Perception, Coping Behavior and Quality of Life during COVID-19 among Nursing Intern Students

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Abstract

Background: COVID-19 is the most recent pandemic, with a significant morbidity and mortality rate over the world. These types of crises can have a negative impact on the mental and physical health of health-care employees, particularly nursing intern students. As a result, the success of the COVID-19 nursing intern students' struggle will be determined by their perception and coping behavior used to improve their quality of life during the global pandemic. **Aim**: Current study aimed to assess perception, coping behavior and quality of life during COVID-19 among nursing intern students. **Design**: Descriptive correlational comparative design was utilized. **Sample**: Convenience sample consisted of 400 nursing intern students which available in Minia university hospitals and 160 nursing intern students from 6 October university hospitals (total No. 560). **Setting**: Minia university hospitals and 6 October university hospitals, in Cairo, Egypt. **Tools**: four tools were utilized in this study. I: Personal characteristic data questionnaire, II: Perception about COVID 19 instrument, III: Coping behavior questionnaire, and IV: Quality of life scale. **Results**: this study revealed that more than two third of 6 October nursing intern students had satisfactory perception, nearly all intern students had moderate level of coping behavior, and more than two third of them had high level in quality of life. While Minia nursing intern students about two third of them had satisfactory perception, and moderate level of coping behavior, also about have of them had high level in quality of life. **Conclusion**: level of perception among nursing intern students was satisfactory, while coping behavior was moderate, and quality of life among them was high. There was a positive correlation and no statistically significant difference was found between perception and coping behavior; while there was a positive correlation and no statistically significant difference was found between perception and quality of life. **Recommendation:** Periodic workshop and training to improve and updating knowledge, perception and how to cope with COVID-19 that improve quality of life among intern nursing students.

Key Words: Coping Behavior, COVID-19, Nursing intern students, Perception, Quality of Life.

Introduction

COVID-19 is an infectious disease caused by a novel coronavirus that has been linked to severe acute respiratory syndrome (SARS) **(Gorbalenya et al., 2020)**. COVID -19 has been identified as the source of a coronavirus outbreak in Wuhan, China **(Hui et al., 2020)**, where it was initially reported on 31 December 2019. The World Health Organization (WHO) labeled this disease a pandemic on 11 March 2020, because to the rapid spread of virus in most countries around the world **(WHO a, 2020)**. COVID-19 has infected over 84 million individuals worldwide,

resulting in almost 1.84 million deaths by the 3rd of January 2021 **(COVID & Team, 2021).**

Egypt announced its first COVID-19 instance on 14 February, and subsequently claimed preventive steps. Nasopharyngeal swabs from symptomatic patients and contacts of confirmed cases were obtained in the first two weeks of the limited lockdown, which began on 25 March 2020 at the airport, body temperature and clinical evaluations were performed as part of the screening process **(Lai et al., 2020)**. COVID-19 has infected 153,741 people in Egypt, with 8421 deaths until January 2021 **(Mansour et al., 2021)**.

COVID-19 is mostly spread through infected micro-droplets inhaled or sneezed. The disease's incubation period varies from 2 to 14 days **(WHO b, 2020; Lauer et al., 2020)**. The key preventive strategies are constant hand washing, social separation, and following health guidelines **(WHO c, 2020)**. Fever, cough, and dyspnea are common symptoms **(CDC COVID-19 Response Team et al., 2020)**. The disease's symptoms are usually modest compared to the failure of key organs such as the lungs, heart, and kidneys, which can occur in some cases **(Hui et al., 2020)**. The disease's mortality rate has been estimated to be between 1% and 5%, though it varies depending on the patient's age and health status, particularly the presence or absence of underlying disorders **(Coronavirus Mortality Rate, 2020)**. With higher patient loads, significant interruptions to normal quality of life, and a significant risk of exposure, the COVID19 pandemic has put healthcare professionals (HCPs) in a stressful situation. The World Health Organization (WHO) stated that infections among HCPs are likely underreported. **(Suryavanshi et al., 2020)**.

During the pandemic, nursing intern students showed high level of resilience, a trait of an effective quality of life (QoL) and a value that nursing schools should integrate among their students **(Chow et al., 2018)**. The core adaption skills of people against stress were supercharged by a QoL in resilience. The QoL of people, particularly frontline workers, should be measured more than ever during COVID-19. Assuring that they function at their best is a top priority **(Cooper et al., 2020)**.

Although health care personnel play critical roles in containing and managing disease as well as rehabilitating patients, they are at danger of becoming contaminated **(Eghbali et al., 2020)**. Nurses are regarded front line forces in the fight against COVID-19 among medical personnel since they are in constant touch with patients from the time they are admitted until the time they are discharged. As a result, nurses are subjected to a variety of work dangers as well as stress **(Oh et al., 2017)**.

Healthcare workers are under a lot of physical and mental strain treating COVID-19-infected patients while simultaneously being at risk of getting and spreading SARS-CoV-2, according to **(Abolfotouh et al., 2020).** Given the long-term lack of national nurses, as well as the predicted mobility limits and turnover of the current nursing profession, which is largely (63%) expatriates, innovative initiatives to expand the national nursing workforce are important to meeting COVID-19's expectations. Using nursing intern and senior nursing students, if appropriately deployed and supported, could be the quickest way to address the growing needs of the healthcare delivery system and maximise the nation's ability to respond to the COVID-19 pandemic. More research and development is needed because to the specific characteristics of the COVID-19 pandemic. While many different research approaches were used to analyze the pandemic's phenomenon, only a few studies were conducted to see how these measurements influenced nursing students' and interns' perspectives, particularly their willingness to treat COVID-19-infected patients **(Chilton et al., 2016).**

It's vital to investigate at nursing interns' and senior nursing students' perceptions of how to respond to and treat COVID-19-infected patients in the event of a pandemic. During a pandemic, nursing intern students are also exposed to additional stressful components, such as the fear of contracting the disease, high levels of worry, stress, and despair **(Wang et al., 2020)**. Furthermore, fear of contagion, workplace stress, social isolation, and prejudice may disproportionately affect health care professionals (HCPs) **(Zhang & Ma, 2020)**. Dealing with the current COVID-19 outbreak is proving to be a huge challenge for health professionals from all walks of life. It's challenging to deal with a crisis, especially because people's coping methods will vary in such a situation. Coping refers to the strategies and actions people use to deal with difficult situations. Problem-focused coping and emotion-focused coping are the two types of coping strategies. Problem-focused coping seeks to resolve the issue or better the situation, whereas emotion-focused coping seeks to reduce the emotional distress caused by stressful situations **(Huang etal., 2020)**.

Varied coping mechanisms resulted from various emotions. Active-oriented coping methods, such as seeking for information and asking questions, are typically adopted by people who experience anger and fear. Sad people are more likely to utilize passive coping mechanisms like avoiding or accepting difficulties. Nonetheless, coping skills are critical; effective coping methods will assist individuals in managing stressful circumstances and reducing negative feelings **(Gerhold , 2020)**.Nurses utilized problem-focused coping approaches more than nursing college students who chose immature or negative coping strategies during the covid-19 pandemic **(Huang et al., 2020).**

Significance of the study

Nursing intern students in their final year of education have their clinical skills and knowledge strengthened and integrated. Nursing intern students will consolidate professional nursing knowledge and abilities in providing quality nursing care to patients with a variety of health conditions by utilizing the essential clinical and practical experience. Nursing intern students will demonstrate mastery of the competencies needed to work as a professional registration nurse. This is an intensive hands-on training experience that will enable the nurse intern students to better handle a wide range of patient conditions by applying critical thinking, nursing process, problem solving, decision making, professional, and management responsibilities in the delivery of nursing care. COVID-19 is a substantial threat to lifetime, QoL, and health, as well as having a significant impact on the mental health and coping mechanisms of nurses and nursing intern students, due to its rapid spread, powerful transmission, death in severe cases, and lack of particular treatments, creating a variety of psychological and emotional reactions, including tension, worry, fear, stress disorder, post-traumatic stress disorder, despair, and suicide Healthcare workers (HCWs) are at a higher risk of contracting COVID-19, especially if they come into contact with patients who have the virus (**Algaissi et al., 2020 & Shereen et al., 2020**). So, the researchers introducing this study to assess perception, coping behavior and quality of life during COVID-19 among nursing intern students.

Aim of the study

This study aims to assess perception, coping behavior and quality of life during COVID-19 among nursing intern students.

Research Questions

• What is the level of nursing intern students ' perception, coping behavior and quality of life during COVID-19?

• Is there relation between perception, coping behavior and quality of life during COVID-19 among nursing intern students?

• Is there a difference between Minia and 6 October nursing intern students in perception, coping behavior and quality of life during COVID-19?

Subjects and method

Setting of the study:

This study was conducted at Minia university hospitals which included (Minia emergency university hospital, liver and digestive system hospital, obstetric and pediatric university hospital) these hospitals serves Minia governorate and its 9 distracts. Also the data were collected from 6 October university hospitals which included (Railway hospital, 57357 hospitals, and Naser institute hospital).

Research design:

The current study used a descriptive correlational comparative approach to attain its aim.

Study subjects:

Convenience sample consisted of 400 nursing intern students which available in Minia university hospitals and 160 nursing intern students from 6 October university hospitals (total No =560).

Data Collection Tools:

Data were collected through utilization of the following tools:

Tool (I): Personal characteristics data questionnaire:

This tool was developed by the researchers to collect the following data; age, gender, residence, university name, source of knowledge about COVID-19 information and probability of caring for COVID-19 patients.

Tool (II): Perception about COVID 19 instrument

This instrument was developed by (**Narayana et al., 2020**), contains 10 items regarding myths and facts about COVID-19. This scale included 3 items regarding myths about transmission of virus (PE1-PE3), 2 items regarding myths about control of COVID-19 (PE4-PE5), 2 items regarding myths about preventive measures of COVID-19 (PE6-PE7), 1 item regarding myth about a diagnostic test (PE9), and 2 items regarding myths about treatment availability for COVID-19 (PE8 & PE10). These questions were also having two choices (True/False) to answer. True answer was scored 1 point and false

answer was scored 0 point. The scores were grouped into 2 categories; score of ≤ 6 was graded as unsatisfactory perception and ≥ 7 was graded as satisfactory perception.

Tool III: Coping behavior questionnaire

The coping behavior questionnaire was developed by **(Carver et al., 1989)**. The researchers altered and translated the questionnaire. It consists of 13 subscales, each with four items, each focusing on a different component of coping. Active coping, planning, and suppression of competing activities were among the five subscales used to assess problem-focused coping. A total of five subscales assessed emotion-focused coping: seeking social support for emotional reasons, positive reinterpretation and growth, acceptance, denial, and religious recourse. Focus on and venting of emotions, behavioral disengagement, and mental disengagement were the final three subscales. To meet the study's goal, the researchers chose 19 items from this questionnaire. The following items are graded on a four-point scale, with scores ranging from 1 (I generally don't do this at all), 2 (I usually do this a little), 3 (I usually do this a medium amount), and 4 (I usually do this a lot) (I usually do this a lot) Scale scores are calculated by adding all of the items together, with higher scores indicating greater difficulty. High coping was assigned a score of 22-30, moderate coping was assigned a score of 14-21, and low coping was assigned a score of 6-13.

Tool IV: Quality of life scale

Zhang & Ma, (2020) created this scale, which comprised of six questions that covered the major aspects of quality of life in regard to mental health. The first point addresses how they feel about the present pandemic's impact on their overall quality of life. Perceptions of possible mental and physical health decline are included in the second and third categories. The fourth and fifth items assess anxiety and despair as a result of the epidemic, respectively. The final question asks how much participants believe their personal safety is currently at jeopardy. A 5-point Likert scale was used for all of the questions. (1) "completely disagree", (2) "completely disagree", (3) "neither agree nor disagree", (4) "completely agree", (5) "completely agree". The total score is determined by averaging the individual item scores. The results were divided into three categories: poor quality of life, moderate quality of life, and high quality of life. Scores of 19-37 were classified as low

quality of life, 38-56 as moderate quality of life, and 57-76 as high quality of life.

Ethical considerations

The Research Ethical Committee of the Faculty of Nursing, Minia University, issued written initial clearance; there was no risk to the study sample during the application of this research, and privacy was provided during data collecting. The data was coded to ensure anonymity and confidentiality, and the nurse intern student has the right to reject to participate in the study for any reason. The analyzed sample gave informed oral agreement to participate in the study.

Pilot study

A pilot study was conducted to assess the clarity and application of the questions, as well as the time required to complete each page. It was carried out on 10% of nursing intern students, and no changes in the items tools were observed as a result of the pilot study, therefore the pilot sample was used in the study.

Validity of the study tools

A panel of five professionals in the fields of nursing administration and psychiatric mental health nursing from faculty of nursing determined the face validity of the current study tools (6-octoper University& Minia University). The tools were judged on their content, phrasing, length, coverage clarity, format, and overall appearance by each expert panel. All jury members agreed that the current study techniques were legitimate and appropriate to the study's goal based on their recommendation, hence no changes were made by the Jury panel.

Reliability of the study tools

The reliability test was calculated using Cronbach's Alpha Coefficient for the analysis equipment. Cronbach's Alpha Coefficient was employed to assess the study scales' internal correctness. The perception questionnaire had a reliability of.804, the coping behavior scale had a reliability of.757, and the quality-of-life questionnaire had a reliability of.875.

Procedure

The dean of the nursing faculty at Minia University and 6 –October University gave their approval to perform the study. Three times a week, in the morning and afternoon shifts, the researchers questioned the participants at various training locations. To improve cooperation during the research implementation phase, the researchers communicated the study's goal, quality, and relevance to all participants identified in the training area. After describing the purpose of the study during data collection, each participant in the study gave their oral agreement; the researchers handed the questionnaire sheets to the participants in their units individually and requested them to fill them out. The researchers waited until the individuals had finished their sheets and were ready to respond to any questions. The questionnaires took from 20 to 25 minutes to complete. The information was gathered within two months (November to December 2020).

Statistical design

The statistical package for social studies (SPSS) version 24 was used to enter data and perform statistical analysis. For qualitative variables, appropriate descriptive statistics were utilized, such as frequencies and percentages, and for quantitative variables, means and standard deviations. The correlation coefficient (r) test was used to determine how closely variables were related. Statistical significance was defined as a p-value of less than 0.05 for all of the criteria utilized.

Result

Table (1): shows that, (78.6%) of nursing intern students are in the age 23-25 year, more than half (52.7%) of them are males, less than three quarter (71.4%) of them from Minia university, about half (49.8%) of them from rural area, less than half (44.8%) of them are may be caring for COVID19 suspected or confirmed patient, and less than half (47.9%) of them have their source of knowledge from social media.

Figure (1, 2): summarizes that, regarding Minia nursing intern students have less than three quarter (73.3%) of them have satisfactory perception, while the majority of them have moderate level of coping behavior ,and more than half (53%) of them have high level of quality of life. As regards 6

October nursing intern students (75%) of them have satisfactory perception, while the majority of them have moderate level of coping behavior, and more than three quarter (79.4%) of them have high level of quality of life.

Table (2): indicates that, mean scores of perception for nursing intern students in 6 October University more than Minia University (7.02±1.19, 6.75±1.41 respectively) with statistically significance difference (P= .034 *). Also, mean scores of coping behavior for nursing intern students in Minia University more than in 6 October university (49.7±6.28, 48.4±4.32 respectively) with statistically significance difference (P= .011*), while quality of life for nursing intern students in 6 October University more than in Minia University (23.1±2.36, 20.4±5.04 respectively) with statistically significance difference (P=.000**).

Table (3): shows that, statistical significant differences between studied variables and age with (P=6.54 ,035*, P= 20.4 ,.000**and P= 89.3, .000** respectively).There are no statistical significant differences between perception and gender with (P=3.29 ,.083);but there are statistical significant differences between coping behavior ,quality of life and gender with (P=14.7,.000**, P= 18.7,.000** respectively) .Also there are no statistical significant differences between perception, coping behavior and residence with (P =022,.992, P=3.60, .457 respectively) . In addition statistical significant differences between quality of life and residence with (P=24.1, 000**) .While there are statistical significant differences between quality of life and caring any COVID19 suspected or confirmed patient with (P=14.1, .007*) .Also there are statistical significant differences between coping behavior, quality of life and source of knowledge with (P= 43.2, .000**, P= 24.03.002*) respectively.

Table (4): summarizes that, positive correlation and no statistically significant difference between perception and coping behavior for nursing intern students r= (.020) P-value= (.233).While there are positive correlation and no statistically significant difference between perception and quality of life for nursing intern students r= (.099) P- value = (.091) ,and there are positive correlation and statistically significant difference between coping behavior and quality of life for nursing intern students r= (.324) P-value= (.000**).

Table (1): Distribution of nursing intern students according to their personal characteristics data (n=560).

| Personal characteristics data		nursing intern students	
		No	**%**
Age			
• **20-22 year**		1	20.9
• **23-25 year**		440	78.6
• **>26 year**		3	0.5
Mean+SD		**22.8+0.85**	
Gender			
• **Male**		295	52.7
• **Female**		265	47.3
university			
• **Minia university**		400	71.4
• **6 October university**		160	28.6
Residence			
• **Urban**		169	30.2
• **Semi Urban**		112	20
• **Rural**		279	49.8
Are you caring for COVID-19 patients			
• **Yes**		159	28.4
• **No**		150	26.8
• **May be**		251	44.8
Source of knowledge			
• **Journal**		72	12..9
• **Social media**		268	47..9
• **Friends**		42	7.5
• **WHO information**		178	31.8
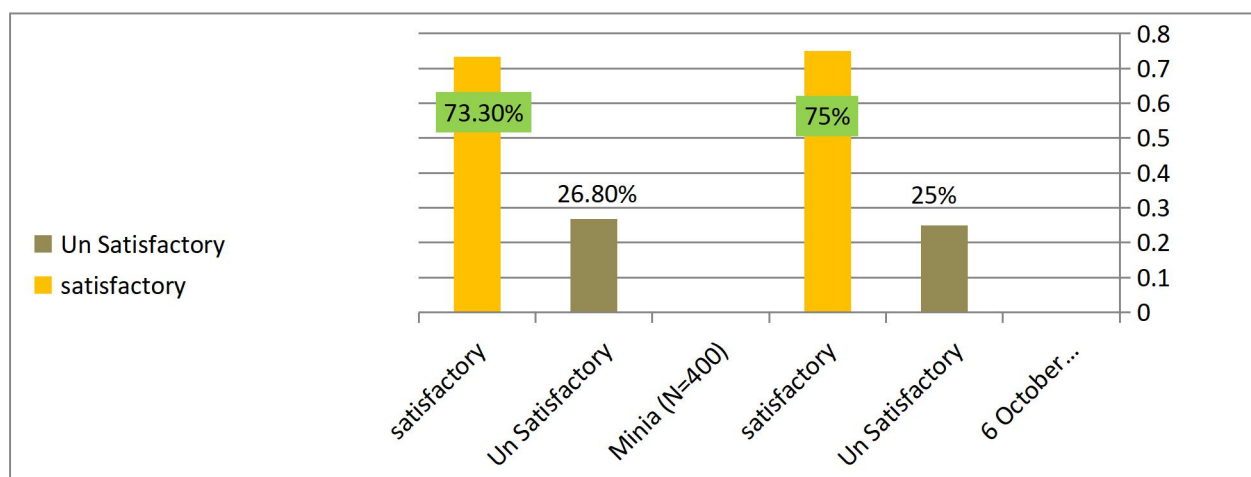
Figure (1)
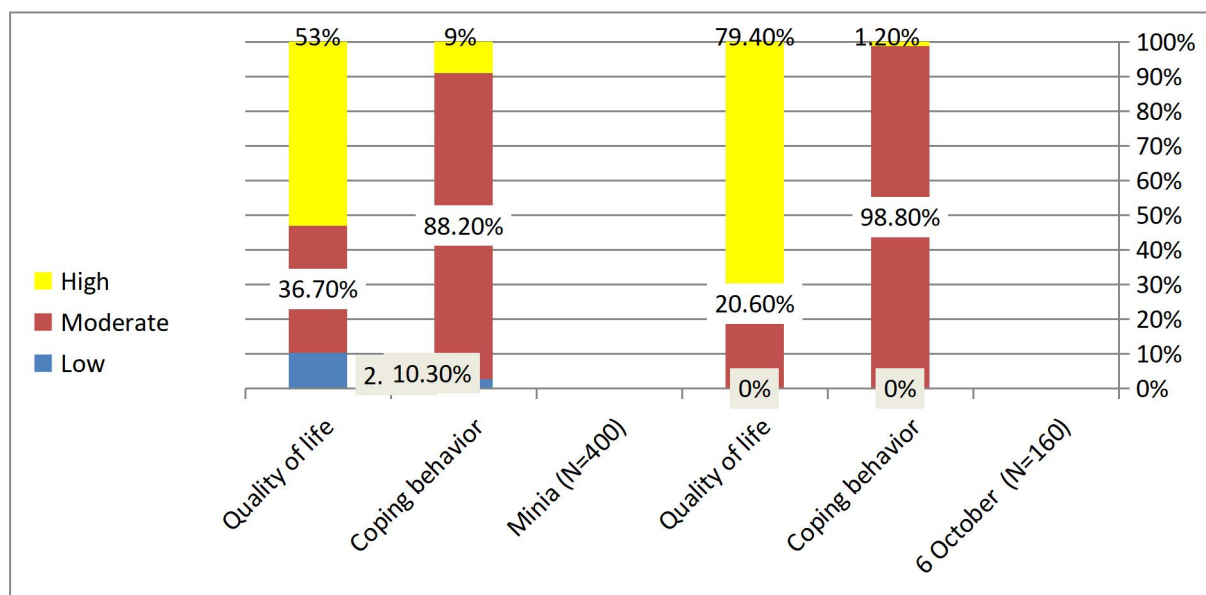
Figure (2)

Figure (1, 2): Frequency distribution by percentage of nursing intern students for perception, coping behavior and quality of life (N=560).

Table (2): Mean score comparison between perception, coping behavior and quality of life among nursing intern students (n=560).

studied variable	Nursing intern students (n=560)				T test	P-value
	6 October (N=160)		Minia (N=400)			
	Mean	+SD	Mean	+SD		
Perception	7.02	1.19	6.75	1.41	2.12	.034 *
Coping behavior	49.7	6.28	48.4	4.32	2.53	.011*
Quality of life	23.1	2.36	20.4	5.04	6.33	.000**

* P ≤ 0.05 (significant) * statistically significant difference

Table (3): Relation between Perception, Coping behavior, Quality of life and personal data among nursing intern students (n=560).

Personal data	Perception				X^2 (p- value)	Coping behavior						X^2 (p- value)	Quality of life						X^2 (p -value)
	Unsatisfactory (N=147)		Satisfactory (N=413)			Low n=11		Moderate n=511		High n=38			Low n=41		Moderate n=180		High n=339		
	No.	%	N	%		No.	%	No.	%	No.	%		No.	%	No.	%	No.	%	
Age																			
• 20-22 year	22	3.9	95	17	6.54 (.035*)	9	1.6	101	18	7	1.3	20.4 (.000**)	29	5.2	56	10	32	5.7	89.3(.000**)
• 23-25year	123	22	317	56.6		2	0.4	407	72.7	31	5.5		12	2.1	123	22	305	54.5	
• >26 year	2	0.4	1	0.2		0	0	3	0.5	0	0		0	0	1	0.2	2	0.4	
Gender																			
• Male	68	12.1	227	40.7	3.29(.083) NS	9	1.6	276	49.3	10	1.8	14.7(.000**)	31	5.5	108	19.3	156	27.9	18.7(.000**)
• Female	79	14.1	186	33.2		2	0.4	235	42.0	28	5.0		10	1.8	72	12.9	183	32.7	
Residence																			
• Urban	44	7.9	125	22.3	.022(.983) NS	5	0.9	155	27.7	9	1.9	3.60(.457) NS	16	2.9	67	12.0	86	15.4	24.1 (.000**)
• Semi-urban	30	5.4	82	14.6		3	0.5	99	17.7	10	1.8		15	2.7	37	6.6	60	10.7	
• Rural	73	13	206	36.8		3	0.5	257	45.9	19	3.4		10	1.8	76	13.6	193	34.5	
University																			
• Minia	107	19.1	40	7.1	.181(.750) NS	11	2.0	353	63	36	6.4	15.8 (.000**)	41	7.3	147	26.3	212	37.9	38.7(.000**)
• 6 October	293	52.3	120	21.4		0	0	158	28.2	2	0.4		0	0	33	5.9	127	22.7	
Are you caring																			
• Yes	41	7.3	118	21.1	1.78(.428) NS	6	1.1	141	25.2	12	2.1	4.77(.314)NS	19	3.4	60	10.7	80	14.3	14.1(.007*)
• No	34	6.1	116	20.7		3	0.5	137	24.5	10	1.8		10	1.8	49	8.8	91	16.3	
• May be	72	12.9	179	32.0		2	0.4	233	41.6	16	2.9		12	2.1	71	12.7	168	30.0	
Source of knowledge																			
• Journal	16	2.9	56	10	4.25(.238) NS	2	0.4	69	12.3	1	0.2	43.2(.000**)	3	0.5	30	5.4	39	7.0	24.03(.002*)
• Social media	63	11.3	205	36.6		2	0.4	242	43.2	24	4.3		22	3.9	87	15.5	159	28.4	
• Friends	12	2.1	30	5.4		6	1.1	35	6.3	1	0.2		9	1.6	15	2.7	18	3.2	
• WHO information	56	10	122	21.8		1	0.2	165	29.5	12	2.1		7	1.3	48	8.6	123	22.0	

Table (4): Correlation between perception, coping behavior and quality of life among nursing intern students (n=560).

Variable		Nursing Intern Students (N=560)		
		Perception	Coping behavior	Quality of life
Perception	r	1		
	P			
Coping behavior	r	.020	1	
	P	.233		
Quality of life	r	.099	.324	1
	P	.091	.000**	

Discussion

COVID-19 rapid spread poses a serious threat to human health and is having a significant influence on public health, global communications, and economic systems around the world. Nurses play an important role in healthcare teams that are tasked with controlling and preventing the spread of infectious diseases. Nurses also work on the front lines, providing direct care to COVID-19 affected people **(Shu-Ching et al., 2020)**. So, the current study aimed to assess perception, coping behavior and quality of life during COVID-19 among the nursing intern students.

In this study, regarding age the majority of the nursing intern students were between age 23 to 25 years old. This might be due to that participants who included in this study were nursing intern students. This finding was consistent with the study **(Erick & Baloran, 2020)** who reported that the majority of the students belong to the age group of 20 to 25-years-old.

The finding of the present study revealed that nursing intern students used social media and WHO information as the first source of knowledge about COVID19. This might be due to the spread and diversity of social media and the ease of accessing various information on different sites additionally the information provided by the World

Health Organization is accurate and correct during the outbreak of COVID 19; also the nursing intern student seem to be equipped with the basic information, aware of the precautions measures and abiding by the lockdown rules. These findings matched those of **(Huynh et al., 2020; Chi Chen et al., 2020),** who found that social media is the most common source of COVID-19 information among Vietnamese healthcare personnel. Official government websites and social media, according to another study, are reliable sources of information about COVID-19 for healthcare personnel **(Bhagavathula et al., 2020)**.

The present study results revealed that majority of nursing intern students was caring with patients confirmed or suspected of COVID-19. This result might be due to that nursing intern students contacts with patients directly during clinical rotation in different areas. The findings were in contrast to those of **(Albaqawi et al.,2020),** who conducted a study on nursing students' perceptions, knowledge, and preventive behaviors toward COVID-19, and found that the majority of students did not care about anyone in their immediate community who had a confirmed COVID-19 infection.

Furthermore, according to the current study, almost two-thirds of nursing intern students had a satisfactory perception level. This finding could imply that participants are taking the problem seriously and are proposing more effective ways to prevent the spread of the coronavirus; also, nursing intern students are fearful of infection and are concerned about the elderly members of their families. These findings are consistent with the findings of **(Albaqawi et al., 2020),** who found that students on internship had better preventive behavior than students in other year levels, implying that the practical learning experience in the clinical area of internship may have enhanced their sense of risk perception. A similar finding was found in a study by **(Taghrir et al., 2020),** which found that medical students had a medium risk perception of COVID-19.

In terms of coping behavior, the current study found that almost two-thirds of intern nursing students have a moderate level of coping strategy. This results could be explained by the fact that nursing intern students frequently suffer dread and significant levels of psychological distress during epidemics. Fear, on the other hand, is a healthy psychological, physiological, and behavioral state that helps pupils cope with adversity and surprise. In addition ;this possibly returned to that students have much information which help them to cope

with health problems and the effective communication between students and nursing educators staff as providing them with psychological support, which helps them to confront the difficulties during pandemic of COVID- 19. This finding is in line with the findings of **(Sheroun et al., 2020),** who found that 76.58 percent of individuals had intermediate coping strategies and just 4.92 percent had low coping strategies.

The current study's findings revealed that more than half of nursing intern students had a high quality of life. This could be due to organizational support focusing on providing social support during times of crisis and reducing feelings of job insecurity and incompetence among nursing intern students. Organizations can also improve employees' sentiments of competence by praising their existing contributions and their ability to adapt to and embrace new work demands. Participants who considered religious coping as useful in managing stress during the uncertain time of the COVID-19 pandemic had greater levels of quality of life, according to these findings. These findings corroborated those of **(Farris et al., 2020),** who said that during COVID-19, around 68.3 percent of the study sample had good quality levels among university students.

This study explained that there is simple difference in mean score of perception, coping and quality of life between 6 October University of nursing intern students and Minia nursing intern students. This could be because students' academic qualifications are nearly identical to a considerable extent, as well as their exposure to high-level COVID-19 learning, as well as environmental hospital exposure and prevention approaches. This finding matched that of **(Albaqawi et al., 2020),** who found no difference between perceived and actual COVID-19 knowledge in the study's sample of universities.

Current study show that there wasn't relationship between nursing intern students' perception and demographic characteristics except in age of the participants there was significant association. This result might be related to previous experience that nursing intern students acquired during studies years increased with age therefore might effect on their perception. This discovery was in line with the findings of **(Li et al., 2020),** who found that except for the participant's perception and gender, there was a relationship between them. The same author added that females more perceived of COVID-19 than males. The previous result contrasted with the findings of

(Ding et al., 2020), who found a statistically significant difference in risk perception scores between male and female college students.

The current study's findings revealed that there was a link between participants' quality of life and their age; this result may be explained by the availability of social support from family and friends, as well as stronger self-efficacy, competence, and self-esteem at a younger age. This finding was in line with the findings of **(Farris et al., 2020 &Raggi et al., 2016),** who found that, after controlling for various demographic, personal, clinical, and psychological characteristics, as well as social support, older age affected environmental quality of life.

Finally, this study discovered a statistically significant positive link between coping behavior and quality of life. This could be related to the fact that when an individual is able to apply various coping methods, they would be able to cope with a variety of situations, thereby improving their quality of life. This finding matched that of **(Farris et al., 2020),** who found that religious coping and increased family, friend, and significant other support predicted an improvement in environmental quality of life. Furthermore, religious coping was found to be favourably associated to quality of life **(Gardner et al., 2014).**

Conclusions

The present study reported that level of perception among nursing intern students was satisfactory, while coping behavior was moderate, and quality of life among them was high. There was a positive correlation and no statistically significant difference was found between perception and coping behavior; while there was a positive correlation and no statistically significant difference was found between perception and quality of life. Also , present study revealed that mean score of perception and quality of life among nursing intern students in 6 October University more than those at Minia University .While, mean scores of coping behavior for nursing intern students in Minia University more than 6 October University.

Recommendation

• Periodic workshop should be done to improve and update nursing intern students' knowledge, perception and coping among covid19 pandemic.

• Health care setting should provide nursing intern students with enough personal protective equipment.
• Educational intervention should be tailored to nursing intern students, including teaching preventive measures and practical identification of risks during covid19 pandemic.
• Encourage nursing intern students to return to their usual work and rest schedule as much as possible to mitigate anguish and fear.

Recommendations for further studies:

• Further studies on the satisfaction of the nursing internship students with the availability of preventive measures for them in the training places and their support from the health team during COVID-19 pandemic.

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Nil.

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