Original Research Article

Assessment of Knowledge and Attitude of Interns in the Prevention and Control of COVID-19

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Abstract

Background: Coronavirus disease 2019 (COVID-19) is defined as an illness caused by a novel coronavirus, now called Severe Acute Respiratory Syndrome Coronavirus 2. The present study was conducted to assess knowledge and attitude of interns in the prevention and control of COVID-19.

Materials & Methods: 50 interns of both genders were included. A questionnaire assessed knowledge comprising of each item contained 3 options, namely, "true", "false" and "don't know"; 1 point was given for a correct answer, and 0 points were awarded for an incorrect answer or a "don't know" response. The total score of this section ranged from 0 to 13, and higher scores were correlated with more knowledge. The attitude section included items, and a Likert scale was used to assess the level of agreement with the statements; response options ranged from 1 (strongly disagree) to 5 (strongly agree).

Results: Out of 50 subjects, males were 22 and females were 28. What causes COVID-19 replied correct by 94%, incubation period of COVID-19 by 95%, overall mortality of COVID-19 by 84%, what are laboratory test available by 98%, family gatherings may spread infection by 89%, washing hands frequently, wearing masks and other measures can effectively prevent infection by 99%, most have good prognosis by 82% and suspected and confirmed patients should be isolated and treated in designated hospitals by 94%. Attitude was strongly agree, agree, not sure, disagree and strongly disagree in response to I pay close attention to the development of the epidemic situation in 94%, 5%, 1% respectively, I think I am playing an important role in controlling the epidemic in 92%, 3%, 3%, 1% and 1% respectively. It is believed that the outbreak will soon be

contained in 90%, 2%, 5%, 2% and 1% and I am willing to cooperate with the relevant departments to take prevention and control measures in 82%, 8%, 6%, 3% and 1% respectively.
Conclusion: Interns had sufficient knowledge and attitude in the prevention and control of COVID-19.
Key words: attitude, COVID-19, knowledge

Introduction

Coronavirus disease 2019 (COVID-19) is defined as an illness caused by a novel coronavirus, now called Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV). COVID-19 is an emerging respiratory infection that was first discovered in December 2019, in Wuhan city, China. [1] SARS-CoV-2 belongs to the larger family of ribonucleic acid (RNA) viruses, leading to infections, from the common cold, to more serious diseases, such as Middle East Respiratory Syndrome (MERS-CoV) and severe acute respiratory syndrome (SARS-CoV). [2] The main symptoms of COVID-19 have been identified as fever, dry cough, fatigue, myalgia, shortness of breath, and dyspnoea.COVID-19 is characterized by rapid transmission, and can occur by close contact with an infected person. The details on the disease are evolving. [3] As such, this may not be the only way the transmission is occurring. COVID-19 has spread widely and rapidly, from Wuhan city, to other parts of the world, threatening the lives of many people. By the end of January 2020, the World Health Organization (WHO) announced a public health emergency of international concern and called for the collaborative effort of all countries, to prevent its rapid spread. Later, the WHO declared COVID-19 a "global pandemic". [4]

The awareness, understanding and adherence of the public to preventive measures recommended by health authorities are the key to the pandemic control.Evidence shows that public knowledge is important in tackling pandemics. [5] By assessing public awareness and knowledge about the coronavirus, deeper insights into existing public perception and practices can be gained, thereby helping to identify attributes that influence the public in adopting healthy practices and responsive behavior. [6] The present study was conducted to assess Knowledge and attitude of interns in the prevention and control of COVID-19.

Materials & Methods

The present study comprised of 50 interns of both genders. The consent was obtained from all enrolled patients.

Data such as name, age, gender etc. was recorded. A questionnaire assessed knowledge comprising of each item contained 3 options, namely, "true", "false" and "don't know"; 1 point was given for a correct answer, and 0 points were awarded for an incorrect answer or a "don't know" response. The total score of this section ranged from 0 to 13, and higher scores were correlated with more knowledge. The attitude section included items, and a Likert scale was used to assess the level of agreement with the statements; response options ranged from 1 (strongly disagree) to 5 (strongly agree). Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

Results

Table I Distribution of subjects

| Total- 50		
Gender	**Males**	**Females**
Number	22	28

Table I shows that out of 50 subjects, males were 22 and females were 28.

Table II Assessment of knowledge

Questionnaires	Accuracy (%)
What causes COVID- 19?	94%
Incubation period of COVID- 19?	95%
Overall mortality of COVID- 19?	84%
What are laboratory test available?	98%
Family gatherings may spread infection	89%
Washing hands frequently, wearing masks and other measures can effectively prevent infection	99%
Most have good prognosis	82%
Suspected and confirmed patients should be isolated and treated in designated hospitals	94%

Table II graph I shows thatwhat causes COVID- 19 replied correct by 94%, incubation period of COVID- 19 by 95%, overall mortality of COVID- 19 by 84%, what are laboratory test available by 98%, family gatherings may spread infection by 89%, washing hands frequently, wearing masks and other measures can effectively prevent infection by 99%, most have good prognosis by 82% and suspected and confirmed patients should be isolated and treated in designated hospitals by 94%.
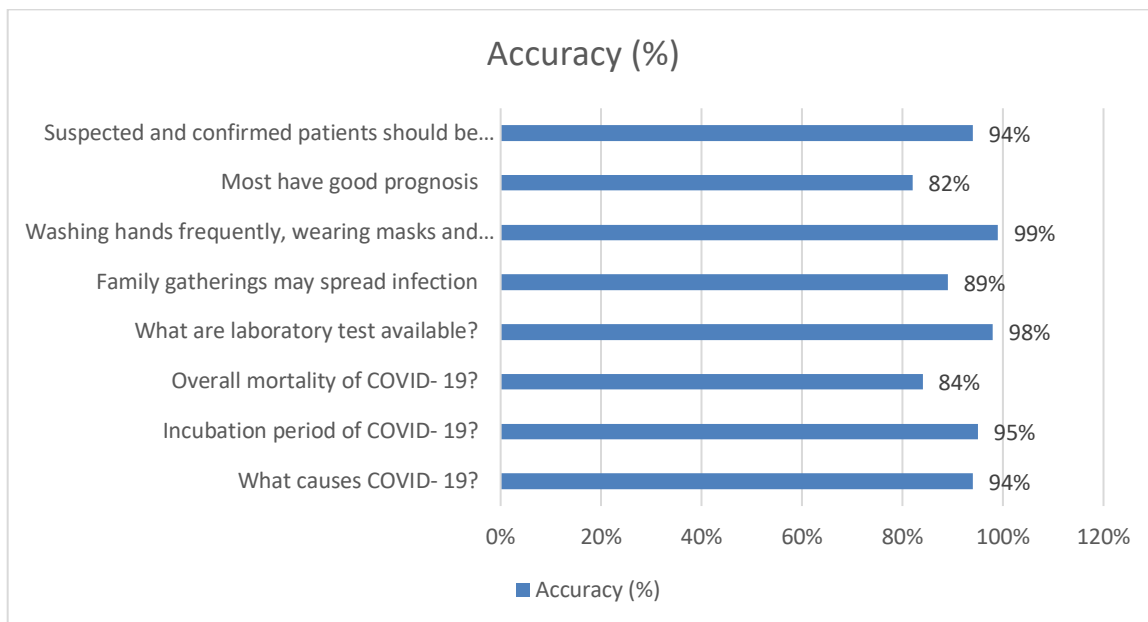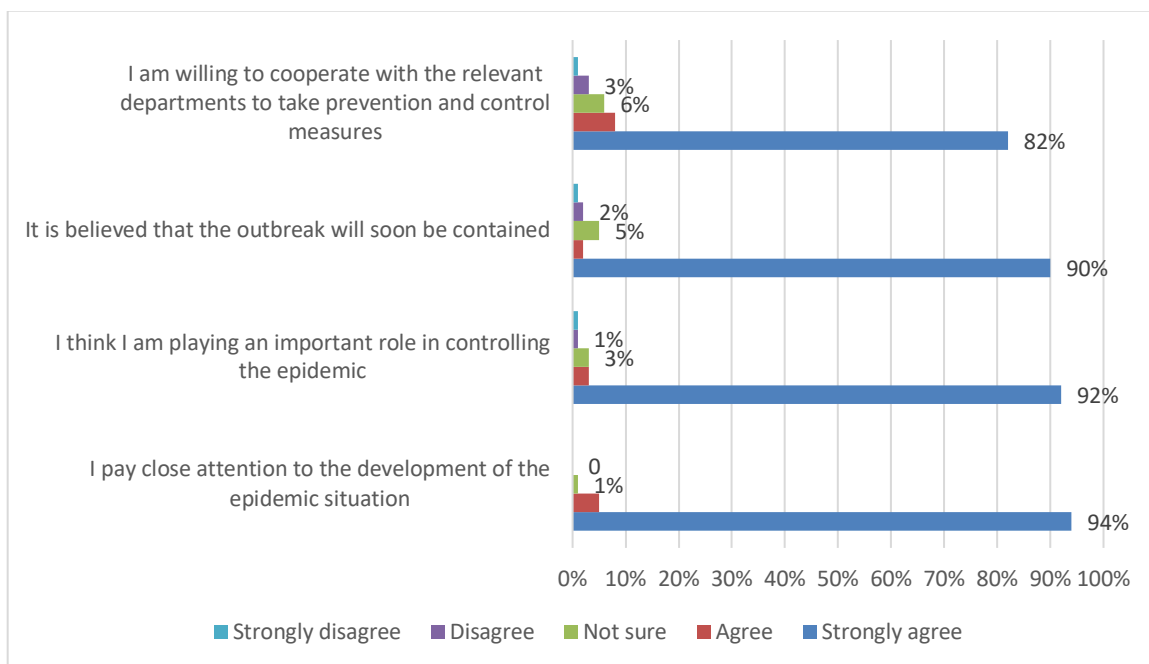

Graph I: Assessment of knowledge

Table III Assessment of attitude

Attitude	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	P value
I pay close attention to the development of the epidemic situation	94%	5%	1%	0	0	0.04
I think I am playing an important role in controlling the epidemic	92%	3%	3%	1%	1%	0.01
It is believed that the outbreak will soon be contained	90%	2%	5%	2%	1%	0.05
I am willing to cooperate with the relevant departments to take prevention and control measures	82%	8%	6%	3%	1%	0.02

Table II, graph II shows that attitude was strongly agree, agree, not sure, disagree and strongly disagree in response to I pay close attention to the development of the epidemic situation in 94%, 5%, 1% respectively, I think I am playing an important role in controlling the epidemic in 92%, 3%,   3%, 1% and 1%

respectively. It is believed that the outbreak will soon be contained in 90%, 2%, 5%, 2% and 1% and I am willing to cooperate with the relevant departments to take prevention and control measures in 82%, 8%, 6%, 3% and 1% respectively.

Graph II Assessment of attitude

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Discussion

The population is generally susceptible to COVID-19, it is extremely challenging to prevent and control the spread of this infectious disease. [7,8] Applying preventive measures, such as avoiding contact with people with confirmed or suspected infection, practising good hand hygiene, observing respiratory etiquette, and cleaning and disinfecting surfaces, is of utmost importance to reduce the spread of the disease. [9] The existing literature has indicated that knowledge, attitude and risk perception with respect to infectious diseases are significantly correlated with protective behaviour and the behaviours of the public and people in potential risk groups can play a major role in both the prevention and control of infectious diseases. [10] The present study was conducted to assess Knowledge and attitude of interns in the prevention and control of COVID-19. [11]

We found that out of 50 subjects, males were 22 and females were 28. what causes COVID-19 replied correct by 94%, incubation period of COVID- 19 by 95%, overall mortality of COVID- 19 by 84%, what are laboratory test available by 98%, family gatherings may spread infection by 89%, washing hands frequently, wearing masks and other measures can effectively prevent infection by 99%, most have good prognosis by 82% and suspected and confirmed patients should be isolated and treated in designated hospitals by 94%. Yang et al [12] a total of 919 valid questionnaires were collected. The scoring rates of residents' KAP were 85.2%, 92.9% and 84.4% respectively. Main factors influencing residents' knowledge included gender and occupation; while those influencing attitude were occupation, family economic level and knowledge; and those influencing practice included place of residence, occupation, with or without chronic disease, knowledge and attitude. Mass media was the primary approach for people to learn the knowledge and information of COVID-19. Difficulties or challenges faced were mainly lack of protective equipments, concerns about the risk of prevention and control, impact on daily life, work and study, lack of knowledge and consensus, psychological problems and information problems.

We found that attitudewas strongly agree, agree, not sure, disagree and strongly disagree in response to I pay close attention to the development of the epidemic situation in 94%, 5%, 1% respectively, I think I am playing an important role in controlling the epidemic in 92%, 3%,3%, 1% and 1% respectively. It is believed that the outbreak will soon be contained in 90%, 2%, 5%, 2% and 1% and I am willing to cooperate with the relevant departments to take prevention and control measures in 82%, 8%, 6%, 3%and 1% respectively.Yesse et al [13] in their study a total of 379 health professionals were selected using multistage stratified sampling technique. Self-administered questionnaire was used to collect data. Binary logistic regression model was used to see association between outcome and independent variables. This study found 74.9%, 84.2% and 68.9% prevalence of adequate knowledge, positive attitude and good practice respectively. Working in comprehensive specialized hospital (AOR = 4.46, 95% CI = 1.46–13.62)having MSC degree (AOR = 10.26, 95% CI = 2.27–46.44), and training on COVID-19 (AOR = 6.59, 95% CI = 2.97–14.65) were strongly associated with knowledge of health care workers. On the other hand, older age (AOR = 3.35, 95% CI = 1.07–10.50), training on COVID-19 (AOR = 3.73, 95% CI = 1.82–7.63), Work experience (AOR = 3.78, 95% CI = 1.46–9.80) and Knowledge (AOR = 5.45, 95% CI = 2.60–11.43) were significantly associated with attitude, whereas source of information from friends or colleagues (AOR = 3.13, 95% CI = 1.28–7.66), working in primary hospital (AOR = 0.36, 95% CI = 0.21–0.620) and having good knowledge (AOR = 1.80, 95% CI = 1.03–3.14) were strongly associated with good practice of health care workers. [14]

Conclusion

Authors found that interns had sufficient knowledge and attitude in the prevention and control of COVID-19.

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