CRITICAL CARE NURSES' CONFLICT AND COMMUNICATION GAP DURING CARE OF PATIENTS WITH CORONA VIRUS

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ABSTRACT

Background: Corona Virus overwhelmed many countries' healthcare systems, causing high levels of conflict amongst frontline nurses. **Aim**: To explore the conflict level and communication gap amongst the critical care nurses during the care of patients with COVID-19. **Subjects and Method**: **Design:** A descriptive exploratory design was utilized. **Setting:** The study implemented at the intensive care units (ICUs) affiliated to Abo Khalifa Emergency Hospital in Ismailia City, Egypt **Subjects:** A convenient sample of 80 nurses working at the critical care units affiliated with a specialized isolation hospital in Ismailia City, Egypt, from July to September 2020. **Tools:** tool one a self-administered conflicts and communication gap questionnaire, which contained three parts (Nurses' Personal characteristics profile, Nursing Conflict Scale (NCS), and Rahim Organizational Conflict Inventory-II form C, to assess staff nurses' preferred conflict resolution strategies. **Results** clarified that conflict was experienced by all critical care nurses, with **42.5% of the studied nurses have had moderate conflict**, with the most common factors precipitating conflict being recurrent contact with infected patients and fear of infection for themselves and their loved ones by all the entire nurses (100%). **Conflict types reported by the critical** care nurses were intergroup, intrapersonal, competitive, intragroup, interpersonal, and disruptive by (3.59±1.43, 3.40±1.31, 3.21±1.24, 3.17 ±1.32, 2.93±1.23, and 2.47±1.41) respectively, with a statistically significant positive correlation between the level of conflict and collaboration, compromise, and avoiding conflict management styles (p-value.036,.002, and.000 respectively). **Conclusion:** Slightly less than half of nurses had moderate conflict levels, and collaborating was the most common used conflict resolution strategy, with the least one being avoidance. **Recommendations:** Training in conflict resolution strategies during outbreaks of terrorism as COVID- 19.

Keywords: Critical Care Nurses, Conflict and Communication Gap, Patients with COVID-19

INTRODUCTION

The coronavirus (COVID-19) pandemic is the defining global health crisis of our time. Coronavirus has wreaked havoc on health-care systems, economies, and government societies all over the world. It is the greatest challenge the world has faced since World War Two, as it affects everyone globally from its beginning until September 8, 2021, around 223,418,531 confirmed cases, including 4, 610,056 deaths, (WHO Health Emergency Dashboard, 2021). The virus spread to almost all countries, including Egypt. The highly affected countries called for help when COVID-19 massively harmed healthcare systems and resources. In some countries, the number of infected cases was large and rapidly growing, which in turn increased the need for critical care (Grasselli, Pesenti, & Cecconi, 2020). However, in some other countries, the number of cases either remained steady or fluctuated, as in Egypt. In Egypt, from February 14, 2020 to September 8, 2021, there have been 291,172 confirmed cases of COVID-19 with 16,824 deaths (Egypt: WHO, 2021).

Governments around the world are responding at global, regional, national, and local levels by developing guidance for the health systems and the public. Each government sets a separate plan according to the efficiency of its health sector, including Egypt, which has a highly efficient plan to grasp professional staff to overcome a shortage in health-care workers, uses many of the ministry of health hospitals in addition to universities' hospitals as isolation sectors for infected patients, and opens many field hospitals in the face of COVID-19 (Ministry of Health and Population: Egypt, 2020). The hospital management personnel use some mechanisms to avoid and minimise conflicts between staff nurses and nurse unit managers, such as rotational shifting, but at the ICUs, it is difficult to do because of the nature of the work that could increase conflict and have major effects on nurses and work, especially during this period with the presence of the COVID-19 pandemic.

Coronavirus disease (COVID-19) is a newly discovered infectious disease by the end of 2019. A large number of people infected with the COVID-19 virus may have mild to moderate symptoms and recover without treatment. Older people and those with co-morbidities are more likely to develop serious illness and have a bad prognosis. Signs of infection include mainly respiratory symptoms, fever, dry cough, and breathing difficulties. In severe cases, patients may have severe acute respiratory disorders,

pneumonia, kidney failure, or even death. Primarily, the virus spreads through droplets from an infected person's coughing or sneezing. The best way to prevent or slow the spread of infection is to identify how the infection spreads, wash hands frequently, use an alcohol-based rub, avoid touching the face, nose, or mouth, and practice respiratory etiquette. At this time, there are no specific vaccines or treatments for COVID-19 (WHO EMRO, 2020).

The nurses' roles in caring for patients with COVID-19 involve triaging patients, detecting infected cases, providing treatment in an emergency, following infection control precautions; providing holistic nursing practices for critically ill patients; expanding care services; and dealing with patients' relatives (Xie et al., 2020). During crises, nurses have more tasks to manage patients. Therefore, nurses must be well-equipped with efficient knowledge and skills in managing crises and be prepared physically and psychologically to face the pandemic (Borasio, Gamondi, Obrist, & Jox, 2020).

Rocha & Correa (2020) defined conflict as a dynamic process that may be negative or positive, healthy or unhealthy, or even creative. So, it provides an opportunity to draw a better future within the health-care system. Effective management of conflict promotes high patient outcomes, but unresolved conflicts cause negative patient outcomes.

Conflict and communication gaps can occur in different types as they may be intrapersonal, interpersonal, intra-group, inter-group, or organizational. Intrapersonal conflict occurs within the individual when facing two or more incompatible demands. Interpersonal conflict occurs between two or more individuals whose goals, values, and beliefs are different. Intra-group conflict occurs within a group due to lack of support, new issues needing changes within the roles of the group members, imposed values and their relationships (Moisoglou et al., 2014). Inter-group conflict occurs between groups with different goals. Moreover, organizational conflict occurs when there is a difference between policies and procedures or informally accepted norms of behavior and patterns of communication (Cherry & Jacob, 2017).

The management of conflict and communication gaps includes the recognition of conflict and communication gaps, determination of their intensity and effects, identification of the best intervention methods, and evaluation of the results; using

different strategies such as competing (assertive and uncooperative), accommodating (unassertive and cooperative), avoiding/or withdrawing (also called "unassertive and uncooperative"), collaborating (assertive and cooperative), and compromising or negotiating strategy that is called "intermediate cooperative and assertive." These strategies are identified by their location in two dimensions that are concern for self and concern for others (Marquis & Huston, 2015).

The significance of the study

Nowadays, the entire world is living in an urgent period with new plans in the health sector and regional change in the light of the universal COVID-19 pandemic management strategies. The pandemic makes the healthcare workers very stressed and conflicted as they compose the first line defense team against the virus to protect the general population.

At the time of the pandemic, the shortage of nursing staff in the health care setting was a significant problem, as the number of patients infected with the disease exceeded the number of nursing staff. In response to this shortage; the Egyptian ministry of health assigned a large number of nurses from different health care settings and from different cities within the country to work at one of the specialized isolation hospitals in Ismailia City, Egypt.

The findings of the current study may help explore the severity of the problem and identify relevant recommendations to help with the problem's intervention. The researchers are interested in the topic because of its direct and indirect effects on healthcare outcomes and critical care nurse work management. This research will provide baseline data about the causes of conflict and communication gaps amongst nurses, and it further help to identify the most effective strategies for their management amongst critical care nurses. Exploring the factors that interrupt nurses while caring for patients with COVID-19 will help increase nurse and hospital resilience in response to the pandemic.

AIM OF THE STUDY

This study aimed to explore the conflict level and communication gap among the critical care nurses during the care of patients with COVID-19 through the following questions:

- What are the types of conflict and communication gaps experienced by the critical care nurses during the COVID-19 pandemic?

- What is the level of conflict and communication gap among the critical care nurses during the care of patients with COVID-19?

- What are the factors precipitating conflict and communication gap as reported by the critical care nurses?

- What are the conflict and communication gap management strategies mostly used by the critical care nurses during the pandemic?

SUBJECTS AND METHOD

Design:

The present study used a descriptive exploratory design to describe the current situation and explore the precipitating factors.

Setting:

The data was collected from the intensive care units (ICUs) at the 120-bed Abo Khalifa Emergency Hospital in Ismailia City, Egypt. The hospital was prepared to be the second hospital in Egypt to isolate patients with COVID-19, with 45 ICU beds prepared with the most recent high-tech medical equipment.

Subjects :

Staff nurses working in previously selected settings were enrolled in this study. The total number of staff nurses in these ICUs was not fixed because the fixed number of ICU beds was only 13, but during the pandemic, the number increased to 45 with the increase in the number of nursing staff according to the total number of COVID-19 positive cases isolated in the ICUs. A convenient sampling technique was implemented by inviting male and female staff nurses working in the predetermined settings to participate in the study from July to September 2020 with the following inclusion criteria: work experience for more than one year, ranging in age from 20–40 years old, and contact directly with COVID-19 positive patients. The total number of staff nurses

included in the study was 80. The sample size was calculated using Charan and Biswas's (2013) formula, which is:

$$n = \frac{\left(\frac{z\alpha}{2} + z\beta\right) 2(P1(1-P) + (P2(1-P2))}{(P1-P2)2}$$

n= sample size

Zα/2= 1.96 (the value for a type 1 error of 5%)

Zβ = 0.84 the value for a type 1 error of 20%)

P1 = proportion of nurses who work directly with COVID -19 patients

P2 = proportion of nurses who don't work directly with COVID -19 patients

P1-P2= desired size

Tools of Data Collection:

The studied nurses completed two tools to assist in data collection.

The tool I: Is a self-administered questionnaire to assess the types of conflicts, communication gaps, and Factors precipitating conflict and communication gaps among critical care nurses during the pandemic. It is composed of three parts:

Part I: Personal Characteristics Profile to assess the respondents' age, gender, marital status, educational level, years of experience, and working unit.

Part II: The Nursing Conflict Scale (NCS) to assess types of conflict and communication gaps experienced by critical care nurses during the management of patients with COVID-19. The NCS was primarily developed and tested by Elshimy, Abel El-Megid, and Mohamed (2002) at Ain Shams University Hospital in Cairo, Egypt. The NCS was categorized into five types:

Type I, disruptive conflict included five (5) items asking about if the nurse can satisfy all parties during work; disagreements between the physician and nurse, disagreements between medical and nursing staff; Physicians always interfere in nursing decisions due to the presence of the wrong concept about nursing in the hospital.

Type II, interpersonal conflict included seven (7) items asking about the feeling of the nurse that her job is not necessary, trying to take the colleague's work, feeling uneasy about working with colleagues, revenge of medical staff at the time of disparity, feeling unsafe during work with others, unfair incentives among nurses, and the presence of disagreement among the nursing personnel.

Type III, intrapersonal conflict included six (6) items asking about the ability of the nurse to accept work without resources, dissatisfaction with work, work without desire, change jobs if there is a chance, need to change jobs but cannot, and absence of motivation to work.

Type IV, intergroup conflict included six (6) items asking about the cooperation of the nurse with other nursing personnel, congruency between nursing and others in the hospital, presence of problem-solving meetings, clarity of the nursing department objectives, and systems among the nursing personnel to exchange information, and agreements during meetings on nursing decisions.

Type V, intragroup conflict, included six (6) items asking about the ability of the nurse to work with diverse nursing, the work being accepted by some and refused by others, agreeing and disagreeing with different groups of colleagues, competition with colleagues, respect of the medical staff to the nursing job, and nursing policies interpretation differences.

Type VI, competitive conflict, included six (6) items: asking about clarity of policies before responsibilities implementation, competition among nurses to be entrusted by supervisors, unresolved competition for staff development activities, the purpose of the competition being included in staff development activities, competition with colleagues for work differentiation, and working well because of fear of punishment.

The scoring system of the instrument was calculated as follows: The scale consists of thirty-six (36) items and uses three-point scales (0–2): 0 = no, 1 = sometimes,

and 2 = yes, with a total score of 72. The high conflict level is 49–72 (66.7%), the moderate conflict level is 25–48 (33.3–66.7%), and the low conflict level is 0–24 (33.3%).

Part 3: Factors precipitating conflict and communication gaps among critical care nurses during the pandemic. This part was developed by the researchers after reviewing the related kinds of literature. It includes twelve (12) points, including recurrent exposure to infected people, insufficient or non-proper protective equipment, in addition to increasing work time and load (Tan et al., 2020). Shortage of staff, death among nursing staff, feeling isolated, poor patients' outcomes, feelings of powerlessness, and fear of transmitting the infection to their loved ones (Robert et al., 2020). Poor communication, problematic behavior of patients or relatives, and a massive flow of health information (Polyzou & Tsiotras, 2018, Finset et al., 2020). The respondents were informed to choose all applicable answers.

Tool II: Rahim Organizational Conflict Inventory-II (ROCI-II), form C. To assess staff nurses' preferred conflict resolution strategies by Rahim, (2011). ROCI-II is a self-assessment tool that measures five dimensions or styles of handling conflict, which are: "collaborating, accommodating, competing, avoiding, and compromising". It consists of 28 items: collaborating (7) items, accommodating (6) items, competing for (5) items, avoiding (6) items, and compromising (4) items.

The items of ROCI–II cover the five styles as follows: 1, 4, 5, 12, 22, 23, and 28 cover collaborating styles; items 2, 10, 11, 13, 19, and 24 cover accommodating styles; items 8, 9, 18, 21, and 25 cover competing styles; items 3, 6, 16, 17, 26, and 27 cover avoiding styles; items 7, 14, 15 and 20 cover compromising styles. The conflict resolution styles included reflect various concerns for oneself and others. The ROCI–II can be completed in 8 minutes.

Scoring: It is a 5–point Likert scale, with the higher score representing greater use of a conflict style. Strongly disagree = 1, strongly agree = 5, and strongly agree = 6.The respondents were told that there was no right or wrong answer and that their responses should reflect their behaviors in conflict situations. The highest score for each set of indicators representing a conflict resolution strategy is the one adopted by the study

respondents when facing conflict in the workplace. The score for each dimension in the ROCI II form is determined by summing specified items in the questionnaire.

Validity:

The questionnaire was tested for validity after the review by five panel experts in medical-surgical nursing and piloted for data collection to test feasibility and applicability. As previously stated, the test was widely used both nationally and internationally with English and Arabic language by various authors.

Reliability:

Tools were translated from English into Arabic by back-to-back translation. The used tools were developed after reviewing the evidence-based national and international literature. An Alpha Coefficient was used to check the reliability of the tools. The stability of the scale was established by measuring test-retest reliability that was (0.86) for the nursing conflict scale (NCS), and from 0.72 to 0.80. for the ROCI–II scale.

Pilot study

A pilot study was implemented on eight nurses representing 10% of the total sample to assess clarity and feasibility, in addition to the time needed to complete the used tools. It was implemented in May 2020. Based on the results of the pilot study, minor modifications were made to adapt to the Arabic world's nature. The nurses who participated in the pilot study were included in the data collection for the current study sample.

The procedure and work description

The preparatory phase is composed of reviewing the recent kinds of literature concerned with the research problem and theories of different problem aspects using books, the net, articles, and periodicals to develop tools of data collection.

The data was collected from July to September 2020 by visiting the setting two times per week during the morning shift, which extended to 12 hours per day.

The first phase of the work was implemented by delivering an approval letter by the investigators to the hospital directors to conduct the study, to ensure effective participation of the respondents.

The researchers first met primarily with the nurse supervisor and explained the nature and aim of the study. They then met with all the critical care nurses one-by-one, because of the nature of work at the ICUs, especially during this period, and explained the aim and nature of the study, and the study outcome for the staff nurses as well as the patients.

Oral consent was obtained from the participants as written consent was not guaranteed for explaining the aim, objectives, and method of the study. A letter was sent to the nurses before the meeting via mail, and nurses who confirmed participation were interviewed. Moreover, all nurses were adults without the collection of sensitive data, so nurses' approval was sufficient. The researchers met one-quarter of the shift capacity nurses each visit as the self-administered Arabic questionnaire was given to the nurses at the beginning of the shift to allow nurses to fill it out while they were on break, with the presence of one of the researchers at the end of the shift for interpretation of any questions.

Ethical Considerations

Before actual data collection, the purpose of the study and its nature were explained to all the critical care nurses and the supervisors. Participants were assured of confidentiality throughout the study phases and were free to withdraw or leave the study at any time with no consequences. They were guaranteed that there were no discomforts, risks, or complications from participating in this study. The study participant provided verbal consent. The telephone number of the researchers was available to all the study participants. Ethical approval for the study was obtained from the faculty of the Nursing Institutional Review Board.

Statistical Analysis

The SPSS program version (21) was used to code and tabulate the data for analysis. The personnel characteristics, types of conflict, as well as conflict management strategies were analyzed and presented using descriptive statistics, such as frequencies,

percentages, means, and standard deviations. The chi-squared test was used to determine the presence of significant differences and relationships between variables. The level of significance was set at $P \leq 0.05$. (2-tailed) was used for correlation.

RESULT:

Table (1): explains the personnel details of the studied critical care nurses. The table shows that 66.25% of the studied critical care nurses were female, (71.25%) aged from 20 to 26 years old and (25.00%) aged from 27 to 33 years old. Sixty percent of the studied critical care nurses were single, (58.75%) had technical nursing education and (41.25%) had bachelor's education. (61.25%) of the critical care nurses' years of experience ranged from 1 to less than 5 years, followed by (30.00%) from 5 to less than 10 years.

Table (2): shows the types of conflict experienced by the critical care nurses during the COVID-19 pandemic. The table shows that the mean of all types of conflict experienced by nurses according to the NCS was nearly identical, with a slight increase in intergroup conflict, with a mean and standard deviation of equal (3.59±1.43), followed by intrapersonal conflict with (3.40±1.31), and then competitive conflict with (3.21±1.24), followed by intragroup conflict, interpersonal conflict, and disruptive conflict with the following MSD (3.17 ±1.32, 2.93±1.23, and 2.47±1.41).

Figure (1): shows the average level of conflict experienced by critical care nurses. The figure shows that 42.5% of the critical care nurses have had moderate conflict levels ranging from 25 to 48 scores (33.3-66.7%), followed by 37.75% of the critical care nurses having had low conflict levels that range from 0 to 24 scores (33.3%). Finally, 23.75% of critical care nurses had a high conflict level, with a score ranging from 49 to 72 (66.7%).

Figure (2): explains the factors precipitating conflict and communication gaps among the critical care nurses during the pandemic. The table shows that the most common factors were recurrent exposure to infected people and fear of transmitting the infection to their loved ones by all the studied nurses (100%), followed by feelings of powerlessness and massive flow of information by (97.5%, 96.25%) of the nurses, respectively, increasing the work time and load by (95%), death among the nursing staff by (92.5%), shortage of staff by (56.25%), poor communication by (28%), feeling

isolated by (27.5%), problematic behavior of patients or relatives by (15%), and finally, insufficient or non-proper protective equipment by (12.5%) of the studied critical care nurses.

Table (3): shows the mean and standard deviation of the conflict management strategies used by the critical care nurses during the pandemic to manage the different conflict styles faced by the nurses. The table shows that the most common strategy used by the critical care nurses was the collaborative one (10.70± 1.34), followed by accommodating (8.01± 2.05), then competing (7.55± 2.20), later compromising (6.84±1.77), and finally avoiding (3.62±1.47). With the total mean and standard deviation of using different strategies by the studied critical care nurses (36.72±6.45).

Table (4): depicts the relationship between conflict and communication gap management style and critical care nurses' personal information. The table shows a significant relationship between gender, educational level, and years of experience with the conflict and communication gap management style by the critical care nurses with a P < 0.05.
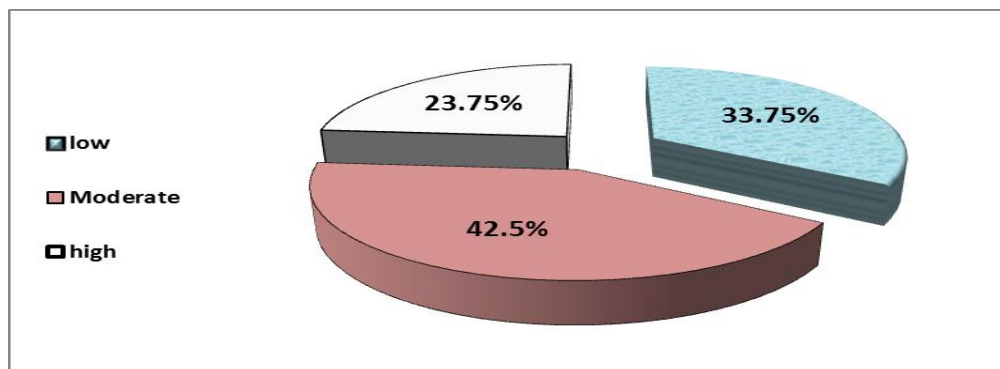
Table (5): demonstrated a statistically significant positive correlation between the level of conflict and three conflict management styles, including (collaboration, compromise, and avoiding) (p-value.036,.002, and.000 respectively). While there was a statistically significant negative correlation between levels of conflict and competing styles (P-value of.000), Also, the table illustrated no statistically significant negative correlation between the level of conflict and accommodating (p-value.598).

Table 1: Distribution of Personal characteristics of the studied Critical Care Nurses (n= 80)

Personal characteristics	No	%
Gender		
Male	27	33.75
Female	53	66.25
Age		
20 -> 27 Yrs	57	71.25
27- > 34 Yrs	20	25.00
34 -≤ 40 Yrs	3	3.75
Marital Status		
Single	48	60.00
Married	32	40.00
Educational level		
Technical institute	47	58.75
Bachelor	33	41.25
Years of experience		
1- > 5 years	49	61.25
5->10 years	24	30.00
10 + years	7	8.75

Table 2: Types of conflict experienced by the Critical Care Nurses during the COVID-19 pandemic (n= 80)

Types of Conflict	Mean	SD
Disruptive	2.47	1.41
Interpersonal	2.93	1.23
Intrapersonal	3.40	1.31
Intergroup	3.59	1.43
Intragroup	3.17	1.32
Competitive	3.21	1.24

Figure 1: Total scores of conflict experienced by the critical care nurses (N= 80)

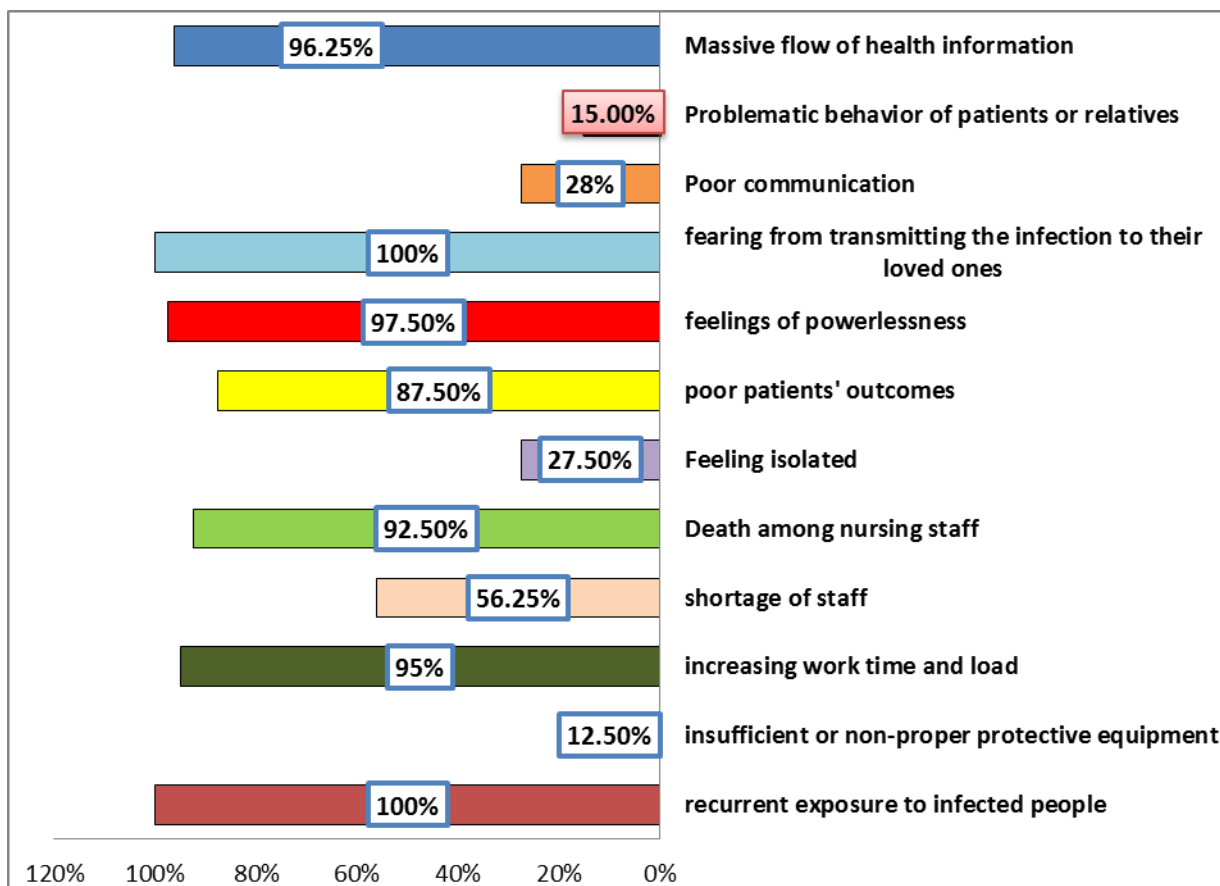|		
96.25%		Massive flow of health information
15.00%		Problematic behavior of patients or relatives
28%		Poor communication
100%		fearing from transmitting the infection to their loved ones
97.50%		feelings of powerlessness
87.50%		poor patients' outcomes
27.50%		Feeling isolated
92.50%		Death among nursing staff
56.25%		shortage of staff
95%		increasing work time and load
12.50%		insufficient or non-proper protective equipment
100%		recurrent exposure to infected people

Figure 2: Factors precipitating conflict and communication gap among the critical care nurses (n= 80)

Table 3: The conflict and communication gap resolution strategies used by the critical care nurses during the pandemic (n= 80)

Conflict Management Strategies	Mean	SD
Collaborating	10.70	1.34
Competing	7.55	2.20
Compromising	6.84	1.77
Accommodating	8.01	2.05
Avoiding	3.62	1.47
Total	36.72	6.45

Table 4: Relationship between conflict and communication gap resolution strategies and personal characteristics of the critical care nurses (n=80).

Personal characteristics	Conflict and communication gap resolution strategies	
	X^2	p
Gender	9.238	0.053*
Age	1.208	0.877
Marital status	3.688	0.445
Educational level	9.982	0.042*
Years of experience	11.406	0 .023*

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Table 5: Correlation between different types of conflict and communication gap resolution strategies scores with level of conflict among the studied nurses (n=80)

Items	(1)	(2)	(3)	(4)	(5)
Levels of conflict total score (1)					
Collaborating total score (2)	.157*				
Compromise total score (3)	.233**	.382**			
Accommodating total score (4)	-.038	.268**	.242**		
Competing total score (5)	-.556**	-.431**	-.217**	.030	
Avoiding total score (6)	.306**	.141	.073 -	.199**	-.409**

(2-tailed)

DISCUSSION

Conflict is one of the issues occurring in any organization, especially in hospitals where continuous interactions among staff occur (Sullivan, 2012). Nurses offer a different point of view to the health care team about providing a high quality of patient care. A stressful work environment, tension, and miscommunication, not only among healthcare professionals but also among patients, can be a source of conflict. The consequences of poorly managed conflicts may negatively lead to a lack of organizational commitment and poor quality patient care (Buchbinder & Buchbinder, 2014).

No studies had been implemented or disseminated on this topic during the pandemic. So, the discussion will be supported by other studies in the same setting before the pandemic and other related ones during the pandemic.

The current study showed that two-thirds of the studied nurses were female and single. Slightly less than three-quarters aged from 20 years to 26 years old and one-quarter aged 27 to 33 years old. More than half had technical nursing education, with two-fifths having bachelor's education. Slightly more than three-fifths of the critical care nurses' years of experience ranged from one to less than five years, followed by slightly less than one-third having five to less than ten years of experience.

These results may be related to the pandemic as the patients are critically ill and need more effort with a high workload. The assigned staff worked for a continuous 14 days, then were isolated for the same period while another group was assigned to work at the hospital for another 14 days. Then, the isolated group was allowed to come again to complete work at the hospital or a different group from the ministry of health was assigned to continue the work.

Abd-Elrhaman and Ghoneimy (2018) in Egypt confronted our study. They stated that more than one-third of the nurses studied were between the ages of 25 and 30, with the majority of them married.More than three-fifths of the studied nurses had a nursing diploma, and less than one-third had years of experience ranging from five to ten years.

Conflict types have been experienced by the critical care nurses during the pandemic of COVID-19. The current study showed a slight increase in intergroup, intrapersonal, competitive, intragroup, interpersonal, and disruptive conflicts. Less than

half of the critical care nurses had moderate conflict levels, followed by around two-fifths having low conflict levels, and less than one-quarter of the critical care nurses had high conflict levels.

These results may be related to different groups of nurses from different settings and different cultures. Nurses could have different work experiences, with conflicting work styles in the same working environment. They are assigned to work together by the ministry of health to overcome a shortage of staff. But during the pandemic, almost all nurses feel that they should give the best they have to patients and each other, especially if they stay together for a long time continuously and work with critically ill patients who have negative psychological conditions.

In the same line, Higazee (2015) stated that nurses in the selected hospitals experienced moderate levels of conflict, with the most common types being intragroup and competitive, followed by disruptive conflict. Also, Rocha & Correa (2020) stated that interpersonal conflict already existed among the healthcare teams before the pandemic and that it harmed absenteeism rates and self-esteem among nurses. Unfortunately, both new and pre-established stress factors could precipitate interpersonal conflict between healthcare workers, especially nurses, during the pandemic.

concerning factors precipitating conflict and communication gaps among the critical care nurses during the pandemic. The present study showed that the most common factors were: recurrent exposure to infected people, fear of transmitting the infection to their loved ones, powerlessness and massive flow of information by around all the studied nurses, followed by increasing the work time and load, in addition to death among the nursing staff, and poor patients' outcomes by a majority, shortage of staff by more than half, poor communication and feelings isolated by slightly more than one-quarter. Moreover, the minority of the studied critical care nurses reported problematic behavior of patients or relatives and insufficient or improper protective equipment.

These results could be related to the nature of care itself and new ways of working that are highly stressful for staff, and nurses are not only experiencing an increase in the volume and intensity of their work; they are also being adjusted to provide end-of-life care more frequently and often in the face of more rapid deterioration than they are used to. Isolation rules mean the presence of family at the bedside is rarely possible. Nurses are frequently standing in for family members and facilitating remote access for loved

ones. Also, many nurses have been redeployed, working in new specialties or higher-acuity areas.

A study by Polyzou and Tsiotras (2018) on "Factors of Conflict in Greek Hospitals", stated that the primary cause of conflict creation was the "workload in the workplace" for most of the respondents, followed by "weaknesses of structure in the organization", "bad working conditions" and "competition between employees or attitudes adoption", "bad behavior of patients", "a deficiency of available resources", and "style of management in hospital", respectively by around two-thirds of the participants. "bad behavior of escorts", "interdependence between the opposing members of the teams", "poor communication", "bad behavior of patients or their escorts", "style of management of the head of the department", "differences in hierarchy and position of each employee", "non-participation of personnel in decision-making" and "individual factors" have been selected by around half of the respondents, respectively.

Adams and Walls, (2020) stated that the nature of care and new ways of working is highly stressful for the nursing staff. Nurses had an increased volume and severity of work. The staff-patient ratio of one-to-one had changed to one-to-six or more. Shortages of staff and private personal protective equipment (PPE); unfamiliar settings; lack of organizational support; treatment decisions supported by finite resources; lack of access for testing for the front-line staff; and the discomfort and fatigue resulting from wearing full PPE along with the shift. Moreover, Finset et al. (2020) stated that a massive flow of health information is needed to help behavior change and overcome individuals' fears in the face of the crises that stress nurses to apply them to too many patients with different health statuses and prognoses.

The current study showed that the foremost strategy utilized by the critical care nurses during the pandemic to manage various conflict styles faced by nurses was the collaborating, accommodating, competing, compromising, and avoiding style.

These results might be related to the pandemic and its nature as a transient disaster that induces nurses to manage complications effectively and efficiently, especially in males, as they have less ability to induce complications by their nature. Moreover, nurses should prioritize their well-being to the maximum, paying attention to meeting their essential needs. At the time of crisis, human physiological and safety needs come to the forefront of any conflict. The nursing staff at this time were concerned with more

immediate worries as not keeping their families from worries, more rest without interruption, enough protective supplies, and support and training with patients' anxiety and panic, so they could professionally manage conflicts.

In the same line, a study by Alshammari and Dayrit (2017) in Hail City, Kingdom of Saudi Arabia, found that the conflict management strategy of collaborating was most utilized among nurses, while avoiding it was less utilized by them at Maternity and Children's Hospital (MCH). Moisoglou et al. (2014) stated that the avoidance strategy was the less effective approach for conflict management. Huber (2014) stated that no single approach is more efficient in all conflict situations, and everyone could also be useful under certain circumstances or contexts.

A study at Menoufiya University Hospital and Shebin El-Kom Teaching Hospital in Egypt by El Dashan & Keshk (2014) confronted our results by revealing that avoiding was the most utilized conflict management style by the respondents. Also, Ahmed and Obied (2016) found that around one-third of the medical and cardiac ICU nurses preferred the avoiding style followed by the compromising style. And quite one-third of nurses prefer collaboration style, followed by accommodation style post-implementation of a conflict strategy management program.

The current study showed a significant relationship between the educational level, gender, and years of experience with the conflict management style of the critical care nurses. The tutorial level of knowledge and gender influence one's ability to manage complications and solve problems.Gender has an effect on the personality on the side of conflict-confronting natures of females; which will lead them to possess interpersonal conflicts with minor stressors.

There was a positive but non-significant relationship between age and integrating style. Age has a negative but insignificant relationship with avoiding and compromising styles.However, there was a significant relationship between age and the dominating styles. There was a positive relationship between the years of experience and the integrated conflict management style. In contrast, there was a negative relationship between the years of experience and the other conflict management styles. A significant relationship was found between years of experience and dominating conflict management styles (Al-Hamdan, 2009).

Kantek, (2007) stated that there was no statistically significant difference between the conflict management style used and academic level, marital status, or years of experience. A statistically significant difference was found between different age groups and conflict management styles.

CONCLUSION AND RECOMMENDATIONS

Conflict in nursing is a crucial health problem. Conflict management may be a competency that requires managers and nursing staff to undergo different types of preparation to facilitate interpersonal relations in their units. The nurse has a crucial role in identifying causes of conflict, methods of management, and employing the simplest conflict management method appropriately in different situations.

In light of the present study results, the study recommended detailed psychological online intervention courses that might be available to manage psychological problems and a psychological assistance hotline. Train new experienced staff nurses in handling patients placed on mechanical ventilators if patients exceed the capacity of the disaster plan. An update on the current situation will encourage health care providers to detect and resolve conflicts as soon as possible.

Conflict of Interest

The authors haven't any conflicts of interest.

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نزاع ممرضي الرعاية الحرجة وفجوة التواصل أثناء رعاية المرضى المصابين بالكورونا-19

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الخلاصة

لقد طغت الكورونا على أنظمة الرعاية الصحية في العديد من البلدان مما تسبب في مستويات عالية من النزاع بين التمريض في الخطوط الأمامية. **الهدف:** استكشاف مستوى النزاع وفجوة التواصل بين ممرضي الرعاية الحرجة أثناء رعاية المرضى المصابين بـعدوي الكورونا. **منهجية البحث:** تم استخدام تصميم استكشافي وصفي علي العينة المتوفرة والمكونة من (80) ممرض/ممرضة في وحدات الرعاية الحرجة التابعة لمستشفى عزل متخصص في مدينة الإسماعيلية ، مصر ، في الفترة من يوليو إلى سبتمبر 2020 باستخدام أداتين لجمع البيانات: الاداة الاولي هي استبيان لتقييم النزاع وفجوة التواصل بين ممرضي الرعاية الحرجة ويحتوي على ثلاثة أجزاء (الخصائص الشخصية للتمريض، ومقياس نزاع التمريض لتقييم أنواع النزاع وفجوة التواصل ، بالإضافة إلي العوامل التي تؤدي إلى حدوث النزاع وفجوة التواصل) ؛ ومقياس رحيم للنزاع داخل المنظمات ـ نموذج (ج)، لتقييم إستراتيجيات حل النزاعات المفضلة والاكثر استخداما لدى التمريض. **النتائج:** لقد عانى جميع ممرضي الرعاية الحرجة من وجود نزاعات ذات دلالة احصائية وخاصة بين الممرضات الإناث، حيث كانت العوامل الأكثر شيوعًا التي أدت إلى وجود نزاع هي التعامل والاختلاط المتكرر مع المرضى المصابين بعدوي الكورونا، والخوف من العدوى لأنفسهم وأحبائهم. ولقد تنوعت أنواع النزاع التي تعرض لها ممرضي الرعاية الحرجة ما بين نزاعات بين المجموعات المختلفة، ونزاعات بين الاشخاص، وتنافسية، وداخل المجموعة الواحدة، وشخصية داخلية، والتخريبية على التوالي. توجد علاقة إيجابية ذات دلالة إحصائية بين مستوى النزاع وأساليب إدارة النزاعات والتي تشمل التعاون، والتسوية والتجنب على التوالي. **الاستنتاجات:** يعاني أقل من نصف ممرضي الرعاية الحرجة بقليل من مستوى نزاع متوسط ، والتعاون هو الاستراتيجية الأكثر استخدامًا لحل النزاعات، وأقل الاستراتيجيات المتبعة استخداما هو تجنب النزاعات. **التوصيات:** التدريب على استراتيجيات حل النزاعات أثناء الكوارث والرهاب مثل وباء الكورونا.

الكلمات المرشدة : النزاع ، كورونا فيروس، ممرضي الرعاية الحرجة ، فجوة التواصل