

Assessment of Awareness About COVID-19 Infection among Medical Personnel and General Public of Rahim Yar Khan

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ABSTRACT

Objective: Assessment of awareness about COVID-19 among medical personnel and general public.

Study Description: It is a Cross-Sectional study carried out in R.Y.Khan from June 2020 to September 2020.

Methodology: About 430 subjects (medical personnel and general public) were asked to fill a pre-designed questionnaire by using convenient sampling technique. The questionnaire included information regarding their bio-data and study questions. Then SPSS Version 21 was used for data analysis.

Results: Our study shows that 90.5% study subjects think that they are well aware about COVID-19 while 9.5% subjects think that they aren't. In response to question "Is it lethal?" 25.3% subjects replied Always, 67% said Sometimes and 7.7% said Never. 68.6% subjects said that it is Always transmissible, 15.8% said Sometimes and 15.6% said Never. Regarding modes of its spread, 76.5% subjects agreed to Cough, 67.9% to Handshake, 27.9% to Food-sharing, 35.6% to Room-sharing, 28.6% to Utensils-sharing, 21.2% to Fomites-sharing. 6.7% subjects said that its vaccine is Available, 72.1% replied as Not-Available and 21.2% said that they don't know. 24.9% subjects said that its specific treatment is Available, 53.3% replied as Not-Available and 21.9% said that they don't know. 71.9% subjects said that it is preventable by adopting specific preventive measures, 8.8% said it isn't and 19.3% said that they don't know. Regarding effectiveness of PPEs as preventive measures, 85.8% subjects agreed to Mask, 57.2% to Gown, 52.3% to Goggles, 45.6% to Head-cover, 35.1% to Shoe-cover, 55.8% to Gloves, 70.7% to Social-distancing, 58.4% to use of Hand-wash/Hand-Sanitizer.

Conclusion: There is observed some lack of knowledge in different areas regarding COVID-19, almost equally, among medical personnel as well as among general public that results in spread of infection at exponential rates due to negligence of people including poor understanding and poor compliance to the preventive measures advised by health authorities worldwide.

Keywords: COVID-19, Awareness, Transmission, Vaccination, Treatment, Prevention, PPEs

INTRODUCTION

COVID-19 infection is caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2).^[1] It has become a pandemic now but Wuhan (China) was the first city where this virus was identified by December of 2019.^{[2][3]} The data shows the 1st case of COVID-19 to be confirmed by 17th of November, 2019 from Hubei.^[12] Till 9th of July, 2020 more than 12.1 million cases had been noted from 188 countries including territories, that caused around 552,000 deaths around the globe. Moreover, around 6.69 million people had been observed with full recovery from this infection.^[4]

During media briefing about COVID-19 on 3rd of March, 2020 Director-General of World Health Organization stated: "Globally, about 3.4% of reported COVID-19 cases have died. By comparison, seasonal flu generally kills far less than 1% of those infected."^[5]

How much contagious is this Corona Virus?

The attack rate or transmissibility (spread rate) of a pathogen is noted by its reproductive number, which shows the average no. of persons to which a single infected person will transmit the virus. World Health Organization estimated (on Jan. 23rd) reproductive number of Corona Virus to be 1.4-2.5.^[6] Some other studies noted it to be 3.6-4.0, and 2.24-3.58.^[7] Preliminary data work showed it to be 1.5-3.5.^{[8][9][10]} Any pandemic having a reproductive number less than 1 gradually disappears.

The COVID-19 virus is transmitted through air droplets from respiratory tract of an already infected person when he has cough, sneezing, or while talking. These air droplets reach anywhere in the mouth or in the nose of a nearby healthy person and get inhaled into the lungs. Transmission chances increase when the person is in close contact or is within six feet radius.^{[11][12][13]} That's why, social-distancing and the use of face mask prevent the transmission of virus.^{[11][12]} W.H.O. recommends one meter (three feet) social-distancing;^[13] the United States Centers for

Disease Control and Prevention recommends two meter (six feet) social-distancing.^[11] Some of the reported outbreaks showed crowd and inadequate ventilation of in-door locations having infected people (spending long periods of time) to be an important cause of virus transmission; including restaurants and night-clubs.^[13] But, still, there is no strong evidence supporting the transmission of COVID-19 virus via food.^{[14][15]}

Vaccine formulated against COVID-19 virus is a biotechnological product in order to develop an acquired immunity against this COVID-19 infection. Till August 2020, around 233 vaccine trials were into the process,^{[16][17]} although no one had completed the clinical trials to prove its benefits and effectiveness.

There are no exact treatment guidelines for COVID-19 infection so far but symptomatic management with dietary and lifestyle changes helped fighting against COVID-19 infection. On the other hand, scientists are trying their best to formulate an effective treatment regime. Multiple management techniques are under investigation which includes anti-malarial drugs and drugs used against auto-immune diseases i.e. anti-viral drugs being used against other viruses, and anti-bodies recovered from plasma of people who have fully recovered from this COVID-19 infection.^[18]

There are multiple preventive measures being advised, with variable effectiveness, and the facts are being updated regularly; on the basis of ongoing studies.^{[19][20]}

This study was aimed for assessment of awareness about COVID-19 among medical staff and general public.

METHODOLOGY

Study Description: It is a Cross-Sectional study carried out in R.Y.Khan from June 2020 to September 2020 by using Convenient Sampling Technique. It included medical personnel of Sheikh Zayed Hospital, R.Y.Khan and the general public of R.Y. Khan.

Sample size: A total of 430 subjects (50% from medical personnel and 50% from general public) were included in the study.

Inclusion & Exclusion criteria: Medical staff of Sheikh Zayed Hospital, R.Y.Khan making a total of 215 subjects plus first 215 persons encountered from general public on that day; were included in the study. While, the subjects who didn't give consent for participation were excluded from the study. SPSS Version 21 was used for data analysis.

RESULTS

This study assessed the level awareness about COVID-19 among people (medical staff plus general public) of Rahim Yar Khan. Among these 430 study subjects; mean age was 26.62±6.77 years with 294(68.4%) males and 136(31.6%) females; 215 (50%) were from medical related field while 215 (50%) were from general public; 137 (31.9%) had education level of Matriculation or below while 293 (68.1%) had education level of Intermediate or above.

Our study shows that 90.5% study subjects think that they are well aware about COVID-19 while 9.5% subjects think that they aren't.

In response to question "Is it lethal?" 25.3% subjects replied Always, 67% said Sometimes and 7.7% said Never. 68.6% subjects said that it is Always transmissible, 15.8% said Sometimes and 15.6% said Never.

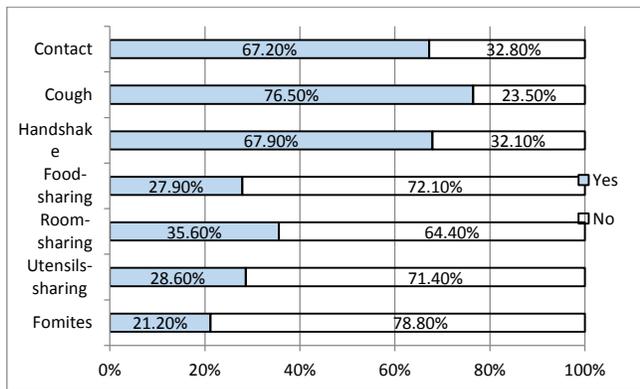
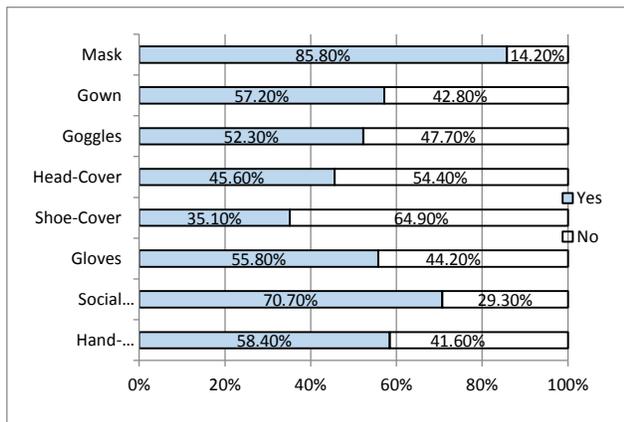


Figure-I: shows agreement of study subjects with different acts serving as a source of virus transmission, causing spread of COVID-19.

In regards to its vaccination, 6.7% subjects stated that it is Available, 72.1% replied as Not-Available and 21.2% said that they don't know. 24.9% subjects said that its specific treatment is Available, 53.3% replied as Not-Available and 21.9% said that they don't know. 71.9% subjects said that it is preventable by adopting specific preventive measures, 8.8% said it isn't and 19.3% said that they don't know.

The agreement status of study subjects regarding effectiveness of PPEs as preventive measures is shown in figure-II below.



DISCUSSION

This cross-sectional study comprising of awareness level quoted by the 430 study subjects showed that there is some lack of knowledge among medical personnel as well as among general public. This lack of awareness resulting in poor understanding of COVID_19 and poor compliance towards preventive measures can be attributed to multiple factors including lower literacy rate, lack of informative resources, lack of authentic and proven research data, limited number of facilities, prevalence of false beliefs, etc.

Study subjects quoted their knowledge regarding COVID-19 as its being lethal most of the time in most of the patients; its transmissibility to be effective most of time; contact, cough and handshake serving as a source of its spread most of the time but food-sharing, room-sharing, utensils-sharing and fomites spreading the disease less frequently. Their awareness level is partly in accordance with the worldwide evidence-based research data collected or published so far.^{[11][12][13][14][15]}

But there is observed some lack of knowledge or prevalence of false beliefs in terms of its spread via food-sharing because there is no evidence in support of its spread via food till now.^{[14][15]} There is lack of awareness regarding availability of vaccine against COVID-19 (6.7% subjects stated that it is available and 21.2% said that they don't know) and its treatment (24.9% subjects said that its specific treatment is available and 21.9% said that they don't know) but in actual facts its vaccination is not available so far while different trials are being done at multiple institutes^{[16][17]} and its effective treatment is majorly symptomatic/supportive as proven so far.^[18]

Similarly, 8.8% study subjects said that it isn't possible to prevent getting infected with COVID-19, even by using all/most of the preventive measures while 19.3% subjects said that they don't know about it. Moreover, 14.2% study subjects didn't agree for masks, 42.8% for gown, 47.7% for goggles, 54.4% for head-cover, 64.9% for shoe-cover, 44.2% for gloves, 29.3% for social distancing and 41.6% for hand-washing/hand-sanitizer to be effective as preventive measures against COVID-19; that is, somehow, against the SOPs of PPEs and preventive-strategies acknowledged/proven worldwide so far.^{[19][20]}

CONCLUSION

There is observed some lack of knowledge in different areas regarding COVID-19, almost equally, among medical personnel as well as among general public that results in spread of infection at exponential rates due to negligence of people including poor understanding and poor compliance to the preventive measures advised by health authorities worldwide.

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