

## Effect of Educational Guidelines on Nursing Students' Knowledge and Practice regarding Limitation the Spread of COVID- 19

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### Abstract

**Background:** Coronavirus 2019 is one of the major pathogens that was and still one of the most serious global health threats. **Aim of study:** Was to evaluate the effect of educational guidelines on nursing Students' knowledge and practice regarding limitation the spread of COVID-19. **Research design:** Quasi-experimental design was utilized to conduct the study. **Setting:** The study was conducted at Faculty of Nursing, Benha University. **Subject:** A stratified random sample of 241 undergraduate students from Faculty of Nursing, Benha University. **Data collection tools:** A Structured Assessment Questionnaire was used, composed of three parts; (1) Students' personal data and medical history (2) Students' Knowledge Assessment about COVID-19. (3) Students' Practices Assessment. **Results:** 92.5% of the nursing students had satisfactory level of knowledge post the educational guidelines compared to 12.8% pre the intervention and there were significant improvement in mean scores of their practices of preventive measures to limit the spread of COVID-19. There was statistical significant positive correlation between their total level of knowledge and practices score regarding COVID-19. **Conclusion:** The educational guidelines effectively improved nursing students' knowledge and practices regarding limitation the spread of COVID-19. **Recommendations:** Further educational programs are needed for nursing students regarding limitation the spread of COVID-19 on large sample selected from all nursing faculties in Egypt.

**Key word:** COVID-19, Educational guidelines, Knowledge & practice, Nursing students.

### Introduction

In December 2019, a rapidly infectious disease emerged in Wuhan city in China, it was caused by novel strain of the coronavirus family, Severe Acute Respiratory Syndrome Corona Virus- 2 (SARS-CoV-2), that cause coronavirus disease 2019 (COVID-19) (Novel, 2020). It can be symbolized as a major group of virus that is responsible for multiple respiratory diseases with varying severity, including the common cold, congestion, pneumonia and bronchiolitis (Goel & Dayal, 2021).

Based on the epidemiological investigations, the COVID-19 incubation period ranges between one to fourteen days and it was found that the virus is possible to infect patients without symptoms (Jin et al., 2020). People at higher risk for severe disease and mortality include elderly people (70 years old and over), regardless of whether they have a medical problem or not, and people with comorbidity of chronic illnesses, people with weakened immune system, those who are seriously overweight (a body mass index of 40 or above), and the pregnant women (Barua, 2020).

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Coronavirus disease 2019 virus is transmitted between people through respiratory droplets and contact routes. Droplet transmission occurs when a person is in in close contact (within 1 m) with someone who has respiratory symptoms (e.g. coughing or sneezing,). Droplet transmission may also occur through fomites in the immediate environment around the infected person. Therefore, transmission of the COVID-19 virus can occur by direct contact with infected people and indirect contact with surfaces in the immediate environment or with objects used on the infected person (**List& Content, 2020**).

The symptoms of COVID 19 can vary from person to person. They may also vary in different age groups. These symptoms include fever, fatigue, dry cough, loss of appetite, body aches, shortness of breath, and mucus secretion. In China, nearly a fifth of the patients with COVID19 evolve to severe stages, in which the symptoms are distinguished by acute respiratory distress syndrome, septic shock, difficult to tackle metabolic acidosis, bleeding and coagulation dysfunction (**Chen et al., 2020**).

Public health and preventive approaches are the current strategies to curb the transmission of COVID-19 that include hand hygiene, personal protective equipment (PPE), crowd avoidance, social distancing, isolation, school measures/closures, workplace measures/ closures, quarantine, and travel restrictions (**Rahman et al., 2021**).

Nurses are central force team for preventing and responding to any pandemic, including the COVID-19. Nurses are the most important service provider and the front-line care professional that stand near the patients' journey when they face a complex disease as COVID-19. Nurses and nursing students also play a key role in providing public education,

especially in infectious diseases prevention and reducing the spread of misinformation related to these diseases outbreak (**Choi et al., 2020**).

### **Significance of the study**

According to World Health Organization (WHO), the latest novel coronavirus statistics show millions of confirmed cases and deaths worldwide, as of September 2021. This number is rising day by day worldwide. It has shaken the spirits of even developed nations that are still facing massive trouble in curbing the spread of the disease. As of September 2021, globally, there were 220.922.907 cases and 4.571.646 deaths. In Egypt, until September 2021, there were 289,353 confirmed cases, with 16,766 deaths (**WHO, 2021**).

### **Aim of the study**

The study aimed to evaluate the effect of educational guidelines on nursing Students' knowledge and practice regarding limitation the spread of COVID-19.

### **Study hypothesis:**

The students' knowledge and practice would be improved after the implementation of educational guidelines regarding limitation the spread of COVID-19.

### **Subjects and method**

#### **Design:**

Quasi- experimental research design was utilized to achieve the aim of the study.

#### **Setting:**

The study was conducted in the Faculty of Nursing, Benha University, Egypt.

#### **Subjects:**

A stratified random sample of 241 undergraduate students from Faculty of Nursing, Benha University were recruited in

the study. They were chosen by dividing the total students to 4 stratum according to their academic level (1st, 2nd, 3rd, and 4th). The total number of target students of each stratum are (N1=771, N2=685, N3=543, N4=459) and the sample size of each stratum are (n1=76, n2=67, n3=53, n4=45) according to the following sample equation.

$$SS = \frac{Z^2 * (p) * (1-p)}{C^2}$$

Where:

Z= 1.96 for confidence level 95%.

P= 0.5 used for sample size needed.

C= confidence interval 6.

#### **Tools for data collection:**

Data collection was done through a **Structured Assessment Questionnaire**; the researcher developed it based on review of recent related literatures, and scientific references (ELmetwaly et al., 2020) ; (Taghrir et al., 2020) ; (Wadood et al., 2020) ; (Wahed et al., 2020). It composed of three parts as the following:

**Part (1): Students' personal data and medical history:** This part concerned with assessment of students' personal data related to their age, academic year, gender, residence, and marital status. Medical history such as related to presence of chronic disease, and history of recent exposure to COVID 19.

**Part (2): Students' Knowledge Assessment about COVID 19 (pre-post the educational guidelines):** It was used to assess students' knowledge regarding COVID 19 general knowledge, symptoms and modes of transmission, diagnosis and differential diagnosis, treatment and complication of COVID 19. It consisted of (30) multiple choices (MCQ) and true and false questions.

#### **Scoring system:**

Each item was scored (1) for correct answer and (zero) for in correct answer. The total score of all questions represented in 100% and categorized as following:

- $\geq 75\%$  was considered a satisfactory level of knowledge.
- 50%-74% was considered as an average level of knowledge.
- $< 50\%$  was considered as an unsatisfactory level of knowledge.

#### **Part (3): Students' Practices Assessment (pre-post the educational guidelines):**

It was used to assess students' practices regarding preventive measures, which followed to limit the spread of COVID19. The questionnaire contained (54) questions, and consisted of nine main items covering all preventive measures as: ways of protection from COVID-19, dietary management, and good food practices.

#### **Scoring system:**

Each item was scored (1) for correct practice and (zero) for in correct practice. The total score for all practices were represented in 100% and categorized into two levels, as following:

- $\geq 60\%$  was considered a satisfactory level of practice.
- $<60\%$  was considered an unsatisfactory level of practice.

#### **\*Designing educational guidelines regarding limitation the spread of COVID-19:**

The educational guidelines were designed by the researcher based on review of recent related literatures, and scientific references. It aimed to improve students' knowledge and practice regarding limitation the spread of COVID-19. The designed educational guidelines were developed and

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constructed by the researcher in the form of booklet.

The booklet contains the following items: students' knowledge about COVID-19, including (definition, origin, incubation period, people at greater risk of severe illness from COVID-19, modes of transmission, symptoms of COVID 19, long-term effects of COVID 19, diagnosis, deferential diagnosis, complication, and treatment of COVID19) in addition to preventive measures which followed to limit the spread of the virus, including (ways of protection from COVID-19, dietary guidelines to withstand COVID-19, good food practices, principles of wearing mask, principles of taking off (doffing) the mask, requirements for safe environment, basics of good hygiene, quarantine consideration of COVID-19 contacts, and precautions for infection prevention.

### **Content validity:**

The face and content validity were ascertained for comprehensiveness, relevance, simplicity, clarity and ambiguity through a panel of five experts from Medical Surgical Nursing department, Faculty of Nursing, Benha University and all recommended modifications were done.

### **Tools reliability:**

Reliability was testing statistically to assure that the tool were reliable before data collection. Cronbach's alpha for knowledge 0.75% and for practice was 0.78%.

### **Pilot study:**

Pilot study was conducted on 24 students (10%) of all selected students from all undergraduate students at Faculty of Nursing, Benha University to test the clarity and applicability of the study tools and the

guidelines, to estimate time needed for filling the questionnaire as well as to identify any possible obstacles that may hinder data collection. According to the results of pilot study, there were no modifications so students involved in the pilot study were included in the study.

### **Ethical considerations:**

Once the researcher was granted approval, the students' approval was taken after an explanation of the aim, requirement, duration, and anticipated benefits of the study; they were also informed that their participation is optionally, and that they have the right to withdraw at any time. The researcher was assured maintaining anonymity and confidentiality of data and the information gathered used only for students benefit and for the purpose of the study.

### **Field of work:**

- Data collection of the current study was started at the beginning of April 2021 and completed by the end of July 2021.
- Official permission was obtained to collect the data first from the dean of the nursing faculty then the vice dean of education and students affairs.
- The researcher first explained the aim of the study to the students and reassures them that information collected will be confidentiality treated and used only for the purpose of the research.

### **\*The study was conducted through four phases:**

**Assessment Phase:** The researcher interviewed the students who gave their consent to participate in the study using a structured assessment questionnaire to collect

baseline data about students' knowledge and practices regarding COVID 19 (pre-test). The interview took about 30 to 45 minute.

**Planning phase:** Based on the students' results of needs assessment, and in the light of the relevant literature, the researcher designed educational guidelines in the form of (PowerPoint presentation and guide booklet). The educational guidelines emphasized the areas of major deficiency in student' knowledge and practices about COVID-19. The general aim and objectives of the educational guidelines, teaching method and teaching aids were determined by the researcher. Time and duration of the sessions were planned according to the students' schedule of teaching plan.

**The implementation phase:**

**The implementation phase included the following steps:**

1.The guidelines implementation was conducted in 4 sessions. Each session lasted about 30 minutes, including periods of discussion according to the students' progress and feedback. 2. Different teaching and learning methods were used during the sessions, which included; Power point presentation, pictures, and videos were used to enhance learning of students about limitation the spread of COVID-19.

3. The instructional colored booklet was given to each student enrolled in the study in order to help for reviewing and support teaching. It was written in English language and supplemented by photos and illustrations to help the student understanding of the contents. 4. At the beginning of the first session, students were oriented regarding the guidelines contents, its purpose and impact on their knowledge and practices. Students were informed about the time of the next session at the end of the session. 5. Each session was

started by a summary about what has been discussed in the previous session and the objectives of the new session also, the students was asked to ensure that he/ she got the maximum benefit.

**Evaluation Phase:**

The evaluation was done immediately post-test (for knowledge) and two weeks (for practice) after implementing the guidelines using the same tools of data collection.

**Statistical analysis:**

The collected data were organized, categorized, tabulated and analyzed using the number and percentage distribution. Statistical analysis was done by computer. The mean and standard deviations were calculated. Proper statistical test were used (chi square and T test) to determine whether there was a significant differences or not, and R test was calculated to determine the correlation between the total score of knowledge and the total score of practice using statistical package for social science program (SPSS) version 20.

**Results**

**Table (1):** Shows that (30.7%) of studied students their age were (21) years old with mean age of  $20.07 \pm 1.2$  years, (31.6%) were from the first academic year, (74.7%) were females, and regarding to residence (64.3%) of the studied students were from rural areas and the most of them (94.6%) were single.

**Table (2):** Reveals that (100%) of studied students have not any chronic disease, (82.9%) have not history of recent exposure to the virus, and the majority of them (87.2%) have not history of family exposure to COVID 19, while (12.8%) exposed to the virus, noted as (8.7%) were their fathers and (4.1%) were brothers.

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**Figure (1):** Illustrates that the social media was the main source of information about COVID 19 for the majority (88.7%) of the studied nursing students, followed by (46%) reported T.V, (24.8%) reported ministry of health and the lowest percentage (19.5%) reported WHO as a source of information.

**Table (3):** Clarifies that there are significant improvement regarding total level of knowledge of studied sample post the educational guidelines where 92.5% of studied sample has satisfactory knowledge post intervention compared to 12.8% pre the intervention and P value is 0.00001.

**Table (4):** Indicates significant improvement in students' mean scores of their practices post the educational guidelines in relation to ways of protection from COVID19, dietary management, good food practices, principles of wearing mask, principles of

doffing mask, requirements of safe environment, basics of good hygiene, consideration of quarantine of contacts of COVID 19 cases, and precaution for infection prevention, and P value is 0.00001. COVID 19 cases, and precaution for infection prevention, and P value is 0.00001.

**Figure (2):** Reveals that, there was high statistical significant positive correlation between studied nursing students' total knowledge score and total practice score regarding COVID-19, p value is 0.000.

**Table (5):** Reveals that, there was high statistical significant positive correlation between studied nursing students' total knowledge score and total practice score regarding COVID-19, with p-value <0.001, i.e., the higher the knowledge, the higher the practice.

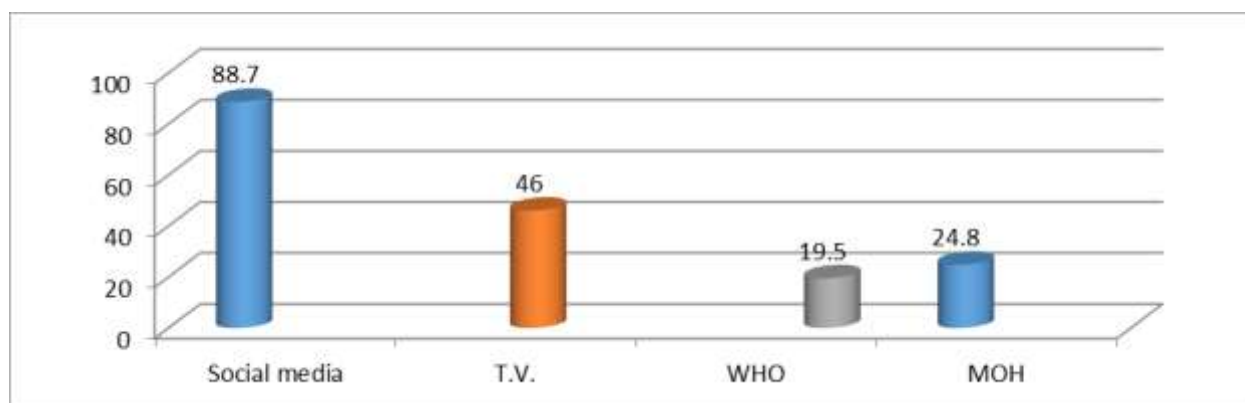
**Table 1: Frequency distribution of studied sample according to their personal data (n=241).**

| Items                     | No               | %    |
|---------------------------|------------------|------|
| <b>1-Age (years):</b>     |                  |      |
| 18                        | 33               | 13.6 |
| 19                        | 47               | 19.5 |
| 20                        | 58               | 24.1 |
| 21                        | 74               | 30.7 |
| 22                        | 29               | 12.1 |
| <b>Mean ±SD</b>           | <b>20.07±1.2</b> |      |
| <b>2- Academic year:</b>  |                  |      |
| 1 <sup>st</sup>           | 76               | 31.6 |
| 2 <sup>nd</sup>           | 67               | 27.8 |
| 3 <sup>rd</sup>           | 53               | 21.9 |
| 4 <sup>th</sup>           | 45               | 18.6 |
| <b>3- Gender:</b>         |                  |      |
| Male                      | 61               | 25.3 |
| Female                    | 180              | 74.7 |
| <b>4- Residence:</b>      |                  |      |
| Urban                     | 86               | 35.6 |
| Rural                     | 155              | 64.3 |
| <b>5- marital status:</b> |                  |      |
| Single                    | 228              | 94.6 |
| Married                   | 13               | 5.4  |

**Table 2: Frequency distribution of studied sample according to their medical history (n=241)**

| Items   | No  | %    |
|---|-----|------|
| <b>1- Have chronic disease</b>                  |     |      |
| Yes   | 0   | 0    |
| No  | 241 | 100  |
| <b>2-History of recent exposure to COVID 19</b> |     |      |
| Yes   | 41  | 17.1 |
| No  | 200 | 82.9 |
| <b>3-History of family member exposure</b>      |     |      |
| No  | 210 | 87.2 |
| Yes:  | 31  | 12.8 |
| *Father   | 21  | 8.7  |
| *Brother  | 10  | 4.1  |

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**Figure (1) Frequency distribution of studied sample according to their source of information about COVID 19 (n=241).**

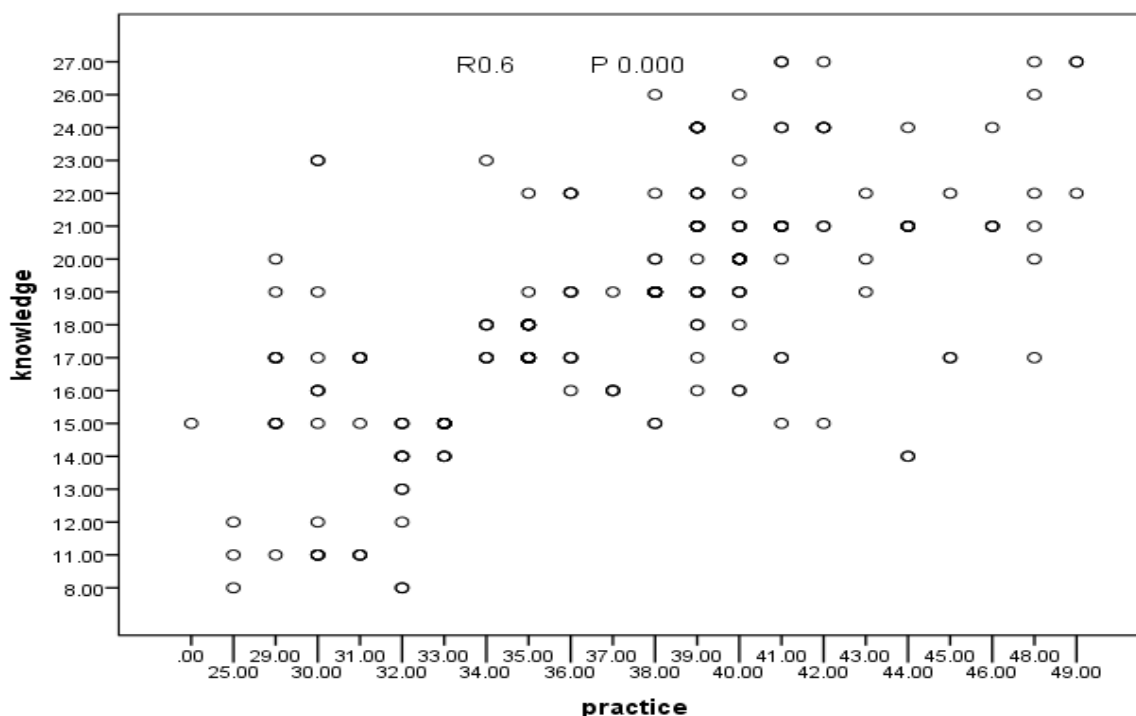
**Table 3: Frequency distribution and significance difference of the studied students according their total level of knowledge pre and post implementation the educational guidelines (n=241).**

| Items          | Pre |      | Post |      | X2    | P         |
|----------------|-----|------|------|------|-------|-----------|
|                | N   | %    | N    | %    |       |           |
| Unsatisfactory | 103 | 42.8 | 0    | 0.0  | 310.4 | 0.00001** |
| Average        | 107 | 44.4 | 18   | 7.5  |       |           |
| satisfactory   | 31  | 12.8 | 223  | 92.5 |       |           |

**Table 4: Mean score and significant difference of the studied students' practice pre and post implementation the educational guidelines (n=241).**

| Items |  | Pre      | post     | Paired t-Test | P value   |
|-------|--|----------|----------|---------------|-----------|
|       |  | Mean ±SD | Mean ±SD |               |           |
| 1     | Ways of protection from COVID19.               | 5.3±1.4  | 8.1±.9   | 24.1          | 0.00001** |
| 2     | Dietary management.                            | 5.1±1.4  | 7.05±.88 | 17.5          | 0.00001** |
| 3     | Good food practices.                           | 3.1±.9   | 3.4±.5   | 7.3           | 0.0001**  |
| 4     | Principles of wearing mask.                    | 3.6±1.2  | 4.3±.6   | 8.05          | 0.00001** |
| 5     | Principles of doffing mask.                    | 2.4±0.7  | 3.3±0.5  | 14.8          | 0.00001** |
| 6     | Requirements of safe environment.              | 2.7±1.2  | 4.4±.6   | 18.8          | 0.00001** |
| 7     | Basics of good hygiene.                        | 5.4±1.1  | 6.1±.7   | 7.8           | 0.0001**  |
| 8     | Quarantine consideration of COVID 19 contacts. | 6.1±1.5  | 7.04±.9  | 7.7           | 0.0001**  |
| 9     | Precaution for infection prevention.           | 2.9±.7   | 3.5±.5   | 10.5          | 0.00001** |





**Figure (2) Correlation between total level of knowledge of studied students with their total level of practice pre-guidelines implementation (n=241).**

**Table 5: Correlation between total level of knowledge of studied sample with their total level of practice post-guidelines implementation (n=241).**

| variable        | Total practice |          |
|-----------------|----------------|----------|
|                 | r              | p        |
| Total knowledge | 0.966          | <0.001** |

**Discussion**

In December of 2019, reports emerged about pneumonia clusters, of unknown cause, at the health facilities in Wuhan, China, after extensive epidemiologic investigation, led to the identification of, COVID-19, a novel coronavirus. COVID-19 is among a family of viruses, called coronaviruses that can affect both humans and animals, where the infections of this coronavirus are respiratory in nature

and can range from the common cold with mild symptoms to more severe infections, such as SARS and Middle East Respiratory Syndrome (MERS). Management of this novel disease remains largely supportive, with no approved medications available for treatment (Xu et al., 2020).

**Regarding the personal data;** the results of the current study revealed that, less

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than one third of the studied nursing students' age was 21years old with mean age of 20.07±1.2 years, less than one third of them were from the first academic year, the highest percentage were female, less than two thirds were from rural areas, and the majority of them were single.

**Regarding the medical history;** the results revealed that, (100%) of studied students have not any chronic disease, (82.9%) have not history of recent exposure to the virus, and the majority of them (87.2%) have not history of family exposure to COVID 19, while (12.8%) exposed to the virus, noted as (8.7%) were their fathers and (4.1%) were brothers.

**Regarding the source of information about COVID- 19;** the results of the current study revealed that, the social media was the main source of information about COVID 19 for the majority (88.7%) of the studied nursing students, followed by T.V, ministry of health and the lowest percentage reported WHO as a source of information. The results consistent with **Ayed et al., (2020)** study and **Huynh et al., (2020)** study which revealed that the main source of information about COVID-19 was social media.

**Regarding the studied nursing students' knowledge score,** the present study revealed that, there was significant improvement regarding total level of knowledge of studied sample post the educational guidelines where 92.5% of studied sample has satisfactory knowledge post intervention compared to 12.8% pre the intervention and p value is 0.00001.

These findings supported by **ELmetwaly et al., (2020)** who studied "Knowledge and Attitude of Nursing Students about COVID-19 in Egypt" they reported that, the total COVID-19 knowledge score increased

significantly from 35.43 pre-intervention to 55.03 post-intervention. The same pattern was observed including general knowledge, transmission, and symptoms as well as treatment and prevention.

The result also supported by **Amer and Mohamed (2020)** study who reported that, there were statistically significant differences in total mean score of knowledge pre and post nursing instructions. Other findings by **Elasrag et al., (2021)** studied "Impact of Educational Intervention on Nurses' knowledge, practice and attitude related prevention measures of COVID 19" their finding showed that, more than two thirds of studied nurses had poor knowledge pre intervention, while slightly more than three quarters of them had good knowledge post intervention. These findings also agreed with **Kaim et al., (2020)** study whose result showed that, there was a significant overall increase in knowledge immediately following the educational intervention.

The current results disagreed with study conducted by **Aharon et al., (2021)** which studied "Knowledge and information credibility evaluation strategies regarding COVID-19" their results showed that nurses 'knowledge pre educational program of COVID-19 preventative behaviors was significantly higher than that of post program, also disagreed with **Nemati et al., (2020)** whose finding showed that, the studied nurses had almost good knowledge related COVID-19 at pre assessment.

**Concerning the studied nursing students' practice score** regarding limitation the spread of COVID-19, the current study revealed that, there were significant improvement in students' mean scores of their practices post the educational guidelines in

relation to ways of protection from COVID19, dietary management, good food practices, principles of wearing mask, principles of doffing mask, requirements of safe environment, basics of good hygiene, consideration of quarantine of contacts of COVID 19 cases, and precaution for infection prevention, and P value was 0.00001.

These findings supported by **Ayed et al., (2020)** in their study "Impact of teaching program regarding COVID-19 on knowledge, attitudes, practices among student" they stated that, there was significant difference between secondary students' practice pre and post educational program intervention. And supported by **Habiba et al., (2021)** who studied "Effect of Mentoring Program on Nurses Interns' knowledge, Attitudes, Safety Practices, and Psychological Readiness Toward COVID-19 Pandemic" their finding showed that there was a statistical improvement of nurses' interns' safety practices and infection control measures post mentorship program than before.

The finding also supported by **Elpasiony et al., (2021)** in their study entitled "Efficacy of COVID-19 Prevention Educational Program on Nurses' knowledge and Practices at Hemodialysis Unit" they stated that, the mean score of practices was improved significantly post guidelines implementation.

**Regarding correlation between studied nursing students' total knowledge score and total practice score**, the study revealed that, there was high statistical significant positive correlation between studied nursing students' total knowledge score and total practice score regarding COVID-19 pre and post-guidelines implementation as ( $p < 0.001$ ). These results could be attributed to that having an adequate level of knowledge towards COVID-19 can lead to good practices regarding limitation of its spread.

These findings agreed by **Tamang et al., (2020)** in their study entitled "COVID-19: a National Survey on perceived level of knowledge, attitude and practice among frontline healthcare Workers in Nepal" whose result showed that Pearson correlation analysis showed a significant correlation between knowledge, attitude and practice at the level of  $p = 0.01$ .

The findings also agreed by **Alrubaiee et al., (2020)** in their study "Knowledge, attitudes, anxiety, and preventive behaviours towards COVID-19 among health care providers in Yemen, whose result showed that, there was a significant positive linear correlation between knowledge and preventive behaviors ( $r = 0.320, p < 0.001$ ).

Furthermore, the findings agreed with **Reuben et al., (2021)** study entitled "Knowledge, attitudes and practices towards COVID-19: an epidemiological survey in North-Central Nigeria" their results showed that, acquiring a good level of knowledge of COVID-19 is correlated with optimistic attitudes and proper practices towards COVID-19.

The result inconsistent with **Elpasiony et al., (2021)** in their study about "Efficacy of COVID-19 Prevention educational program on nurses' knowledge and practices at hemodialysis unit" the result showed that, there was a negative correlation between the score of nurses' knowledge and practices pre the educational program  $r = (-0.595)$  while there was a weak positive correlation between nurses' knowledge and practices post the educational program  $r = (0.276)$ .

The result also disagreed by **Limbu et al., (2020)** study "Healthcare workers' knowledge, attitude and practices during the COVID-19 pandemic response in a tertiary care hospital of Nepal" their result showed that, there was no correlation between knowledge and practices among healthcare

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workers. Moreover, the result disagreed by **Ejeh et al., (2020)** in their study "Knowledge, attitude, and practice among healthcare workers towards COVID-19 outbreak in Nigeria" the results showed that, there is no significant correlation between knowledge and practice among healthcare workers.

### **Conclusion**

The educational guidelines about COVID- 19 effectively improved nursing students' knowledge and practices regarding limitation the spread of COVID 19 and there were a significant positive correlation between nursing students' knowledge and practices regarding COVID-19 pre and post the educational guidelines implementation.

### **Recommendations**

- COVID-19 courses should be merged into the curriculum of undergraduate nursing students.
- Encourage cooperation between educational institutions, medical care providers, and health personnel to educate university students about COVID-19 that will help in increasing awareness and decreasing the spread of the disease.
- Conduct community mobilization campaigns to boost community awareness about COVID-19 infection, especially in the rural population.
- Further researches are needed for nursing students regarding limitation of COVID 19 to reduce and prevent the infection on large sample selected from all nursing faculties in Egypt.

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## تأثير الإرشادات التعليمية على معرفة وممارسة طلاب التمريض المتعلقة بالحد من انتشار فيروس كورونا المستجد

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فيروس كورونا المستجد هو عدوى ناشئة خطيرة وحادة في الجهاز التنفسي ويعد من أهم مسببات الأمراض التي كانت ولا تزال أحد أخطر التهديدات الصحية العالمية. تم اكتشافه لأول مرة في أواخر ديسمبر ٢٠١٩ في الصين وانتشر في جميع أنحاء العالم. التزام الناس بتدابير مكافحة والوقاية أمر ضروري في مكافحة المرض، الذي يتأثر إلى حد كبير بمعرفتهم، وممارساتهم تجاه فيروس كورونا. يلعب طلاب التمريض دورا هاما في نشر المعلومات. لذا هدفت هذه الدراسة إلى تقييم تأثير الإرشادات التعليمية على معرفة وممارسة طلاب التمريض المتعلقة بالحد من انتشار فيروس كورونا المستجد. وقد أجريت هذه الدراسة على ٢٤١ من طلاب كلية التمريض، جامعة بنها تم اختيارهم عشوائيا وكشفت النتائج عن انه كان هناك تحسن كبير في المعلومات الكلية بعد تطبيق الارشادات التعليمية. كان هناك ارتباط ذو دلالة إحصائية بين المجموع الكلي للمعلومات والمجموع الكلي لمعرفتهم قبل وبعد التدخل. كما أوصت الدراسة ان هناك حاجة إلى مزيد من البحوث لطلاب التمريض فيما يتعلق بالحد من انتشار فيروس كورونا للحد من ومنع هذه العدوى وتطبيقها على عينة كبيرة مختارة من جميع كليات التمريض في مصر.