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COVID-19 anxiety and organizational commitment among front-line nurses: Perceived role of nurse managers' caring behavior

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ABSTRACT

Background & Aim: Anxiety related to the COVID-19 is prevalent amongst the nursing workforce potentially affecting nurses' well-being and their organizational commitment. The nurse manager's caring behavior has been recognized as a crucial indicator of nurses' resilience with the COVID-19 pandemic. This study aimed to investigate the effect of COVID-19 anxiety on front-line nurses' organizational commitment and their perception of nurse managers' caring behavior.
Methods & Materials: This study utilized an explanatory research design; hence, a convenient sample consisted of 60 registered nurses working at three selected medical intensive care units located in one of the Cairo University Teaching hospitals, Egypt was selected. Data were collected using the Coronavirus Anxiety Scale, Nursing Staff Organizational Commitment Questionnaire, and Nurse Managers' Caring Behavior Questionnaire. Statistical Package for the Social Sciences (SPSS) version 20 was used for the data analysis where the descriptive statistics, Simple Linear, and Stepwise multiple regression analysis were applied.
Results: The highest-rated anxiety problem of COVID-19 was appetite loss ($\bar{x}$=3.03, SD = ±0.88). Human respect as one of the perceived nurse managers caring behaviors emerged as a strong predictor (Partial R2 = 0.104, p= .017) in increasing the front-line nurses' organizational commitment, while COVID-19 anxiety has a significant decreasing effect (Partial R2 = 0.435, p<0.001) on it.
Conclusion: COVID-19 anxiety has affected the front-line nurses' organizational commitment and their perceived nurse managers' caring behavior. COVID-19 anxiety should be addressed and rectified by providing appropriate managerial caring behavior and support to boost nurses 'organizational commitment.

Introduction

Coronavirus Disease 2019 (COVID-19) pandemic is a considerable health burden that has major effects on public health globally. In a short span of time, COVID-19 has proven to be a fatal disease that has caused serious damage to the health and economy (1). COVID-19 pandemic is an anxiety-provoking situation among healthcare workers (HCWs) who are directly involved in managing affected patients (2). Further, HCWs are more exposed to traumatic events due to their direct contact with COVID-19 patients' suffering and deaths, which could further amplify their fears and anxiety (3). COVID-19 pandemic has placed a heavy burden on nurses who are faced with the greatest challenges regarding the unprecedented outbreak of coronavirus worldwide (4).

Organizational commitment is the nurse's level of involvement and identification with the organization where he or she works, including employee's loyalty to the organization, their willingness to make an effort on behalf of the organization, degree of goal and value

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congruency with the organization, and their desire to maintain membership (5). Organizational commitment is the bond between an employee and the employing organization (6).

Nurse Managers have the opportunity to build supportive work environments that promote nurses' health and well-being, which consequently increasing nurses' organizational commitment (7). Demonstrating caring behaviors that build relationships with individuals and groups is a necessary competency of nursing administrators to advance healthcare (8). Nurse Managers play a pivotal role in addressing nurses' anxiety from and fears of COVID-19 by supporting their mental, psychological and emotional health through evidence-based measures, supportive organizational policies, and the provision of a safe and secure work environment (9).

The emergency of COVID-19 exerts unprecedented pressure on the healthcare system and presented various challenges to its nursing workforce, it potentially affecting nurses' work performance, mental health, organizational commitment, and their manager treatment during the outbreak, even putting all their lives at risk (10). Eventually, the current study's authors have not found any research papers covering the relations between the COVID-19 anxiety, nurses' organizational commitment, and nurse managers' caring behavior; therefore, this study was conducted in order to investigate the effect of COVID-19 anxiety on front-line nurses' organizational commitment and their perception of nurse managers' caring behavior.

Methods

Research design

An explanatory research design was adopted to carry out this study.

Sample and setting

The current study was conducted in three medical units: Hepatology, Chest, and Neurology, which are located in Elkasr Elaini Teaching Hospital and affiliated to Cairo University Hospitals, Egypt. To explain, those units received the confirmed or suspected COVID-19 cases with comorbidities related to their main specialty.

To achieve an 80% power, (β= 1-.80 = .20) with alpha set at 0.05 and small effect size set at 0.05, a sample size of 100 nurses would be required, as determined using the G*power program, software version 3.1.9.9 (11). A convenient sample consisted of 60 registered nurses were selected based on the inclusion criteria such as: Assigned to care for patients, specifically diagnosed with confirmed or suspected COVID-19 with other comorbidities related to the three units' specialty; Had a minimum of one year employment in their unit; Accepted to participate in the current study.

Data collection measures

Three tools were utilized to collect data pertinent to this study as follows:

First tool: Coronavirus Anxiety Scale (CAS), which consists of two parts as follows:

Part I: Personal Data of Nursing Staff, it was consisted of gender, marital status, worked department, years of experience and nursing educational degree.

Part II: Coronavirus Anxiety Scale (CAS) questionnaire, which was designed and developed by (12), and used to assess or identify individuals who may have abnormal levels of anxiety related to the COVID-19 pandemic. This scale contained five items that reflect the common symptoms of anxiety experienced by nurses. Possible scores of (CAS) ranged from 5 to 25. The scale discriminates well between persons with or without dysfunctional anxiety using an optimized cut-off score of greater or equal to 9 (12).

Dysfunctional anxiety refers to a disproportionate state of anxiety, defined as persistent or uncontrollable fear that interferes with daily life and causes disruptions to behavior and psychological well-being (12). Nurses participating in the study indicated the frequency of symptoms

experienced in a 5-point Likert-type scale (0 [not at all] to 4 [nearly every day]). The scale had an outstanding predictive validity, as evidenced by a positive association with disability and psychological distress (12), Corona Virus Anxiety Scale (CAS) Arabic version is valid, reliable, stable, and its translation is convenient to the Arab culture (13). It can be used for screening anxiety manifestations concomitant with the COVID19 pandemic. The inter-rater and intra-rater correlation coefficients of the total score were 0.83 and 0.92, respectively. The total Cronbach's α of the total scale was 0.92 (13).

Second tool: Nursing Staff Organizational Commitment Questionnaire, It was modified by authors from the questionnaires of (14,15), and contained 18 structured items subcategorized under three main dimensions with six items for each dimension as affective commitment, continuous commitment, and normative commitment. The tools' items are rated on a 5-point Likert-type scale that extended from (1) strongly disagree to (5) strongly agree. The current authors analyzed internal consistency using Cronbach's alpha for the nursing Staff Organizational Commitment Questionnaire and indicated 0.89.

Third tool: Nurse Managers' Caring Behavior Questionnaire, It was modified by authors from the assessment tool of (16) and was comprised of six main dimensions subcategorized with 60 items as follows: mutual problem solving (7 items), facilitating a healing environment (14 items), basic human needs (4 items), attentive reassurance (14 items), human respect (8 items), and encouraging manner (13 items). The tool items were rated on a 5 Likert-type scale that extended from (1) strongly disagree to (5) strongly agree. Internal consistency using Cronbach's alpha for the Nurse Managers' Caring Behavior Questionnaire was analyzed by current authors and indicated 0.949.

Ethical Consideration

Official permission was obtained from hospital administrators as well as the nursing director to conduct the study. The purpose and nature of the study as well as the importance were explained to the potential participants who met the inclusion criteria, where verbal consent was obtained from them to participate in the study. Also, anonymity and confidentiality were assured through coding the data. Participants were assured that their participation was voluntary, and they had the right to withdraw from the study at any time without any penalty.

Procedures

The current study participants were given a code number to maintain their anonymity. The questionnaire sheets were handed individually to participants at their worked units during different shifts (i.e., morning and night) according to pre-arranged time with unit nurse managers after an oral explanation of the study purpose and questionnaire parts. The time spent filling the three questionnaires ranged between 30- and 40-minutes during nurses' break time, but most nurses completed the questionnaires in 30 minutes. Overall, the data were collected within two weeks, from 15/04/2020 to 28/04/2020.

Statistical analysis

The obtained data were tabulated, computed, and analyzed using Statistical Package for the Social Sciences (SPSS) version 20. Descriptive statistics including frequency, mean and standard deviation were utilized where Stepwise multiple regression analysis was applied to predict the effect of COVID-19 anxiety and the front-line nurses' perceived nurse manager caring behavior on their organizational commitment besides the simple linear regression that was applied to predict the effect of COVID-19 anxiety on the front-line nurses' perception of their nurse

managers caring behavior. The level of significance P-value was > 0.05.

Results

Table 1 showed that the highest percentage (68.3%) of front-line nurses were female, (35.0%) were aged between 25>30 years old, and (73.3%) were married. Furthermore, the highest percentage (40.0%) of nursing staff worked in the chest (I.C.U), and (48.3%) had a year of experience ranged from 1-5 years. The highest percentage (50.0%) of front-line nurses held an associate nursing degree, whereas the least number of nurses held a nursing diploma (20.0%).

Table 1. Percentage distribution of front-line nurses regarding their personal data (n=60)

Personal data	N	%
Gender		
Male	19	31.7
Female	41	68.3
Age (year)		
20 > 25	12	20.0
25 > 30	21	35.0
30 > 35	19	31.7
≤ 35	8	13.3
Marital status		
Single	12	20.0
Married	44	73.3
Divorced	4	6.7
Work department		
Hepatology ICU	20	33.3
Chest ICU	24	40.0
Neurology ICU	16	26.7
Years of working experience in hospital		
1-5 year	29	48.3
6-10 year	23	38.3
11-15year	6	10.0
≤16year	2	3.3
Educational degree		
Nursing diploma	12	20.0
Associate nursing degree	30	50.0
Bachelor degree in nursing	18	30.0

Table 2 displayed that the total mean score of COVID-19 anxiety was ($\bar{x}$=14.75, SD= ±3.33) with 'appetite loss' as the highest-rated item ($\bar{x}$=3.03, SD= ±0.88), followed by 'sleep disturbance' ($\bar{x}$=2.95, SD= ±0.87) amongst the front-line nurses. 41.7% of studied nurses felt Dizziness, lightheaded or fainting because of COVID-19 more than seven days, while (45%) and (50%) had trouble falling or staying a sleep and felt paralyzed or frozen, respectively. Also (41.6%) and (43.3%) of study subjects lost interest in eating and had stomach problems correspondingly. Using a cut-off score of ≥ 9.0 on the COVID-19 Anxiety Scale, 86.7% of the study subjects were identified to have dysfunctional anxiety.

Table 3 illustrated that the total mean score of front-line nurses' organizational commitment dimensions was average ($\bar{x}$=3.24, SD= ±0.49). Where specifically, the highest mean score was related to continuous commitment, and the lowest one was for affective commitment ($\bar{x}$=3.35, SD= ±0.59, $\bar{x}$ =3.05, SD= ±0.57 respectively).

Table 2. Mean Scores of the COVID-19 anxiety scale (n=60)

How often have you experienced the following activities over the last 2 weeks	N (%)				
	Not at all (0)	Rare, less than a day or two (1)	Several days (2)	More than 7 days (3)	nearly every day over the last 2 weeks (4)
Q1.I felt Dizziness, lightheaded, or fainting when I listened to news about COVID-19	1(1.7)	1 (1.7)	16 (26.7)	25(41.7)	17(28.3)
	Mean + SD =2.93+0.88				
Q2-I had trouble falling or staying a sleep because I was thinking about the COVID-19	-	4(6.7)	12(20)	27(45)	17(28.3)
	Mean + SD =2.95+0.87				
Q3- I felt paralyzed or frozen when I thought about exposed to information about COVID-19	-	2(3.3)	15(25)	30(50)	13(21.7)
	Mean + SD =2.90+0.77				
Q4-I lost interest in eating when I thought about or was exposed to information about COVID-19	1(1.7)	1(1.7)	13(21.7)	25(41.7)	20(33.3)
	Mean + SD =3.03+0.88				
Q5-I left nauseous or had stomach problems when I thought about or was exposed to information about COVID-19	7(11.)	-	5(8.3)	26(43.3)	22(36.7)
	Mean + SD =2.93+1.23				
Total COVID 19 anxiety	>9 (86.7%) Mean + SD =14.75+3.33				

Table 3. Mean scores of front-line nurses' organizational commitment (n=60)

Dimensions	Mean	SD
Affective commitment	3.05	0.57
Continuous commitment	3.35	0.59
Normative commitment	3.32	0.63
Total	3.24	0.49

Table 4 also clarified that the total mean score of front-line nurses' perception of nurse managers' caring behavior dimensions was average ($\bar{x}$ =3.22, SD= ±0.53). Where specifically, the highest mean score was related to mutual problem solving, and the lowest one was for basic human needs ($\bar{x}$=3.41, SD= ±0.62, $\bar{x}$=3.04, SD= ±0.86 respectively).

Regarding the predictors of the front-line nurses' organizational commitment, Human respect as one of the perceived nurse managers caring behaviors has a significant increasing effect (Partial R2= 0.104, p= .017) while COVID-19 anxiety has a significant decreasing effect (Partial R2= 0.435, p<0.001) as in table 5.

Eventually, there was an increasing effect of COVID-19 anxiety on front-line nurses' perception of their nurse managers' caring behavior (R2= 0.617, p<0.001), as seen in table 6.

Table 4. Mean Scores of front-line nurses' Perception of Nurse Managers' Caring Behavior (n=60)

Dimensions	Mean	SD
Mutual problem solving	3.41	0.62
Facilitating a healing environment	3.19	0.63
Basic human needs	3.04	0.86
Attentive reassurance	3.12	0.52
Human respect	3.16	0.51
Encouraging manner	3.33	0.62
Total	**3.22**	0.53

Table 5. Predictors of front-line nurses' organizational commitment (n=60)

Variables	β	SE	Partial R^2	95% CI	P
Intercept	2.590	.360		1.8,3.3	<0.001
Mutual problem solving	.164	.114	0.038	-0.06,0.39	.159
Facilitating a healing environment	-.085	.134	0.008	-0.35,0.18	.527
Basic human needs	-.015	.060	0.001	-0.13,0.1	.802
Attentive reassurance	.060	.146	0.003	-0.23,0.35	.683
Human respect	.319	.130	0.104	0.05,0.58	.017
Encouraging manner	-.036	.106	0.002	-0.25,0.17	.736
COVID-19 anxiety	-.457	.072	0.435	-0.6,0.31	<0.001
R^2			0.72		
Adjusted R^2			0.69		
F (p)			19.8(<0.001)		

*statistically significant at p-value <0.05

Table 6. Predictors of front-line nurses' perception of nurse managers caring behavior (n=60)

Variables	β	SE	Partial R^2	95% CI	P
Intercept	0.31	0.24		-0.16,0.8	0.19
COVID-19 anxiety	0.98	0.07	0.61	0.82,1.1	<0.001
R^2			0.617		
Adjusted R^2			0.613		
F (p)			157.7(<0.001)		

*statistically significant at p-value <0.05

Discussion

The current study investigated the effect of COVID-19 anxiety on front-line nurses' organizational commitment and their perception of the nurse managers' caring behavior during this pandemic where the front-line nurses perceived that COVID-19 caused them dysfunctional levels of anxiety, decreased their level of organizational commitment, and boosted the nurse managers' human respect as a caring behavior toward them.

Using a cut-off score on the COVID-19 Anxiety Scale, the majority of the study participants were identified to have dysfunctional levels of anxiety. These findings went in the same direction of previous researches that concluded that it is crucial to implement measures to decrease anxiety levels among nurses (17, 3) as dysfunctional anxiety levels have been identified as strong precursors of nurses' psychological distress, depression, and other psychological disorders. In this study, the most common symptoms of coronavirus anxiety were 'appetite loss' and 'sleep disturbance'. These findings were parallel to those of a study done by Skalski, et al. in Poland where these items obtained the highest means also (18).

Furthermore, the results indicated that organizational commitment was perceived to be moderate within staff nurses despite the results of Arbabisarjou that reflected a higher level of perception (19). In addition, findings reflected that continuous commitment was the highest whilst affective commitment was the lowest among nurses. Where, these findings went the same along with that of Agarwala et al. and Al-Haroon & Al-Qahtani which both indicated that nurses demonstrated more agreement with the continuous commitment subscale than the normative and affective commitment subscale (20, 21).

Additionally, Agarwala et al., also mentioned that staff member's assessment of costs of leaving the organization was greater than the costs of staying which this finding was close, to some extent, to the findings of Poortaghi, Shahmari & Ghobadi that indicated that one of the measures taken by managers is to increase motivation for nursing staff was the distribution of corona allowance among the staff working in COVID-19 wards, and also the fair distribution of donations by the charities, public and private institutions among the staff (20, 22).

Regarding the perceived level of nurse manager's caring behavior, the findings exhibited that staff nurses reflected a moderate caring level, which agreed with that of Wolverton's dissertation. Moreover, the results displayed that caring related to mutual problem solving surpassed those that related to the basic human needs likely as mentioned in Wolverton, 2016 staff nurses' perceptions of their manager were frequent in caring behaviors associated with "appreciation", "mutual problem-solving," and "affiliation needs" (16). Unlike the previous findings, a qualitative study conducted by Peng, that illustrated three major themes of first-line nurse managers' caring behaviors emerged: promoting professional growth, exhibiting democratic leadership, and supporting work-life balance (23).

Finally, the most important findings of this study were that the COVID-19 anxiety's effect on reducing the front-line nurses' organizational commitment and raising their perceived nurses' manager caring behavior. Meanwhile, human respect as one of the perceived nurse managers caring behaviors has a significant increasing effect on the front-line nurses' organizational commitment. These results may be due to the fact that unmanaged anxiety may lead to long-term effects on nurses' work performance leading to frequent absenteeism and eventual turnover, which hits their organizational commitment (12). While, on the side of nursing management, nurse managers have to show off their caring attitude and honor the nurse valued care to retain them, especially in emergency contexts such as containment the outbreak of COVID-19 and caring for the infected patients. Honoring the worth of staff nurses during the pandemic is recommended, where effective communication between registered nurses and organizational management regarding a nurse's ability to provide care to patients is essential and must be heard and valued at all organizational levels (24).

The nursing manager's caring attitude was manifested like that were exhibited in the research of Poortaghi, Shahmari & Ghobadi who illustrated that nursing managers took measures to reduce the risk of infection and raise the threshold of personnel resistance (22). Furthermore, nursing managers acknowledged that seeing nurses' fatigue in this situation made them understand the staff more than before and have more cooperation with them. To manage stress, in addition to providing psychological support, education, and calming anxious personnel, the nurse managers provided the possibility of relocation for the staff. They did not force them to work in the COVID-19 wards.

Conclusion

The COVID-19 pandemic may cause dysfunctional levels of anxiety in front-line nurses. Meanwhile, Coronavirus anxiety lowered the nurse's organizational commitment and boosted the nurse managers' caring behavior. Human respect as one of the perceived nurse managers caring behaviors emerged as a strong predictor in increasing the front-line nurses' organizational commitment. Therefore, nurse managers should ensure that nurses are given access to psychological treatment or psychotherapy as well as materials and resources to support their mental health wellness. In addition to this, they were promoting self-care among nurses by offering flexible or a shorter duty hour to promote the best organizational commitment is required.

Implications of research

Based on the current study's findings, the following recommendations are proposed: hospital management should increase social and organizational support for nurses to reduce their anxiety related to the COVID-19 pandemic by supporting nurses in their nursing practices and protecting both their physical and mental health. Further, clear, easy career paths and rewards should be provided to the nursing staff to maintain their higher level of

organizational commitment. Finally, Nurse Managers should provide managerial supports by maintaining of up to date proper training and development for all nursing staff, especially in the era of the COVID-19 pandemic.

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Conflict of interest

There is no conflict of interest.

References

1. Alwani SS, Majeed MM, Hirwani MZ, Rauf S, Saad SM, Shah SH, Hamirani FM. Evaluation of knowledge, practices, attitude and anxiety of Pakistans nurses towards COVID-19 during the current outbreak in Pakistan. MedRxiv. 2020 Jan 1. Available at: https://doi.org/10.1101/2020.06.05.20123703, 2020.
2. Pappa S, Ntella V, Giannakas T, Giannakoulis VG, Papoutsi E, Katsaounou P. Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. Brain Behav Immun. 2020 Aug; 88:901-907. https://doi.org/10.1016/j.bbi.2020.05.026**.**
3. Mo Y, Deng L, Zhang L, Lang Q, Liao C, Wang N, Qin M, Huang H. Work stress among Chinese nurses to support Wuhan in fighting against COVID-19 epidemic. J Nurs Manag. 2020 Jul;28(5):1002-1009. https://doi.org/10.1111/jonm.1301Outcomes, 12(1), 72. 2020.
4. Buheji M. & Buhaid N. Nursing human factor during COVID-19 pandemic. Int J Nurs.; 2020, 10(1):12–24.
5. Carlos, D. Perceived organizational support and organizational commitment: the moderating effect of locus of control and work autonomy. Journal of Managerial Psychology; 2016, 20(3): 31-39.
6. Lamberta, A., Minor, I., Wells, E. & Hogan, E. Impact of job satisfaction, perceived organizational justice and employee empowerment on organizational commitment in semi-government organizations of Pakistan. Journal of Business Studies Quarterly; 2016, 28-37.
7. Kohll A. The role managers play in shaping employee well-being: Leadership strategy. Available at: https://www.forbes.com/sites/alankohll, 2017
8. Kostich K, Lasiter S, Gorrell R. Staff nurses' perceptions of nurse manager caring behaviors: a scoping study. JONA: The Journal of Nursing Administration. 2020 May 1;50(5):293-9.
9. Catton, H. Global challenges in health and health care for nurses and midwives everywhere. International Nursing Review; 2020, 67(1), 4-6.
10. World Health Organization (2020): Coronavirus disease (COVID-19) outbreak situation. Available at: https://www.who.int/emergencies/diseases/novel coronavirus-2019/situation-reports.
11. Faul F, Erdfelder E, Lang AG, Buchner A. G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. Behavior Research Methods. 2007 May;39(2):175-91.
12. Lee SA. Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. Death Stud. 2020;44(7):393-401. doi: 10.1080/07481187.2020.1748481.
13. El Sayed S, Shokry D, Gomaa S. Coronavirus anxiety scale: content validity and reliability of Arabic version. The Egyptian Journal of Hospital Medicine. 2020 Oct 1;81(4):1775-9.
14. Haar JM, Spell CS. Programme knowledge and value of work-family practices and organizational commitment. The International Journal of Human Resource Management. 2004 Sep 1;15(6):1040-55.
15. Amer S. A, Fekry E. N. Staff nurse's perception of job satisfaction and organizational commitment at El-Kasr Elaini Hospital. Unpublished Master Thesis, Faculty of Nursing-Cairo University; 2012.
16. Wolverton CL. Staff nurse perceptions of nurse manager caring behaviors: Psychometric testing of the Caring Assessment Tool-Administration (CAT-adm©). Indiana University-Purdue University Indianapolis; 2016.
17. Teles MA, Barbosa MR, Vargas AM, Gomes VE, e Ferreira EF, de Barros Lima AM, Ferreira RC. Psychosocial work conditions and quality of life among primary health care employees: a cross sectional study. Health and Quality of Life Outcomes. 2014 Dec;12(1):1-2.

18. Skalski S, Uram P, Dobrakowski P, Kwiatkowska A. The link between ego-resiliency, social support, SARS-CoV-2 anxiety and trauma effects. Polish adaptation of the Coronavirus Anxiety Scale. Personality and Individual Differences. 2021 Mar 1;171:110540. https://doi.org/10.1016/j.paid.2020.110540, 2020.
19. Arbabisarjou, A. Organizational Commitment in Nurses International Journal of Advanced Biotechnology and Research Vol-7, No.5, 2016, pp1841-1846. Available at: https://www.ncbi.nlm.nih.gov/pubmed
20. Agarwala T, Arizkuren-Eleta A, Del Castillo E, Muniz-Ferrer M, Gartzia L. Influence of managerial support on work–life conflict and organizational commitment: An international comparison for India, Peru and Spain. The International Journal of Human Resource Management. 2014 May 31;25(10):1460-83.
21. Al-Haroon HI, Al-Qahtani MF. Assessment of Organizational Commitment Among Nurses in a Major Public Hospital in Saudi Arabia. J Multidiscip Healthc. 2020 Jun 16;13:519-526. doi: 10.2147/JMDH.S256856.
22. Poortaghi S, Shahmari M, Ghobadi A. Exploring nursing managers' perceptions of nursing workforce management during the outbreak of COVID-19: a content analysis study. BMC Nursing. 2021 Dec; 20(1):1-10.
23. Peng X, Liu Y, Zeng Q. Caring behaviour perceptions from nurses of their first-line nurse managers. Scandinavian journal of caring sciences. 2015 Dec; 29(4):708-15.
24. The American Nurses Association (ANA). Nurses, ethics and the response to the COVID-19 pandemic: Ethical guidelines for nurses responding to the COVID-19 pandemic, 2021. Available at: https://www.nursingworld.org/practice-policy/work-environment/health-safety/disaster-preparedness/coronavirus/what-you-need-to-know/ethical-considerations/