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# **Conflict and Communication Gap among the Critical Care Nurses during Care of Patients with COVID-19**

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## **Abstract**

**Background:** COVID-19 overwhelmed many countries' healthcare systems causing high levels of conflict amongst frontlines nurses.

**Aim:** Explore the conflict level and communication gap among the critical care nurses during care of patients with COVID-19.

**Subjects and Methods:** A descriptive exploratory design was utilized on a convenience sample of (80) nurse working at the Critical Care Units affiliated to a specialized isolation hospital in Ismailia City, Egypt, from May to July 2020 using self-administered questionnaire to assess types of conflicts and Rahim Organizational Conflict Inventory-II to assess staff nurses' conflict resolution strategies.

**Results:** All the critical care nurses experienced conflict with significance level in female, due to recurrent contact with infected patients and fear of infection for themselves and their loved ones.

**Conclusion:** Around half of nurses (42.5%) had moderate conflict level, and collaborating was the most common used conflict resolution strategy.

**Recommendations:** Training in conflict resolution strategies during outbreaking terrorism as COVID- 19.

**Keywords:** Conflict, COVID-19, critical care nurses, communication gap

## **Introduction**

The coronavirus (COVID-19) pandemic is the defining global health crisis at time. Corona virus has come as a terrorism to health-care systems, economies and governments societies worldwide. It is the greatest challenge the world have faced since the World War Two, as it affects Globally from its beginning until November, 06, 2020 around 49,527,230 confirmed cases, including 1, 246,336 deaths, (WHO Health Emergency Dashboard, 2020). 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 grow, which in turn increase the need for critical care (Grasselli et al., 2020). However, in some other countries, the number of cases either remained steady or fluctuated as in Egypt. In Egypt, from Feb 14 to 6 November 2020, there have been 108,530 confirmed cases of COVID-19 with 6,392 deaths (Egypt: WHO, 2020).

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 put a separate plan according to the efficiency of its health sector including Egypt that make a highly efficient plan to grasp professional staff to overcome shortage in health-care workers, use many of the ministry of health hospitals in addition to universities' hospitals as isolation sectors for infected patients, and open many different field hospitals in confront of COVID-19 (Ministry of Health and Population: Egypt, 2020). The hospital management personnel uses some mechanisms to avoid and minimize conflicts between staff nurses and nurse unit managers such as rotational shifting; but at the ICUs, it is difficult to do because of the work nature that could increase conflict and major its effects on nurses and work especially this period with the presence of the COVID-19 pandemic.

Coronavirus disease (COVID-19) is newly discovered an infectious disease by the end of 2019. 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 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 during coughing or sneezing. The best way to prevent/slow-down the transmission is by identification of how the infection spreads, wash hands, use an alcohol based rub frequently and don't touch 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 the crises, nurses have more tasks in managing patients; therefore, nurses must be well equipped with efficient knowledge and skills in managing crises and be prepared physically and psychologically in face with the pandemic (Borasio et al., 2020).

The COVID-19 pandemic affected the health-care workers especially Intensive Care Units (ICUs) staff physically and psychologically as they are more vulnerable to the infection than others as a result of recurrent contact with positive infected

peoples. The ICUs health-care workers mostly work under stressful conditions especially during the pandemic such as insufficient or non-proper protective equipment, taking difficult decisions in managing patients' condition and increasing work load which causes psychological stress, anxiety and depression by conflicting with responsibilities toward their family and friends (Tan et al., 2020).

Conflict between nurses is a very important issue in the healthcare environment and it is one of the major challenges all over the world (Dahlkemper, 2017). The most common conflicts among CCUs nurses during the pandemic are caused by shortage of staff, elevated costs of the ICUs beds, prioritizing these beds for best prognosis patients, arranging transfer to distant ICUs with available beds, and/or accelerate withdrawal of life support equipment in ICUs. "Front line" specific conflict factors include extended work time and loads, poor patients' outcomes, shortage of personal protective equipment, feelings of powerlessness, communication gap, and fearing from transmitting the infection to their loved ones with fear from losing them. All of these conflicts created a high level of insecurity and uncertainty among the ICUs nurses and affect their ability to work (Robert et al., 2020).

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

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

Conflict and communication gap management includes the recognition of conflict and communication gap, 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 and 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).

### ***Significance of the study***

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

At the time of the pandemic the shortage in nursing staff at the health care setting was a significant problem as the number of patients infected with the disease exceed number of nursing staff. In response to this shortage; the Egyptian ministry of health assigned 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 majority of the assigned staff used to overcome nursing shortage were not efficiently qualified to work with the critically ill patients; that make new stress on the fixed working staff to train them to help in work. The training for new assisting staff occurred each two weeks by the change of the staff for having rest; the recurrent training forced extra stress, conflicts, and communication gap among nurses from different cultures with different work experience and work attitudes.

According to the latest national and international news and researches, there is no research investigated the current research topic, but every day we see and read the suffering of nurses with the pandemic all over the world by different ways. So, the researchers interested to investigate the conflict and communication gap among the critical care nurses who are in the frontline with infectious patients and their families, explore its effects on the critical care nurses in response to conflict, and explore how nurses manage these conflicts and communication gap.

The findings of the current study may help explore the severity of the problem, and to identify relevant recommendations help in the problem intervention. The researchers are interested in the topic because of its direct and indirect effects on the health-care outcome and critical care nurses work management. This research will provide a baseline data about causes of conflict and communication gap among nurses, and it further helps to identify the most effective strategies on their management among the critical care nurses. Exploring the factors that interrupting 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 and communication gap among the critical care nurses during care of patients with COVID-19 through the following questions:

### ***Research Questions***

- What are types of conflict experienced by the Critical Care Nurses during the COVID-19 pandemic?

- What are 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

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

#### **Setting**

The data collected from the Intensive care units (ICUs), 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 technological medical equipment.

#### **Subjects and sampling:**

Staff nurses working in previously selected settings were enrolled. The total number of the staff nurse in these ICUs were not fixed because the fixed number of the ICU beds was only 13 but during the pandemic the number increased to 45 with increase in the number of nursing staff according to the total number of positive patients isolated in the ICU. A purposive sampling technique was implemented by inviting all staff nurses who are available at the time of data collection and working in the predetermined settings. From May to July 2020 with the following inclusion criteria: Being male or female nurse, work experience for more than one year, and ranged in age from 20-40 years old. The total number included in the study was 80 staff nurses.

#### **Data Collection tool**

Data was collected using a self-administered interview questionnaire to assess types of conflicts and conflict management strategies by the studied nurses. It is consisted of two tools:

**Tool I: Part I:** Personal characteristics profile to assess the respondents' age, gender, marital status, educational level, years of experience, and working unit.

**Tool I: Part II:** The Nursing conflict scale (NCS) to assess types of conflict experienced by critical care nurses during management of patients with COVID-19. The NCS was primarily developed and tested by El-shimy et al., (2002) in Ain Shams University Hospital; Cairo, Egypt. The NCS was categorized into five types: Disruptive conflict (5) items, interpersonal conflict (7) items, intrapersonal conflict (6) items, intergroup conflict (6) items, intragroup conflict (6) items, and competitive conflict (6) items.

**The scoring system** of the instrument was calculated as follow: The scale consists of thirty-six (36) items uses three point scales (0-2): 0=no, 1=sometimes, and 2=yes with a total score of (72) high conflict level ranges from 49-72 ( $\geq 66.7\%$ ), moderate conflict level ranges from 25 to 48 (33.3 -  $<66.7\%$ ), and Low conflict level ranges from 0 to 24 ( $<33.3\%$ ).

**Tool I: Part 3:** Factors precipitating conflict and communication gap among the Critical Care Nurses during the pandemic. This part was developed by the researchers after reviewing the related literatures, it includes (12) point 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 fearing from transmitting the infection to their loved ones (Robert et al., 2020). Poor communication, Problematic behavior of patients or relatives, and massive flow of health information (Polyzou & Tsiotras, 2018, Finset et al., 2020). The respondents informed to chooses 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 self-assessment tool measure five dimensions or styles of handling conflict which are: "collaborating, accommodating, competing, avoiding and compromising". It is consisted of (28) items: collaborating (7) items, accommodating (6) items, competing (5) items, avoiding (6) items and compromising (4) items.

The items of ROCI-II covers the five styles as follows: items 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 included conflict management styles reflect different concerns for self and others. The ROCI-II can be completed in 8 minutes.

**Scoring:** It is a 5-point Likert scale with the higher score represents greater use of a conflict style. Strongly disagree = (1), and (5) = strongly agree. The Respondents were told that there is no right, or wrong answer and their responses should reflect their individual 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. Score for each dimension in the ROCI II form is determined by summing specified items on the questionnaire.

### **Validity and Reliability:**

The questionnaire tested for validity after the review by 5 panel experts in the Medical- Surgical Nursing and piloted Prior data collection. The test used widely national and international with English and Arabic language by different authors as listed previously. The researchers obtained a permission from the hospital to implement the study.

Tools 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 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 to assess clarity and feasibility, in addition to the time needed to complete the used tools. It is implemented at May 2020. Minor modifications were made based on the results of the pilot study to adapt to the Arabic world nature. The nurses participated in the pilot study were included in the data collection for the current study sample.

**Procedure and work description**

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

The first phase of the work was implemented by delivering an approval letter personally by the investigators from the respective hospital directors and requesting permission to conduct the study. After granting the permission to gather data, it was directed to the manager of the involved study respondents. To ensure effective participation of the respondents, a permission letter was sought from the hospital administrative personnel to apply the study.

The researchers met primarily the nurse supervisor and explain the nature and aim of the study, then met all the critical care nurses in a separate way because of the work nature at the ICUs especially at this period, and explained the aim and nature of the study, and what is the effect of the data obtained from the present study on the staff nurses as well as the patients' outcome.

An oral consent was obtained from the critical care nurses to participate in the study. The researchers met one-quarter of the shift capacity nurses each visit as the self-administered Arabic questionnaire given to the nurses at the beginning of the shift to allow nurses fill it while they are in break with the presence of one the researchers at the end of the shift for interpretation of any questions, as the shift is extended for 12 hours per day.

The data collected from May to July 2020 by visiting the previously mentioned settings two times a week at the morning shift. So, the included participants may be having some time to complete the tool.

**Ethical Considerations**

Prior to actual data collection, the purpose of the study and its nature was explained to all the critical care nurses and the supervisors. Participants were assured for confidentiality throughout the study phases and their freedom to withdraw/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. A verbal consent was obtained from the study participant. The telephone number of the researchers were available to all the study participants. Ethical approval for the study was obtained from the faculty of Nursing- Port Said University Institutional Review Board.

**Statistical Analysis**

Data was coded and tabulated for analysis using the SPSS program version (21). The personnel characteristics, types of conflict, as well as the 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 difference and relationship between variables. The level of significance was set at  $P \leq 0.05$ . (2- tailed) 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 years to 26 years old and (25.00%) aged from 27 to 33 years old, (60%) of the studied critical care nurses were single, (58.75%) had technical nursing education and (41.25%) were bachelor education. (61.25%) of the critical care nurses' years of experience ranged from 1 to less than 5 years, followed with (30.00%) had from 5 to less than 10 years.

Table 2 shows types of conflict experienced by the critical care nurses during the COVID-19 pandemic. The table shows that the mean of all types of the conflict experienced by nurses according to the NCS was nearly close to each other with slight increase in the intergroup conflict with mean and standard deviation equal ( $3.59 \pm 1.43$ ), followed with Intrapersonal conflict by ( $3.40 \pm 1.31$ ), then the competitive conflict comes in the priority with ( $3.21 \pm 1.24$ ), followed with intragroup conflict, interpersonal conflict, and disruptive conflict respectively with the following  $M \pm SD$  ( $3.17 \pm 1.32$ ,  $2.93 \pm 1.23$ , and  $2.47 \pm 1.41$ ).

Figure 1 shows the average level scores of conflict experienced by the critical care nurses. The table shows that 42.5% of the critical care nurses have had moderate conflict level ranges from 25 to 48 score ( $33.3 - < 66.7\%$ ), followed with 37.75% of the critical care nurses have had low conflict level that ranges from 0 to 24 score ( $< 33.3\%$ ), finally 23.75% of the critical care nurses have had high conflict level that ranges from 49-72 score ( $\geq 66.7\%$ ).

Figure 2 explains Factors precipitating conflict and communication gap among the Critical Care Nurses during the pandemic. The table shows that the most common factor was the recurrent exposure to infected people and fearing from transmitting the infection to their loved ones by all the entire 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%), poor patients' outcomes by (87.5%), 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 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 Collaborating one by  $X \pm SD$  equal ( $10.70 \pm 1.34$ ), followed

by Accommodating ( $8.01 \pm 2.05$ ), then Competing ( $7.55 \pm 2.20$ ), later Compromising ( $6.84 \pm 1.77$ ), and finally Avoiding ( $3.62 \pm 1.47$ ). With the total mean and standard deviation of using different strategies by the studied critical care nurses ( $36.72 \pm 6.45$ ).

Table 4 shows the Relationship between level of conflict and personal details of the Critical Care Nurses. The table shows significant relationship between gender and level of conflict experienced by the critical care nurses during the COVID-19 pandemic with  $P < 0.05$  according to the Nursing conflict scale, with no significant relation between the level of conflict and the other personal details of the Critical Care Nurses

Table 5 shows the relationship between conflict and communication gap management style and personal details of the Critical Care Nurses. The table shows significant relationship between the gender, educational level and years of experience with the conflict and communication gap management style by the Critical Care Nurses with  $P < 0.05$ .

Table 6 demonstrated statistically significant positive correlation between level of conflict and three conflict management styles including (Collaboration, compromise and avoiding) (p-value .036, .002 and .000 respectively). While, there was statistically significant negative correlation between levels of conflict and competing style (P-value.000). Also, the table illustrated no statistically significant negative correlation between level of conflict and accommodating (p-value .598).

### ***Discussion***

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

Actually, there are no studies implemented or disseminated on this topic during the pandemic, so the discussion will be supported by other studies at the same setting before the pandemic and other related ones during the pandemic.

The current study showed that two-thirds of the studied critical care nurses were female and single, slightly less than three-quarters aged from 20 years to 26 years old and one-quarter aged from 27 to 33 years old, more than half had technical nursing education and two-fifths were bachelor education. Slightly more than three-fifths of the critical care nurses' years of experience ranged from 1 to less than 5 years, followed with slightly less than one-third had from 5 to less than 10 years of experience.

These results could be related to the pandemic, as the patients were critically ill and need more work efforts with more workload as the assigned staff worked for continuous 14 days then isolated for the same period with another group assigned to

work at the hospital for another 14 days, and allowance to the isolated group to come again to complete work at the hospital or assign different group from the ministry of health to continue the work.

Abd-Elrhaman and Ghoneimy, (2018) in Egypt confronting our study and stated that more than one-third of the studied nurses aged from 25 to less than 30 years old, the most of them were married. More than three-fifths of studied nurses had nursing diploma, and less than one-third had years of experience from 5 to 10 years and from 15 years and more respectively.

According to types of conflict experienced by the critical care nurses during the COVID-19 pandemic; the current study showed slight increase in the intergroup conflict, followed with intrapersonal conflict, then the competitive conflict comes in the priority, followed with intragroup conflict, interpersonal conflict, and disruptive conflict respectively. Less than half of the critical care nurses had moderate conflict level, followed with around two-fifths have had low conflict level, and less than one-quarter of the critical care nurses have had high conflict level.

These results could be related to presence of different groups of nurses from different settings with different cultures that could have different work experience by different conflict styles at the same working environment as they assigned to work together by the ministry of health to overcome shortage of staff. But during the pandemic almost all nurses feel that they should give the best they have to patients and to each other's especially they stay together for long time continuously, and work with critically ill patients who have negative psychological conditions.

In the same line Higazee, (2015) at Jordan, stated that nurses in the selected hospitals experienced moderate level of conflict, with the most common types were the 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 have negative impact on absenteeism rates and self-esteem among nurses. Unfortunately, both new and pre-established stress factors could precipitate interpersonal conflict between healthcare workers specially nurses during the pandemic.

With regard to factors precipitating conflict and communication gap by the critical care nurses during the pandemic. The present study showed that the most common factor was the recurrent exposure to infected people, fearing from transmitting the infection to their loved ones, powerlessness and massive flow of information by around all the entire studied nurses, followed by increasing the work time and load in addition to Death among the nursing staff, and poor patients' outcomes by majority respectively, shortage of staff by more than half, Poor communication and Feeling isolated by slightly more than one-quarter. Moreover, Problematic behavior of patients or relatives and insufficient or non-proper protective equipment by minority of the studied critical care nurses.

These results could be related to the nature of care itself and new ways of working which are highly stressful for staff, and nurses are not only experiencing an increase in the volume and intensity of their work, they are 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 therefore frequently standing in for family members and facilitating remote access for loved ones. Also, many nurses have been redeployed, working in new specialties or in higher acuity areas.

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

Adams & Walls, (2020), stated that the character of care and new ways of working are highly stressful for the nursing staff. Nurses are experiencing a rise within the volume and severity of work, staff-patient ratios of one-to-one changed into anew ratios of one-to-six or more patients, shortages of staff and of private personal protective equipment (PPE), unfamiliar setting, lack of organizational support, treatment decisions supported finite resources, the shortage of access for testing for the front-line staff, and therefore the discomfort and fatigue resulting from long shifts wearing full PPE. Moreover, Finset et al., (2020) stated that massive flow of health information is needed to help behavior change and overcome individuals' fear in the face of the crises that in turn stress nurses to apply them for too many patients with different health status and prognosis.

According to the conflict and communication gap management strategies employed by the critical care nurses during the pandemic to manage the various conflict styles faced by the nurses; current study showed that the foremost strategy employed by the critical care nurses was the collaborating, followed by accommodating, then Competing, later compromising, and eventually avoiding was the smallest amount style employed to manage conflict.

These results might be related to the pandemic and its nature as transient disaster than induce nurses manage complications effectively and efficiently especially males as they have less ability to induce complications by their nature. Moreover, nurses should prioritize their own well-being as the maximum amount as possible, paying attention to meeting their essential needs. At time of crisis, human physiological and safety needs come to the forefront of any conflicts and Staff at this time were concerned with more immediate worries including not wanting their families to worry; more rest

without interruption; enough protective supplies; and support and training with patients' anxiety and panic, so manage conflicts in a professional manner.

In the same line, a study by Alshammari & Dayrit, (2017) at Hail City, Kingdom of Saudi Arabia found that the conflict management strategy of collaborating was most utilized among nurses, while avoiding was least utilized by them at Maternity and Children's Hospital (MCH). Moisoglou et al., (2014) stated that avoidance strategy was taken into account the smallest amount the least effective approach for conflict management. Huber, (2014) stated that no single approach is more efficient in all conflict situations and every 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) confronting our results by revealing that avoiding was the foremost utilized and competing was the smallest 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 avoiding style followed by compromising style. And quite one-third of nurses preferred collaboration style followed by accommodation style post implementation of a conflict strategy management program.

The current study showed significant relationship between gender and level of conflict experienced by the critical care nurses during the COVID-19 pandemic. Also, there was a significant relationship between the educational level, gender, and years of experience with the conflict management style by the Critical Care Nurses. The tutorial level and knowledge additionally gender play major role in self-abilities to manage complications and solve problems. Gender have effect on the personality on the side of originating complications and conflicts 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. Negative but non-significant relationship between age and therefore the avoiding and compromising styles. However, there was a significant relationship between age and therefore the dominating and obliging styles. There was a positive relationship between the years of experience and the and therefore the integrating conflict management style. In contrast, there was a negative relationship between the amount of years of experience and therefore the other conflict management styles. Significant relationship between number of years of experience and obliging 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 requiring the managers and staff undergo differing types of preparation to be capacitated in facilitating interpersonal relations in their units. The nurse has a crucial role in identifying causes of conflict, style and methods of management, and employee the simplest method of conflict management appropriately in each single different situation.

In the light of the present study results', the study recommended detailed psychological online intervention courses might be available to manage psychological problems, and a psychological assistance hotline. Train new less experienced nurses' staff in handling patients placed on mechanical ventilators if patients exceeds the capacity of the disaster plan. Knowledge update on the present situation will motivate health care providers toward early detection and prompt management of conflict.

### **Conflict of Interest**

The authors haven't any conflicts of interest.

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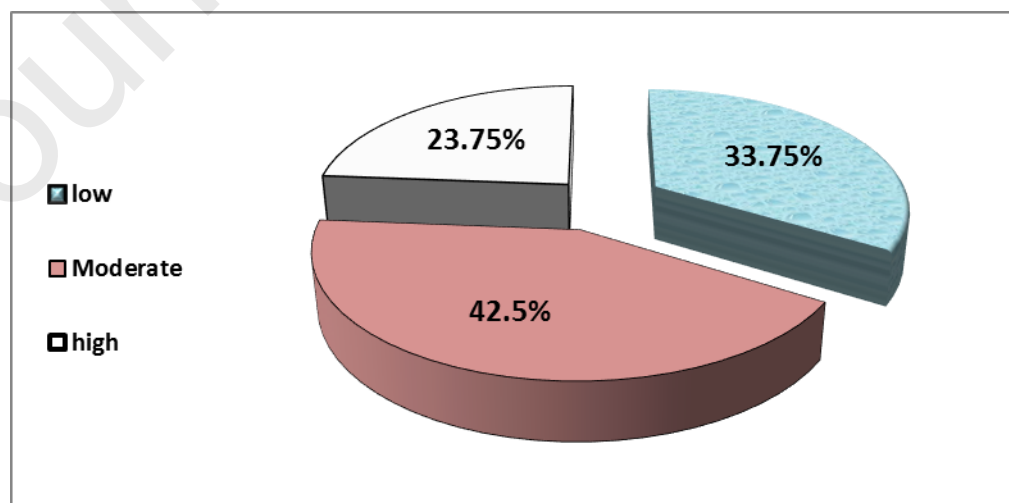
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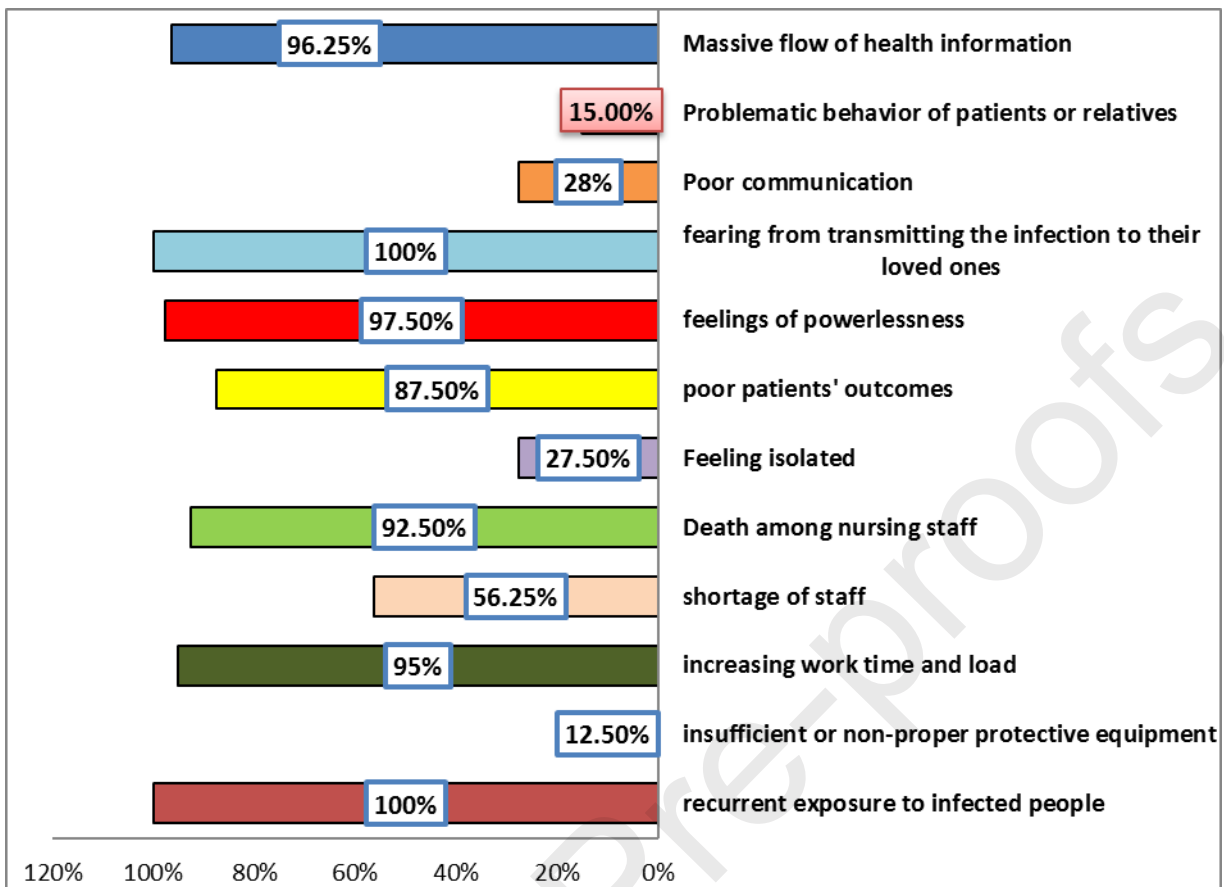
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**Figure 1: Total score of conflict experienced by the critical care nurses (N= 80)**



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

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

<b>Personal characteristics</b>	<b>No</b>	<b>%</b>
<b>Gender</b>		
Male	27	33.75
Female	53	66.25
<b>Age</b>		
20 - < 27 Yrs	57	71.25
27- < 34 Yrs	20	25.00
34 - ≤ 40 Yrs	3	3.75
<b>Marital Status</b>		
Single	48	60.00
Married	32	40.00
<b>Educational level</b>		
Technical institute	47	58.75
Bachelor	33	41.25
<b>Years of experience</b>		
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)**

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

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

Conflict Management Strategy	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
<b>Total</b>	<b>36.72</b>	<b>6.45</b>

**Table 4: Relationship between level of conflict and personal characteristics of the critical care nurses (N=80).**

Personal characteristics	X <sup>2</sup>	p
Gender	13.380	0.001*
Age	4.904	0.556
Marital status	0.094	0.954
Educational level	1.157	0.885
Years of experience	0.746	0.946

**Table 5: Relationship between conflict and communication gap management style and personal characteristics of the critical care nurses (N=80).**

Personal characteristics	X <sup>2</sup>	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*

**Table 6: Correlation between different types of conflict and communication gap management styles 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)