

Knowledge Attitude and Practice of General Population after six Months of Outbreak COVID-19

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ABSTRACT

Aim: To assess the knowledge, attitude and practice of the general population after six months of outbreak.

Methods: A cross-sectional survey was conducted on the general population in the month of July 2020. In which the general population was randomly selected and assessed for knowledge, attitude and practice about COVID19. The questionnaire was designed to avoid any privacy information and all questions were mandatory to answer.

Results: Total of 1200 participants enrolled male 552(46%) and female 648(54%). Age ranges between 20 to 60 years and education status of responders were divided into middle, higher secondary and graduate respectively; they were 192(16%), 420(35%) and 588(49%). Knowledge assessed through symptom & virus transmission questions fever, fatigue and dry cough responded by 768(64%) while rest question knowledge were very poor. Practice questions responses to the virus were very much disturbing and most believe hype created by government and media, admission causes loss of loved ones and doctors are responsible for giving death injections to admitted peoples. Only 768(64%) of respondents regularly sanitize hands and wash with soap.

Conclusion: Response to the question in KAP study was very poor despite six month had been passed in outbreak, yet it is necessary to improve the knowledge by arranging online seminars, media talk and strong awareness campaign required to improve knowledge & motivate their attitude toward virus which will resulting good practice to avoid further transmission of infection.

Keywords: Knowledge, attitude, practice, Covid 19, outbreak.

INTRODUCTION

Covid 19 or coronavirus 2019 is an infection caused by SARS-coV-2, which causes severe respiratory illness¹ The World Health Organization (WHO) declared this viral illness as a pandemic and progressing all over the world, by the time of writing this article the virus affected 190 countries and territories. Total of 17.8 million cases have been reported and out of which 685,000 people lost their life by the virus. First virus was reported in December 2019 in Wuhan, Hubei, China^{2,3}. This covid-19 virus affects different ways in different peoples many experience mild symptoms while few were affected by serious illness and required high density units^{4,5}. The virus is usually spread by small droplets through sneezing, coughing and during talking in close contact^{6,7}. Recommended methods of avoiding transmission of infection are hand washing, maintaining social distancing, wearing masks and home isolation^{8,9}. As COVID 19 is a new disease and many aspects of transmission are still questionable, to avoid its rapid spread it is mandatory to get good knowledge among the general population and it recommended to do healthy practice which helps in preventing the infection in the community⁷⁻¹⁰. Knowledge of the disease may influence its effect on the attitude and practice of the general population which helps in reducing further transmission of infection. It is highly recommended to follow the local authority guidelines in preventing the transmission of infection.

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METHODS

This cross sectional study was conducted on the general population of metropolitan cities to assess their knowledge, their attitude and practice toward the COVID 19 after six months of outbreak. The study aimed to gather data from many people; as seen in the literature the larger the sample size has greater reliability and validity¹¹. With the ease of lock down this study was easy to carry on the general public and a self responded questionnaire was developed in which no secret information required and all the questions were mandatory to be answered by those peoples who agreed to participate in the study. To achieve the desired target; sample size was calculated by a sample size calculator¹² which arrived at a 1200 size of sample with a confidence interval of 99%, response rate of 50% with error of $\pm 4\%$. The questionnaire was developed according to the disease guidelines by international health authorities¹³ and the questionnaire divided into four parts including socio demographic data, knowledge, attitude and practice question. This data helps in assisting the recent update status among the general population after six months of outbreak. Answered calculated as Yes, No, and Not sure. General coding runs during calculation, 1 for male 2 for female, age groups were divided into 1 for age 20 to 35 years, 2 for 35 to 50 and 3 for age 50 above. Education status divided as middle, higher secondary and graduate 1,2,3 given to them respectively. KAP question labeled 1,2,3 for yes, no, not sure respectively. This study questionnaire contains a consent form which includes

important information for the people agreed to participate in the study.

RESULTS

A total 1200 participants agreed and took consent on prescribed proforma. Table 1 shows the demographic characteristics , 552(46%) were male and 648(54%) female most of the participants between the age group 20 years to 50 years and mostly were educated above higher secondary classes . While table 2 shows the assessment of participants' knowledge, different questions were asked about the disease and safety measures required to prevent transmission of infection. Half of the participants know the major symptoms correctly, 324(27%) agreed the disease was curable but the rest were not sure about the symptomatic treatment or isolation. Out 1200 respondents 504(42%) agreed that infected patients did not require admission, 240(20%) agreed for a 1080(90%) improvement rate, 456(38%) believed once admitted the chance of death is high, transmission of infection through touching and droplet was 300(25%), 444(37%) respectively. Only 396(33%) of respondents believe fever was required to transmit infection & 300(25%) in favour of wearing a mask can prevent the transmission. Children and young adults had no chance of infection as 456(38%) were in favour; 588(49%) used to avoid visiting crowded places ; 588(49%) were in favour of rest for infected patients, 624(52%) were not in favour of isolation as sole treatment and last question regarding COVID virus exists only 168(14%) agreed in favour.

Attitude of the responders were assessed by different questions including their feelings during COVID outbreak. COVID causes fear in daily life as 40% were in favour, 38% feeling fatigue by the outbreak, only 13% were confident in

defeating the virus, 27% were in favour of disease disclosure is mandatory for patients. Half of the respondents believe the hype created by the media and Government, 36% were having fear of death injection given by the doctors during this outbreak. Only 31% were in favour of investing COVID, 52% had fear of losing loved ones with the admission; 22% were in favour COVID testing in government facilities is satisfactory. Half of the respondents had a positive attitude toward social media material and their major source of knowledge. More than 50% of respondents felt fear of losing their job and children's career (Table 3).

Respondents practices were assessed by their daily habits during the outbreak. Majority were in favour of using soap and sanitizer frequently but only 36% favour wearing masks when going outside . Most responders were practicing visiting the shopping places and social gatherings. Only 29% were avoiding shaking hands and 28% were maintaining social distancing but 22% were agreed to perform their covid test (Table 4).

Table 1: Demographic variable

Demographic	Frequency	Percentage
Gender		
Male	552	46
Female	648	54
Age		
20 to 35 years	504	42
36 to 50 years	492	41
>51	204	17
Education		
Middle	192	16
Higher Secondary	420	35
Graduate	588	49

Table 2: Knowledge regarding COVID -19

Knowledge	Yes	No	Not Sure
Fever , fatigue, dry cough (major symptoms)	768(64%)	288(24%)	144(12%)
Common cold (stuffy nose, runny nose, sneezing) present	588(49%)	300(25%)	312(26%)
Disease curable	324(27%)	372(31%)	504(42%)
Symptomatic treatment & supportive treatment	336(28%)	540(45%)	324(27%)
Most cases improved and not require admission	288(24%)	504(42%)	408(34%)
Most cases has severe illness and require admission	324(27%)	480(40%)	396(33%)
If admitted then chance of recovery more than 90%	240(20%)	444(37%)	516(43%)
If admitted then chance of death is high	456(38%)	564(47%)	180(15%)
Toughing to others transmit infection	300(25%)	636(53%)	264(22%)
Fever require to transmit infection	396(33%)	444(37%)	120(10%)
Spread via respiratory droplet	444(37%)	468(39%)	288(24%)
Wear mask can prevent transmission	300(25%)	444(37%)	456(38%)
Children and young adult has no chance of infection	456(38%)	564(47%)	180(15%)
Avoid going to crowded place	300(25%)	588(49%)	312(26%)
Infected people need to do rest	588(49%)	300(25%)	312(26%)
Infected peoples need to isolate as sole treatment	288(19%)	624(52%)	348(29%)
Is COVID virus exist	168(14%)	576(48%)	456(38%)

Table 3: Attitude

Attitude	Yes	No	Not sure
COVID causes fear in daily life	480(40%)	480(40%)	240(20%)
Feeling of fatigue after the outbreak	456(38%)	564(47%)	180(15%)
Confidence in defeating virus	156(13%)	636(53%)	408(34%)
Disclosure by patient is mandatory	324(27%)	312(51%)	264(22%)
Hype created by media and government	588(49%)	480(40%)	132(11%)
Admission cause fear of death inj given by doctor	432(36%)	420(35%)	348(29%)
Admission causes fear of losing loved ones	624(52%)	444(37%)	132(11%)
Common symptom need to be investigated for COVID	372(31%)	552(46%)	276(23%)
COVID testing in govt facility is satisfactory	264(22%)	780(65%)	156(13%)
use of media news paper and tv news to get knowledge	588(49%)	300(25%)	312(26%)
YouTube, Facebook, twitter and Instagram are good source of Knowledge	552(46%)	456(38%)	192(16%)
Fear of losing job	660(55%)	408(34%)	132(11%)
Fear of losing career of children's	672(56%)	264(22%)	264(22%)

Table 4: Practices

PRACTICES	YES	NO	NOT SURE
washing hands with soap and sanitizer frequently	768(64%)	432(36%)	0%
Wear of mask mostly when going outside	432(36%)	768(64%)	0%
Are you going to shopping	516(43%)	684(57%)	0%
have you attended social event involving large number of people	516(43%)	684(57%)	0%
Have you avoiding shaking hands	348(29%)	804(67%)	48(4%)
Are you maintaining social distancing	336(28%)	756(63%)	108(9%)
Are you agree for COVID test	264(22%)	732(61%)	204(17%)

DISCUSSION

COVID-19 is a contagious disease that has devastating respiratory and vascular components caused by (SARS-CoV-2) which is a relatively new virus that is responsible for recent pandemic¹⁴. This virus is generally transmitted by droplet and the transmission rate is variable and upto now it is estimated that one infected person can transmit this virus to two to three persons which may cause superspreading events where one person can infect many people's¹⁵. This virus may cause uncertainty in the world which is critical for the health department to make appropriate plans in preventing the spread of SARS-CoV-2. It is utmost important to understand the population based knowledge, attitudes and practices toward COVID-19.

Knowledge, attitude and practice (KAP) studies are the representative of a certain population to assess what they know, what is their attitude and what the practices population observed on such a disease/topic which help in controlling the disease more efficiently¹⁶. Arina Anis Azlan et al did an online survey of 4,850 Malaysian residents and the survey assessed the 13 items on knowledge, 3 items on attitudes and 3 items on practices. knowledge among Malaysian public has correct rate of 80.5% and 83.1% of the participants had positive attitude toward the control of COVID-19 . Generally 95.9% participants believe that

Malaysia may conquer the disease efficiently and 89.9% were assured that the Malaysian government handled it properly. Practice toward hand hygiene was 87.8% and avoiding the crowds by 83.4% but only 51.2% wearing the face masks¹⁶. In comparison our results are quite different, only 64 % participants know the common symptoms 27% believe that the disease is curable while 20% were in favour of recovery from the illness . The knowledge of wearing a mask was 25% and only 25% were sure of avoiding crowded places. Attitude toward COVID was also poor in comparison to a study from Malaysia 13% were confident in defeating the illness while 49% were in favour of hype created by the media and the government, 22% were satisfied by testing in government facilities. Practice toward hand washing was 64%, maintaining social distance 28% and avoiding shaking hands seen in 29% of the participants. In contrast, the study from Ethiopia done by Yonas Akalu et al has comparable results to our study which was conducted on 404 chronic diseases patients , 33.9% participants had poor knowledge toward the disease , 47.3% participants had poor practice and 41% felt difficult in avoiding crowded places¹⁷. Another study from China by Bao-Liang Zhong et al observe the adherence of Chinese people in the period of rapid rise of COVID-19 pandemic. The researcher found that 90% of the participants had correct knowledge and 97% were confident in winning the

battle. In comparison, our study participants had poor knowledge, negative attitude toward the illness even after six months of the existence of the virus. Most of the Chinese participants (98%) were wearing the mask but only 36% were wearing the mask in our study while going out in recent days¹⁸. Zhang et al conducted a study on health care workers which showed 89% of the participants had good knowledge, 89.7% were followed the recommended guidelines and 85% were in fear of occurring the illness¹⁹. A review article by Irma Melyani Puspitasari et al assesses the knowledge, attitude, and practice in healthcare workers, medical students, and populations in different countries and the participant had good knowledge, positive attitude and promising practices²⁰. Ahmed Samir Abdelhafiz et al did a study from Egypt assessing the knowledge, perception and attitude. In the study the participants had a knowledge score of 16.39% out of 23 and majority gained the knowledge through media 66.9% and 58.3% through the internet in comparison 49% of our participants also gained knowledge from media and 46% through internet which were quite similar to the above study. Ahmed Samir Abdelhafiz et al observed that knowledge was poor among elderly and less educated peoples especially the participants from rural areas. Majority 86.9% were concerned about acquiring infection; 37.6% were concerned about continuation of salary during the isolation period and 73% were interested in getting the vaccine; 55% of our participants were also afraid of losing their job during this period²¹. In general, Egyptian participants had good knowledge and positive attitude in protective measures in comparison toward our study. Both study participants gain knowledge through the media and internet which have pros and cons.

CONCLUSIONS

Our KAP study on the general population doesn't show promising results as the responder has poor knowledge, negative attitude and practices toward the COVID 19 virus. These results are alarming and may help our policymakers in identification of weakened areas which will help in making plans to improve the knowledge which will improve the attitude and practices of the general population resulting in prevention of communicable diseases.

Conflict of Interest: No conflict of interest to declare.

Ethics, consent and permissions: This study has been ethically approved by DUHS ethics committee.

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