

# Assessment The Knowledge Of Nursing College Students' Concerning Corona Virus Infection (Covid19)

Murtadha Abbas Abdul-Hamza<sup>1</sup>, Saeer Naheem Taha<sup>2</sup>, Ismael Mohammed Kadhem<sup>3</sup>, Mohammad Mahdi Saeed Sahib<sup>4</sup>, Hussam Youssef Youssef<sup>5</sup>

<sup>1</sup>Master degree in pediatric Nursing, University of Warith Al-Anbiyaa, College of Nursing.

Corresponding Author: [murtadha.ab@uowa.edu.iq](mailto:murtadha.ab@uowa.edu.iq)

<sup>2</sup>Master degree in Critical care nursing and Emergency, University of Warith Al-Anbiyaa, College of Nursing.

<sup>3</sup>BSc. MSc -Community Medicine Department.

<sup>4</sup>Ph.D. in Adult Nursing, University of Warith Al-Anbiyaa, College of Nursing

<sup>5</sup>Master degree in Comprehensive Clinical Nursing, University of Warith Al-Anbiyaa, College of Nursing.

DOI: 10.47750/pnr.2023.14.S02.259

## Abstract

**Background:** The study was designed for the assessment of the knowledge of nursing students regarding pandemics. In the current designed study, the level of awareness was checked and the majority of students were found aware of SARS-CoV and SARS-Cov2 (Covid-19).

**Objective:** To assess the awareness of SARS-CoV and SARS-Cov2 (Covid-19) among nursing students of Karbala college.

**Subjects and Methods:** A cross-sectional survey was carried out in different universities of Karbala in 2021. A self-constructed questionnaire by Pursuing the clinical and community administration of COVID-19 given by the National Health Commission of the People's Republic of China was used among the 120 students who are enrolled in different nursing universities of Karbala and SPSS version 23 was used to analyze the data.

**Results:** The majority (n=65, 54.1%) were male, (n=49, 40.8%) having age between 21to 23years and (n=83, 69.1%) were unmarried. In educational status (n=30, 36%) were undergraduate with education type in governmental university (n=48) Aware answer. During the assessment of awareness towards Covid-19 results showed that (n=80, 66.66%) were aware regarding Covid-19.

**Conclusion:** This study finalized that the students enrolled in different nursing universities of Karbala were aware of the Covid-19. The observed awareness can be due to qualitative education especially in the domain of disease prevention, which has been provided by the educational institutions of Karbala in collaboration with the Ministry of Health. Keywords: Awareness, Covid-19, nursing students.

## INTRODUCTION:

The outbreak of severe acute respiratory syndrome coronavirus (Covid-19) was initially started in Wuhan (Hubei, China) in December 2019. Firstly, the thoughts supporting the zoonotic origin of Covid-19 but yet not conformed<sup>(1, 2)</sup>. The clinical sign and symptoms are fever, dry cough, dyspnea, headache, myalgia, diarrhea, nausea, nasal congestion, severe chest congestion, fatigue, pneumonia, and restlessness. Whereas in the patients, the dominant manifestations were observed in the repertory system. Whereas in Iraq, thousands of asymptomatic patients were

tested Covid-19 positive as well <sup>(3)</sup>. Due to the immunity compensation, the people with young and old age were at higher risk of getting infected from Covid-19. As the Covid-19 is airborne and easily transmittable through respiration and getting in touch with contaminated surfaces. Furthermore, the treatment of Covid-19 is yet not being discovered the only way to keep ourselves safe is prevention. At the end of January 2020, the world health organization (WHO) has declared the Covid-19 as a Public Health Emergency of international concern (PHEIC), at the end of March 2020 WHO declared the Covid-19 as a pandemic outbreak because in February more than 1500 deaths were reported from 100 different countries<sup>(2,3)</sup>. Summing up, in the current declared Covid-19 disease outbreak the front-line warriors were the health care professionals, and being nursing students, it is necessary to keep themselves aware especially for any kind of disease outbreak <sup>(4)</sup>.

## SUBJECT AND METHODS

**Study Design, Settings, and Duration:** A cross-sectional survey was carried out in 2021, and data was gathered from the students who were enrolled in different universities in Karbala. **Sampling:** Convenient Non-Probability Sampling Technique was used among 120 students of nursing who are enrolled in the any University of Karbala and agreed to participate in the study were included, and were not agreed to sign informed consent were excluded.

**Data Collection Tool:** The questionnaire consisted of two parts: first is consist of the demographics which includes age, gender, matrimonial status, educational level, and locality. Second one consists of 10 awareness items by Pursuing the recommendations for clinical and community administration of COVID-19 given by the National Health Commission of the People's Republic of China <sup>(5, 6)</sup>.

**Data Collection Procedure:** The data was collected online through an e- questionnaire because during an undefined period of lockdown it was not possible to conduct a sampling study based on a hardcopy questionnaire. The link of the e- questionnaire was sent to the nursing students by using their e-mails and by using different social media applications.

**Data Analysis Procedure:** Data were examined and presented in frequency and percentages for categorical variables, mean and standard deviations were presented for continuous variables. spss (Statistical Package for Social Sciences) 23 version was used. Ethical Consideration: Informed consent was taken from participants containing that their participation is voluntary, their information will be kept confidential and they can leave the study anytime, after that the preform was filled for data collection<sup>(7-20)</sup>.

## RESULTS

Demographic Characteristics: Demographic Characteristics are reported in table 1, which tells that the majority (n=49, 40.8%) concern to age group between 21-23 years, (n=65, 54.1%) were male and after checking the marital status we found that majority (n=83, 69.1%) were unmarried. In education (n=30, 36%) were Under-graduate, while (n=67, 55.8%) were the permanent residents of rural population living style with (n=60,50%) education type in governmental university.

**Table 1: Demographic Characteristics**

Characteristics	Frequency	Percentage
<b>Age group:</b>	<b>30</b>	25 %
<b>18-20</b>	<b>49</b>	40.8%
<b>21-23</b>	<b>41</b>	34.1%
<b>&gt;24</b>		

<b>Gender:</b> <b>Male</b> <b>Female</b>	<b>65</b> <b>55</b>	<b>54.1%</b> <b>45.8%</b>
<b>Marital status:</b> <b>Married</b> <b>Unmarried</b>	<b>37</b> <b>83</b>	<b>30.8%</b> <b>69.1%</b>
<b>Education:</b> <b>first stage</b> <b>The second stage</b> <b>third stage</b> <b>The fourth stage</b>	<b>30</b> <b>30</b> <b>30</b> <b>30</b>	<b>36%</b> <b>36%</b> <b>36%</b> <b>36%</b>
<b>living style:</b> <b>urban population</b> <b>rural population</b>	<b>53</b> <b>67</b>	<b>44.1%</b> <b>55.8%</b>
<b>education type:</b> <b>governmental university</b> <b>private university</b>	<b>60</b> <b>60</b>	<b>50%</b> <b>50%</b>

### Response to COVID-19 Awareness items

Response to COVID-19 Awareness items is reported in table 2, which states that the majority (n=77, 64.1%) were aware regarding the first case which was reported from Wuhan, (Hubei, China) in December 2019. The (n=98, 81.6%) was also aware of the clinical symptoms (Fever, fatigue, dry cough, and muscular pain) of COVID-19.

Although, (n=63, 52.5%) were aware that both viruses (SARS & SARS-CoV-2) causes the COVID-19. The majority (n=85, 70.8%) were aware and know that respiratory droplets are the major mode of transmission from person to person. In the current pandemic situation of COVID-19 (n=83, 69.1%) were aware regarding the wearing of a mask and (n=56, 46.6%) worn the mask over letting out their homes. Regarding personal or hand hygiene (n= 49, 40.8%) received an e-mail from health officials and (n=113, 94.1%) were washing their hands frequently at least for 20 seconds. In personal protective equipment (n=96, 80%) were aware and agreed that all health care providers and helping staff who are working among the patients of COVID-19 should wear the N-95 mask (respirator), Gown, Gloves & proper eye protection. Approximately (n=81, 67.5%) were aware and acknowledge that the direct contact with a patient of COVID-19 is a violation of social distancing, and in terms of isolation (n=93, 77.5%) were agreed to keep the patient of covid-19 in isolation, at least for 14 days. In addition to this (n= 62, 51.6%) were aware that accept symptomatic there is no curative treatment for COVID-19 is present in Iraq.

**Table 2: Response to COVID-19 Awareness items.**

	Correct N (%)	Incorrect N (%)

The first case of COVID-19 was reported in December 2019 from city Wuhan, Hubei province, china.	77 (64.1%)	43 (35.8%)
Fever, fatigue, dry cough, and muscular pain are the main clinical symptoms of COVID-19.	98 (81.6%)	22 (18.3%)
The earlier corona virus which produces (SARS) is different from current (SARS-CoV-2).	63 (52.5%)	57 (47.5%)
From person to person the respiratory droplets are the major mode of transmission for COVID-19.	85 (70.8%)	35 (29.1%)
Do you think, is it mandatory to wear a mask in current pandemic situation of COVID-19?	83 (69.1%)	37 (30.8%)
In current situation, when leaving home have you worn a mask?	56 (46.6%)	64 (53.3%)
In current pandemic situation of COVID-19, did you receive any email regarding personal or hand hygiene from health officials?	49 (40.8%)	71(59.1%)
Do you wash your hands frequently, with soap at least for 20 seconds?	113 (94.1%)	7 (5.8%)
In personal protective equipment (PPE), is it necessary for health care provider and helping staff for that who are working among the patients of COVID-19 to wear the N-95 mask (respirator), Gown, Gloves & proper eye protection?	96 (80%)	24 (20%)
Direct contact with the infected patient of COVID-19 is considered as a violation of social distancing.	81 (67.5%)	39 (32.5%)
A patient suffering from the COVID-19 virus should be kept in isolation in a specific place at least for 14 days.	93 (77.5%)	27 (22.5%)
Rather than symptomatic, is there any effective treatment for COVID-19 present in Iraq?	62 (51.6%)	58 (48.3%)

### Awareness Regarding COVID-19

Awareness Regarding COVID-19 is reported in table 3, which states that the Majority of participants (n=80, 66.66%) were aware to COVID-19. In statically analysis the knowledge of participants was significantly associated with awareness of participants. P value is (0.01).

**Table 3: Awareness Regarding COVID-19.**

Variable	Frequency	Percentage	P value
----------	-----------	------------	---------

<b>Aware</b>	<b>80</b>	<b>66.66%</b>	<b>&lt;0.01</b>
<b>Un aware</b>	<b>40</b>	<b>33.33%</b>	

#### Cross tabulation between the demographics and awareness:

Cross-tabulation between the demographics and awareness is reported in table 4, which states that the Majority (n=49) were aware and concern to the age group of 21 -23 years and (n=65) were male. After the analysis of their marital status, we found that (n=83) were un-married. In educational status, the majority (n=30) were undergraduate students,, were the permanent residents of rural population living style ,with (n=60,50%) education type in governmental university .

**Table 4: Cross tabulation between the demographics and awareness**

Characteristics	Frequency	Aware	Unaware
Age group:			
18-20	30	12	18
21-23	49	31	18
>24	41	37	4
Gender:	65	51	14
Male	55	29	26
Female			
Marital status:	37	26	11
Married	83	54	29
Unmarried			
Education:	30	11	19
first stage	30	16	14
The second stage	30	25	5
third stage	30	28	2
The fourth stage			
living style:	53	49	4
urban population	67	31	36
rural population .			
education type:	60	48	12
governmental university	60	32	28
private university			

## DISCUSSION:

The current study disclosed that the majority of nursing students from Karbala were aware of the Novel coronavirus COVID-19. Globally, different surveys were conducted out of which two surveys were conducted by Modi et al and

Rose et al and concluded that most of the students who are enrolled in different medical universities were well aware regarding the quick and extensive spread of the Covid-19 pandemic and related infectious diseases <sup>(21, 22)</sup>. However, similar studies were not yet been conducted in Iraq. The studies related to infectious diseases were conducted by Anjum et al in 2005 and Abbasi et al in 2009 and concluded with contradictory results and found that most of the nursing students were not aware of different infectious diseases, which can be due to unsatisfactory teaching methods or lack of facilities <sup>(23,24)</sup>, the assumption made by the author were not been supported by different studies, as one of the studies says that the most of the students showed a good level of satisfaction on the teaching methods and facilities that are being provided by their respective institutes <sup>(25)</sup>. Furthermore, the attitude of students towards their studies and professionalism was positive which can somehow compensate for the lack of facilities in their respective institutions and can be the major cause of their good level of awareness towards the pandemics <sup>(26)</sup>.

When students were asked regarding the history of this virus majority was miss understood this by missing it with previously infection causing virus and they even did not know the difference between the previous SARS-CoV and SARS-Cov2 <sup>(27)</sup>, this may cause them to be unaware of the severity this virus could have caused to the world and might lead to further misunderstandings <sup>(28)</sup>. Considering the issue of social distancing the respondents were asked about the direct contact with the patient, they responded that direct contact with covid-19 infected patient was a clear violation of social distancing which somehow was not practically possible to them as they being the healthcare student might get exposure to the infected patients. All they need is to have the protective equipment that will prevent them from getting the infection <sup>(29)</sup>.

Summing up, the awareness level of nursing students of Iraq regarding covid-19 was satisfactory, which will traverse them toward good management of the health care system. Moreover, the ministry of health ought to arrange health literacy campaigns especially among the students to enhance the level of awareness among the un-aware students <sup>(30-33)</sup>. The high level of health literacy among the nursing students can help them to prevent their patients and themselves from an outbreak of pandemics like Covid-19 <sup>(34)</sup>.

## CONCLUSION:

In Karbala, the nursing students who were enrolled in different nursing universities were asked regarding the start, spread, mode of transmission, and prevention of Covid-19, and the majority of them were found well aware of it, such quantitative and qualitative knowledge of the students can very helpful in terms of eradication of these pandemics.

## REFERENCES

1. McMichael TM, Currie DW, Clark S, Pogosjans S, Kay M, Schwartz NG, et al. Epidemiology of Covid-19 in a long-term care facility in King County, Washington. 2020;382(21):2005-11.
2. Jin Y, Yang H, Ji W, Wu W, Chen S, Zhang W, et al. Virology, epidemiology, pathogenesis, and control of COVID-19. 2020;12(4):372.
3. Kucharski AJ, Russell TW, Diamond C, Liu Y, Edmunds J, Funk S, et al. Early dynamics of transmission and control of COVID-19: a mathematical modelling study. 2020.
4. Tanne JH, Hayasaki E, Zastrow M, Pulla P, Smith P, Rada AGJB. Covid-19: how doctors and healthcare systems are tackling coronavirus worldwide. 2020;368.
5. Jin Y-H, Cai L, Cheng Z-S, Cheng H, Deng T, Fan Y-P, et al. A rapid advice guideline for the diagnosis and treatment of 2019 novel coronavirus (2019-nCoV) infected pneumonia (standard version). 2020;7(1):4.
6. Shen K, Yang Y, Wang T, Zhao D, Jiang Y, Jin R, et al. Diagnosis, treatment, and prevention of 2019 novel coronavirus infection in children: experts' consensus statement. 2020:1-9.
7. Muwfaq YN, Ahmed MM, Abdulsalam RR. Assessing Quality of Life in Palliative Care. Bahrain Medical Bulletin 2021;43(3):594-6.
8. Mahmood Mohammed Ahmed, Nasir Muwfaq Younis, Nawaf Mohammed Dhahir, Kareem Nasir Hussain. Acceptance of Covid-19 vaccine among nursing students of Mosul University, Iraq. Rawal Medical Journal: Apr-Jun 2022. Vol. 47, No. 2, pp:254\_258

9. Muwfaq Younis N , Efficacy of Health Beliefs Model-Based Intervention in Changing Substance Use Beliefs among Mosul University Students: A Randomized Controlled Trial. *Revis Bionatura* 2022;7(2) 35. <http://dx.doi.org/10.21931/RB/2022.07.02.35>
10. Al-Ghurairi SA, Younis NM, Ahmed MM. Prevalence of weight gain among students of Mosul University, Iraq during quarantine 2020. *Rawal Medical Journal*. 2022 Jul;47(3).
11. Ahmed Salem Abbas , Nasir Muwfaq Younis.Efficacy of Pender's Health Promotion-based Model on Intervention for Enhancing University of Mosul Hypertensive Employees' Eating Behaviors: A randomized Controlled Trial. *Revis Bionatura* 2022;7(3) 35.
12. Ahmed MM, Younis NM, Abdulsalam RR. Assessment of changes in sleep habits in elementary students during covid\_19 lockdown. *International Journal of Medical Toxicology & Legal Medicine*. 2022;25(1and2):76-80.
13. Mukhlif HH, Younis NM. Evaluation of the association between internet addiction and fatigue among undergraduate students at universities in Mosul city, Iraq: A cross-sectional study. *Rawal Medical Journal*. 2022 Dec 11;47(4):829-.
14. Adea MK, Lefta RM, Younis NM. Impact of psychosocial aspect parameters on psoriasis patients' quality of life at outpatient clinic in Al-Dewania City, Iraq. *Rawal Medical Journal*. 2022 Dec 11;47(4):892-.
- 15.Rian Mahmood Ibrahim, Nada Hani Idrees, Nasir Muwfaq Younis.Epidemiology of Leukemia among Children in Nineveh Province (2018-2020). *Rawal Medical Journal*: January 2023. Vol. 48, No. 1.
- 16.Ahmed K.Mohamed Taher,Nasir Muwfaq Younis.Assessment the Effect of a Trans theoretical Model in Improving Behaviors Health Care workers related Electronic Hookah in Mosul City /Iraq. *Rawal Medical Journal*: January 2023. Vol. 48, No. 1.
- 17.Fatema Hasan Mohammad, Lara Kefah Noori, Nasir Muwfaq Younis.Assessment of Nutritional habits among Mosul University Students regarding breakfast. *Rawal Medical Journal*: January 2023. Vol. 48, No. 1.
- 18.Nasir Muwfaq Younis,Rian Mahmood Ibrahim, Nada Hani Idrees.Prevalence of snake bite among children in Nineveh Governorate/Iraq: A retrospective study. *International Journal of Medical Toxicology & Legal Medicine*. 2022;25(3and4):169-172.
- 19.Nasir Muwfaq Younis ,Mahmoud Mohammed Ahmed, and Ahmed Ali Hussein.Nurses' knowledge, attitude and practice towards preparedness of disaster management in emergency of Mosul teaching hospitals. *Medico-Legal Update*, 2020, 20(3), pp. 775–779.
- 20.Younis NM, Mahmoud M, Ahmed A, et al. University Students' Attitude Towards E-Learning. *Bahrain Medical Bulletin* 2021;43(2):460-2.
- 21.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. 2020;12 ( 4 .)
22. Rose SJJ. Medical student education in the time of COVID-19. 2020.
23. Anjum Q, Siddiqui H, Ahmed Y, Rizvi SR, Usman Y, Okeke IJJ-PMA. Knowledge of students regarding hepatitis and HIV/AIDS of a private medical university in Karachi. 2005;55(7):285.
24. Abbasi MN, Malik A, Chaudhry IS, Imdadullah MJASS. A study on student satisfaction in Pakistani universities: The case of Bahauddin Zakariya University, Pakistan. 2011;7(7):209.
25. Blue AV, Crandall S, Nowacek G, Luecht R, Chauvin S, Swick HJMt. Assessment of matriculating medical students' knowledge and attitudes towards professionalism. 2009;31(10):928-32.
26. Zhai Y, Du XJTLp. Mental health care for international Chinese students affected by the COVID-19 outbreak. 2020;7(4):e22.
27. Papagiannis D, Malli F, Raptis DG, Papathanasiou IV, Fradelos EC, Daniil Z, et al. Assessment of Knowledge, Attitudes, and Practices towards New Coronavirus (SARS-CoV-2) of Health Care Professionals in Greece before the Outbreak Period. 2020;17(14):4925.
28. Mohler G, Bertozzi AL, Carter J, Short MB, Sledge D, Tita GE, et al. Impact of social distancing during COVID-19 pandemic on crime in Los Angeles and Indianapolis. 2020:101692.
29. Vozikis A, Drivas K, Miliotis KJAoPH. Health literacy among university students in Greece: determinants and association with self-perceived health, health behaviours and health risks. 2014;72(1):15.

- 30.Naji AB, Ahmed MM, Younis NM. Adherence the Preventive Measure Against for COVID-19among Teachers at University of Mosul. In J Med Tox Leg Med 2021;24(3&4).pp:273\_277.
- 31.Mahmoud Mohammed Ahmed, Nasir Muwfaq Younis and Ahmed Ali Hussein. Prevalence of Tobacco use among Health Care Workers at Primary Health care Centers in Mosul City. Pakistan Journal of Medical and Health Sciences, 2021, 15(1), pp. 421–424
- 32.Nasir Muwfaq Younis,Mahmoud Mohammed Ahmed and Nawaf Mohammed Dhahir. Prevalence of Covoravirus among Healthcare Workers. International Journal of Medical Toxicolgy&Legal Medicine. Volume 24,Nos.1-2,jan-jaune 2021.pp:267-269.
- 33.Ahmed MM, Younis NM, Hussein AA. Violence towards nurses staff at teaching hospitals in Mosul City. Indian J. Forensic Med. Toxicol 2020;14(3):2598-603.
- 34.Malik M, Hasmi A, Khalid J, Abbas MJP, Journal PI. Functional health literacy among undergraduate pharmacy students: A cross-sectional study from Pakistan. 2017;5(5):00136.