Knowledge, Preventive Behaviour And Risk Perception About COVID-19 In Health Care Professional Students

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Abstract: Background: With 3.95 lakhs of active COVID-19 cases in India and Tamilnadu being the second largest hub of COVID-19, the health and social impact on the public, especially the health care warriors would be considerable. Objective: To evaluate and compare the levels of knowledge, preventive behavior and risk perception of South Indian Health Care Professional(HCP) Students regarding COVID-19.Material And Methods: An institution based cross sectional questionnaire survey was conducted in a tertiary care centre and teaching hospital in May-June 2020 amongst 873 students pursuing various HCP courses. The questionnaire comprised four sections - demographic details, COVID–19 related knowledge, preventive behavior and risk perception. Result: Females volunteered to complete the survey (n= 623; 71.4%) more than males (n= 250; 28.6%). Most participants had received awareness about COVID-19 (n=860; 98.5%) from many resources of information. While females (97.50 ± 8.94) had significantly higher scores on items for preventive behavior than males (94.7±15.55; p=0.006), the scores were similar for knowledge and risk perception. There was a statistically significant difference in risk perception among various courses with students pursuing Pharmacy having higher risk perception. Items regarding use of masks in general and hospital set ups and availability of antivirals for COVID-19 received many incorrect responses.Conclusion: HCP students presented with high levels of COVID-19 related knowledge and preventive behavior, but moderate risk perception. Continuing educational programs and preventive behavioral training are the need of the hour to strengthen the knowledge and alleviate anxiety of HCP students towards the pandemic. [KM Pratibha Natl J Integr Res Med, 2021; 12(3):41-48]

Key Words: 2019–nCoV, COVID-19, novel Coronavirus, Health Care Professionals, medical students, paramedical students, knowledge, preventive behavior, risk perception

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Introduction: In December 2019, a cluster of patients diagnosed with pneumonia of unknown origin was linked to a seafood market in Wuhan, China[1]. What followed would be etched in history as one of the major pandemics that the human race battled in all walks of life. The novel Coronavirus (2019 nCoV) has spread globally with alarmingly high death tolls that have alerted a public health emergency[2]. Human to human transmission through droplets and fomites, presence of asymptomatic carriers and cases with mild clinical presentation and lack of adequate infrastructure to provide isolation for all infected individuals and their close contacts, particularly in resource-limited countries have aggravated the spread and mortality[3]. The plethora of co morbid conditions, absence of vaccines and lack of specific antiviral agents have also added to the risk[4]. With 8.75 million cases globally (of which 3.95 lakhs of cases are in India) and Tamilnadu being the second largest hub of COVID-19, the health and social impact on the public, especially the health care warriors would be considerable. [5] (Fig.1& 2)

Figure 1: COVID-19 India Updates From Http://Covidindiaupdates.In/ [6]

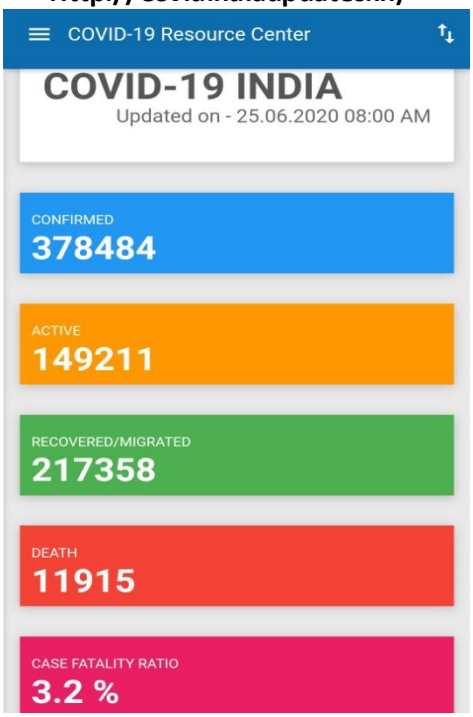
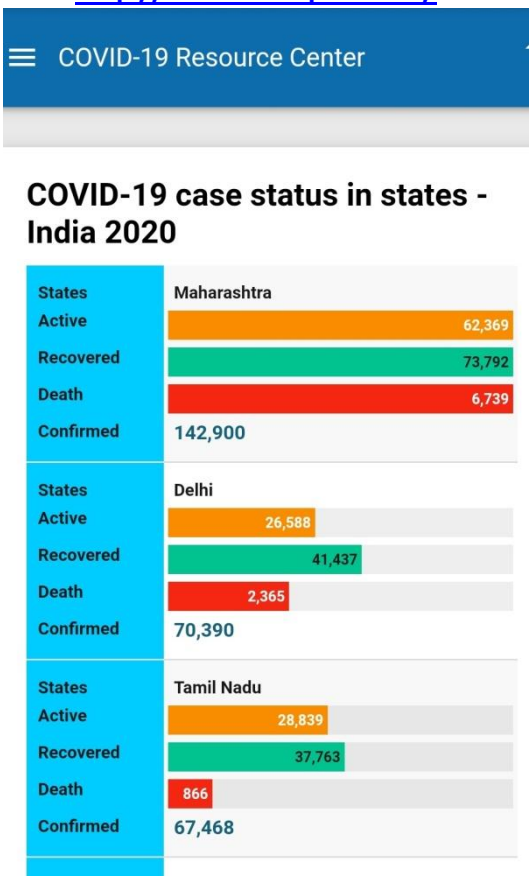


Figure 2: COVID-19 India Updates On Case Status In Top Three States From Http://Covidindiaupdates.In/ [6]



Several studies from the past during SARS and MERS epidemics reported the role of health care workers and medical students in the trying times[7]. The spread of COVID-19 virus entrusted all medical professionals, both on a personal and professional scale to demonstrate their knowledge and commitment to the society to curb the spread and promote the wellbeing of the community. A report by the end of April 2020 revealed hundreds of health care workers testing positive for COVID-19 and the numbers have only exponentially increased since then[8].

A survey was conducted during the Severe Acute Respiratory Syndrome (SARS) epidemic in 2006 in teaching hospitals of two universities in Hongkong[9]. The anxiety level caused by SARS in medical students at the teaching hospital was higher than in non- medical students in the same university and lowest in students of the other university situated 20 km away from the affected hospital[7]. Existing literature on the knowledge or behavior of HCP students was scanty pointing towards the need for understanding the current scenario. A study on Iranian medical students reported adequate knowledge but moderate self protective behavior and poor risk perception[10]. In India, a questionnaire-based survey on the awareness, knowledge, and infection control practices related to COVID-19 was conducted in the health care workers of Mumbai Metropolitan Region which pointed towards the dire need for regular educational interventions and training programs on infection in the healthcare setting[11].

With progressively increasing number of cases and deaths coupled with the widespread presence of Health Care Professional (HCP) students of the teaching hospital of our University in large numbers across the nation, the objective of the present study was to evaluate the levels of awareness, attitude and risk perception towards the pandemic.

Material & Methods: An institution based cross sectional study was conducted among the students (n=873) pursuing undergraduate Health Care Professional courses (MBBS along with Interns (CRRI), BDS, BOT (Occupational therapy), BPT (Physiotherapy), Allied Health Sciences, Nursing, Pharmacy, M.Sc. Health sciences) in a tertiary health care cum teaching hospital of Saveetha Institute of Medical and Technical Sciences, Chennai. Participation in the survey was entirely voluntary. The study proposal was taken up to the IRB for approval through emails and permission was obtained.

The present study was a web based questionnaire survey conducted during 31st May to 7th June, 2020. The required sample size was calculated to be 666. However, on sharing the survey link through various online portals to the constituent colleges, the authors received 935 responses. During data analysis, 62 responses (incorrect and duplicate entries) were deleted, leaving the sample size to be 873 (adequate and more than the required number).

The survey was conducted using a structured and validated online questionnaire in English language used in a health care setting in Iran[10].

The questionnaire comprised four sections - demographic details, assessment of COVID-19 related knowledge, self – reported preventive behaviors and risk perceptions among the HCP students. For demographic details, the study participants were asked to provide information on their age, gender, level of education, COVID-19 related education and the source from where they obtained COVID related awareness. With

regard to COVID-19 related knowledge, there were fifteen items in the questionnaire investigating the basic science and etiology of COVID-19, symptoms and incubation period, transmission, diagnosis, treatment, referral, prevention measures for the public and medical professionals, in particular. About nine items in the questionnaire investigated the self – reported preventive behaviors like use of public places in daily life, hand washing, surface disinfection and social distancing. Each item in the knowledge and behavior section was given a value of one if correct and zero if incorrect, amounting to a total score of 15 for knowledge and 9 for behavior. The total score was converted into a percentile for knowledge and behavior related sections. The scores more than or equal to 75 percent were designated as high performance and below 75 percent as low performance.

The questionnaire had two items to assess risk perception among participants. Responses were provided using a 4-point Likert-type scale, from 1 = not at all to 4 = absolutely yes and the total score ranged from 2 to 8. Scores between 2 to 3 were designated as low and 6 to 8 were designated as high-risk perception.

Data analysis was done using the SPSS version 23. None of the major outcomes followed a normal distribution and were analyzed using nonparametric tests. The frequencies and percentages were computed for categorical variables and the means and standard deviations were tabulated.

Results: The mean age of the study participants (n = 873) was 19.42 **±** 1.48 years. A larger number of females volunteered to complete the survey (n= 623; 71.4%) when compared to males (n= 250; 28.6%). Table 1 shows the gender distribution and course of study, the percentage of participants who had COVID-19 related education and the source of information among the study participants. HCP students from the college of Allied Health Sciences (33.1%) volunteered the maximum to complete the survey, followed by students of Medicine (23.8%) and Physiotherapy (16.7%).

Most of the participants received awareness on COVID-19 pandemic (n=860; 98.5%) from more than one source of education with newspaper and social media (37.7%) being the single most used resource. (Table 1)

Table 1: Demographic Profile And COVID 19 Related Knowledge And Source Of The Study Participants.

Characteristics	Frequency (n=873)	Percent (%)
Gender		
Male	250	28.6
Female	623	71.4
Course Of Study		
MBBS	208	23.8
BDS	20	2.3
BPT (Physiotherapy)	146	16.7
BOT (Occupational Therapy)	84	9.6
Allied Health Sciences	289	33.1
Pharmacy	24	2.7
Nursing	89	10.2
M.Sc. Health Sciences	13	1.5
Received Awareness/ Education About COVID-19		
Yes	860	98.5
No	13	1.5
If Yes, Source Of Education		
WHO, CDC, Up To Date	36	4.2
National Guidelines	14	1.6
Newspaper/ Social Media	324	37.7
All Of The Above	486	56.5

Table 2 shows the differences observed in knowledge about COVID-19, preventive behavior and risk perception between sexes, courses of study and sources of COVID-19 related awareness tested for significance using Mann-Whitney U and Kruskall-Wallis test. It was observed that males and females had similar scores pertaining to knowledge and risk perception, while females (97.50 **±** 8.94) had significantly higher scores on items for preventive behavior than males (94.7±15.55; p=0.006).

Among the participants who reported that they received awareness/ education about COVID-19, there was a statistically significant difference in scores for preventive behavior and risk perception with regard to source of education resorted to COVID 19 related information. Using the Dunn-Bonferroni Post-hoc test, it was found that the preventive behavior scores were statistically lower for those who received awareness through WHO, CDC, UpTpDate than those who received awareness through all the sources (p=0.011). Also, the risk perception scores were statistically lower for those who received awareness through newspaper and social media than those who received awareness through all the sources (p=0.001)

Table 2: Differences In Knowledge, Preventive Behaviors And Risk Perception By Gender And Source Of Education For COVID-19 Related Information

Variables	Characteristics	N (%)	Knowledge (Possible Range: 0-100)	p-Value	Preventive Behaviors (Possible Range: 0-100)	P-Value	Risk Perception (Possible Range: 2-8)	p-Value
			Mean (SD)		Mean (SD)		Mean (SD)	
Gender	Male	250 (28.6)	79.16 (9.81)	0.177	94.72 (15.55)	0.006**	4 (2)	0.571
	Female	623 (71.4)	79.96 (9.49)		97.50 (8.94)		4 (2)	
Source Of Education / Awareness #	WHO, CDC, UpToDate	36 (4.2)	80.30 (9.35)	0.391	91.11 (23.64)	0.035*	4 (2)	0.015*
	National guidelines	14 (1.6)	77.27 (9.26)		97.14 (7.26)		4 (1)	
	Newspapers/ Social Media	324 (37.7)	79.24 (9.73)		96.30 (11.72)		3 (2)	
	All of the above	486 (56.5)	80.21 (9.37)		97.61 (8.95)		4 (2)	

Includes only those reported they received awareness/ education about COVID-19 (860/873)
Note: Tests used - Mann-Whitney U and Kruskall-Wallis test
*Significant at 0.05 level, ** Significant at 0.01 level. Among the 15 questions pertaining to knowledge on COVID 19, the mean score of all the participants was 79.74 ± 9.58. There was a higher number of wrong responses to questions no 12, 13 and 14. (Table 3) With regard to self protective behavior, the mean score of all the participants was 96.7 ± 11.3. (Table 4).

Table 3: Percentage Of Correct Responses For Items Evaluating Knowledge Regarding COVID-19

S. No	Items	Number (N= 873)	Percentage
1	COVID-19 is a respiratory infection caused by a new species of coronavirus family.	845	96.8
2	The first case of COVID-19 was diagnosed in Wuhan, China.	865	99.1
3	The origin of COVID-19 is not clear but it seems that it has been transmitted to human by sea foods, snakes or bats.	702	80.4
4	Common symptoms of COVID-19 are fever, cough and shortness of breath but nausea and diarrhoea were reported rarely.	852	97.6
5	The incubation period of COVID-19 is up to 14 days with a mean of 5 days.	817	93.6
6	COVID-19 can be diagnosed by PCR test on samples collected from nasopharyngeal and oropharyngeal discharge or from sputum and bronchial washing.	819	93.8
7	COVID-19 is transmitted through respiratory droplets such as cough and sneeze.	860	98.5
8	COVID-19 is transmitted through close contacts with an infected case (especially in family, crowded places and health centres).	867	99.3
9	COVID-19 disease can be prevented through handwashing and personal hygiene.	865	99.1
10	A medical mask is useful to prevent the spread of respiratory droplets during coughing.	856	98.1
11	COVID-19 disease can be prevented through no close contacts such as handshakes or kissing, not attending meetings and frequent hand	852	97.6

	disinfection.		
12	All people in society should wear masks.	58	6.6
13	Only during intubation, suction, bronchoscopy and cardiopulmonary resuscitation, you have to wear N95 mask.	576	66.0
14	COVID-19 disease can be treated by usual antiviral drugs.	460	52.7
15	If symptoms of COVID-19 appear within 14 days from direct contact with a suspected case, the person should inquire at a nearby public health centre.	855	97.9

Table 4: Percentage Of Correct Responses For Items Evaluating Preventive Behaviour Regarding COVID 19

S.No	Items	Number (N= 873)	Percentage
1	I cancelled or postponed meetings with friends, eating-out and sport events	847	97.0
2	I reduced the use of public transportation	861	98.6
3	I went shopping less frequently	857	98.2
4	I reduced the use of closed spaces, such as library, theatres and cinema.	863	98.9
5	I avoided coughing around people as much as possible.	866	99.2
6	I avoided places where a large number of people are gathered.	867	99.3
7	I increased the frequency of cleaning and disinfecting items that can be easily touched with hands (i.e. door handles and surfaces).	837	95.9
8	I washed the hands more often than usual.	855	97.9
9	I discussed COVID-19 prevention with my family and friends.	860	98.5

Risk perception about higher chances of being infected with COVID-19 was higher amongst the paramedical HCP students in comparison to the medical and dental students. As seen in Table 5, using Kruskal Wallis Test, it was found that there was a statistically significant difference in risk perception among HCP students of various courses. Using the Dunn-Bonferroni Post-hoc test, it was found that the risk perception scores of students of Pharmacy were significantly lower than those of other HCP students.

Table 5: Differences In Knowledge, Preventive Behaviors And Risk Perception By Course Of Study Of HCP Students

Course Of Study	N (%)	Knowledge (Possible Range: 0-100)	P-Value	Preventive Behaviors (Possible Range: 0-100)	P-Value	Risk Perception (Possible Range: 2-8)	P-Value
		Mean (SD)		Mean (SD)		Mean (SD)	
MBBS	208 (23.8)	80.68 (8.63)	0.556	97.31 (10.24)	0.766	4 (2)	0.000**
BDS	20 (2.3)	83.18 (6.10)		96.00 (10.46)		4 (2)	
BPT (Physio therapy)	146 (16.7)	80.01 (9.76)		96.71 (9.97)		3 (2)	
BOT (Occupational therapy)	84 (9.6)	79.55 (10.45)		98.10 (6.67)		4 (2)	
Allied Health Sciences	289 (33.1)	79.36 (9.98)		95.78 (13.85)		4 (2)	
Pharmacy	24 (2.7)	77.65 (10.38)		98.33 (8.16)		3 (1)	
Nursing	89 (10.2)	78.24 (9.36)		96.63 (10.97)		4 (2)	

M.Sc. Health Sciences	13 (1.5)	79.72 (10.60)		96.92 (11.09)		4 (2)	

Statistical Test Used - Kruskall-Wallis Test; ** Significant At 0.01 Level

Discussion: Emerging and reemerging pathogens are challenges for global public health[12].Novel coronavirus like infections have always been likely to emerge periodically in humans across the globe. ([13]) The magnitude of the current COVID-19 pandemic highlights the importance of effective public health strategies to be practiced, both by the public and health care professional workers[14].

It is imperative to ensure the awareness of health care workers and HCP students not only to provide efficient patient care but also to ensure the safety of self, families and the community[15]. Therefore, the present study was conducted as an attempt to understand the awareness levels, knowledge, behavior and risk perception of the existing pandemic scenario of HCP students.
The present study showed similar scores in knowledge and risk perception related segments between males and females and significantly higher scores for preventive behavior amongst the females. Also, it was observed that female students volunteered more than males to respond to the survey. Similar results were observed in a study on Iranian medical students, where they reported higher scores risk perception and correlated it to a higher awareness of the importance of the pandemic amongst females[10].

Amongst all the HCP courses, students of Allied health sciences courses responded to the survey in large numbers, followed by Medicine and Physiotherapy. The active participation of the Allied Health Sciences students could be attributed to their larger numbers in the University and their earlier involvement in patient care during the course of study.

It was encouraging to note that almost all the participants resorted to some resource for awareness. All sources of information like WHO, CDC, Up To Date, National guidelines, newspaper and social Media were used by all study participants for COVID 19 related knowledge.

However, it was observed that newspapers were the most used resource of information independently, thereby indicating that the HCP students must be encouraged to seek information from more evidence based and reliable resources.The present study showed similar scores in knowledge and preventive behavior related segments between the students of all courses. The knowledge scores of the present study were similar to the study on Iranian medical students but higher than a few MERS related studies conducted during earlier epidemics[7,16]. In a survey conducted amongst the healthcare workers of South Korea, poor level of knowledge of the modes of transmission of MERS coronavirus was observed[16].

Item number 12, 13 and 14 had a lower percentage of correct responses which could be attributed to both deficiency of knowledge and the true / false type nature of the question, where the respondents could have carelessly ticked the first option. It was shocking to note that many had answered “No” to the question “if all people in society should wear masks”.
Further, people were unsure about use of N95 masks (Item no.13) in the clinical setting during certain procedures. In a study conducted by Pranav D Modi et al, the nursing students exhibited the maximum score on use of masks, respirators and related devices. The medical students also scored higher than the students of the present study[11]. Adequate training on use of masks in general in the community, in special scenarios at the hospital set up must be provided in the form of video lectures and reading materials to all students.

Most of the HCP students were of the false belief that COVID-19 disease could be treated by the usual antiviral drugs (Item no.14). Awareness regarding the various antivirals under trial, vaccine trials, scope of anti malarial agents like hydroxychloroquine (HCQ) and dexamethasone must be shared with students of the University.

The average score of preventive behavior was higher than similar studies conducted in Iran and Saudi Arabia[7,10]. The overall risk perception scores were low amongst all students indicating their awareness and lack of undue fear in the given circumstances. But, the risk perception scores of students of Pharmacy were significantly higher than those of other HCP students. While interpreting the results along with a

biostatistician, it was doubted if the statistical significance should be attributed to the large sample size and not the variable as such, because the actual scores varied only negligibly amongst groups. However, it was decided that measures to reduce risk perception, stress and anxiety amongst all students in the form of awareness lectures as webinars and messages through social media platforms would be organized[9,17].

Autoinfection is not only a risk for the health worker but also for their families and communities in which they live[18]. The above mentioned results highlighted the need for more preventive behavioral training among the students to counteract the threats imposed by COVID-19 infection.

Limitations And Recommendations: The response rate to the survey was lower when compared to the existing number of students in the University. However, the current sample size which was more than the calculated one contributed to some statistically significant results which in reality did not translate to actual significant differences. Also, more number of questions in the risk perception segment could have contributed to a better understanding of the dimension per se.

The present study could be a preliminary research. Yet, the results could be used by the University to plan and execute training to HCP students of all courses. The pandemic is likely to cause great anxiety to the students, both at work and at home due to lockdown. Provision of clear guidelines and stress management awareness to all students to handle the anxiety and ambiguity during such outbreaks is essential[9,19].

Conclusion: The novel coronavirus has led to a public health emergency of international concern representing a test of the global capacity and preparedness to detect, prevent and manage the threat and its associated complications. The HCP students of the present study presented with a high level of COVID-19 related knowledge and self protective behavior, but a moderate risk perception.

Continuing educational programs and preventive behavioral training are the need of the hour to strengthen the knowledge and alleviate the anxiety of HCP students towards the pandemic in the interest of self and global public health.

References:

1. Zhu N, Zhang D, Wang W, Li X, Yang B, Song J, et al. A novel coronavirus from patients with pneumonia in China, 2019. N Engl J Med. 2020 Feb 20;382(8):727–33.
2. Habibzadeh P, Stoneman EK. The novel coronavirus: A bird's eye view [Internet]. Vol. 11, International Journal of Occupational and Environmental Medicine. 2020 [cited 2020 Jun 25]. p. 65–71. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7205509/
3. Rothe C, Schunk M, Sothmann P, Bretzel G, Froeschl G, Wallrauch C, et al. Transmission of 2019-NCOV infection from an asymptomatic contact in Germany [Internet]. Vol. 382, New England Journal of Medicine. Massachussetts Medical Society; 2020 [cited 2020 Jun 25]. p. 970–1. Available from: http://www.nejm.org/doi/10.1056/NEJMc2001468
4. Centers for Disease Control and Prevention. How to Protect Yourself & Others | CDC [Internet]. Coronavirus Disease 2019 (COVID-19). 2019 [cited 2020 Jun 25]. p. para. 4. Available from: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html
5. Ministry of Health and Family Welfare. COVID-19 India [Internet]. Government of India. 2020 [cited 2020 Jun 25]. Available from: http://covidindiaupdates.in/
6. http://covidindiaupdates.in/
7. Elamin F, Nour MO, Babilghith AO, Natto HA, Al-Amin FO, Alawneh SM. Knowledge, attitude and practices of healthcare providers towards MERS-CoV infection at Makkah hospitals, KSA Self-Esteem and Alienation in Parents Having Children with Intellectual Disability. View project Knowledge, attitude and practices of healthcare [Internet]. researchgate.net. [cited 2020 Jun 25]. Available from: https://www.researchgate.net/publication/309011322
8. Radhakrishnan V, Sen S, Naresh S. Data | How many doctors and nurses have tested positive for coronavirus in India ? The Hindu [Internet]. 2020 [cited 2020 Jun 25];4. Available from: https://www.thehindu.com/data/how-many-doctors-and-nurses-have-tested-positive-for-coronavirus-in-india/article31410464.ece
9. Wong TW, Gao Y, Tam WWS. Anxiety among university students during the SARS epidemic in Hong Kong. Stress Heal. 2007 Feb;23(1):31–5.
10. Taghrir MH, Borazjani R, Shiraly R. COVID-19 and iranian medical students; A survey on their related-knowledge, preventive behaviors

and risk perception. Arch Iran Med [Internet]. 2020 [cited 2020 Jun 25];23(4):249–54. Available from: http://www.aimjournal.ir

11. Modi PD, Nair G, Uppe A, Modi J, Tuppekar B, Gharpure AS, et al. COVID-19 Awareness Among Healthcare Students and Professionals in Mumbai Metropolitan Region: A Questionnaire-Based Survey. Cureus [Internet]. 2020 Apr 2 [cited 2020 Jun 25];12(4). Available from: /pmc/articles/PMC7198075/?report=abstract
12. Gao GF. From "A"IV to "Z"IKV: Attacks from Emerging and Re-emerging Pathogens. Vol. 172, Cell. Cell Press; 2018. p. 1157–9.
13. Cui J, Li F, Shi ZL. Origin and evolution of pathogenic coronaviruses [Internet]. Vol. 17, Nature Reviews Microbiology. Nature Publishing Group; 2019 [cited 2020 Jun 25]. p. 181–92. Available from: https://www.nature.com/articles/s41579-018-0118-9
14. Yin Y, Wunderink RG. MERS, SARS and other coronaviruses as causes of pneumonia. Vol. 23, Respirology. Blackwell Publishing; 2018. p. 130–7.
15. Chang D, Xu H, Rebaza A, Sharma L, Dela Cruz CS. Protecting health-care workers from subclinical coronavirus infection [Internet]. Vol. 8, The Lancet Respiratory Medicine. 2020 [cited 2020 Jun 25]. p. e13. Available from: https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30066-7/fulltext?fbclid=IwAR2hX1uh99BhBwTXg98I5QEc830fw9zxVb4hZuhvCsK6tGWt5ppRzzFMvME
16. Alsahafi AJ, Cheng AC. Knowledge, attitudes and behaviours of healthcare workers in the kingdom of Saudi Arabia to MERS coronavirus and other emerging infectious diseases. Int J Environ Res Public Health [Internet]. 2016 [cited 2020 Jun 25];13(12). Available from: www.mdpi.com/journal/ijerph
17. Poon E, Liu KS, Cheong DL, Lee CK, Yam LYC, Tang WN. Impact of severe acute respiratory syndrome on anxiety levels of frontline health care workers. Hong Kong Med J [Internet]. 2004 [cited 2020 Jun 25];10(5):325–30. Available from: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.459.3316&rep=rep1&type=pdf
18. McCloskey B, Heymann DL. SARS to novel coronavirus - Old lessons and new lessons. Epidemiol Infect. 2020;1–4.
19. Shapiro SL, Shapiro DE, Schwartz GER. Stress management in medical education: A review of the literature. Acad Med [Internet]. 2000 [cited 2020 Jun 25];75(7):748–59. Available from:https://journals.lww.com/academicmedicine/fulltext/2000/07000/stress_management_in_medical_education__a_review.23.aspx

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