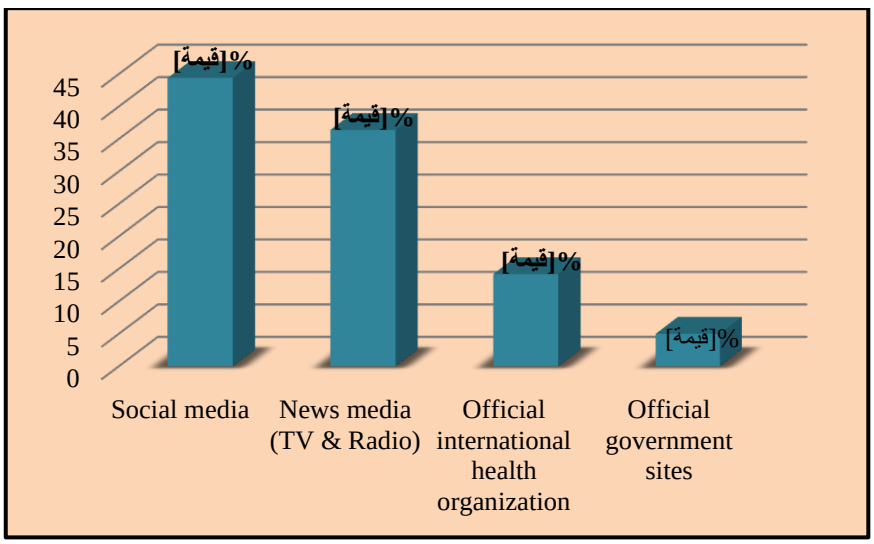

Figure 3: Distribution of participants according to the source of information.

Table (2): Public knowledge and awareness of COVID-19 among the study group.

Knowledge domain	Correct Answer (Yes)		Incorrect answer (No/ I do not know)	
	No.	%	No.	%
1- COVID-19 is viral in origin	435	87	65	13
2- COVID-19 is contagious	455	91.0	45	9
3- Modes of transmission	460	92	40	8
4- Incubation period	414	82.8	86	17.2
5- Signs and symptoms	449	89.8	51	10.2
6- COVID-19 can cause massive fatality	348	69.6	152	30.4
7- Supportive treatment can help patients' recovery	377	75.4	123	24.6
8- Wearing facial mask as a protective measure	435	87.0	65	13
9- Washing hands with soup as a protective measure	472	94.4	28	5.6
10- Rubbing hands with alcohol	474	94.8	26	5.2
11- Keeping social distance	455	91.0	45	9
12- Avoidance the crowded places	466	93.2	34	6.8
13- Isolating person in contact with infected people	464	92.8	36	7.2
14- Knowledge about quarantine	401	80.2	99	19.8
15- Quarantine period	421	84.2	79	15.8

Participant's knowledge score regarding COVID -19 was good (73%).

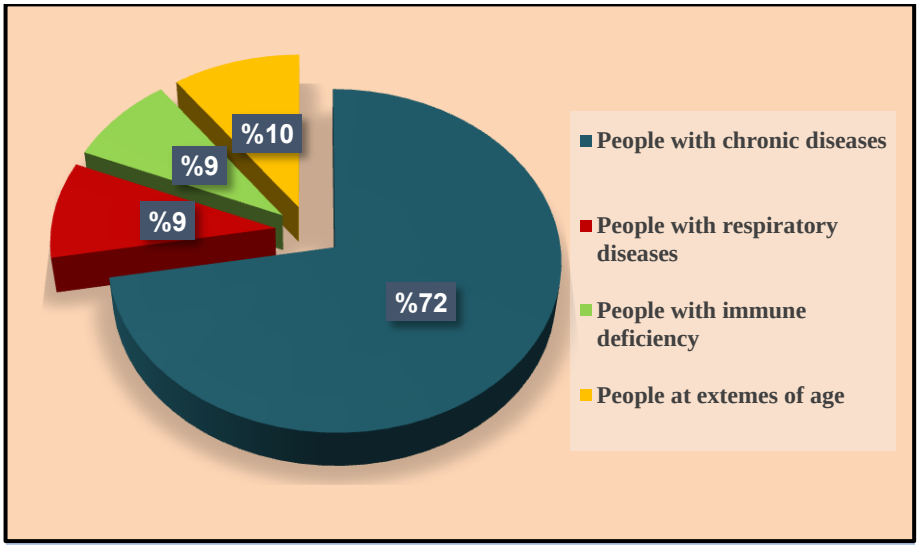

Figure 4: Distribution of study group knowledge about the high-risk groups.

Discussion:

The knowledge and awareness about the COVID-19 pandemic are very crucial in contributing to the prevention and management of these public health concerns.

In the present study, five hundred respondents were interviewed to assess their awareness and knowledge regarding COVID-19, the majority of the study subjects were graduated from faculties (57.4 %), the minimum age of the subjects was 15 years and the maximum was 65 years. Approximately (73%) of the respondents had good knowledge regarding COVID-19 and the majority of them got their information from social media. This is similar to what was reported in two descriptive studies done in Egypt and Saudia Arabia (5,6). More than (80%) of the study participants responded that COVID-19 is contiguous and knew the incubation period of the disease, also that, the participants were aware that the virus spread via respiratory droplets and personal contact, these results were in concordance with a descriptive study done in Indian population (7).

The majority of study participants (89.8%) knew the main clinical symptoms of COVID-19 disease. Similar findings were reported from a cross-sectional study done in Ethiopia which resulted that (87.6%) had information about the symptoms of the disease (8). In our study, the participants stated that there was more than one category could be at high risk of COVID-19 (those who had chronic diseases, people with extreme age, respiratory diseases, and people with immune diseases); this finding is consistent with the results of a study conducted in Jordan (9).

The findings in our study showed that the majority of participants were aware of the advantages of handwashing, the benefits of hand rubbing with alcohol, avoidance of touching eyes, mouth, nose, and the avoidance of crowded places as

preventive measures against COVID -19. Amongst the study respondents, nearly one-third of our sample had poor knowledge and awareness regarding the information about the preventive measures. When compared with a study that examined knowledge and awareness on COVID-19 among households in the Philippines, this population showed a good knowledge of transmission routes, but except for hand washing, they had limited knowledge in the identification and adoption of other preventive measures (10). A similar study conducted in Bangladesh reported that the overall Knowledge of the COVID-19 pandemic is poor, only 10% of the respondents showed good knowledge (11). Furthermore, a descriptive study was done among Tanzanian residents showed that the majority of the respondents agreed that COVID-19 will be successfully controlled through the avoidance of crowded places and the application of preventive strategies which play an important role to reduce the risk of COVID-19 transmission (12).

Conclusion: The studied participants had good knowledge about coronavirus, with recent outbreaks of this pandemic disease in the world, but deficient information about the preventive safety measures. There is a need for more effective role of educational program to increase the knowledge and awareness of COVID19 among the population to tackle spread of disease in community.

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Conflict of Interest: The authors declare no conflicts of interest.

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