RESEARCH MANUSCRIPT

Challenges facing nurse managers during and beyond COVID-19 pandemic in relation to perceived organizational support

Amal Refaat Gab Allah PhD ⬥

Nursing Administration, Faculty of Nursing, Menoufia University, Shibin Al Kawm, Egypt

Correspondence
Amal Refaat Gab Allah, PhD, Faculty of Nursing, Menoufia University, Tabloha-Tala- Menoufia, Shibin Al Kawm 32511, Egypt.
Email: amalrefaat54@yahoo.com

Abstract

Aim: To explore challenges facing nurse managers during and beyond coronavirus disease, 2019 (COVID-19) pandemic and its relation to perceived organizational support.

Background: When faced with high-pressure situations like the COVID-19 pandemic, it is critical that nurse managers be equipped with the support they need to successfully surpass these hard times.

Methods: Descriptive correlational design was utilized. The study was conduct at different health care settings across Egypt. Convenience sampling technique was employed to recruit (214) nurse managers. Two instruments were used; questionnaire of challenges faced by nurse managers and survey of perceived organizational support. Mann–Whitney test, Kruskal–Wallis test, Spearman's correlation, and regression analysis were utilized.

Results: The highest percentage of managers reported being faced with high level of challenges. There was a highly statistically significant negative correlation between challenges currently faced by managers and their perception of organizational support.

Conclusion: The COVID-19 pandemic had placed additional challenges on nurse managers and these challenges are expected to persist in the future. Higher perception of organizational support minimizes managers' perception of being challenged in times of pandemics.

Implications for Nursing Management: Better training focused on disaster management, ethical decision making, leading in times of uncertainty, and maintaining well-being will help nurse managers lead better their teams.

KEYWORDS
challenges, COVID-19, nurse managers, organizational support, pandemic

1 | INTRODUCTION

As the coronavirus disease, 2019 (COVID-19) pandemic is considered the largest community health event in more than a century, the significance of nursing is being perceived by legislators and communities. While nurses play a vital role in such a pandemic, most of them are facing high-risk situations; some have died due to inadequate personal protective equipment.[1] It is apparent that healthcare providers are expected to suffer from psychological disorders as consequences of the COVID-19 pandemic. This might include posttraumatic stress syndrome.[2]

COVID-19 outbreak constitutes a massive health challenge all around the world. This complex pandemic brings extraordinary challenges. Among those challenges is the highly evident stress

among nurses. Therefore, nurse managers should offer higher support to nurses in their struggle against the COVID-19 outbreak. They should suggest nontraditional solutions to keep their staff morale and mental well-being.[3] Nurses all over the world struggle with the impact of COVID-19 on their life and their families in addition to having to work long hours while there are multiple threats to working environment safety. Many nurses suffered due to disturbed sleep while having contused for using tight personal protective equipment. Also, nurses reported high stress and fear of being infected despite wearing personal protective equipment.[4]

The complex work environment necessitates that nurse managers remain up to date with the latest scientific developments in their field. They must also be able to handle problems that emerge effectively and achieve the most promising outcome.[5] At times of high stress, as with the COVID-19 pandemic, effective management is crucial for healthcare staff well-being.[6] The spread of COVID-19 has put new pressures on already strained health systems across the world and already challenged nurse managers. So far, hospitals are facing severe crises trying to deliver necessary care, whereas managers are making heart-breaking decisions on how to allocate scarce resources.[7]

All nurse managers practicing nowadays have not experienced such perplex issue like the COVID-19 pandemic. Such a crisis will be an influential event for all nursing personnel todays and in the future. None of them has experienced this degree of confusion, difficulty, and uncertainty before.[8] All nurse managers are trying to navigate this crisis with minimal losses. No time like that highlights the vital role nurse managers have toward their organizations. Front-line nurse managers have to ensure that patients receive excellent nursing care while acting as a link between them and top hospital management. They find themselves take responsibilities that they are not adequately prepared for like dealing with rapidly changing guidelines and facing "moral injury" for making difficult decisions. But they are fighting to ensure that patients get the best possible care rather than giving up to fear and insecurity.[9] Managers are required to take difficult decisions and consequently fall in an ethical dilemma. Feeling optimistic about the future is especially important when employees are challenged with job and economic insecurity than any other time.[10]

The organizational support theory (OST) developed by Eisenberger and Stinglhamber,[11] has linked employees' health and safety outcomes to the degree of perceived organizational support. This theory argued that it is particularly important that organization value and demonstrate support to its employees during hard times. Perceived organizational support refers to the workers' perceptions that their effort and contribution are appreciated by their organization. Organizational support helps nurses to display positivity, take ethical decisions, increase their commitments and intention to remain, all which reduce the job stress.[12] OST was generally successful in its predictions concerning both the antecedents of POS (leadership, employee–organization context, human resource practices, and

working conditions) and its consequences (employee's orientation toward the organization and work, employee performance, and well-being).[13] Multiple research studies[11,14] have confirmed the significance of a safe and healthy supportive work environment in forms of providing financial security, minimizing exposure to occupational stress, and ensuring well-being. Organizations can show empathy and support for their workers by establishing malleable work environment that encourages open and trustful communication where well-being and safety of workforce are of highest organization's priorities.[15]

Developing an environment where nurse managers feel supported and valued not only enables them to find the strength to demonstrate courageous leadership during uncertainty but also helps organizations to respond effectively during crisis. While multiple surveys give an insight into the effects of COVID-19 on the nursing profession as a whole, less is known about the impact on nurse managers.[8] Exploring the challenges facing nurse managers during and beyond the COVID-19 pandemic is urgent. Doing so will help infer implications for professionals and health care organizations on how to better support front line providers including nurse mangers working in an ever challenging climate.

1.1 | Aim of the study

The aim of this study was to explore challenges facing nurse managers during and beyond COVID-19 pandemic in relation to perceived organizational support.

2 | METHODS

2.1 | Study design

Descriptive correlational design was employed in conducting the study.

2.2 | Study setting and sample recruitment

Convenience sampling technique was employed to recruit as many nurse managers as possible from all over Egypt. Different types of health care settings including primary, secondary and tertiary health care settings were included. Also hospitals that are isolation for COVID-19 patients were included. Consent was obtained from the administrators of the health care settings included to approach the electronic data base of employees or to review personnel files to obtain the contact information of nurse managers. The contact information either email or mobile application number was obtained for all potential participants. Out of (261) sent questionnaires, 214 responses were sent back to the researcher which reflects a response rate of 82.3%.

2.2.1 | Inclusion criteria

The study included all available nurse managers who were on duty at their place of work during time of data collection. All categories of nurse managers of all ages, educational levels, and years of experience were recruited for participation in the study.

2.3 | Study instruments

Instrument (1): questionnaire about challenges facing nurse managers: this instrument was developed by the researcher based on review of literature.[7,16] It includes four sections; the first includes the socio-demographic profile of nurse managers and characteristics of the hospitals they work on. The second section included group of challenges (15 items) suggested by the researchers about the current challenges that managers face as a consequence of COVID-19 pandemic. The third section included group of challenges (15 items) about the expected challenges that managers may face in the future as a consequence of COVID-19 pandemic. Respondents were asked to check in front of each item by "Yes" which was assigned a score "1" or "No" response which was assigned a score of "0." The fourth section was an open end question that asked managers to write down other challenges that may not be included in the proposed list of challenges. A score higher than 70% indicates being faced with high level of challenges, from 50% to less than 70% indicates moderate level of challenges and less than 50% indicates being faced with low level of challenges. Bilingual group of five experts had tested the validity of the questionnaire. Also, the questionnaire was tested for reliability and the Cronbach's coefficient alpha was ($\alpha = 0.87$).

Instrument (2): survey of perceived organizational support: it was developed by Eisenberger et al.[17] It was used in this study to assess nurse managers' perception concerning the extent to which the organization values their work, effort and contribution. It consists of 8 items. Participants' responded to items on a 3-point Likert-type scale ranging from "1 = disagree" to "3 = agree." Items 6 and 7 have reversed scoring. This yields a total score between 8 and 24. A score from 75% or more indicates high perception of organizational support, from 50% to less than 75% indicates moderate support perception whereas less than 50% indicates low perception of organizational support. Cronbach's alpha for the eight item version was ($\alpha = 0.93$).

2.4 | Ethical considerations and data collection procedures

This study was approved from the Research and Ethics Committee at the Faculty of Nursing, Menoufia University (IRB reference number: 87). Setting/hospital approval of collecting the data were obtained via an email sent to the top director of each setting. Voluntary participation was ensured through obtaining informed consent or implied consent when the questionnaires were sent back to the researcher. All data were treated as strictly confidential. An email or message was first sent to potential participants to explain the purpose and procedures of the study and to request consent for participation in it. Pretesting of the instruments was carried out before starting the actual data collection. It was conducted on randomly selected 10% of nurse managers. For agreed participants, a second email or message was sent containing the electronic version of the questionnaires (prepared on one drive application) and simple instructions to fill them. Data were collected during June and July, 2020.

2.5 | Statistical analysis

Descriptive statistics: in which quantitative data were presented in the form of mean (X-), SD, range, and qualitative data were presented in the form of numbers and percentages.

Analytical statistics: Mann–Whitney test (nonparametric test): is a test of significance used for comparison between two groups not normally distributed having quantitative variables. Kruskal–Wallis test (nonparametric test): is a test of significance used for comparison between three or more groups not normally distributed having quantitative variables. Spearman's correlation (r): is a test used to measure the association between quantitative variables not normally distributed. The p value of less than 0.05 was considered statistically significant whereas p value of less than 0.001 was considered statistically highly significant. Binary logistic regression analysis is a statistical process for estimating the relationships among variables. It focuses on the relationship between a dependent variable and one or more independent variables. It is used to predict the odds ratio. The odds are defined as the probability that a particular outcome to occur depending on the underlying factor.

3 | RESULTS

The current study included 214 nurse managers; their mean age was 39.1 ± 8.72 and ranged from 24 to 59 years. The majority of them (98.6%) were females and had bachelor degree in nursing (79%). The majority of them (68.7%) were head nurses and their mean years of experience were 9.71 ± 6.70 and ranged from 1 to 36 years. The study included mainly governmental hospitals (83.6%) and services provided were mainly of secondary type (96.7%). The highest percentage of hospitals (65%) had bed capacity more than 150 bed and are isolation hospitals for COVID-19 disease (61.7%). The majority of nurse managers (96.7%) reported that COVID-19 pandemic has placed additional challenges on them (Table 1).

Table 2 presents current and future challenges faced by nurse managers during and beyond COVID-19 pandemic. High percentage of nurse managers reported being faced with nearly all challenges presented while staff safety and risk for infection, stress, fear and anxiety and work-overload were the three highly reported challenges by the majority of managers (97.2, 99.1, and 92.1%,

TABLE 1 Socio-demographic characteristics of the study participants and hospital criteria (N = 214)

Socio demographic characteristics	No.	%
Age/years		
Mean ± SD	39.1 ± 8.72	
Range	24–59	
Gender		
Male	3	1.40
Female	211	98.6
Educational level		
Technical nursing degree	38	17.8
Bachelor nursing degree	169	79.0
Master degree in nursing	7	3.30
Position		
Head nurse	147	68.7
Nursing supervisor	37	17.3
Nursing director	22	10.3
Quality manager	5	2.30
Infection control manager	3	1.40
Hospital type		
Governmental	179	83.6
Private	35	16.4
Years of experience		
Mean ± SD	9.71 ± 6.70	
Range	1–36	
Type of services provided		
primary health care	12	5.60
Secondary health care	195	91.1
Tertiary health care	7	3.30
Hospital bed capacity		
<100	60	28.0
100–150	15	7.00
>150	139	65.0
Is the hospital you work on is an isolation hospital for COVID-19?		
Yes	132	61.7
No	82	38.3
Do you think the COVID-19 pandemic has placed additional challenges on you as a manager?		
Yes	207	96.7
No	7	3.30

Abbreviation: COVID-19, coronavirus disease, 2019.

respectively). As evident in the table, the percentage of challenges expected by nurse managers in the future is decreased whereas safety and risk for infection, managing conflict and managing unexpected crisis are the three highly expected challenges by the majority of managers beyond the pandemic (98.1, 93.5, and 91.1%, respectively). In conclusion, the highest percentage of nurse managers reported being faced with high level of challenges while the highest percentage of them expects to be faced with moderate level of challenges in the future.

Table 3 presents common themes of challenges as reported by nurse managers in the open end question. At the top were taking difficult decisions, community image, keeping staff morale, and family factors. Small percentage reported being faced with other challenges such as lack of training, lack of monetary rewards, rumors, communication problems and violence.

Figure 1 shows nurse managers' perception of organizational support. The highest percentage of them (48.1%) reported high perception of organizational support.

The relationship between current and future challenges faced by nurse managers during COVID-19 pandemic and their socio-demographics and hospital criteria is presented in Table 4. As shown, there was a significant relationship between future challenges expected by managers and their level of education as those with technical nursing degree expect more challenges than those with bachelor and master nursing degrees ($p = 0.026$). Also, significant relationship was found between current challenges and managers' positions as head nurses reported being faced with greater challenges than other nursing management positions ($p = 0.001$). Furthermore, significant relationships were found between challenges (current and future) and hospital criteria; current challenges were significantly higher in governmental rather than private hospitals ($p = 0.024$), those providing secondary health care services rather than other types ($p = 0.018$ and 0.014, respectively), those with higher bed capacity than others ($p = 0.004$ and 0.011, respectively) and isolation hospital for COVID-19 disease rather than non-isolation ones ($p = 0.008$).

There was a highly statistically significant negative correlation between current and future challenges expected and nurse managers' age ($p < 0.001$). Also, there was a highly statistically significant negative correlation between challenges currently faced by managers and their perception of organizational support ($p < 0.001$) and the correlation between perception of organizational support and future challenges expected was statistically significant ($p = 0.009$) (Table 5).

Table 6 presents regression analysis for detection of the independent predictors of current and future challenges faced by nurse managers during COVID-19 pandemic. Age, type of service provided and perception of organizational support were the independent predictors for the current challenges faced by nurse managers during COVID-19 pandemic. On the other hand, age and perception of organizational support were the independent

TABLE 2 Number and percent distribution of current and future challenges faced by nurse managers during and beyond COVID-19 pandemic (N = 214)

Type of challenge	Current challenges		Future challenges	
	Yes	No	Yes	No
	N (%)	N (%)	N (%)	N (%)
Staff safety and risk for infection	208 (97.2)	6 (2.80)	210 (98.1)	4 (1.90)
Staff shortage	189 (88.3)	25 (11.7)	191 (89.3)	23 (10.7)
Staff absenteeism	159 (74.3)	55 (25.7)	85 (39.7)	129 (60.3)
Staff turnover	73 (34.1)	141 (65.9)	187 (87.4)	27 (12.6)
Staff stress, fear and anxiety	212 (99.1)	2 (0.90)	116 (54.2)	98 (45.8)
Work-overload	207 (96.7)	7 (3.30)	172 (80.4)	42 (19.6)
Assignment of duties	197 (92.1)	17 (7.90)	184 (86.0)	30 (14.0)
Managing conflict	206 (96.3)	8 (3.70)	200 (93.5)	14 (6.50)
Managing unexpected crisis	205 (95.8)	9 (4.20)	195 (91.1)	19 (8.90)
Lack of collaboration	101 (47.2)	113 (52.8)	76 (35.5)	138 (64.5)
Lack of resources & PPE	132 (61.7)	82 (38.3)	75 (35.0)	139 (65.0)
Too many rules and regulations	133 (62.1)	81 (37.9)	107 (50.0)	107 (50.0)
Frequently changing instructions	143 (66.8)	71 (33.2)	77 (36.0)	137 (64.0)
Information overload	118 (55.1)	96 (44.9)	84 (39.3)	130 (60.7)
Ambiguity and uncertainty	194 (90.7)	20 (9.30)	87 (40.7)	127 (59.3)
Total challenges	**Current challenges**		**Future challenges**	
	N (%)		N (%)	
Low degree of challenges	58 (27.1)		48 (22.4)	
Moderate degree of challenges	71 (33.2)		76 (35.5)	
High degree of challenges	85 (39.7)		90 (42.1)	
Mean ± SD	11.5 ± 2.39		9.56 ± 3.37	
Range	6–15		3–15	

Abbreviation: COVID-19, coronavirus disease, 2019.

predictors for the future challenges expected to be faced by nurse managers during COVID-19 pandemic.

4 | DISCUSSION

Nurse leaders should always be supporting to keep their staff morale. Nurses depend on their managers for leadership and guidance in hard times.[18] Thus the current study was conducted to explore challenges facing nurse managers during and beyond COVID-19 pandemic in relation to perceived organizational support. Due to the apparent lack of studies discussing challenges faced by nurse managers during COVID-19 pandemic, interpretation of current study results in comparison with highly similar studies was quiet difficult.

The highest percentage of managers included reported being faced with high level of challenges while the highest percentage of them expects to be faced with moderate level of challenges in the future. Staff safety and risk for infection, stress, fear and anxiety and work-overload was the three highly reported challenges by majority of managers. The managers expected to be faced with lower challenges in the future whereas safety and risk for infection, managing conflict and managing unexpected crisis were the three highly expected challenges by the majority of managers beyond the pandemic.

In agreement, a study conducted by Nyashanu et al.,[16] about "Exploring the challenges faced by frontline workers in health and social care amid the COVID-19 pandemic in the English Midlands region, UK" identified nine key themes in their qualitative study. The top challenges among managers were lack of pandemic preparedness, shortage of personal protective equipment, evolving guidance, shortage of staff and delayed testing while other identified challenges were anxiety and fear amongst professionals, challenges in fulfilling social shielding responsibility, challenges in enforcing social distancing, and anxiety and fear amongst residents and service users.

TABLE 3 Common themes of challenges as reported by nurse managers (N = 214)

Studied variables	No.	%
Taking hard decisions	29	13.5
Lack of training	1	0.46
Community image	18	8.4
Lack of monetary rewards	1	0.46
Family factors	10	4.6
Uncomfortable atmosphere	6	2.8
Keeping staff moral	4	1.8
Rumors	4	1.8
Keeping staff moral	11	5.1
Solving too many problems at one time	2	0.93
Chaos	1	0.46
Violence against health care workers	1	0.46
Lack of support	1	0.46
Poor disaster management	1	0.46
Community image + family factors	1	0.46
Lack of community awareness	1	0.46
Communication problems	3	1.4
Lack of qualified staff to work with COVID-19 patients	1	0.46

Abbreviation: COVID-19, coronavirus disease, 2019.

Perception of organizational support

8.90%
42.90%
48.10%

High
Moderate
Low
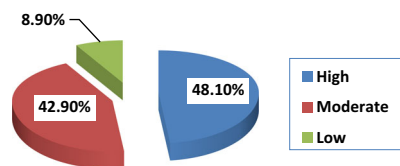
FIGURE 1 Nurse managers' perception of organizational support (N = 214) [Color figure can be viewed at wileyonlinelibrary.com]

The World Health Organization reported that one in ten health worker is infected with coronavirus in some countries. In May 2020, the International Council of Nurses reported that at least 90,000 healthcare workers have been infected and more than 260 nurses had died in the COVID-19 pandemic.[19] In March 2020, 9% of those affected with COVID-19 in Italy were health workers.[20] In March 2020, one in four doctors in the United Kingdom were off sick in isolation or caring for a family member with COVID-19.[21]

It is evident that the COVID-19 pandemic has been associated with both short- and long-lasting psychological effects.[22] Many nurses have faced an ethical dilemma where they had to balance their own health and the health of their families with that of their patients. The lack of personal protective equipment aggravated the problem. This ethical dilemma had caused many nurses to experience another type of stress, moral distress, which was defined as knowing the right thing to do but having to do another. Moral distress may explain the expected high turnover among nurses after the COVID-19 pandemic.

In vein with the current result, a study by Wang et al.,[23] concluded that anxiety, depression and insomnia were common among health care providers due to fear from COVID-19 infection and reported that the higher the exposure to infected patients, the higher the psychological problems staff suffer from. Results of a survey conducted by King's College London (2020)[24] reported that, 25% disagreed that personal protective equipment was available, 92% are experiencing fear from being a source of COVID-19 infection for the family, and 62% reported that they receives no or inadequate training.

Preparedness for managing crisis maximizes the hospitals ability to deal with such serious situations. High percentage of managers reported being challenged with managing unexpected crisis. Hospitals that done well were those who anticipated a big wave of COVID-19 patients and prepared for the possibility of being overwhelmed with the number of infected patients flowing to the emergency rooms and intensive care units. This nursing preparedness was clear in Hong Kong, Taiwan, Korea, and Singapore; as they learned the lessons well from SARS and H1N1 outbreaks.[4]

In addition, this study confirms earlier studies in which many nurses reported not being sufficiently prepared to handle emergency and disaster situations. This highlights the need for nurse managers to be fully equipped with the required competencies to better handle and manage patients affected by disease outbreaks and in emergency situations.[25,26] From the researcher's point of view, lack of disaster preparedness may be owed to absence of polices and protocols relevant for pandemic control and management plus lack of regular training on disaster management in many health care settings. This may have contributed to the high levels of stress, fear, anxiety and feeling unprepared to make difficult decisions reported in addition to feeling of uncertainty. Also, if managers are not adequately prepared to handle disasters, multiple conflicts emerge and cooperation become more difficult.[27]

Shortage and absenteeism of staff were common challenges which aggravated work overload and made assignment of duties on short staff more difficult. These challenges contributed to reporting being challenged with managing conflict by nurse managers involved. In contrary, Buheji & Buhaid (2020)[4] stated that the shortage of nurses in intensive care units and increased workload has led nurses to become more professionally assertive and work as teams to support and help each other, to make sense of sensibility and take critical decisions to adapt to high stress. In agreement, Appleby[28] reported that the COVID-19 outbreak has challenged United Kingdom healthcare services at a time when there is already a shortage in nursing numbers, as a result of increased demands and unfilled vacancies. With a vacancy rate of more than one in 10 across the United Kingdom, an exceptionally increased burden and pressure were placed on the already exhausted nursing staff.[29]

TABLE 4 Relationship between current and future challenges faced by nurse managers during COVID-19 pandemic and their socio-demographics and hospital criteria (N = 214)

Socio demographic characteristics	Current challenges Mean ± SD	Test of sig. p value	Future challenges Mean ± SD	Test of sig. p value
Gender		U		U
Male	10.7 ± 2.88	0.725	10.7 ± 3.37	0.577
Female	11.5 ± 2.39	0.469	9.54 ± 3.37	0.564
Educational level				
Technical nursing degree	11.7 ± 2.49	K	12.4 ± 2.93	K
Bachelor nursing degree	11.5 ± 2.39	0.987	10.2 ± 3.56	7.28
Master degree in nursing	12.2 ± 2.21	0.611	9.28 ± 3.29	0.026[a]
Position				
Head nurse	12.0 ± 2.15	K	9.76 ± 3.22	K
Nursing supervisor	11.1 ± 2.71	17.4	9.94 ± 4.05	8.62
Nursing director	10.1 ± 2.59	0.001[b]	7.81 ± 2.93	0.071
Quality manager	9.80 ± 1.64		9.60 ± 3.28	
Infection control manager	10.0 ± 3.46		7.33 ± 0.57	
Hospital type		U		U
Governmental	11.5 ± 2.39	2.25	10.6 ± 3.78	0.398
Private	10.7 ± 2.88	0.024[a]	10.2 ± 3.37	0.690
Type of services provided				
Primary health care	9.75 ± 1.76	F	8.33 ± 2.96	K
Secondary health care	13.4 ± 1.61	7.99	12.5 ± 2.28	8.53
Tertiary health care	11.5 ± 2.39	0.018[a]	9.45 ± 3.36	0.014[a]
Hospital bed capacity				
<100	10.4 ± 2.13	K	8.45 ± 3.17	K
100–150	10.9 ± 233	10.8	9.98 ± 2.10	9.08
>150	11.9 ± 2.37	0.004[b]	10.0 ± 2.10	0.011[b]
Is the hospital you work on is an isolation hospital for COVID-19?		U		U
Yes	11.4 ± 2.36	0.525	10.2 ± 3.25	2.64
No	11.7 ± 2.45	0.600	9.15 ± 3.40	0.008[b]

Note: U = Mann–Whitney test; K = Kruskal–Wallis test.

Abbreviation: COVID-19, coronavirus disease, 2019.

[a]Significant.

[b]High significant.

TABLE 5 Correlation between current and future challenges faced by nurse managers during COVID-19 pandemic and their age, experience and perception of organizational support (N = 214)

Studied variables	Current challenges rp		Future challenges rp	
Age/years	−0.398	0.001[a]	−0.323	0.001[a]
Years of experience	0.048	0.488	−0.119	0.084
Perception of organizational support	−0.398	0.001[a]	−0.177	0.009[a]

Note: r = Spearman's correlation.

Abbreviation: COVID-19, coronavirus disease, 2019.

[a]High significant.

Studied variables	Current challenges		Future challenges	
	Beta	p Value	Beta	p Value
Age/years	0.024	**0.006**[a]	**0.027**[a]	**0.006**[a]
Educational level	0.084	0.191	0.048	0.462
Position	0.013	0.855	0.019	0.787
Hospital type	0.037	0.597	0.054	0.439
Type of services provided	0.191	**0.003**[a]	0.525	0.167
Hospital bed capacity	0.030	0.663	0.029	0.677
Perception of organizational support	0.163	**0.016**[b]	0.148	**0.032**[b]

TABLE 6 Regression analysis for detection of the independent predictors of current and future challenges faced by nurse managers during COVID-19 pandemic

Abbreviation: COVID-19, coronavirus disease, 2019.

[a]High significant.

[b]Significant.

In the early weeks of the pandemic, nurse managers had to struggle with rapidly changing guidelines, particularly around the use of personal protective equipment. In agreement, Grasselli et al.,[30] reported that the unavailability of personal protective equipment certainly aggravated fear and anxiety among health care professionals. Many health organizations like Public Health England recommended re-use of personal protective equipment items.[31] This was an attempt to appropriately protect care providers from being infected with COVID-19. This recommendation created a case of panic and chaos among front-line providers.[32] Many of them considered this alternative as a direct violation of the WHO recommendations. The confusion and panic contributed to psychological and mental problems of key providers. In the same context, Anderson[33] reported that some hospitals require their staff to wear face masks at all times while at work despite, others prevent them from wearing face masks brought from home. This conflicting policy changes and confusion represent a different type of challenge for nurses.

The current study results revealed that low percentage of nurse managers are challenged with nurses' turnover. This may be attributed to the new rules and laws that had been issued to prevent turnover at these hard times. In contrary, high percentage of managers expected high prevalence of turnover in the future beyond COVID-19 pandemic. From the researcher's point of view, the very hard times and mental and psychological problems nurses are facing during COVID-19 pandemic may force many nurses to change their career path or even leave the health and nursing field when laws permit. In accordance, Kim, Lee, and Cho[34] conducted a study about the job retention intention of nurses based on social support in the COVID-19 situation and reported that nurses working in hospitals providing care to COVID-19 patients had low job retention intention. This view point predicts a huge problem in the future that may aggravate the already existing nursing shortage and necessitates concerted efforts from nurse administrators and policy makers to specially tailor retention polices for nurses. This view point

contradicts with a study by Sperling[35] about ethical dilemmas, perceived risk, and motivation among nurses during the COVID-19 pandemic which concluded that nurses did not express intention to leave the profession in spite of perceived stress, risk, and of inadequate support and protection at work and owed this to their resilient commitment to care.

The analysis of the open end question that asked managers about other challenges they are facing identified key themes. At the top were taking difficult decisions, community image, keeping staff morale, and family factors. Taking difficult decisions like having to share on opening a new unit on a short time, being transferred to another unit and lead staff a manager do not know before, handling scarce resources, and replacing a nurse that had been tested positive for the virus truly challenge managers. In agreement, Taegtmeyer et al.,[36] reported that healthcare workers will have to face "moral injury" for making difficult decisions such as moving a patient off the ventilator or refusing an ICU bed due to limited resources. Maben and Bridges[37] reported that nurses are experiencing stigma in the community and are being looked at as a threat to others' safety and as a source of infection. Studies on COVID-19 revealed that nurses are afraid from transmitting this infection to their families as they are more exposed due to direct contact and this aggravated the stress of balancing this issue with the ethical duties of continuing to work in the front-line.[38]

There was a significant relationship between future challenges expected by managers and their level of education. Certainly, the more the educated the manager, the greater the ability to deal with difficult situations and challenges. Also, head nurses were faced with greater challenges as they are at the front-line of care providing than other nursing management categories. Furthermore, current challenges were significantly higher in governmental rather than private hospitals, those providing secondary health care services rather than other types and isolation hospital for COVID-19 disease than non-isolation ones. This relationship is justifiable as governmental hospitals are responsible for receiving and treating COVID-19 patients

while private ones were not required to do so. Also, as the nurse managers' ages increase, they become more mature and better experienced to handle problems.

After extensive search of literature, this study is the first to test such relationships; thus, the study contributes knowledge to the nursing literature on how perception of organizational support would contribute to perception of challenges in times of crisis like COVID-19 pandemic. The highest percentage of nurse managers reported high perception of organizational support. In contrary a study by Khrais et al.,[12] revealed that although nurses are exposed to high stress, they did not perceive adequate organizational support.

Also, there was a highly statistically significant negative correlation between challenges currently faced by nurse managers and their perception of organizational support. Also, perception of organizational support was independent predictors for the current challenges faced by nurse managers during COVID-19 pandemic and beyond. In congruence, a study conducted by Labrague and Santos (2020)[39] reported that an increased score of organizational support was related to decrease in COVID-19 anxiety scores. Adequate organizational support in the form of caring for employees' wellbeing offering assistance n problem solving and demonstrating concern for their goals, values and opinions has been related to better nurses' performance and commitment, which are essential when dealing with disasters and outbreaks.[11] If nurse managers do not perceive adequate support from their organizations, the anger and stress may last after the disaster possibly leading to high turnover among nurses.[40] Although the involved health care settings were, to some extent, successful in broadcasting a sense of high perception of organizational support among managers, they experienced high degree of challenges as the disaster was unexpected, complex and they were not prepared for. Possibly such support may have increased their resilience and helped them tolerate, and remain strong and courageous.[10]

4.1 | Conclusion

COVID-19 pandemic had placed additional challenges on nurse managers and these challenges are expected to persist in the future but with a lesser degree. Data collection was quite difficult due to difficulty to collect data directly from nurse managers in the health care settings in accordance with COVID-19 social distancing guidelines and the researcher had to use electronic questionnaires and was not physically present to provide clarifications if required instead simple instructions were attached with questionnaires. Also convenience sampling technique used may limit the generalization of results. The highest percentage of managers reported being faced with major challenges while the highest percentage of them expects to be faced with moderate challenges in the future. The three highly reported challenges by the majority of managers were staff safety and risk for infection, stress, fear, and anxiety and work-overload. Safety and risk for infection, managing conflict and managing

unexpected crisis are the three highly expected challenges by the majority of managers beyond the pandemic. The highest percentage of managers reported high perception of organizational support. Furthermore, there was a highly statistically significant negative correlation between challenges currently faced by managers and their perception of organizational support and it was an independent predictor for current and future challenges during and beyond COVID-19 pandemic. This reflects the importance of organizational support especially in times of disasters.

4.2 | Implications for nursing management

Study results suggest that during disasters like that of COVID-19 pandemic, multiple complex challenges emerge. Nurse managers need more organizational support evident in structural and emotional support, assisting in problem solving, and ensuring safety of care professionals. The clinical nurse leaders' role should be tailored since they are exclusively prepared to synthesize research evidence and interpret it to clinical practice. This could minimize the uncertainty experienced by nursing managers during COVID-19 pandemic. Also, policies related to the ethics of resource utilization during times of scarcity are inevitable since most mangers find themselves in confusion about how to deploy scarce resources. In the light of this, there is a need for all health and social care organizations to have a clear policy on procurement of personal protective equipment. Organizations must rebuild trust and cooperation. Nursing staff need greater recognition in both psychological and monetary forms. Their voices need to be heard above the noise in the clamor for government resources. The researcher suggests developing a morale body that can move quickly and purposefully toward mitigating stress and anxiety that emerge during major health disasters. Better training focused on disaster management, ethical decision making, leading in times of uncertainty and maintaining wellbeing and resilience will help managers lead better their teams and organizations. Plans should be put in place to safeguard against turnover and to back stream nurses working in foreign countries. Future studies are recommended to examine the long-term effects of the COVD-19 pandemic on different health care providers and on the quality of health care services provided by health care settings after the COVD-19 pandemic.

CONFLICT OF INTERESTS
The author declares that there are no conflict of interests.

DATA AVAILABILITY STATEMENT
Data derived from public domain resources.

ORCID

Amal Refaat Gab Allah ⬤ http://orcid.org/0000-0003-1016-1337

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