The Relation between Caring Leadership and Crisis Management during Covid 19 as Perceived by Nursing Staff

Fatma.R.Ali, Mahdia.M.EL shahat and Amira.M.Abdelmonem
Nursing Administration Dept., Faculty of Nursing, Benha University, Egypt
E-mail: angel.alaa3232@gmail.com

Abstract

Background: Caring leadership concern for others that can positively affect on the behave of the nursing staff in crisis management during COVID-19. Aim of this study: Assess the relation between caring leadership and crisis management during COVID-19 as perceived by nursing staff. Study design: A descriptive correlational design was utilized. Setting: The study was conducted at Benha University Hospital in all Critical Care Units. Subjects: Consisted of all the available head nurses and their assistance 50 and the staff nurses 250 in all critical care unit. Tools of data collection: Two tools were used in data collection; Caring Leadership Questionnaire and Crisis Management Questionnaire. Results: Clarified that the highest percent (90.0% & 77.2%) of the head nurses and staff nurses respectively had high levels toward caring leadership during COVID-19. While the lowest percentage (4.0% & 3.6) of head nurses and staff nurses respectively had low levels. Also, the highest percentage (60.0%&75.2%) of head nurses and staff nurses respectively had high levels toward crisis management during COVID-19. While the lowest percentage (22.0%&3.2%) of the head nurses and staff nurses respectively had low levels. Conclusion: There was a highly statistically significant positive correlation between total score of caring leadership and total score of crisis management during COVID-19 as perceived by nursing staff. Recommendations: Head nurses provide nurses with supportive environment to achieve work goal. Also, conducting training programs and workshop to the nursing staff to improve their knowledge about managing COVID-19 as the proper using of oxygen therapy with COVID-19 patient.

Keywords: Caring leadership, Crisis management, COVID-19, Nursing staff.

1. Introduction

Coronavirus disease (COVID-19) is an infectious disease caused by the severe acute respiratory syndrome coronavirus (SARS-CoV-2) virus. Although the COVID-19 pandemic has become less threatening in the global public consciousness, its impacts are still being deeply felt. It has exacerbated inequality within and between countries. Despite the lessons learned from this pandemic, gaps in outbreak preparedness and response remain widespread. Leaders are recognizing the need for increased cooperation on health matters and to initiate changes in this direction [7].

Caring leadership is an art form where the leader consistently adds different items to their behaviors to elicit more positive emotions, as cares about the patients around them by creating an environment where everyone feels valued, supported, appreciated, engaged in conversation, challenged as well as heard, concerned not only with the success of the organization but also with the well-being of the nurses [1].

Moreover, caring leadership is an essential component in the functionally of the health care system and it considered one of the most important elements of the success of health care system. The nursing profession is the backbone of health activity in health care system due to its clear and tangible impact on the health care provided and represents the largest professional, so understanding the problem that facing them is a leader crucial role which effect on patient nursing care and care effectiveness. [4].

There are different skills of the caring leadership include concern, human respect, trust, interest, listening, and participative decision-making. Concern*:* It is a powerful method for the caring leader

to build self confidence in the nurses. The human respect: It means kind and careful handling of the human feelings, recognition of rights, responsibilities, and appreciation of the whole human person. Trust: It can be established by showing of respect for the nurse's opinions and ideas [8].

Also, interest: It is a feeling that makes the caring leader pay attention to nurses or find out more about them. Listening: It is crucial for leadership success to be truly effective listeners; leaders are advised to be supportive during COVID19 and genuinely concerned about the feelings of subordinates during the communication process through empathetic listening. participative decision-making: It originates from the idea of participative leadership which supports nurses to share their ideas and suggestions [19].

Crisis management is the art of dealing with a sudden and unexpected event which disturbs the nurses, organization and the patients. It helps in identification of a threat to an organization and the patient to prepare for an effective response to it. It is the process of dealing with an unfavorable situation that could seriously damage an organization's reputation, growth and it's a key to control the damage that occurs as a result of crisis. so, it should apply a strategy that designed to help an organization deal with a sudden and significant negative event [6].

There are four phases of crisis management which include mitigation, preparedness, response, and recovery phase. Firstly, Mitigation phase: Include an activity that allow organizations to reduce the loss of life and physical assets such as buildings and supplies. Secondly, Preparedness phase: The organization help to deal with unexpected tragedies and difficult situations by having a plan in its place [13]. Thirdly Response phase: Refers to

how organizations respond to whatever challenges the crisis brings. Fourthly and finally phase recovery phase: It is the final phase and the main part of the crisis management. The recovery phase allows organizations to return to a normal service level as soon as possible and focuses on restoring critical organization functions to stabilize services **[28].**

The nursing staff has an essential role in caring leadership and crisis management during COVID-19 in critical care unit. The nursing staff are on the front line of crisis management. The nursing staff are counted on to provide critical care in this crisis for as long as necessary. They should treat issues as critical for the sake of the individual so that care can be distributed in an efficient, ethical, effective manner and being support and guidance to those being treated **[3].**Also, they The nursing staff should be trained in effective communication techniques as communications should be concise and clear, remain calm, composed and confident during crisis situations, control over a situation, use their critical thinking abilities, including analyzing, evaluating and synthesizing information to determine the best approach to crises **[5].**

In times of crisis, there are different things demand from the leaders, crisis situations stir up feelings of helplessness, and reawaken a primal need for nurturing, comfort, strength, and guidance. One of the most primal expectations of the leaders is that they should care with their staff. If the nurses, feel the leaders don't really care or feel with lacking compassion in a time of need this can trigger extremely powerful feelings of abandonment and can-do lasting damage to the feelings of security and well-being. When the leader doesn't care, it indicates a very fundamental failure on crisis management **[30].**

Significance of the Study

Caring leadership is a concept in which caring leaders can create organizations with strong cultures of care and support where the nurses feel like they can bring their whole selves to work. A caring leader cares about the people around them by creating an environment where everyone feels valued, supported, appreciated, engaged in conversation, challenged as well as heard **[20].**

COVID-19 is associated with a range of concerns, such as fear of falling ill and dying, of being socially excluded, placed in quarantine, or losing a livelihood. Symptoms of anxiety and depression are common reactions for nurses who working with COVID-19 patients. Mental health and psychosocial support should be made available to all workers. As caring leadership plays an important role in overcome all these problems **[31].**

Crisis management is a comprehensive process that is put into practice before a crisis even happens. It engaged before, during and after a crisis **[28].** From the real contact with the nursing staff at Benha university in critical care units, I noticed that work in CCU is complex because patients are considered critical as they are semi-conscious, seriously ill. One way to decrease nurses' overload is to be felt that they are being listened to and that they are trusted and respected. Critical care nurses

provide most of the direct care to patients in life threatening situations within CCU. As Whenever nursing feels cared and contained, they can overcome the COVID-19 pandemic. So, this study was conducted to assess the relation between caring leadership and crisis management during COVID19 as perceived by nursing staff.

Aim of the study

The present study aimed to assess the relation between caring leadership and crisis management during covid-19 as perceived by nursing staff.

Research questions

1- What are the levels of caring leadership during COVID-19 as perceived by nursing staff?
2- What are the levels of crisis management during COVID-19 as perceived by nursing staff?
3- Is there a relation between caring leadership and crisis management during COVID-19?

2.Subject and Method

Study design

Descriptive correlational design was utilized to conduct this study.

Study setting

The current study was conducted at Benha University Hospital in all Critical Care Units.

Study subject

The study subjects consisted of two group namely:

- **First group was the head nurses group:**

All the available head nurses and their assistants (50) who were available during data collection and working in the above-mentioned study setting with at least three years of experience and agreed to participate in the study.

- **Second group was the staff nurses group:**

All the available staff nurses (250) who were working in the above-mentioned study setting with at least three years of experience.

Tools of data collection

Data of the present study was collected by using the following two tools:

Tool I: Caring leadership questionnaire:

A structured questionnaire developed by the investigator after reviewing the related literature **[١٥].**to assess the levels of caring leadership during COVID-19 as perceived by nursing staff. It consisted of two parts:

First part: It included personal data including (age, gender, marital status, educational qualification**,** years of experience and attended any training courses about caring leadership).

Second part: It consisted of (33) items grouped under five main dimensions distributed as the following: Concern, human respect, interest, listening and participative decision making.

Scoring system

Nursing staff' response was measured by using three points Likert scale as follows; always = (3), sometimes = (2) and never = (1). Total score was ranged from (33-99). The score of each dimension summed and converted into percent score. The participant who had a percent more than 75%equal (75-99) indicated high levels, if the score was from 60-75% equal (60-74) this indicated moderate

levels and if less than 60 %equal (33-59) this indicated low levels [15].

Tool II: Crisis management questionnaire

A structured questionnaire developed by the investigator after reviewing the related literature [11] to assess the levels of crisis management during COVID-19 as perceived by nursing staff. It consisted of (24) items grouped under four main dimensions: Mitigation phase, preparation phase, response phase and recovery phase.

Scoring system

Nurses' response was measured by using three points Likert scale as follows; always = (3), sometimes = (2) and never = (1). The score of each dimension summed and converted into percent score. Total score ranged from (24-72). The participant who had a percent more than 75%equal (55-72) indicated high levels, if the score was from 60-75% equal (44-54) this indicated moderate levels and if less than 60 % equal (24-43) this indicated low levels [11].

Method

Administrative Design

An official permission was issued from the Dean of the Faculty of Nursing Benha University to the Director of Benha University Hospital for taking their permission to conduct the study and seek their support. The investigator met the nursing staff of each unit to determine suitable time to collect data.

Preparatory phase

This phase started from January 2022 to March 2022. It included the following: reviewing the national and international related literature using journal, textbooks and theoretical knowledge of the various aspects concerning the topic of the study.

Tools validity and reliability

- The tools were tested by Jury group consisted of five Experts from Nursing Administration two Assistant Professors of nursing administration from Benha University and three Professors of Nursing Administration from Menoufia University.
- Some modifications in Arabic statements were done in tools based on comments of jury experts such as modifying some words in some statements to give the right meaning for the phrase which did not understand clearly to arrive at the final format of the tools.

Pilot study

A pilot study was conducted from the beginning to the end of July 2022 to test the sequence of items feasibility, practicability and applicability of the tools, clarity of the language and to estimate the time needed for filling each tool. It was done on 10% of the total studied subjects that is means it was done on 5 head nurses and 25 staff nurses there was no change occurred of the pilot study, so the pilot study was included in the main study.

Field work

◆ Data collection tool about three months from August 2022 to October 2022 after securing necessary permissions.

◆ The investigator met nursing staff (head nurse & staff nurse) in each unit and explained the aim, the nature of the study, the method of filling questionnaire and this was done individually or through group meetings of nursing staff during morning and afternoon shifts after taking the permissions from the head nurse of each unit according to the workload in each unit.

◆ The investigator distributed the data collection tool with some instruction about how to fill it.

◆ The data were collected from nursing staff for three days per week from 10 a.m. to 1.30 p.m.

◆ The average time needed to fill two questionnaires ranged from (25:30) minutes. The average number of completed sheets daily ranged from 9-10 sheets, head nurses 1-2 sheets and the staff nurses 6-7 sheets, the filled forms was revised to check their completeness to avoid any missing data.

Ethical considerations

Before conducting the study, the respondent rights were protected by ensuring voluntary participation, so the informed consent was obtained from each participant after explaining the aim of the study, its potential benefits, methods for filling data collection tools and expected outcomes. The respondent rights to withdraw from the study at any time were assured. Confidentiality of data obtained was protected by allocation code number to the questionnaire sheets. Subjects were informed that the content of the tools used for the study purpose only.

Statistical design

After completion of data collection, the data was organized, analyzed, and tabulated data entry and statistical analysis was done using Statistical Package for Social Sciences (SPSS ver. 25.0). Descriptive statistics were applied in the form of mean and standard deviation for quantitative variable and frequency, percentage for qualitative variable. Test of significance, Chi-square test, independent sample t- test and one-way a nova test was used to detect the relation between variables. In addition, correlation coefficient (r) test was used to estimate the closeness association between variables. The P-value is the probability that an observed difference is due to chance and not a true difference. A significant level value was considered when p-value <0. 05 and a highly significant level value was considered when p-value<0.001.

Results

Table (1) Indicates that more than three quarters (76.0%) of the head nurses had age ranged from 35- < 40 years old, with M±SD 36.42±2.11 while about three fifths (60.4%) of the staff nurses had age ranged from 30-< 35 years old, with mean± S.D (30.96 ±2.81). As regarding to gender, the highest percentage (100.0% & 97.0%) of head nurses and staff nurses respectively were female. As related to marital status majority (100.0% &98.0%) of head nurses and staff nurses were married. As regarding to educational qualifications all (100.0%) of the head nurses had Bachelor's degree and slightly less than three fifths (59.6%) of the staff nurses had

Bachelor's degree. According to years of work experience two thirds (66.0%) of the head nurses had ranged from 10- < 15 years, with mean± S.D 13.10±2.34 while the majority (80.8%) of the staff nurses had < 10 years with mean± S.D 7.90±2.99 while - fifths (60.0%) of the head nurses haven't attended any training courses about caring leadership and crisis management during COVID-19.

 Figure (1) Clarifies that the highest percentage (90.0% & 77.2%) of the head nurses and staff nurses respectively had high levels toward caring leadership during COVID-19. While the lowest percentage (4.0% & 3.6) of the head nurses and staff nurses had low Levels toward caring leadership.

 Table (2) Represents that the total mean score of the head nurses regarding caring leadership during COVID-19 was (80.01±6.46) with the highest mean percent (91.2%) of the head nurses with mean score (13.68±1.74) was related to interest dimension. While the lowest mean percent (74.3%) of them with mean ±SD (22.28±2.16) related to human respect. Otherwise, the total mean score of the staff nurses was (77.32±4.48) with the highest mean percent (84.2% & 83.4%) of the staff nurses with mean ±SD (22.06±2.20 & 25.01±2.19) were related to concern and human respect dimensions.

While the lowest percent (67.7%) of them with mean score (10.16±2.78) was related to participative decision-making dimension.

 Figure (2) Clarifies that the highest percent (60.0%&75.2%) of the head nurses and staff nurses respectively had high levels toward crisis management during COVID-19. While the lowest percentage (22.0% & 3.2%) of the head nurses and staff nurses respectively had low levels toward crisis management during COVID-19.

 Table (3) Represents that the total mean score of the head nurses and the staff nurses regarding crisis management during COVID-19 was (50.34±7.16&56.99±5.15) with the highest mean percent (75.8%&85.4%) of head nurses and the staff nurses respectively with mean ±SD (9.10±0.58&10.25±1.23) were related to response phase. While the lowest mean percent (65.2%) of the head nurses with mean ±SD (9.78±0.54) were related to recovery phase and the lowest mean percent (74.3%) of the staff nurses with mean ±SD (15.60±2.12) were related to mitigation phase.

 Table (4) Indicates that there was a highly statistically significant positive correlation between total score of caring leadership and total score of crisis management during COVID-19 among nursing staff.

Table (1) Frequency distribution of nursing staff regarding their personal data (n=300)

| Personal data	Head nurses (n=50)		Staff nurses (n=250)	
	No	%	No	%
Age (years)				
< 30	0	0.0	81	32.4
30- < 35	9	18.0	151	60.4
35- < 40	38	76.0	13	5.2
≥ 40	3	6.0	5	2.0
Mean □SD	**36.42□2.11**		□□□□□□□□□□	
Gender				
Male	0	0.0	6	2.4
Female	50	100.0	244	97.6
Marital status				
Married	48	96.0	245	98.0
Unmarried	2	4.0	5	2.0
Educational qualifications				
Diploma degree in nursing	0	0.0	48	19.2
Associated degree in nursing	0	0.0	53	21.2
Bachelor's degree of nursing	50	100.0	149	59.6
Years of experience in work				
< 10	4	8.0	202	80.8
10- < 15	33	66.0	41	16.4
≥ 15	13	26.0	7	2.8
Mean □SD	□□□□□□□□□□		□□□□□□□□□	
For head nurses have you attend training courses about caring leadership and crisis management during COVID-19				
Yes	20	40.0		
No	30	60.0		
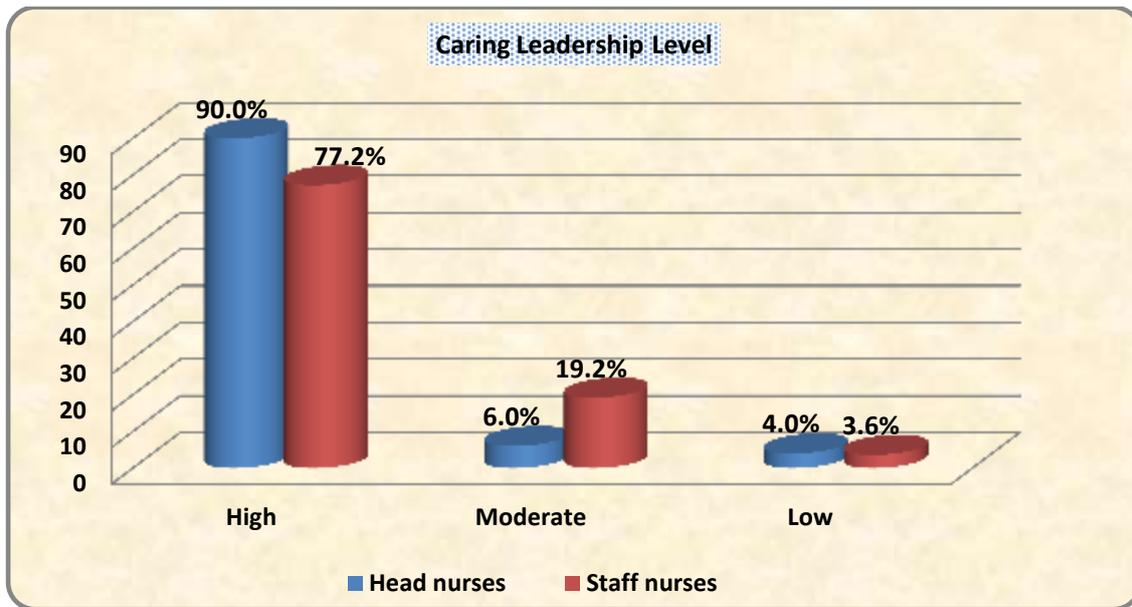
Fig. (1) Total levels of caring leadership during COVID-19 as perceived by nursing staff

Table (2) Total mean score and standard deviation of caring leadership dimensions during COVID-19 as perceived by nursing staff (n=300)

| Caring leadership dimensions	Max score	Head nurses Mean ± SD	Mean %	Staff nurses Mean ± SD	Mean %	t-test	P- value
Concern	27	22.06±2.20	81.7	22.74±1.69	84.2	0.711	0.480
Human respect	30	22.28±2.16	74.3	25.01±2.19	83.4	5.518	0.000**
Interest	15	13.68±1.74	91.2	10.58±3.05	70.5	5.018	0.000**
Listening	12	9.90±1.54	82.5	8.37±1.91	69.8	22.72	0.000**
Participative decision making	15	12.08±0.94	80.5	10.16±2.78	67.7	3.611	0.001**
Total caring leadership	**99**	**80.01±6.46**	**80.8**	**77.32±4.48**	**78.1**	**2.757**	**0.002****
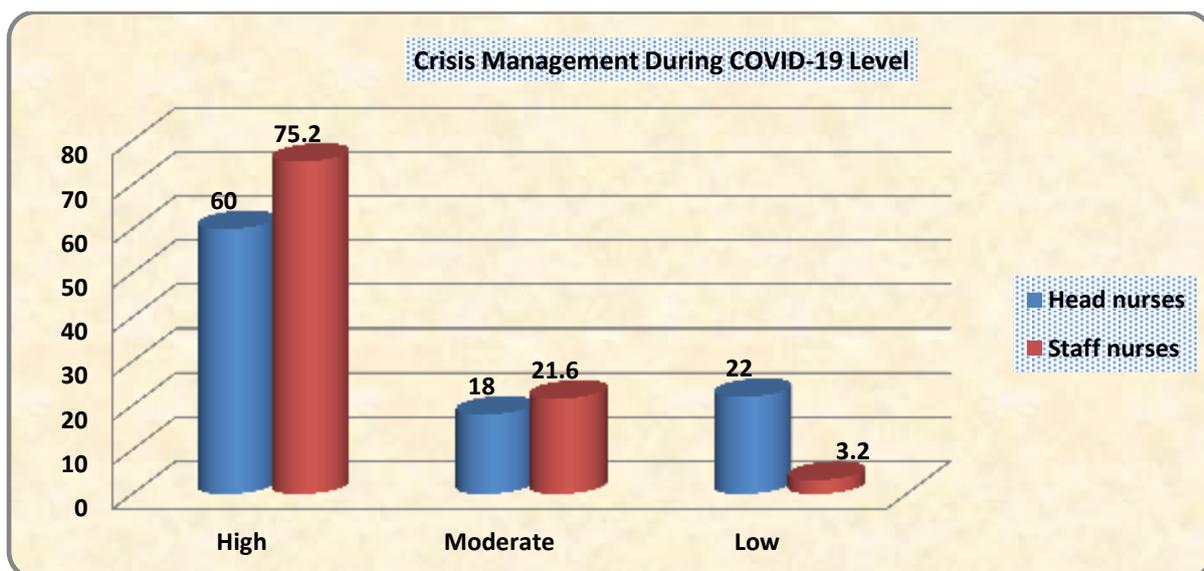
Fig. (2) Total levels of crisis management Abent during COVID-19 as perceived by nursing staff

Table (3) Total mean score and standard deviation of crisis management during COVID-19 as perceived by nursing staff

Crisis management during COVID-19 dimensions	Max score	Head nurses Mean ±SD	Mean %	Staff nurses Mean ±SD	Mean %	t-test	P-value
Mitigation phase	21	14.58±5.13	69.4	15.60±2.12	74.3	7.625	0.000**
Preparation phase	24	16.88±2.42	70.3	19.68±3.07	82.0	17.60	0.000**
Response phase	12	9.10±0.58	75.8	10.25±1.23	85.4	19.25	0.000**
Recovery phase	15	9.78±0.54	65.2	11.45±1.32	76.3	23.48	0.000**
Total crisis management during COVID-19	**72**	**50.34±7.16**	**69.9**	**56.99±5.15**	**79.2**	**19.77**	**0.000****

(n=300)

Table (4) Correlation between total score of caring leadership of nursing staff and their total score of crisis management during COVID-19 (n=300)

Caring leadership during COVID-19	Crisis management during COVID-19	
	r	P-value
	0.411	0.000**

** A highly statistically significant difference P ≤ 0. 001

3. Discussion

As coronavirus is affecting workplaces around the world, nursing staff need to adjust to this new situation and develop a strategy to prevent damages coronavirus can bring. When we say damages, we mean both the safety and the productivity of the entire workforce. Failure to handle crisis properly can result in serious harm to patients , losses for an organization [21].Caring leadership is a leadership style providing support to nurses that can potentially increase nursing job satisfaction and promote reactiveness in times of crisis in a healthcare system and it focusses on respect the needs and values of the caregiver, to decrease the load of COVID19 crisis on nurses in the workplace and to develop the potential in every individual [33].

Crisis management is the application of strategies designed to help an organization deal with a sudden and significant negative event. It seeks to protect patients and staff in hospital settings from COVID-19 infection and its associated health impacts, support hospitals and partner organizations to prevent cases and outbreaks of COVID-19, reduce transmission of SARS-CoV-2 in hospitals, ensure effective management of outbreaks and support services to remain protecting the health of patients and staff [25].

The present study aimed to assess the relation between caring leadership and crisis management during COVID-19 as perceived by nursing staff.

The findings of the study results indicated that that, three- quarters of the head nurses had age ranged from 35- < 40 years old and three- fifths of the staff nurses had age ranged from 30- < 35 years old, as regarding to gender, the most of head nurses and staff nurses were female. Most head nurses and staff nurses were married. All the head nurses had Bachelor's degree and slightly less than three - fifths of the staff nurses had Bachelor's degree. Two thirds of the head nurses had ranged from 10- < 15 years of work experience& the majority of the staff nurses had < 10 years work

experience and the three- fifths of the head nurses haven't attended any training courses about caring leadership and crisis management during COVID-19.

Concerning caring leadership during COVID-19. The finding of the current study clarified that the highest percentage of the nursing staff had high levels toward caring leadership during COVID-19. While the lowest percentage of the nursing staff had low levels. From the investigator's point of view this result might be due to hospital administration provide the nursing staff with training courses about caring leadership, learning head nurses to deal with staff nurses in caring leadership behavior as supporting the staff nurses during COVID-19 and keep staff nurses formed with everything new in COVID-19 as well as the staff nurses have respect to their manager and trust them. While the lowest percentage of the nursing staff had low levels might be due to some of the nursing staff need to presence courses about caring leadership and its importance in overcoming the COVID-19 crisis.

This result was similar with [24] reported that more than fifty of the nursing staff apply caring behavior. Also, [23] founded that the highest percentage of the staff nurses perceived their managers were more caring.

The findings of this study were disagreed with [9] reported that nursing staff had low levels of caring behaviors.

Concerning total mean score and standard deviation of caring leadership dimensions during COVID-19 as perceived by nursing staff was related to interest dimension. From the investigator point of view this result might be due to the head nurses were faithful with the staff nurses and they help them to overcome the work problem during COVID19. The present study was harmony with [١٦] showed that the head nurses had highest mean percentage related to interest with subordinates and had social relation with staff nurses.

While the lowest mean score of the head nurses was related to human respect this might be due to work

overload during the COVID19 crisis for both head nurses and staff nurses and the hospital administration did not give them complete financial merits in the work during COVID-19. This result was disagreed with **[12]** founded that the highest mean of head nurses was related to the subscale of respect dimension in caring leadership.

While the highest mean score of the staff nurses was related to concern and human respect dimensions. From the investigator point of view this result might be due to the nursing staff feeling of support, trust, empathy, respect from their manager, giving them opportunity to do well during COVID-19 and allow nurses to express their opinion. This result was supported by **[27]** reported that the highest mean was related to the subscale of respect for other.

While the lowest mean score of the staff nurses was related to participative decision-making dimension. From the investigator point of view this result might be due to in time of crisis especially in critical care units the head nurses don't listening to nurses need, their wants and don't provide them enough information to take decision during COVID19.This result was disagreed with **[١٧]** founded that the highest mean score of caring leadership of staff nurses was related to the subscale of participative decision-making dimension.

Concerning crisis management during COVID-19. The results of the current study clarified that the highest percent of the nursing staff had high levels toward crisis management during COVID-19. While the lowest percentage of the nursing staff had low levels. From the investigator point of view, this might be due to hospital administration conduct continuous training program and workshop about crisis management during COVID-19 as COVID-19 considered one of the deadly pandemic crises and due to head nurses and staff nurses acceptance the policies of hospital, the clear and shared sense of the hospital's mission, vision, commitment toward hospital.

This result was agreement with **[18]** reported that, the studied nurses had positive and highly perception level about disaster management. On the opposite side, this result was disagreement with **[10]** reported that the majority of nurses had low knowledge about disaster management.

Concerning total mean score and total standard deviation of nursing staff' perception regarding crisis management during COVID-19**.** The forgoing results of the current study represented that the highest mean score of the nursing staff regarding crisis management during COVID-19 was related to response phase. From the investigator point of view this result might be due to frequent activate preventive measures as hand washing and using septic technique to prevent spread of infection and frequent training on how to use infection control methods in health care. The present study was harmony with **[25]** represented that the nursing staff had highest mean score was related to response phase of crisis management.

While the lowest mean score of the head nurses were related to recovery phase. From the investigator point of view this result might be due to there was no clear plan about dealing with epidemic disease for the nursing staff. While the lowest mean score of the staff nurses were related to mitigation phase. From the investigator point of view this result might be due the COVID-19 was anew and horrible virus that affect all over the world. This result agreed with **[26]** reported that the staff nurses had lowest mean percentage related to recovery phase and mitigation phase.

Concerning correlation between total score of caring leadership of nursing staff and their total score of crisis management during COVID-19**.** The findings of the present results indicated that there was a highly statistically significant positive correlation between total score of caring leadership and crisis management during COVID-19 among nursing staff. From the investigator point of view this result might be due to caring leadership provides nurses with an interactive process with nurse leaders and managers. Also, caring leadership is necessary for respecting nurses' skills, as well as listening, concern, interest, sharing of knowledge, and influence in decision-making process. Thus, incorporation of caring leadership activities helps to ensure sustainability of collaborative and empowering environment within healthcare organizations thus, it affects the crisis management during COVID-19.

The study finding was supported by **[٨]** reported that there was a highly statistically significant positive correlation between total score of caring leadership and COVID-19 management among nursing staff.

On the other hand, this result was disagreement with **[2]** reported that the caring leadership and crisis management were negatively correlated.

4. Conclusion
The present study concluded that the highest percentage of the nursing staff had high levels toward caring leadership and crisis management during COVID-19. While the lowest percentage of the nursing staff had low levels toward caring leadership and crisis management during COVID-19. Moreover, there was a highly statistically significant positive correlation between total score of caring leadership and total score of crisis management during COVID-19 as perceived by nursing staff.

Recommendations
In the light of the findings obtained from the present study, the following points are recommended:
I. **Recommendations for hospital administration:**
Conducting training programs and workshop to the nursing staff to improve their knowledge and updating their information about how to manage the crisis of COVID-19 as the proper using of oxygen therapy with COVID19 patient.

Head nurses have to maintain integrity with staff nurses during COVID19 such as (face mask, gloves, safety glasses and shoes, vests and full body suits)

Developing simplified and comprehensive booklet and poster that including information about phases and precautions of crisis management during COVID-

19 have made available to all nursing staff in the organization.

Head nurses need communicate effectively with nurses and encourage them to participate in assessment of the crisis response plan and make any decision about crisis.

II.   Recommendations for education level:

- The head nurses encourage the staff nurses to attend training courses to keep on Safe disposal of personal wastes of patients to prevent spreading of COVID-19.

- Head nurses need to help nurses to participate in the decision making during COVID19 crisis.

III.   Opportunities for further research:

- Further research is needed for identify factors that enhance nursing staff perception toward caring leadership and crisis management during COVID-19.

- Further research is needed to put plan for nurses that help in continuous development management program on COVID19.

References

[1]   Adler,S (2022):Caring Leadership in 2022:The importance of leader self-care .Available at https://www.kincentric.com. Accessed on 3 Jan 2023

[2]   Ahmed,F &Faraz,N(2020): Caring for the Caregiver during COVID-19 Outbreak: Does Inclusive Leadership Curb Psychological Distress through Psychological Safety? A Cross-sectional Study. International Journal of Nursing Studies .14: pp.110-120.

[3]   Alumni, s. (2022): Leadership The five most common leadership styles & how to find yours. Available at https://www.reworked.co/leadership/. Accessed on 10 Mar 2021.

[4]   Balay, E., Alquwez,N., Inocian ,P& Alotaibi ,S. (2022): Hospital preparedness, resilience, and psychological burden among clinical nurses in addressing the COVID-19 crisis in Riyadh, Saudi Arabia. Front Public Health. Available at https://www.techtarget.com. Accessed on 5 Jan 2023.

[5]   Daaboul,M.(2022):Leadership Behavior in Healthcare Sector During Covid 19 Crisis. available at https://www.researchgate.net/scientific.Accessed on 3 Dec 2022.

[6]   David, T. (2022): Your Guide to 2022 PR Crisis Management. Available at https://www.linkedin.com.- Accessed on 1 Jan 2023.

[7]   Dodson ,K.(2022): a push for global health progress as covid-19 focus slips. Available at https://unfoundation.org/ blog. Accessed on 30 Jan 2023.

[8]   Duncan,R (2022): Why 'Caring' Is A Must-Have Ingredient in Effective Leadership. Available at https://www.forbes.com. Accessed on 3 Jan 2022.

[9]   El Demedash,S. (2020):developing caring competencies and perception among nursing

manager "unpublished doctoral thesis. Faculty of nursing. Tanta university. egypt.3-20.

[10] Elsayed,N (2020): Enhancing nurse intern's knowledge and practice in internal disaster management. Available at https://www.bsu.edu.eg/ Backend.Accessed on 16 Dec 2022.

[11] El-Zanaty, A. (2015): Egypt health issues survey, Cairo and Maryland Ministry of Health and Population, Associates, and the DHS Program, ICF International; available at (http://dhsprogram.com/pubs/pdf/FR313/ FR313.pdf, (accessed 7 -12-2021, at9:30pm).

[12] Gaber,S.,Nassar,M&ElDin,Y.(2020):The relationship between perceived caring leadership and nurses' anticipated turnover. Available at https://www.researchgate.net/publication/2811148 80.Accessed on 5 Dec 2022.

[13] Ghadhi, B. (2020): Categories of crisis management. Available at https//prohibitionpr.co.uk/public relations. Accessed on 23 May2022.

[14] Gardner, J. (2020): The importance of leadership: setting the stage. McGraw-Hill Education.

[15] Harby,A (2016): Assessment caring leadership: setting the stage. McGraw-Hill Education.

[16] Hodgson,P Greaves,J Cook,G Fraser,A & Bainbridge,L(2022):A study to introduce National Early Warning Scores (NEWS) in care homes: Influence on decision- making and referral processes.Journal nursing open. 9(1): pp.519–526.

[17] Izzah ,N Waluyo, A Irawaty, D.,Jan,S& Mansyur,M.(2018):The improvement of caring behavior among nurses through nursing leadership based on the emotional intelligent. Open Access Library Journal 5:pp.1-9.

[18] Khalil, N (2019): Emergency nurses' knowledge and practice regarding preparedness of disaster management at a university hospital Available at. https://www.researchgate.net/publication. Accessed on Accessed on 23 Dec 2022.

[19] Khartit,A &Ward,A (2022). participative decision-making for caring leader. Available at https://doi.org/10.1111/jonm.13335. Accessed on10 April 2022.

[20] Markey,K .(2018):Understanding nurses' concerns when caring for patients from diverse cultural and ethnic backgrounds. Journal of clinical nursing.27. pp.1-2.

[21] Martic,k & Jounay,v(2022).the ultimate COVID-19 crisis management checklist for employers available at https://haiilo.com . Accessed on 6 Nov 2022.

[22] Martono, M., Nursalam, N., Satino, S., Posey,B & Wigmore,I(2020): Crisis management. Available at https://www.techtarget.com. Accessed on 5 Jan 2023.

[23] Olender,L(2021): Nurse manager caring and workplace bullying in nursing : the relationship between staff nurses' perceptions of nurse manager caring behaviors and their perception of exposure to workplace bullying within multiple healthcare

settings. Available at https://scholarship.shu.edu /dissertations/1906. Accessed on 8 Dec 2022.

[24] Pendidika,N & Probolinggo,P.(2020): Workload and Work Stress on Caring Behavior in nurse on Nursing Services .Journal of human resource studies5. (3): pp 148-155.

[25] Rizk,I ., Rabee,R 'Ghani,A ., Bakr,S .,Salah,M & Muhammad,A.(2021): Hospital crisis preparedness plan for COVID-19 pandemic. Medicine updates faculty of medicine journal/ 4. pp :103- 119.

[26] Shamshiri,M., Ajri,M .,Khameslou., Kalantar,R & Molae,B.(2022): Management strategies during the COVID-19 pandemic crisis: The experiences of health managers Iran.Available at https://www.ncbi.nlm.nih.gov/pmc/journals.Access ed on 9 Nov 2022.

[27] Shoorideh,F(2017): The relationship between Nurses' spiritual health and their caring behaviors. Journal of Research on Religion & Health.,3(1): pp.5-17.

[28] Staff,E (2022): Crisis Management in .2022in four steps. Available at https://everything-pr.com .Accessed on 3 Jan 2023.

[29] Turale, S. (2018): Disaster training for nurses: a moral and humanitarian imperative. International Nursing Review, 61 (1), 3.

[30] Wessame,A (2022): why caring leadership is the right to lead available at https://www.Ivy. Accessed on 23 Oct 2022.

[31] WHO, (2022): Coronavirus disease (COVID-19): Health and safety in the workplace? Available at https://www.who.int. Accessed on 2 Jan 2023.

[32] Wolverton, C. (2016): Staff nurse perception, of nurse manager caring behavior: psychometrics testing of the caring assessment tool-administration (CAT-ADM). Indiana University.

[33] Zhang , F, Yilan , X., Jiao ,H & Guan ,C(2022): A caring leadership model in nursing: A grounded theory approach Available at https://onlinelibrary.wiley.com /journal of nursing management. Accessed on 4 Jan 2023.