

Knowledge, Practices, and Attitudes for Nurses toward Covid 19 in Saudi Arabian and Egypt

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Abstract

Corona virus disease 2019 (COVID-19) is an infectious disease triggered by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first case was recognized in Wuhan, China, in December 2019. **Aim** of the study to know the level of awareness about covid pandemic in Saudi Arabian and Egypt. **Design**: the study followed a descriptive design. **Setting**: the study was carried out in Egypt and Saudi Arabia. **Subjects**: convenience sample of two hundred nurses who agreed to participate in the study. **Tool**: four tools were used to collect data, **Tool 1**: sociodemographic data, **Tool 2** knowledge online questionnaire consists of 30 questions, **Tool 3**: assessed participants attitudes toward covid 19 consists of 20 questions, **Tool 4** assessed participant practices. **Method**: a total of 200 nurses were participated in the study. **Results** that the majority of the study nurses of both studied groups were females, majority of studied nurses in both studied group were free from diseases. **Conclusion**: COVID-19 knowledge and practice were enormous among the HCWs, particularly, in Egypt

Key words : Covid 19, Hcw (corona virus disease , health care workers)

I- Introduction

Corona virus disease 2019 (COVID-19) is an infectious disease triggered by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first case was recognized in Wuhan, China, in December 2019. It has since extent worldwide, leading to an ongoing pandemic. In addition to spreading more hastily, it also now seems that there is some suggestion that the different variant that was first identified in London and the south east - may be concomitant with a higher degree of mortality. (Cucinotta, D., Vanelli, M. 2020; WHO, 2020). Symptoms of COVID-19 are capricious, but often embrace fever, cough, fatigue, breathing snags, and loss of smell and taste. Symptoms initiate one to fourteen days after acquaintance to the virus. Most people (81%) develop mild to moderate symptoms (up to mild pneumonia), while 14% develop severe symptoms (dyspnea, hypoxia, or more than 50% lung envelopment on imaging) and 5% of patients agonize serious symptoms (respiratory failure, shock, or multiple organ failure) (Cucinotta, D., Vanelli, M. 2020). At least a third of the people who are diseased with the virus endure asymptomatic and do not advance obvious symptoms at any point in time, but can blowout the disease (Cucinotta, D., Vanelli, M.

2020; WHO, 2020). Some patients continue to experience a diversity of effects—known as long COVID—for months after recovery and damage to organs has been detected (Cucinotta, D., Vanelli, M. 2020; WHO, 2020). Multi-year studies are proceeding to further investigate the long term effects of the disease (WHO, 2020).

The virus that causes COVID-19 spreads primarily when an infected individual is in close contact with another person (Wang, J., Du, G. 2020); Qiao, J. 2020). Small droplets and aerosols encompassing the virus can spread from an infected person's nose and mouth as they breathe, cough, sneeze, sing, or speak. Other persons are infected if the virus becomes into their mouth, nose or eyes. The virus may also spread via soiled surfaces, although this is not supposed to be the main track of transmission. (FDA, 2018; WHO, 2020). The exact route of transmission is hardly proven irrefutably but infection mainly transpires when people are adjoining each other for long enough. A person who is infected can convey the virus to others up to two days before they themselves display symptoms, as can an individual who does not experience symptoms. Persons endure infectious for up to ten days in moderate cases, and two weeks in severe cases. Various testing methods have been established to diagnose the disease. The standard diagnosis

method is by real-time reverse transcription polymerase chain reaction (rRT-PCR) from a nasopharyngeal swab.

Preventive measures include physical or social distancing, quarantining, and ventilation of indoor places, shell coughs and sneezes, hand washing, and keeping squalid hands away from the face. The use of face masks or coverings has been recommended in public settings to lessen the risk of transmissions. Several vaccines have been settled and various countries have started mass vaccination battles. Although work is underway to develop drugs that impede the virus, the primary management is currently symptomatic. Management comprises the treatment of symptoms, compassionate care, and isolation. Nurses have critical roles and responsibilities throughout the COVID-19 pandemic. They will linger to be at the front line of patient care in hospitals and actively involved with appraisal and monitoring in the community. Nurses have to confirm that all patients acquire tailored, high-quality services regardless of their infectious condition. They will also engross in planning for expected COVID-19-related outbreaks, which increase the mandate for nursing and healthcare services that might overload systems (Adams, J., Walls, R. (2020). Furthermore, nurses must maintain effective supply and usage of sanitation materials and personal protective equipment and propose screening information, imprisonment guidelines, and triage protocols based on the latest regulation. Global pandemic requirement a strong nursing staff involvements in clinical management, mindfulness and knowledge exchange, and public safety (Jackson 2020; Adams, J., Walls, R. (2020).

Nurses are energetically involved in COVID-19managments, and they will be key performers in ending the pandemic with adequate support. Thus, they must be provided with a healthy work environment to invest their efforts to control and manage the outbreak.. First and foremost, is occupational safety because nurses' work during COVID-19, facing danger on a daily basis. In this respect, it is vital that hospitals have proper infection control procedures and personal protective equipment (masks, gloves, goggles, gowns, hand antiseptics, soap and water, and cleaning

supplies) in plenty amounts for personnel who care for suspicious or confirmed COVID-19 patients. Nursing supervisors should offer information on workplace security, in addition to teaching and direction regarding infection prevention and control and how to appropriately done and discard personal protective equipment. Also, nursing staff should also be guided on how to carry out consistent self-monitoring, and directed on how to follow quarantine or isolation measures, when indicated, to safeguard them, their families, and their community (WHO,2020). Inherent in the previous statement is that there is a growing need to investigate the nurses awareness of the magnitude of knowledge ,practice toward covid 19 pandemic.

The Aim of the study:

was determine the level of awareness about covid pandemic in Saudi Arabian and Egypt nurses.

Research question ? what is nurses knowledge ,practices and attitudes toaward covid 19 in saudi Arabian or Egyptian nurses ?

II - Material and Method

Design : The study followed a descriptive design

Setting : The study was carried out in Alexandria university faculty of nursing and faculty of nursing Riyadh elm university

Subjects: Convenience sample of two hundred nurses who met the study criteria were participated in the study who are undergraduate students both sex,exclusion criteria was those nurses who have any chronic diseases .

Tools: online questionnaire were used which consists of four parts

Part 1: respondents sociodemographic characteristics age ,sex, marital status ,region of residence, nationality and family income.

Part 2: assessed participants knowledge of covid 19 this part includes 30 items,modes of transmissions ,clinical symptoms risk groups ,isolation ,prevention and

control ,sources of information about covid

Part 3: assessed participants attitudes toward covid 19 using a likert scale for each of 22 statements participant were asked to state their level of agreement ,

Part 4: assessed the respondant practices ,this section consists of 20 questions

III.Methods

1-Written approval

- An approval from the Ethical Research Committee and the Dean of the Faculty of Nursing and the Head of the Medical Surgical Nursing Department at Alexandria University after explaining the study's purpose and assuring the privacy, anonymity, and confidentiality of the collected data.
- An official written permission to conduct the study was obtained from the hospital administrative personnel and directors of nursing services department of the chosen setting after explanation of the aim of the study.

2. Development of the study tools

Tools was developed by the researcher after review of recent relevant literature.

3- Content validity

Tools of the study were tested for content validity by jury of five experts in the field of Medical, Surgical nursing and Nursing Education for substance and validity, and any necessary changes were made.

4- Reliability

Reliability of the tools was done using a test retest method. The tools of the study were applied on twenty patients and then it was re applied after one week. The reliability coefficient for the tools was ranged from 0.75 to 1.0

5- Student's consent

Each medical, surgical nurse student signed a written informed consent form after explaining the aim of the study and they give the right to refuse the participation in the study. Privacy and confidentiality were ascertained.

6-Pilot study

A pilot study was carried out by the researcher on five students to test the clarity and the applicability of the tools and to identify the difficulties that may be faced during the application of the tools.

7-Data collection

After securing the administrative approval, data collection was started, and continued for a period of 6 months (from April 2020 to October 2020). A convenience sample of sixty students was assigned for the study.

8-Ethical consideration:

- A written informed consent from students to participate in the study was obtained before data collection and after an explanation of the aim of the study.
- Privacy of the study participants was asserted.
- Confidentiality of the collected data was assured.
- Participant's voluntary participation and their right to withdraw from the study at any time were emphasized.

9. Statistical analysis:

After data were collected and transferred into specially design formats, so as to be suitable for computer feeding. Data were analyzed using computer with statistical package for social sciences (IBM SPSS) version 20 (Dawson B., Trapp G.2012)

1. Descriptive statistics: Count and percentage: used for describing and summarizing data.

2. Analytical statistics: Data were fed to the computer and analyzed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp) Qualitative data were described using number and percent. The Kolmogorov-Smirnov test was used to verify the normality of distribution Quantitative data were described using range (minimum and maximum), mean, standard deviation, median. Significance of the obtained results was judged at the 5% level.

The used tests were:

1 - Chi-square test

For categorical variables, to compare between different groups

2 - Fisher's Exact or Monte Carlo correction

Correction for chi-square when more than 20% of the cells have expected count less than 5

3 - Student t-test

For normally distributed quantitative variables, to compare between two studied groups

4 - Mann Whitney test

For abnormally distributed quantitative variables, to compare between two studied groups two groups

IV: Results

Table (1): Distribution between both studied groups according to socio demographic data. This table reveals that the majority of the study nurses of both studied groups were Female (100.0%, 83.6%), 20-29 years old (83.5, 38.4%) single (91.3%, 97.3%) Bachelor level (100%) and the Residence City Alexandria Riyadh and the Average Monthly income for the family were ranged from 1000 \geq 3000

Table (2): Distribution between both studied groups according to health status. This table illustrate Comparison between the studied groups according to health status it was found that the majority of studied nurses in both studied group were free from diseases (78.6 %, 63.0 %) did not Recently diagnosed with COVID19 or contact with COVID19 positive patients (90.3 %, 93.2%) and the majority of them did not admitted to hospital for that reason (99.0%, 98.6%)

Table (3): Distribution between both studied groups according to score of knowledge. This table shows there is statistical significant differences between Saudi Arabia and Egypt nursing students in relation studied groups according to score of knowledge $t(p) 2.945^*$ ($p_1=0.004^*$)

Table (4): Distribution between both studied groups according to source of

information about COVID19. This table shows the sources of information people depended on for acquiring data about Covid 19 for Saudi People as Compared to Egyptian, this table showed that Saudi people depended mostly on reports published by the Saudi Ministry of health (82.5), while on the other side, Egyptians depended mostly on the internet (82.2%). On the other hand, the least source for Saudi citizens was friends; relatives and neighbors (21.4%), whereas for Egyptian was health care specialists (35.6%).

Moreover, table revealed that the **internet** has been considered as a source of Covid-19 related information by Egyptians (82.2%) more significantly than Saudi people (66%) with a statistical significant difference of $P=0.018$ and $\chi^2=5.633$. Furthermore, its use by medicals (66.1%) as compared to non-medicals (83.6%) showed a statistical significant difference with $P=0.011$; $\chi^2=6.427$.

Additionally, Egyptians 37% displayed a higher rely on **asking friends; relatives; and neighbors** than Saudi citizens 21.4% with a statistically significant difference where $P=0.023$; $\chi^2=5.193$

Table (5): Distribution between both studied groups according to score of attitude. This table shows there is statistical significant differences between Saudi Arabia and Egypt nursing students in relation studied groups according to score of attitude $t(p) 0.135$ ($p_1=0.893$)

Table (6): Distribution between both studied groups according to practice. This table shows there is statistical significant differences between Saudi Arabia and Egypt nursing students in relation to all dimensions of practice as , reuse wearing a face mask $\chi^2=7.563^*$ $p=0.006^*$, practice washing hands with soap and water regularly in the right way $U=2646.50^*$ $p=0.001^*$, putting the face of the colored side of the mask $\chi^2=14.065^*$, $p=0.001^*$, covering the mouth and nose with a tissue when coughing or sneezing $\chi^2=8.045^{*,MC}$ $p=0.014^*$, practicing social distancing outside home $\chi^2=14.690^*$, $p=0.002^*$, practicing social distancing inside home if there is suspect of some symptoms or if a family member is neglecting

$\chi^2=14.690^*$, $p=0.002^*$, purchased either in person or online $\chi^2=14.058$, $p=0.001^*$, dealing with shoes 10.043^* , $p=0.040^*$, dealing with mobile these days 10.602^* , $p=0.014^*$

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distancing outside home $\chi^2=14.690^*$, $p=0.002^*$, practicing social distancing inside home if there is suspect of some symptoms or if a family member is neglecting $\chi^2=14.690^*$, $p=0.002^*$, purchased either in person or online $\chi^2=14.058$, $p=0.001^*$, dealing with shoes 10.043^* , $p=0.040^*$, dealing with mobile these days 10.602^* , $p=0.014^*$

Table (7): Distribution between both studied groups according to score of practice. This table shows there is statistical significant differences between Saudi Arabia and Egypt nursing students in relation to total score of practice $t(p)3.711^*$ ($p_1<0.0$)

Table (1): Distribution between both studied groups according to socio demographic data

Socio demographic data	Nationality				χ^2	p
	Saudi Arabia (n =103)		Egypt (n =73)			
	No	%	No	%		
Sex						
Male	0	0.0	12	16.4	18.170*	FE p <0.001*
Female	103	100.0	61	83.6		
Age						
10-19 Ys	15	14.6	44	60.3	43.080*	MC p <0.001*
20-29 Ys	86	83.5	28	38.4		
30-39 Ys	1	1.0	0	0.0		
40-49 Ys	0	0.0	1	1.4		
More than 60 ys.	1	1.0	0	0.0		
Marital Status						
single	94	91.3	71	97.3	3.822	MC p= 0.098
Married	8	7.8	1	1.4		
Widow	1	1.0	1	1.4		
Educational Level						
Primary Level	0	0.0	0	0.0	1.889	MC p= 0.402
Bachelor level	103	100.0	73	100.0		
Post graduate level	0	0.0	0	0.0		
Residence City						
Alexandria	0	0.0	73	100.0	184.77*	MC p <0.001*
Riyhad	130	100	0	0		
Average Monthly income for the family						
1000≥3000	29	28.2	38	52.1	26.709*	<0.001*
3000≥5000	16	15.5	17	23.3		
5000≥7000	17	16.5	11	15.1		
7000≥ 10000	16	15.5	7	9.6		
10000≥ 15000	17	16.5	0	0.0		
More than 15000	8	7.8	0	0.0		

χ^2 : Chi square test MC: Monte Carlo FE: Fisher Exact

p_1 : p value for comparing between Saudi Arabia and Egypt

p_2 : p value for comparing between Medical and Non-medical

*: Statistically significant at $p \leq 0.05$

Table (2): Distribution between both studied groups according to health status

Health status	Nationality				χ^2	p ₁
	Saudi Arabia (n =103)		Egypt (n =73)			
	No	%	No	%		
hypertension	2	1.9	6	8.2	3.880	FE _p =0.068
Diabetes mellitus	3	2.9	1	1.4	0.458	FE _p =0.643
Respiratory disorders	7	6.8	9	12.3	1.582	0.208
Organ transplantation	0	0.0	1	1.4	1.419	FE _p =0.415
Cardiac diseases	1	1.0	0	0.0	0.713	FE _p =1.000
Chronic diseases	1	1.0	2	2.7	0.798	FE _p =0.571
pregnancy	1	1.0	0	0.0	0.713	FE _p =1.000
anemia	10	9.7	24	32.9	14.712*	<0.001*
AIDS	0	0.0	0	0.0	–	–
cancer	0	0.0	0	0.0	–	–
non	81	78.6	46	63.0	5.193*	0.023*
Recently diagnosed with COVID19						
Yes	10	9.7	5	6.8	0.448	0.503
No	93	90.3	68	93.2		
Do you have contact with COVID19 positive patients						
Yes	36	35.0	35	47.9	2.997	0.083
No	67	65.0	38	52.1		
During last two weeks did you have						
fever	11	10.7	5	6.8	0.758	0.384
cough	9	8.7	20	27.4	10.808*	0.001*
Running nose	12	11.7	17	23.3	4.204*	0.040*
dyspnea	7	6.8	17	23.3	9.866*	0.002*
diarrhea	6	5.8	13	17.8	6.370*	0.012*
Joint pain	16	15.5	24	32.9	7.317*	0.007*
Sore throat	7	6.8	17	23.3	9.866*	0.002*
If yes did you visit doctor?						
Yes	17	16.5	17	23.3	1.261	0.261
No	86	83.5	56	76.7		
Did you admit to hospital for that reason?						
Yes	1	1.0	1	1.4	0.061	FE _p =1.000
No	102	99.0	72	98.6		

χ^2 : Chi square test MC: Monte Carlo FE: Fisher Exact

p₁: p value for comparing between Saudi Arabia and Egypt

p₂: p value for comparing between Medical and Non-medical

*: Statistically significant at $p \leq 0.05$

Table (3): Distribution between both studied groups according to score of knowledge

Knowledge	Nationality	
	Saudi Arabia (n =103)	Egypt (n =73)
Total score		
Min – Max.	56.0 – 93.0	66.0 – 96.0
Mean ± SD.	78.32 ± 5.29	80.84 ± 5.97
Median	79.0	82.0
Mean score		
Min – Max.	0.77 – 1.27	0.90 – 1.32
Mean ± SD.	1.07 ± 0.07	1.11 ± 0.08
Median	1.08	1.12
% score		
Min – Max.	50.91 – 84.55	60.0 – 87.27
Mean ± SD.	71.20 ± 4.81	73.49 ± 5.43
Median	71.82	74.55
t (p)	2.945* (p₁=0.004*)	

t: Student t-test

SD: Standard deviation

p₁: p value for comparing between Saudi Arabia and Egypt

p₂: p value for comparing between Medical and Non-medical

*: Statistically significant at $p \leq 0.05$

Table (4): Distribution between both studied groups according to source of information about COVID19

Sources of Covid 19-related information	Nationality				χ^2	p
	Saudi Arabia (n =103)		Egypt (n =73)			
	No	%	No	%		
Internet	68	66.0	60	82.2	5.633*	0.018*
Social Media	59	57.3	42	57.5	0.001	0.973
Radio/TV	34	33.0	41	56.2	9.366*	0.002*
Ministry of Health	85	82.5	46	63.0	8.545*	0.003*
Health Care Specialists	49	47.6	26	35.6	2.497	0.114
Friends; Relatives or Neighbors	22	21.4	27	37.0	5.193*	0.023*
World Health Organization	60	58.3	34	46.6	2.341	0.126

χ^2 : Chi square test MC: Monte Carlo FE: Fisher Exact

p₁: p value for comparing between Saudi Arabia and Egypt

p₂: p value for comparing between Medical and Non-medical

*: Statistically significant at $p \leq 0.05$

Table (5): Distribution between both studied groups according to score of attitude

Attitude	Nationality	
	Saudi Arabia (n =103)	Egypt (n =73)
Total score		
Min – Max.	49.0 – 78.0	45.0 – 78.0
Mean \pm SD.	64.30 \pm 6.59	64.44 \pm 6.76
Median	64.0	65.0
Mean score		
Min – Max.	2.23 – 3.55	2.05 – 3.55
Mean \pm SD.	2.92 \pm 0.30	2.93 \pm 0.31
Median	2.91	2.95
% score		
Min – Max.	40.91 – 84.85	34.85 – 84.85
Mean \pm SD.	64.09 \pm 9.98	64.30 \pm 10.24
Median	63.64	65.15
t(p)	0.135 (p ₁ =0.893)	

t: Student t-test

SD: Standard deviation

p₁: p value for comparing between Saudi Arabia and Egypt

p₂: p value for comparing between Medical and Non-medical

Table (6): Distribution between both studied groups according to practice

Practice	Nationality				Test of sig.	p
	Saudi Arabia (n =103)		Egypt (n =73)			
	No	%	No	%		
On average, how many times have you been out of your home in the past two weeks?						
every day	17	16.5	11	15.1	$\chi^2=9.013$	0.061
Once every 2 to 3 days	28	27.2	32	43.8		
Once every 4-5 days	9	8.7	10	13.7		
once a week	30	29.1	13	17.8		
fortnightly	19	18.4	7	9.6		
The reasons for leaving the house are mostly as follows: You can choose more than one reason						
for work	37	35.9	39	53.4	$\chi^2=5.334^*$	0.021*
go to the bank	10	9.7	5	6.8	$\chi^2=0.448$	0.503
to perform prayer	3	2.9	2	2.7	$\chi^2=0.005$	^{FE} p=1.000
For sick reasons (going to a doctor's office or hospital)	28	27.2	11	15.1	$\chi^2=3.636$	0.057
To buy daily household necessities from the supermarket, groceries or bread	74	71.8	49	67.1	$\chi^2=0.453$	0.501
To bring ready-made fast food	16	15.5	11	15.1	$\chi^2=0.007$	0.933
Visiting friends and relatives	16	15.5	4	5.5	$\chi^2=4.288^*$	0.038*
To walk, take a walk, and have fun	18	17.5	11	15.1	$\chi^2=0.180$	0.671
These days have you gone or been to any crowded place?						
Yes	24	23.3	21	28.8	$\chi^2=0.671$	0.413
No	79	76.7	52	71.2		
Do you wear a face mask whenever you go out?						
All the time	84	81.6	65	89.0	$\chi^2=3.752$	0.153
sometimes	11	10.7	7	9.6		
I never wear it	8	7.8	1	1.4		
If you wear a face mask, where do you put the face of the						

Practice	Nationality				Test of sig.	p
	Saudi Arabia (n =103)		Egypt (n =73)			
	No	%	No	%		
colored side of the mask?						
inside	13	12.6	5	6.8	$\chi^2 = 14.065^*$	0.001*
outside	65	63.1	64	87.7		
I don't mind which side it is	25	24.3	4	5.5		
Do you reuse your face mask (multiple use)?						
Yes	6	5.8	14	19.2	$\chi^2 = 7.563^*$	0.006*
No	97	94.2	59	80.8		
Do you wash your hands with soap and water regularly in the right way?						
all the time	70	68.0	37	50.7	$\chi^2 = 5.882$	$^{MC}p = 0.089$
frequently	22	21.4	26	35.6		
sometimes	10	9.7	9	12.3		
Scarcely	1	1.0	1	1.4		
On average, how many times do you wash your hands per day?						
Min – Max.	3.0 – 10.0		1.0 – 10.0		U= 2646.50*	0.001*
Mean \pm SD.	6.99 \pm 2.34		5.77 \pm 2.09			
Median	7.0		5.0			

χ^2 : Chi square test MC: Monte Carlo FE: Fisher Exact U: Mann Whitney test

p₁: p value for comparing between Saudi Arabia and Egypt

p₂: p value for comparing between Medical and Non-medical

*: Statistically significant at $p \leq 0.05$

Table (6): Distribution between both studied groups according to practice "continue"

Practice	Nationality				Test of sig.	p
	Saudi Arabia (n =103)		Egypt (n =73)			
	No	%	No	%		
What do you often do to clean your hands?						
Washing with running water only	2	1.9	1	1.4	$\chi^2 = 17.888^*$	$^{MC}p = 0.001^*$
Washing with soap and water for less than 20 seconds	19	18.4	22	30.1		
Washing with soap and water for 20 seconds	39	37.9	39	53.4		
Washing with soap and water for 30 seconds	15	14.6	3	4.1		
Washing with soap and water for 40 seconds	28	27.2	7	9.6		
Alcohol sterilization	0	0.0	1	1.4		
Do you cover your mouth and nose with a tissue when you cough or sneeze?						
all the time	80	77.7	46	63.0	$\chi^2 = 7.745^*$	$^{MC}p = 0.038^*$
frequently	16	15.5	23	31.5		
sometimes	6	5.8	2	2.7		
Scarcely	1	1.0	2	2.7		
If you do, do you immediately dispose of it in the trash?						
Yes	93	90.3	63	86.3	$\chi^2 = 2.584$	$^{MC}p = 0.305$
sometimes	10	9.7	8	11.0		
No	0	0.0	2	2.7		
If a tissue was not available, would you sneeze into your hand?						
all the time	13	12.6	13	17.8	$\chi^2 = 2.596$	0.273
sometimes	38	36.9	19	26.0		
Never	52	50.5	41	56.2		
If a tissue was not available, would you sneeze into the sleeve of your T-shirt?						
all the time	26	25.2	26	35.6	$\chi^2 = 5.010$	0.082
sometimes	44	42.7	34	46.6		
Never	33	32.0	13	17.8		
Do you practice social distancing outside your home?						
all the time	76	73.8	40	54.8	$\chi^2 = 8.045^*$	$^{MC}p = 0.014^*$
sometimes	23	22.3	31	42.5		
Never	4	3.9	2	2.7		
Do you practice social distancing inside your home if you suspect some symptoms or if a family member is neglecting						
* Some thing in following the precautionary measures or permanent contact with the public?	51	49.5	19	26.0	$\chi^2 = 14.690^*$	0.002*
All the time	22	21.4	26	35.6		

Practice	Nationality				Test of sig.	p
	Saudi Arabia (n =103)		Egypt (n =73)			
	No	%	No	%		
frequently	9	8.7	16	21.9		
sometimes	21	20.4	12	16.4		
If you do that, how far is the distance between you and others?						
Min – Max.	0.0 – 5.0		0.0 – 5.0		U= 3565.50	0.536
Mean ± SD.	1.94 ± 1.03		2.05 ± 1.34			
Median	2.0		2.0			

χ^2 : Chi square test MC: Monte Carlo

U: Mann Whitney test

p1: p value for comparing between Saudi Arabia and Egypt

p2: p value for comparing between Medical and Non-medical

*: Statistically significant at $p \leq 0.05$

Table (6): Distribution between both studied groups according to practice "continue"

Practice	Nationality				χ^2	p
	Saudi Arabia (n =103)		Egypt (n =73)			
	No	%	No	%		
What do you usually do with things you have purchased either in person or online?					14.058*	0.001*
Leave the purchases in a separate room for some time before I touch or open them.	12	11.7	3	4.1		
Disinfect purchases before touching or opening them.	90	87.4	60	82.2		
Touch or open purchases immediately.	1	1.0	10	13.7		
I disinfect things before I bring them into the house					5.300	MCp= 0.138
all the time	66	64.1	38	52.1		
sometimes	25	24.3	17	23.3		
Never	2	1.9	3	4.1		
Cleanse it indoors after entering the house	10	9.7	15	20.5		
To disinfect cans and bags I use....choose everything that works...more than one choice is possible, but stick to what you actually use					4.246*	0.039*
water	18	17.5	5	6.8		
soap and water	49	47.6	19	26.0		
water and chlorine	23	22.3	25	34.2		
water and vinegar	5	4.9	14	19.2		
Dettol	36	35.0	19	26.0		
Alcohol	42	40.8	56	76.7		
nothing	2	1.9	2	2.7	0.122	FEp=1.000
To disinfect vegetables and fruits use....choose everything that works...more than one choice is possible, but stick to choosing what you actually use					0.076	FEp=0.764
water	50	48.5	30	41.1		
soap and water	20	19.4	13	17.8		
water and chlorine	6	5.8	5	6.8		
water and vinegar	52	50.5	40	54.8		
Dettol	3	2.9	2	2.7		
Alcohol	7	6.8	2	2.7		
nothing	2	1.9	4	5.5	1.624	FEp=0.234
I wear the watch and the accessories as I used to					0.327	0.849
Yes	41	39.8	32	43.8		
sometimes	45	43.7	29	39.7		
never	17	16.5	12	16.4		
I sanitize my glasses (whether my eyeglasses or the sun) as soon as I get home					2.293	0.514
I do not wear from the original	55	53.4	32	43.8		
Yes	24	23.3	23	31.5		
sometimes	11	10.7	10	13.7		
I wear it but I never clean it when I get home	13	12.6	8	11.0		

χ^2 : Chi square test MC: Monte Carlo FE: Fisher Exact

p1: p value for comparing between Saudi Arabia and Egypt

*: Statistically significant at $p \leq 0.05$

Table (6): Distribution between both studied groups according to practice "continue"

Practice	Nationality				χ^2	p
	Saudi Arabia (n =103)		Egypt (n =73)			
	No	%	No	%		
How can you deal with your shoes?						
Enter it as usual	11	10.7	12	16.4	10.043*	0.040*
purify it sometimes	4	3.9	9	12.3		
Clean it every time before entering it	12	11.7	9	12.3		
Leave it outside	76	73.8	41	56.2		
Disinfect it every time before entering it, leave it outside	0	0.0	2	2.7		
How do you deal with your mobile these days?						
Answer the call by putting it on my ear	26	25.2	34	46.6	10.602*	0.014*
I use wired headphones	25	24.3	18	24.7		
I use wireless earbuds	36	35.0	14	19.2		
I don't answer calls outside the house	16	15.5	7	9.6		
If it comes to your knowledge that the virus can settle in the gaps in the mobile, such as the places of the headphones and the charger, do you agree with the idea of putting the mobile in a transparent bag and throwing the bag upon arriving home						
Strongly agree	52	50.5	21	28.8	15.028*	0.002*
agree	26	25.2	27	37.0		
Disagree	18	17.5	9	12.3		
Strongly disagree	7	6.8	16	21.9		
During the past four weeks, have you felt a change in your work or daily routine activities that led to						
Minimize your daily work and effort						
yes	23	22.3	20	27.4	1.991	0.370
To some extent	43	41.7	34	46.6		
∑	37	35.9	19	26.0		
Change the type of work or routine activities that you are accustomed to						
yes	37	35.9	16	21.9	4.068	0.131
To some extent	40	38.8	36	49.3		
∑	26	25.2	21	28.8		
Exposure psychological or emotional problems such as feeling depressed Or worry about what negatively affected your achievements?						
yes	30	29.1	38	52.1	10.972*	0.004*
To some extent	43	41.7	16	21.9		
No	30	29.1	19	26.0		

χ^2 : Chi square test MC: Monte Carlo

p_1 : p value for comparing between Saudi Arabia and Egypt

*: Statistically significant at $p \leq 0.05$

Table (7): Distribution between both studied groups according to score of practice

Practice	Nationality	
	Saudi Arabia (n =103)	Egypt (n =73)
Total score		
Min – Max.	54.0 – 84.0	40.0 – 81.0
Mean ± SD.	67.84 ± 6.90	64.29 ± 7.29
Median	68.0	65.0
Mean score		
Min – Max.	2.16 – 3.36	1.60 – 3.24
Mean ± SD.	2.71 ± 0.27	2.57 ± 0.29
Median	2.72	2.60
% score		
Min – Max.	49.55 – 75.68	36.04 – 72.97
Mean ± SD.	61.28 ± 5.90	57.69 ± 6.85
Median	61.26	58.56
t(p)	3.711*($p_1 < 0.001$)	

t: Student t-test

SD: Standard deviation

p_1 : p value for comparing between Saudi Arabia and Egypt

*: Statistically significant at $p \leq 0.05$

V. Discussion

This study indicated that, during the COVID-19 pandemic This table reveals that the majority of the study nurses of both studied groups were Female(100.0%, 83.6%), 20-29 years old (83.5, 38.4%) single (91.3%,97.3%) Bachelor level (100%) and the Residence City Alexandria Riyadh and the Average Monthly income for the family were ranged from 1000 \geq 3000

In line with our findings, a cross-sectional study reported a high prevalence of females (50.4%) on the frontlines during the COVID-19 pandemic (Lai et al., 2020). Another study conducted on 134 HCWs from China put the prevalence of single candidates (Dulock,T,Harris RJ .2020)

This study illustrate Comparison between the studied groups according to health status it was found that the majority of studied nurses in both studied group were free from diseases (78.6 %, 63.0 %) did not Recently diagnosed with COVID19 or contact with COVID19 positive patients (90.3 %, 93.2%) and the majority of them did not admitted to hospital for that reason (99.0%,98.6%).this come online with , a study on 470 HCWs in Singapore put the prevalence of depression, anxiety, and stress during the COVID-19 pandemic at 8.1%, 10.8%, and 6.4%, respectively. These relatively could be attributed to improved rigorous infection control measures in Singapore in the wake of the SARS outbreak epidemic (Tan et al., 2020).

However there is statistical significant differences between Saudi Arabia and Egypt nursing students in relation studied groups according to score of knowledge $t(p) 2.945^*$ ($p1=0.004^*$)HCWs in Egypt were significantly worse than those among HCWs in Saudi Arabia. This finding may reflect the robustness of the healthcare system in Saudi Arabia compared with the Egyptian one. During the past decade, the Saudi government adopted a long-term plan to improve the healthcare system which was translated into allocating about 15% of the government budgetary expenditures for health services and social development (Al-Hanawi et al., 2019). This plan resulted in significant signs of progress in

healthcare human and financial resources and striking improvements in key health indicators such as life expectancy and the availability of health resources (Al-Hanawi et al., 2019).

This table shows the sources of information people depended on for acquiring data about Covid 19 for Saudi People as Compared to Egyptian, this table showed that Saudi people depended mostly on reports published by the Saudi Ministry of health (82.5), while on the other side, Egyptians depended mostly on the internet (82.2%). On the other hand, the least source for Saudi citizens was friends; relatives and neighbors (21.4%), whereas for Egyptian was health care specialists (35.6%).

Moreover, table revealed that the internet has been considered as a source of Covid-19 related information by Egyptians (82.2%) more significantly than Saudi people (66%) with a statistical significant difference of $P=0.018$ and $2=5.633$. Furthermore, its use by medicals (66.1%) as compared to non-medicals (83.6%) showed a statistical significant difference with $P= 0.011$; $2= 6.427$.

Additionally, Egyptians 37% displayed a higher rely on asking friends; relatives; and neighbors than Saudi citizens 21.4% with a statistically significant difference where $P=0.023$; $2= 5.193$.

In agreement, the Pappa et al. (2020) meta-analysis showed that HCWs were more likely to have greater information regarding the COVID-19 pandemic compared with other group HCWs.

shows there is statistical significant differences between Saudi Arabia and Egypt nursing students in relation to total score of practice $t(p)3.711^*$ ($p1<0.001^*$). Dong and Zheng (2020) described "headline stress disorder" among the general public due to COVID-19 news. Therefore, HCWs should be advised to cautiously select their sources of health information during public health crises. The WHO and governments should exert more efforts to provide reliable sources of information and force the social network platforms, newspapers, and television channels to take down misinformation of the COVID-19. However, it is worth pointing out that the

cross-sectional design of this study cannot imply a temporal association between watching/reading COVID-19 news and psychological disturbances. It could be suggested that depressed, anxious, and stressed HCWs have resorted to COVID-19 news to look for hopeful news of COVID-19 medications and vaccines to alleviate their psychological distress. One study, for instance, showed that COVID-19 knowledge could lead to excessive internet use from trusted sources (Elhai et al., 2020).

In conclusion, the COVID-19 knowledge and practice were enormous among the HCWs, particularly, in Egypt. Intervention programs targeting HCWs should prioritize young nurses. Providing updated knowledge and practice and counseling for HCWs should be encouraged.

VI . Conclusion

The medical students of CMH LMC showed a satisfactory level of awareness and attitudes towards COVID-19 with an obvious difference with regard to disciplines. More educational efforts with periodic educational interventions are still needed about the current pandemic.

VII. Recommendation

Continuing nursing supervision .education and evaluation is advocated to identify area of lack of knowledge or mal practice toward covid 19.

For further research

Effects of implementing a protocol of care on nurses knowledge , practices and attitude toward covid 19 .

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