Impact of COVID-19 on mental health and quality of life among undergraduate nursing students and nurse internes

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ABSTRACT

Background: COVID-19 pandemic had seriously impacted various aspects of all societies globally. The pandemic has the potential to affect all people including college students, with a large number of students experiencing psychological distress which became a growing universal concern.

Objective: The aim of this study was to examine the impact of COVID-19 on mental health and quality of life among undergraduate nursing students and nurse internes.

Methods: A cross-sectional research design was used, and data was collected from 264 participants using a demographic data sheet, the Patient Health Questionnaire-4, and the WHOQOL-BREF Scale. Data were analyzed using JMP Pro 15.

Results: The sample consisted mostly of nursing students (88.64%) from various academic levels, including 30% nurse interns. Among them, 34.85% had a history of COVID-19 symptoms, and 43.18% tested positive for COVID-19. Overall, participants reported high satisfaction with their quality of life, receiving necessary information for daily life, having improved relationships and support from friends and family compared to normal times, and having good access to healthcare services. Additionally, their faith and spiritual practices showed improvement. Regarding mental health, there was a significant correlation between perceived mental health and previous COVID-19 symptoms, while social support showed a significant correlation with quality of life.

Conclusions: Those nursing students and nurse interns who experienced negative psychological health impacts due to COVID-19 need to be referred for proper mental health counseling and other treatment services.

Keywords: nurse; COVID-19; mental health; quality of life

INTRODUCTION

The COVID-19 pandemic has seriously impacted various aspects of the society on a global scale, that initiated fear of becoming ill, dying, helplessness, and stigma, it is critical to gain a better understanding of mental health status as soon as possible. SARS-CoV-2 is a virus that causes severe acute respiratory syndrome (SARS), was an incipient infection that lead to Coronavirus disease pandemic (COVID-19) in 2019,

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> ## *Nursing and Healthcare Practices*
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> - *Nursing students and nurse interns were significantly affected by COVID-19, with a considerable percentage reporting COVID-19 symptoms and testing positive for the virus.*
> - *Despite the pandemic challenges, participants reported being satisfied with their quality of life, healthcare services, and improved relationships with friends and family.*
> - *The study emphasized the importance of providing mental health counseling and treatment services to nursing students and nurse interns affected by COVID-19's negative psychological health impacts.*

which spreads from individual to another via droplets. The Wuhan Municipal Health Commission affirmed a cluster of pneumonia cases on December 31, 2019, in Wuhan, Hubei Province. The presence of a new coronavirus was eventually discovered. Furthermore, the Ministry of Health confirmed the first case of coronavirus infection among people returning from Iran while passing through Bahrain on March 2, 2020 (Ministry of Health Saudi Arabia). Due to the virus's global spread affecting many countries, the World Health Organization (WHO) declared it a worldwide pandemic on March 11, 2020 (WHO, 2020). Governments began implementing strategies to control the rising infection and mortality rate after recognizing COVID-19 as a significant threat to the public's health and well-being. To contain the pandemic; quarantine, e-learning, social distancing, travel restrictions, and a variety of other measures were implemented. Individuals, including students, faced psychological burden as a result of the disruption in their requirements in education. Students were required to complete education responsibilities online, while postgraduate students who were interns had to temporarily halt their internships. As a result, numerous studies have found a link with both COVID-19 and mental disorders like depression and anxiety. However, little has been known about the influence of COVID-19 on nursing students' and interns' psychological

wellbeing and quality of life.

Mental health is a term that encompasses emotional, psychological, and social well-being, and it is thought to have an impact on how we think, feel, and act (WHO, 2018). During the COVID-19 epidemic, a systematic review of the prevalence of anxiety in the general population found that 27% of people had anxiety symptoms, with women and the elderly having the highest prevalence. Anxiety, depression, insomnia, and stress are common among healthcare workers, with 30–40% of the population suffering from these conditions (Vizheh et al., 2020) which is considered a public health issue. Mental health-related issues are even more complicated for undergraduate nursing students and nurse interns who want to become healthcare professionals in the future because such issues have a direct impact on their studies. Life satisfaction QoL, on the other hand, is an imprecise concept that varies from person to person and across various contexts; however, QoL can be defined as how individuals perceive themselves in their lives in the context of the culture and value system in which they live, as well as in relation to goals, expectations, standards, and concerns (WHO). NIs demonstrated high levels of resilience during the pandemic, a characteristic of effective QoL and a value that nursing schools should instill in their students (Chow et al., 2018). QoL encompasses a broad-ranging concept of an individual's state of life, health status, or life satisfaction.

People became fearful and began to have mental health issues as COVID-19 spread around the world (WHO, 2020). People stayed at home and avoided contact with others because of the fear of being infected with the virus. Almost all activities and work were halted. People in China, where the disease first spread, suffered from mental illness. "The COVID-19 outbreak in China has resulted in mental health issues among the general public in China and Japan, as well as medical personnel in Wuhan" (Ju et al., 2020). People became increasingly concerned as news of an influx of people infected with the Corona virus circulates through media. Many countries have conducted studies to determine the impact of the fear of getting infected with the disease on one's mental state (Gao et al., 2020) investigated the impact of social media exposure of this news on the mental health of citizens in Wuhan, Chain. The findings revealed the presence of mental health issues, which were positively associated

with frequent social media use during the COVID-19 outbreak. Furthermore, it was linked to depression, anxiety, and a combination of depression and anxiety.

While COVID-19 pandemic is still ongoing, (Zhang & Ma, 2020) conducted a study to determine the impact of the COVID-19 pandemic on mental health and quality of life among children up to 18 years in Liaoning Province, found that COVID-19 was associated with mild stressful impact among participants. While the majority of the participants did not feel helpless as a result of the pandemic, some were horrified and apprehensive. This conclusion can be elucidated by the fact that COVID-19 has less effect on the mental health of children and adolescents.

Research studies have been conducted to determine the impact of the infection spread on the public's psychological and mental health, particularly among those who interact with patients, such as physician, nursing staff, and other health care personnel (Serafini et al., 2020) conducted a review of approximately seven studies looked at the effect of the COVID-19 pandemic on the psychological health of the wider populace and others in contact with individuals affected. Findings revealed; Psychological symptoms such as depression, stress, mood alternations, and irritability. Subsequently, exacerbating responses to quarantine have also been identified, such as; fear, anger issues, anxiety, insomnia, confusion, grief, and numbness.

Among the university students, COVID-19 pandemic has been a tumultuous time. Pandemic had the potential to affect college students physically, financially, academically, and psychologically. With a large number of students experiencing psychological distress which became a growing concern (Al Shehri, 2015). In a study conducted by (Beisland et al., 2021) to compare the quality of life and fear of COVID-19 between urban Norwegian individuals and 2600 undergraduate nursing students at five universities, nursing students reported higher levels of fear of COVID-19. Moreover, fear of COVID-19 was more prevalent among first-year nursing students, students under the age of 25, students who have difficulty trusting institutions and the government to manage the COVID-19 crisis, students who reported feeling lonely as a result of COVID-19, and students who lacked clinical practice experience. In comparison to the reference population, undergraduate nursing students had more psychological distress, which in turn affected the general quality of life during the Covid-19 epidemic.

Saudi nursing internship students were no different from the rest of the world's nursing students (Grande et al., 2021) of Hail University conducted a cross-sectional study to identify the quality of life of nursing interns in Saudi Arabia during the COVID-19 pandemic. Four domains were examined included psychological, physical, social, and environmental. They discovered that "the COVID-19 pandemic altered the working environment of NIs and other healthcare professionals in numerous ways." The psychological domain was deemed to be the most significant of the four, followed by their social relationship. Within the four domains, the environmental and physical domains received less attention."

The COVID-19 pandemic and resultant preventive services taken to combat it added substantial mental and emotional burdens to students' lives (Ghazawy et al., 2021). The existing literature on the impact of the COVID-19 epidemic on students in the United States emphasizes primarily on the role of medical and other health professions students during the current COVID-19 pandemic. Highlighted the growing concerns about the impact of COVID-19 on the mental health of vulnerable people and emphasized the imperative need for research to investigate the COVID-19 pandemic's mental health impact on college students and nurse interns (Vanaken et al., 2020).

The COVID-19 pandemic had a massive negative impact on people's daily lives. The fight against this deadly virus necessitates the participation of a large number of healthcare professionals, including nurse interns (NIs). Nurses and NIs experience stress, trauma, and mental health issues that affect their quality of life (QoL) as a result of being unprepared for a crisis of this magnitude that has never occurred in a century. As well ongoing outbreak of the pandemic could have a huge impact on the mental health of undergraduate nursing students. Limited data is available on how undergraduate nursing students and nurse interns in Saudi Arabia are coping with the COVID-19 pandemic and the extent of its ramifications on their mental health and quality of life. Thus, this study aims to examine the impact of the COVID-19 outbreak on the mental health and quality of life among undergraduate nursing students and nurse interns. The aim

Table 1. Sociodemographic characteristics of the study sample (n= 264).

Variable	n	%
Gender		
Female	264	100
Age		
Mean 21.52		
SD + 1.33		
Marital Status		
Single	253	95.83
Married	11	4.17
Divorced	0	0.0
Occupation		
Full time student	257	97.35
Part time job	4	1.52
Full time job	3	1.14
Academic Level		
Level 5	48	18.18
Level 6	53	20.08
Level 7	64	24.24
Level 8	69	26.14
Nurse Intern	30	11.36
Grade Point Average (GPA)		
Mean 3.41		
SD + 0.68		
Parents' Level of Education		
High school and below	127	48.11
Graduate education	125	47.35
Post graduate education and above	12	4.55

of the study was to examine the impact of COVID-19 on mental health and quality of life among undergraduate nursing students and nurse internes.

METHODS

Design

A descriptive correlational cross-sectional design will be used in this study to examine the impact of COVID-19 on mental health and quality of life among undergraduate nursing students and nurse internes affiliated to colleges of nursing, King Saud Bin Abdulaziz University for Health Sciences at its three campuses on Riyadh, Jeddah and Alhasa, kingdom of Saudi Arabia.

Participant and Settings

The study will be conducted virtually through web-based questionnaire survey, among nursing students and interns from the three nursing sister colleges affiliated to King Saud Bin Abdulaziz University for Health Sciences at its three campuses on Riyadh, Jeddah and Alhassa, kingdom of Saudi Arabia. The target population are nursing students and interns who will voluntarily give consent to participate in the study and complete the online questionnaire survey. A convenient sampling technique was utilized in the current study. The Sample size was calculated using Raosoft (2004) sample size calculator available at http://www.raosoft.com/samplesize.html using the following assumptions: Since the target population size is approximately 800 nursing students and internes with a confidence level of 95% so the

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Table 2. History of exposure to COVID-19 (n = 264).

Variable	n	%
Do you have any previous history of COVID-19 symptoms?		
Yes	92	34.85
No	172	65.15
Have you ever tested positive to COVID-19?		
Yes	114	43.18
No	150	56.82
Have you had any consultation with a specialist about COVID-19?		
Yes	65	21.21
No	208	78.79
Do you have any physical illnesses?		
Yes	30	11.36
No	234	88.64

Table 3. Satisfaction with perceived family support among study participants (n = 264).

Variable	n	%
From your perspective, do you receive enough family support?		
Yes	210	79.55
No	54	20.45
How much are you satisfied with the support you receive?		
Extremely satisfied	75	28.41
Very much satisfied	64	24.24
Moderately satisfied	88	33.33
Not at all satisfied	37	14.02

Table 4. Frequency distribution of mental health status items of undergraduate nursing students and nurse internes (n = 264).

Problems	Not at all		Several days		More than half the days		Nearly everyday	
	n	%	n	%	n	%	n	%
Over the last 2 weeks, how often have you been bothered by feeling nervous, anxious or on edge?	33	12.50	111	42.05	59	22.35	61	23.11
Over the last 2 weeks, how often have you been bothered by not being able to stop or control worrying?	75	28.41	93	35.23	52	19.70	44	16.67
Over the last 2 weeks, how often have you been bothered by little interest or pleasure in doing things?	58	21.97	81	30.68	68	25.76	57	21.59
Over the last 2 weeks, how often have you been bothered by feeling down, depressed, or hopeless?	74	28.03	82	31.06	57	21.59	51	19.32

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sample size is determined to be 260.

Data Collection

Data were collected using the following interments:

Sociodemographic and health status data

Sociodemographic data sheet including participant's age, marital status, employment status, location of residence, academic level, accumulated GPA, COVID-19 history of infection, and testing results, having an immediate family member diagnosed with COVID-19, history of any physical health problems (hypertension, diabetes, arthritis, asthma etc.)

The Patient Health Questionnaire-4

The Patient Health Questionnaire-4 (PHQ-4) is a 4-item inventory which was developed and validated by Kroenke et al. (2016) the scale is rated on a 4-point Likert-type scale. The purpose of the PHQ-4 is to allow for ultra-brief and accurate measurement of depression and anxiety. The scoring options range from "not at all" being the lowest, and "nearly every day" being the highest. The questions are drawn from the first two items of the Generalized Anxiety Disorder–7 scale (GAD–7) and the other two are derived from and the Patient Health Questionnaire-8 (PHQ-8). Kroenke et al. (2016) used Cronbach's alpha to assess the reliability of PHQ-4 which revealed a score of 0.81.

WHOQOL-BREF Scale

To assess the effect of the COVID-19 pandemic on participants' quality of life, the 12 items modified from the WHOQOL scale will be utilized (Algahtani et al., 2021). The adapted version of the WHOQOL-BREF scale comprised of 12 items, with five-point ratings on each item ranging from 1 to 5; therefore, the lowest possible score was 12, and the highest possible score was 60 for the total scale. High scores indicating higher levels of QOL while low scores represent a lower QoL due to the negative effects of the COVID-19 pandemic. The modified version of the WHOQOL scale demonstrated good internal consistency (Cronbach's alpha = 0.81). This research's principal investigator has contacted the authors of the 12 items modified version the WHOQOL scale and granted permission to utilize the scale for the purpose of the current research. The final questionnaire survey will be prepared on Google Forms and the survey link will be disseminated for online use by the projected participants (WHOQOL, 2020).

Analysis Data

Data was coded for entry and was analyzed using JMP Pro 15 statistical software package. Descriptive statistics was used to describe sample characteristics such as age, campus location, academic level, history of COVID-19 infection, testing, mental health status and quality of life. Inferential statistics was used to assess correlations between different study variables.

Ethical Considerations

Ethical permission to conduct this study was secured from Research Unit at King Saud Bin Abdulaziz University for Health Sciences-College of Nursing followed by the Institutional Review Board (IRB) approval from King Abdullah International Medical Research Center (KAIMRC). Informed consent was attained with a statement at the beginning of the online survey stating: "by completing this survey you gave your voluntary consent to participate in this study" after explaining the purpose of the study. Research ethics was followed strictly by the researcher. All individually identifiable information collected during this study was handled confidentially in accordance with KAIMRC protocols.

RESULTS

Data were collected from College of Nursing affiliated to King Saud bin Abdulaziz University for Health Sciences, Riyadh with the aim to examine the impact of CONID-19 on mental health and quality of life among undergraduate Saudi nursing students and nurse interns in Kingdom of Saudi Arabia.

A total number of 264 Saudi adult nursing students and nurse interns affiliated to King Saud bin Abdelaziz University for Health Sciences (n = 234, 88.64%) nursing students from different levels and 30, 11.36% nurse interns completed the online self-reported questionnaire. Table 1 shows sociodemographic criteria of the study sample. The participants were from different academic levels and their age ranged between 18-26 years with a mean age of 21.52+1.33 year. The participants' minimum Grade Point Average (GPA) score was 2 and the maximum

Table 5. Frequency distribution of quality of life items of undergraduate nursing students and nurse internes (n = 264).

Problems	Very Dissatisfied		Dissatisfied		Neutral		Satisfied		Very Satisfied	
	n	%	n	%	n	%	n	%	n	%
How would you rate the impacts of COVID-19 pandemic on your quality of life?	26	9.85	52	19.70	116	43.94	50	18.94	20	7.58
How would you rate any direct or indirect impacts of COVID-19 pandemic on your general health?	19	7.20	47	17.80	94	35.61	70	26.52	34	12.88
How would you rate the impacts of COVID-19 pandemic on your feelings of being safe in your daily life?	31	11.74	41	15.53	65	24.62	64	24.24	63	23.86
How would you rate the impacts of COVID-19 pandemic on your physical environment?	32	12.12	77	29.17	81	30.68	52	19.70	22	8.33
Keeping in view the impacts of COVID-19 pandemic, how available to you was the information that you needed in your daily life?	17	6.44	17	6.44	80	30.30	82	31.06	68	25.76
How would you rate the impacts of COVID-19 pandemic in maintaining relationship with your friends?	20	7.58	60	22.73	96	36.36	57	21.59	31	11.74
How would you rate the impacts of COVID-19 pandemic in maintaining relationship with your family?	15	5.68	31	11.74	86	32.58	85	32.20	47	17.80
Keeping in view the impacts of COVID-19 pandemic, 'how satisfied were you with the support you get from your family and friends?'	16	6.06	34	12.88	92	34.85	75	28.41	47	17.80
How would you rate the impacts of COVID-19 pandemic on your income?	28	10.61	37	14.02	108	40.91	61	23.11	30	11.36
How would you rate the impacts of COVID-19 pandemic on your access to health services?	14	5.30	30	11.36	90	34.09	74	28.03	56	21.21
To what extent does faith give you comfort to deal with hard time of COVID-19 pandemic?	11	4.17	29	10.98	90	34.09	79	29.92	55	20.83
How would you rate the impacts of COVID-19 pandemic on your spiritual practice?	13	4.92	27	10.23	82	31.06	78	29.55	64	24.24

was 4.88 with a mean GPA score of 3.41+0.68. The vast majority of the participants were full time students only (97.35%, singles (95.83%) and living with their families. More than half of the participants' parents level of education was graduate education and above (52%) (Table 1).

Table 2 epitomize participants' history of exposure to COVID-19, as shown more than one third (34.85%) had history of COVID-19 symptoms while 43.18% were tested positive to COVID-19 and only 21.21% had consultation with a specialist about COVID-19. Of the participants 11.36% had experienced other physical illness like Asthma, diabetes, Sickle cell disease, anxiety, depression and Vitamin D deficiency.

Table 3 represent the participants' satisfaction with the received family support, more than three quarters of the study participants (79.55%) had received family support and from those participants more than half of them (52.65%) revealed that they were extremely /very much satisfied with the support they received while one third (33.33%) were moderately satisfied and only 14% were not at all satisfied with the family support they received.

To assess the mental health status of the participants, they were asked how often have each of them been bothered by each of the problems listed in the table 4 and the table illustrate the participants' responses. The total mental health score of the participants ranged between 0 and 12 with a mean mental health score of 5.60+3.58. Previous research has established that a score of 3 or greater on the Depression subscale represents a reasonable cut off point for identifying potential cases of depression. A score of 3 or more is positive and should be further evaluated by PHQ-9 or a mental health referral should be made. Likewise, a score of 3 or greater on the Anxiety subscale represents a reasonable cut off point. A score of 3 or more is positive and should be further evaluated by GAD-7 or a mental health referral should be made. In the current study the depression score ranged between 0 - 6 with a mean depression score of 2.79+1.99, while anxiety score ranged between 0 - 6 with a mean depression score of 2.81+1.89.

Table 5 present frequency distribution of Quality of Life scale items of the undergraduate nursing students and nurse internes included in the study. The total Quality of life (QOL) score ranged between 12 and 60 with a mean QOL score of 39.54+9.26.

Analysis of variance showed a statistically significant correlation between perceived mental health and previous history of COVID-19 symptoms and testing positive to COVID-19 virus (p= 0.02, 0.001) while no relation was detected between perceived mental health and consultation regarding COVID-19 or having any other physical health problem (p= 0.09, 0.5) (Table 6).

As shown in table 7, no relation was detected between perceived quality of life and previous history of COVID-19 symptoms, testing positive to COVID-19 virus, consultation regarding COVID-19 or having any other physical health problem (p= 0.88, 0.73, 0.06, 0.50 consecutively).

As shown in table 8 data analysis indicated highly statistically significant correlations between perceived social support and the satisfaction of the received support and mental health scores among the students and interns (p = 0.000) indicating that those students and interns who were highly satisfied with the social support they receive experienced high scores of mental health and vice versa.

As displayed in table 9 data analysis indicated statistically significant correlations between perceived social support and the satisfaction of the received support and quality of life scores among the students and interns (p = 0.01) indicating that those students and interns who were highly satisfied with the social support they receive experienced high scores of quality of life scale and vice versa. No statistically significant correlation has been detected between quality of life and perceived mental health (r=0.089, p= 0.148) among study participants. In testing the relationship between collected sociodemographic variables and both mental health and quality of life scores, results of the current study only showed a significant correlation between parents' education and both mental health and quality of life scores (p= 0.03, 0.01consequativly) while no relation was detected between both mental health and quality of life scores and participants age, marital status, occupation, living arrangement, academic level or GPA.

DISCUSSION

The word "should" set the tone for a bittersweet storm that swept across the globe. In an effort to reduce the storm's consuming effects, society came to a halt. Stress, worry, and depression are typical symptoms among graduate

Table 6. Correlation between COVID-19 and mental health status among undergraduate nursing students and nurse internes (n = 264).

Variable	Mean	F	p
Do you have any previous history of COVID-19 symptoms?			
Yes	6.18	5.46	0.02
No	5.15		
Have you ever tested positive to COVID-19?			
Yes	5.55	10.42	0.001
No	5.09		
Have you had any consultation with a specialist about COVID-19?			
Yes	4.89	2.78	0.096
No	5.79		
Do you have any physical illnesses?			
Yes	5.27	0.29	0.59
No	5.65		

Table 7. Correlation between COVID-19 and quality of life among undergraduate nursing students and nurse internes (n = 264).

Variable	Mean	F	p
Do you have any previous history of COVID-19 symptoms?			
Yes	23.66	0.024	0.88
No	39.48		
Have you ever tested positive to COVID-19?			
Yes	39.32	0.12	0.73
No	39.71		
Have you had any consultation with a specialist about COVID-19?			
Yes	41.55	3.39	0.06
No	39.00		
Do you have any physical illnesses?			
Yes	38.47	0.46	0.50
No	39.68		

students pursuing a degree in the health care professions. The emergence of the COVID-19 pandemic is likely to exacerbate these problems. Graduate nursing students are unique in that they are exposed to both clinical pressures and the rigors and stressors associated with a graduate-level education. The COVID-19 outbreak has put medical professionals in an unprecedented predicament around the world, forcing them to make tough decisions and work under intense pressure, which may make it challenging for some to handle the situation appropriately. The current study investigated how COVID-19 affected nursing students' and nurse interns' mental health and quality of life.

In the present study, majority of the sample comprised of 88.64% nursing students from different academic levels and 30% of nurse interns and their age ranged between 18-26 years. Results indicated that history of exposure to COVID-19, more than one third (34.85%) had history of COVID-19 symptoms while 43.18% were tested positive to COVID-19 and only 21.21% had consultation with a specialist about COVID-19. In contrast, just 0.6 % among 540 nursing students in a research (Hai et al., 2022) had COVID-19 and recovered while 94.4% had COVID -19 infection. These findings have the knock-on effect that a diagnosis of COVID-19 is probably linked to higher rates of mental health issues and future psychiatric diagnoses.

In the current study the total mental health

score of the participants ranged between 0 and 12, considering depression and anxiety both of its score ranged between 0 – 6. Study conducted by (Gao et al., 2020) 1,780 college nursing students participated in the online survey, providing 1,532 complete replies, of which, (44.5%) reported having PTSD, 22.8% of them had sleeplessness, and only a small number of them (2.9%), had anxiety and depression symptoms. On contrary, according to (Pan et al., 2021) an unheard-of health crisis may have caused the symptoms to be more severe than usual. Instead of COVID-related causes, major depressive disorder or generalized anxiety disorder may be caused by a combination of hereditary characteristics and lifetime environmental conditions. Those with the highest burden of mental diseases experienced fewer depressive symptoms and concerns during the COVID-19 pandemic than those with lower burdens. Those who had poor mental health prior to the pandemic may only experience a limited amount of stress as a result of the pandemic. According to WHO the imposing measures like social isolation might make people feel more stressed, anxious, and angry (WHO, 2020). Social isolation was found to be closely related to suicidal thoughts, anxiety, and sadness (Matthews et al., 2019). Nursing students' mental health issues are exacerbated by the urge to study online for numerous reasons (Gao et al., 2021). Clinical training interruption can also take a role in mental health, in addition to the broader issues already discussed. With research conducted in various nations, it was found that, variations in the COVID-19 epidemic situation, national culture, student lifestyle, educational program characteristics, and other factors, resulted in differences in mental health levels. Whatever is the reason or situation, from the results of the current study it is evident that those nursing students and nurse interns need to be referred for further mental health treatment.

Young adults' self-perceived health is a reliable measure of their mental health and is independently correlated with their physical health and health-related behaviour's (Craig et al., 2018). In the current research, more than three quarters of the study participants (79.55%) had received family support, and from those participants more than half of them (52.65%) revealed that they were extremely satisfied with the support they received while one third (33.33%) were moderately satisfied and only 14% were not at all satisfied with the family support they received. The current body of research advises looking for social support. People frequently turn to close friends, family, and coworkers for support, advice, and problem-solving help when they encounter difficulties or uncomfortable emotions in their daily life (Vélez et al., 2016). People who were under a lot of stress were more likely to seek help than people who were under less stress (Li, 2015). These findings suggest that nursing universities should think about offering nursing students access to useful social networks, such as psychological counseling websites or hotlines, to help them deal with challenging circumstances and avoid mental health issues.

Quality of life among nursing students and nurse internes was perceived as important in the current study with an overall mean score of 39.54+9.26. More than a moderate level of the participants was satisfied on their quality of life, 23.86 % of them felt being safe during the pandemic, received all information's needed for their daily life, had a better relationship and good support from their friends and family than normal time, were able to have good access to health care services, and their faith and spiritual practices was improved. Regarding income during COVID -19 10.61% were dissatisfied, on the other hand 11.36% were very satisfied, while 23.11 % were satisfied, which indicates no much impact of financial problems. Examining nursing students' and nurse interne' s quality of life, especially during a pandemic, emphasizes how important it is to have a healthy body and mind, with the lack of either having a negative impact on the other. Understanding this during this difficult time shows the general wellbeing of them who are still fighting to meet their academic obligations (Cruz et al., 2018).

Considering the relationship between selected demographic variables and mental health status among undergraduate nursing students and nurse internes, results showed a statistically significant correlation between perceived mental health and previous history of COVID-19 symptoms and testing positive to COVID-19 virus, also indicated highly statistically significant correlations between social support and mental health among nursing students and interns, signifying that those nursing students and nurse internes who were highly satisfied with the social support they received experienced high scores of mental health and vice versa (Falguera et al., 2020). Found a favourable correlation between participants' perceived health and psychological well-being

Table 8. Frequency distribution of mental health status items of undergraduate nursing students and nurse internes (n = 264).

Variable	Mean	F	p
From your perspective, do you receive enough family support?			
Yes	7.52	20.99	0.000
No	5.10		
How much are you satisfied with the support you receive?			
Extremely satisfied	3.87	17.36	0.000
Very much satisfied	4.77		
Moderately satisfied	6.77		
Not at all satisfied	7.76		

Table 9. Correlation between social support and quality of life among undergraduate nursing students and nurse internes (n = 264).

Variable	Mean	F	p
From your perspective, do you receive enough family support?			
Yes	40.27	6.43	0.01
No	36.72		
How much are you satisfied with the support you receive?			
Extremely satisfied	41.64	3.84	0.01
Very much satisfied	40.13		
Moderately satisfied	38.99		
Not at all satisfied	35.59		

all through the pandemic. This suggests that students who scored highly on perceived health were also more likely to score highly on psychological well-being, and an empirical research has demonstrated a reciprocal relationship between the two. Lower perceived health status was most certainly linked to the emergence of anxiety disorders. Having poor general health may imply a higher chance of mental health issues (Liu et al., 2020). The fear of COVID-19 and depression have been linked in numerous researches, according to a study (Rodríguez-Hidalgo et al., 2020). This fear has been a contributing factor to depression. In general community suicide rates have been linked to depression and COVID-19-dread (Mamun & Griffiths, 2020). Additionally, a prior study with comparable results found that pupils showed strength and resilience, which were mostly brought on by their social connections and the presence of support systems (Panza et al., 2022). From the analysis it can be inferred that, having poor general health may imply a higher chance of mental health issues.

Regarding the quality of life there was statistically significant correlation between social support and quality of life scores among the students and interns indicating that those students and interns who were highly satisfied with the social support they receive experienced high scores of quality of life scale and vice versa. As well among the sociodemographic variables, there was significant correlation between parent's education and both mental health and quality of life, but no relation was detected between perceived quality of life and previous history of COVID-19 symptoms, testing positive to COVID-19 virus, consultation regarding COVID-19 or having any other physical health problem. Higher levels of family, friend, and significant other social support were found to be significant predictors of higher psychological quality of life in a study on quality of life conducted (Cai et al., 2020). In contrast, greater depression severity and the belief that one lived in a region with a high incidence of COVID-19 cases strongly predicted lower psychological quality of life. Higher social support was linked to reduced anxiety and depression, whereas lower social support was linked to higher anxiety and depression, according to studies on the general population and healthcare workers during the COVID-19 pandemic. Having a wider social network,

Dawood, E., Mitsu, R., Ghadeer, H, A., Abusaleh, R., Harbie, F. A., Alenazi, A., & Alwahibee, L. (2023). Impact of COVID-19 on mental health and quality of life among undergraduate nursing students and nurse internes. *The Journal of Palembang Nursing Studies. 2*(2), 83-96.https://doi.org/10.55048/jpns83

being more socially integrated, and receiving more family and friend support are additional factors that reduce the risk of depression (Nguyen et al., 2016). The results suggest that further research into the semantic evaluation of quality of life in the Saudi context or the Arab region is necessary.

CONCLUSION

Even though this study was carried just a few months after the outbreak, it adequately illustrates the psychological impacts of the COVID-19 pandemic. The researchers tried to provide an overview of the influence of COVID - 19 pandemic on undergraduate nursing students and nurse interns after the COVID-19 lockdown. The results of the current study indicate that some of those nursing students and nurse interns who were included in the study experienced some negative impacts on their psychological health as evidenced by a statistically significant correlation between perceived mental health and previous history of COVID-19 symptoms and testing positive to COVID-19 virus, in addition, perceived satisfaction with social support had a major role in the perception of mental health and perceived quality of life as those students and interns who were highly satisfied with the social support they receive experienced high scores of mental health and quality of life and vice versa. Based on the findings of this study, the following recommendations are proposed (1) Universities must make the most of COVID – 19 pandemic experience and revamp their available e-teaching and e-learning strategies; (2) Routine screening of all nursing students and nurse interns to early identify high risk vulnerable candidates in a timely manner; (3) The vulnerable nursing students and nurse interns should have access to psychological first aid services in order to facilitate their mission of a successful career as nurses; (4) Nursing students and nurse interns should have an access and confidential referral system to specialized psychiatric and mental health counselling services, therapies, and other support systems put in place to ensure their mental health integrity against the negative consequences of COVID - 19 pandemic; and (5) Involve nursing students and nurse interns' families on educational programs to address the impacts of social support on minimizing the negative consequences of exposure to COVID – 19 infections.

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