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# Supportive activities in oncological wards during the COVID-19 pandemic: a qualitative study

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## ABSTRACT

**Introduction.** The oncology ward is a challenging and unique workplace due to physical and psychological stress that staff experience and the need for their support. Cancer patients and oncology nurses have many needs, and support is one of the basic ones. This study aimed to explore supportive activities in the oncology ward during the COVID-19 pandemic.

**Material and methods.** This qualitative study was conducted in Eastern and Southeastern Iran in 2020 and 2021 through a conventional content analysis approach. The participants included 21 (10 oncology nurses, 5 managers, and 6 cancer patients), who were selected through purposive sampling. To collect data, in-depth semi-structured face-to-face interviews were done. Interviews were continued until data saturation was achieved. After transcribing the interviews, the data were analyzed according to the steps proposed by Graneheim & Lundman.

**Results.** The results consisted of three main themes and nine categories, namely the perceive of threat in supportive atmosphere in the oncology ward (cancer patients' sense of desperation and need for support, difficulty of working in the department, close relationships governing the ward), Seeking support in the oncology ward (Professional support, patient advocacy), and supportive divergence (poor family support, perceived poor social support, unsupportive behaviors, Being far from the supportive standards of working in an oncology ward).

**Conclusions.** The results of the study have shown that the supportive activities in the oncology ward during the COVID-19 pandemic are affected by various factors. The experiences of participants provide new insight into supportive activities around managing oncology wards supportive needs during such stressful times.

**Key words:** COVID-19, Iran, social support, neoplasms, stress, psychological atmosphere

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## Introduction

Coronavirus disease 2019 (COVID-19) is a major public health problem worldwide. The World Health Organization (WHO) on March 11, 2020, declared the COVID-19 outbreak a global pandemic [1]. According to the latest reports on January 4, 2022, there are more than 292,652,910 COVID-19 patients and 5,465,344 confirmed deaths due to COVID-19 in the world [2]. Cancer patients are more vulnerable to COVID-19 than other

groups due to systemic immunodeficiency. The vulnerability of cancer patients to COVID-19 leads to delaying or stopping cancer treatment to avoid the risk of potential COVID-19 exposure [3]. During this pandemic, due to the greater vulnerability of cancer patients, they need support more than before. This support includes support from a health worker, effective communication, assistance from relief organizations [4]. As mentioned, supporting cancer patients is very important so the patient is able to live with cancer [5].

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Nurses use their skills to support roles patients [6]. Patient support is one of the basic concepts in nursing care [7]. The oncology ward is a challenging and unique workplace for nurses due to the physical and psychological stress that cancer patients face. In addition, nurses require high functional skills to care for cancer patients and provide psychological support to the patients and their families [8].

On the other hand, the outbreak of COVID-19 has created many problems for nurses in hospitals, including fatigue [9]. Nurses are expected to provide quality care by supporting their patients despite limitations in the organizational structure [10]. Managers can also be involved in supporting their employees and managing job stress through some measures, such as guiding and supporting employees, designing an appropriate and motivational legal system, involving individuals in decision making, and improving organizational relationships [11].

Toh et al. [12] also consider nursing managers as the main sources of support and believe that the support of nursing managers leads to better job performance and the prevention of burnout. Martinussen and Davidsen [13] have reported that managers' support for nursing staff plays a key role in their productivity because nurses are more involved in cancer patient care than other health care providers and have a pivotal role in supporting patients and their families [14].

Thus, with the outbreak of the COVID-19 pandemic, supporting cancer patients can be helpful for patients to cope with their stress. However, the findings of related research have indicated a lack of nurses and physicians' support for patients or that some patients do not find the support received to be beneficial [15]. The review of the literature has shown that most of the research in this field is done quantitatively and little qualitative research has been done on the supportive activities for patients, nurses, and managers in the oncology ward during the COVID-19 pandemic. Since the phenomenon of support is related to human beings and human values, which have wide and complex dimensions, a comprehensive and in-depth study of human experiences of this phenomenon should be done through the qualitative method. In addition, Clarification of the experiences that the participants have encountered will lead to a better understanding of the phenomenon and help to develop appropriate support in the oncology ward. What is not known yet is what the supportive activities in the oncology ward are during the COVID-19 pandemic. Therefore, this study aimed to explore the supportive activities in the oncology ward during the COVID-19 pandemic.

## Material and methods

This study was carried out in 2020 and 2021 using a conventional content analysis [16]. The research environment was oncology wards of hospitals located

in Eastern and Southeastern Iran, namely the provinces of South Khorasan and Sistan & Baluchestan. The inclusion criteria were willingness to participate in the study, ability to communicate verbally and understand the Persian language. Nurses were included if they had at least two-year experience of working in the oncology ward. Cancer patients were recruited in the study if they had at least 4 to 6 months' history of treatment in that ward. The exclusion criterion was the participant's refusal to participate in the study. Participants were nurses, managers, and cancer patients in the oncology ward and they were selected by purposive sampling. To collect data, in-depth semi-structured face-to-face interviews were done. Interviews were continued until data saturation was achieved. Participants were informed about the objectives and the protocol of the research, as well as the interview method. The participants were assured that their participation was voluntary. After obtaining participants' written consent, the study was initiated. Interviews started with general questions. For example, nurses were asked: "What are your supportive activities experiences of caring for cancer patients during the COVID-19 pandemic?", patients were asked: "What support and care needs do you have in the oncology ward during the COVID-19 disease?" and managers were asked: "What are your supportive activities experiences in the oncology workplace during the outbreak of COVID-19?"

During the interviews, the researcher helped the participants to share their experiences without giving direction to the participants' activities. In addition, if necessary, the researcher used exploratory questions such as "Can you explain more?" or "What do you mean?". The date and place of the interviews were set according to the participants' wishes. The duration of each interview was 45 to 60 minutes for 1–2 times of sessions. The interviews were performed in 2020 and 2021. After recording the interviews on two recording devices, they were transcribed verbatim. In addition to individual interviews, field notes were also used for data collection. In this study, the data analysis process was carried out according to the steps proposed by Graneheim & Lundman [17]. The coding process was performed by researchers familiar with the coding process and analysis in the field of qualitative research. The unit of analysis in this study was the interview, and the semantic units were the sentences or paragraphs of the transcriptions. The concepts were extracted through transcribing the interviews verbatim and reading the transcriptions several times to get a general understanding of the supportive activities in the oncology ward. Each keyword or sentence was then given a code. In this stage, the first-level coding process was performed by labeling codes. In the next step, similar primary codes were grouped to form subcategories. Then, to increase homogeneity among the codes, categories were identi-

fied, and similar categories were merged. Finally, the main themes were extracted, and the degree of abstraction increased. After conducting 10 interviews with nurses, 5 interviews with managers, and 6 interviews with patients, data saturation was achieved. To manage the data, MAXQDA version 2020 was used. The rigor of the data was assessed using four criteria suggested by Lincoln et al. [17].

To verify the credibility of the study, the researchers collected the data for a long time, and the research findings were reviewed by participants and professors specializing in qualitative studies. To assure the transferability of the findings, participants with different demographic characteristics and experiences were recruited. To evaluate the dependability of the research findings, they were analyzed by another researcher, and her conclusions were compared with those of the main researcher. For confirmability, the findings of the research study were checked by other researchers. During data collection, the researcher tried to collect the data carefully and thoughtfully and avoid any kind of bias. In addition, wherever the researcher felt that she did not have sufficient and appropriate information about some of the participants' activities, she referred to those activities again during another interview to obtain more detailed information. In this study, ethical considerations, such as providing the necessary explanation for the participants, obtaining their written consent and permission to record their interviews, maintaining privacy and confidentiality of the participants' information, were observed in all stages. The right to withdraw from the study, respecting the participants' views and beliefs, equal attention and respect for all the participants, and not imposing the knowledge and beliefs of the researcher on the participants were also considered.

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and the 1964 Helsinki Declaration and its

later amendments or comparable ethical standards. This study was approved by the institutional review board (IRB) and the ethics committee of Birjand University of medical science (IR.BUMS.REC.1398.323). Oral and written consent was obtained from participants before data collection. Participants could leave the study at any time. Participants were assured that all their information would be confidential.

## Results

The present study was performed with 21 participants (10 clinical oncology nurses, 5 managers, 4 oncology head nurses and 1 oncology hospital manager), and 6 cancer patients. In terms of gender, there were 3 male nurses, 7 female nurses, 4 female nurse managers, 1 male hospital manager, 2 female cancer patients, and 4 male cancer patients. The mean age of nurse participants was 31 years, managers were 44 years old, and patients were 50 years old. All patients and managers were married. Nine nurses were married and 2 were single. The level of education in all nurses was Bachelor of Science in Nursing (BSN). The concepts were extracted from the interviews based on the purpose of the study. Thus, these phrases, sentences, or paragraphs initially led to the formation of primary codes, 33 subcategories, and 9 categories. Then, by merging the categories, supportive activities in the oncology ward during the COVID-19 pandemic emerged in the form of three main themes, namely the perceive of threat supportive atmosphere in the oncology ward, Seeking support in the oncology ward, and supportive divergence. Categories and themes are listed in Table 1.

In this study, participants described their experiences of support in the oncology ward. The cancer patient's sense of desperation and need for support, the difficulty of working in the cancer ward, and close relationships governing the ward were the main categories extracted.

**Table 1. Results extracted from the participants' experiences**

Theme	Categories
Perceive of threat in supportive atmosphere in the oncology ward	Cancer patient's sense of desperation and need for support
	difficulty of working in the department
	Close relationships governing the department
Seeking support in the oncology ward	Professional support
	Patient Advocacy
Supportive divergence	Poor family support
	Poor perceived social support
	Unsupportive behaviors
	Distancing from supportive standards of working in an oncology department

Cancer patients' sense of desperation and need for support

Participants provided a variety of experiences regarding a cancer patient's feeling of desperation and the need for support during the COVID-19 pandemic. The incurable nature of the disease causes feeling desperate for the nurse, the emotional fragility of cancer patients, and the sensitivity and early suffering of cancer patients were recognized as subcategories of feeling desperate and need for support. These issues were expressed in the participants' experiences as follows:

"We get more upset when we see that our patient has an incurable disease and needs more support, It's very annoying that you have no hope of curing the disease ... We understand them more than anyone else..." (Participant Manager, No.1).

"Well, we are very sensitive to some issues, we get upset quickly, we emotionally hurt very easily... This is due to our disease, and we are looking forward to receiving the necessary support..." (Participant cancer Patient, No. 3).

The difficulty of working in the oncology ward

According to the participants of this study, the difficulty of working in the oncology ward was due to the patients' disappointment with chemotherapy treatment outcomes and the high rate of death among young cancer patients, leading to a perceive of threat in supportive atmosphere in [the ward during the COVID-19 pandemic.

"It is unbearable for me to work in an environment where you have no hope for treatment of patients, with treatments that sometimes increase the suffering of the patient... COVID-19 disease has made the condition much more difficult..." (Participant Nurse, No. 4).

Close relationships governing the ward

From the participants' point of view, the relationships governing the ward were such that the patient had a friendly relationship with the nurse, patients were worried about each other, the nurse considers the patient as a member of her/his family, also a friendly relationship is formed between the nurses themselves and between the nurse and the physicians.

"It is in such a way that we may call each other by the first name...since usually it is not a crowded ward. At night shift, for example, when we have more time, we come out of the room and talk to the nurses or when they come to our room to check our blood pressure, we ask questions and they answer. Our relationship is much closer..." (Participant cancer Patient, No. 6).

"In terms of relationship with colleagues, we are much more friendly here than in other hospital wards. We are very intimate, we go out together..." (Participant Nurse, No. 8).

Another theme extracted from the participants' experiences was the seeking support in the oncology ward during the COVID-19 pandemic. Which consisted of two categories, namely professional support and patient advocacy.

Professional support

This category comprises four subcategories, namely the manager's confidence and trust in subordinates, the oncology manager's efforts towards the retention of the workforce, understanding of oncology nurses and attention to their emotions, and increased motivation of the nurses through the manager's encouragement.

"Now, due to the COVID-19 disease and a lot of stress among colleagues... When I see that they are emotionally hurt, I give them time off to relax..." (Participant Manager, No. 1).

"In any case, it was very good that the manager herself had the experience and understood a nurse that was preparing the chemotherapy drugs for a few days. Somedays, she helped us and prepared the drugs when the ward was crowded. Anyway, this is an encouragement..." (Participant Nurse, No. 5).

Patient advocacy

This category consisted of subcategories of listening to the patients' concerns, the nurse as hope for cancer patients, gaining the trust of cancer patients, and empathizing with families of cancer patients.

"This relation is close and you cannot change it anymore. Because sometimes the patient really needs to talk with us, listen to her/his concerns, we really see that it works..., especially now that they go out less because of the COVID-19 pandemic, they are more emotionally fragile. For example, one day I went to the patient's room, and I saw that she is crying...I talked to her and comforted her..." (Participant Nurse, No. 6).

Another theme that emerged from the data was supportive divergence. This theme included categories of poor family support, perceived poor social support, unsupportive behaviors, and being far from supportive standards of caring in an oncology ward.

Poor family support

For this category, the nurse describes experiences in which he/she receives poor support in the life, with the nurse's spouse to insist change oncology ward. The nurse's family members being affected by her work in

the oncology ward. Influence on the nurse's own life was created by seeing the problems in the patients' lives, and the emergence and strengthening of hypochondrias feeling among oncology nurses and their families.

"My spouse is always telling me to change my ward. He says you have been here for a long time, and now you can change your ward, especially now that there is COVID-19, move to a new ward with less risk..." (Participant Nurse, No. 6).

"In the beginning when I start working, for example, I asked about patients' living conditions. Then, the patient tells me that his/her spouse left her/him after being diagnosed with cancer... I feel a lot of distress. I am pessimistic about everything about my husband and my life. I am overwhelmed with everything..." (Participant Nurse, No. 7).

"I did not think that caring for the patient would bother me like this. In the first week, I was very upset, I always thought that I had breast cancer. Then I did a test and mammography and made sure I had no problem... Now, when our patients have a drop in white blood cells, we do not know whether they have the COVID-19 disease or it is due to their chemotherapy drugs... We all have the feeling of being infected with the COVID-19 disease..." (Participant Nurse, No. 2).

#### Poor perceived social support in the oncology ward

Participants in this study described various experiences in this regard, such as friends and acquaintances' negative perception of working in the oncology ward, having a negative view of those working in the chemotherapy ward, and the unwillingness of nurses in other ward to move to the oncology ward.

"I am often asked: where do you work? And when I say in the chemotherapy ward, they feel apprehension and ask again how you can work there? Other people feel stress about working in such environments. Or, for example, my friends who are in other hospitals ask how you can work there. They make a mountain out of working in the oncology ward and caring for cancer patients... These days, they fear of the COVID-19 disease and tell me to change my ward, it is difficult working there..." (Participant Nurse, No. 7).

"One issue is that if I want to change my ward, others have a negative attitude towards us, toward these wards. For example, if they understand I work in the oncology ward, they ask me isn't it difficult? Aren't you depressed? Don't you hurt emotionally? Others have such ideas if I want to change my ward. Other nurses don't accept to change their ward with me, They have a negative view. Recently, no new nurse have come to our ward. Other hospital staffs also have a negative view of us..." (Participant Nurse, No. 5).

#### Unsupportive behaviors

These behaviors included his/her superiors did not understand, challenges in professional communication, and attempts to leave the ward due to conflict with the manager. The nurse's compassion was annoying to the patient and the relationship between the head nurse and the nurse and the physician was challenging.

"This head nurse also adds a shift to nurses. For example, she calls us and without asking our opinion gives us an additional shift. These behaviors lead to tension between me and my colleagues... because all of us are stressed out due to fear of developing the COVID-19 disease but they again give us additional shifts. They don't understand us." (Participant Nurse, No. 5).

#### Distancing from supportive work standards in the oncology workplace

"There are a lot of tensions between us... I think unfortunately the nurses have not supported each other since our previous manager left..." (Participant Nurse, No. 5).

Being far from supportive care standards in the oncology ward we found in this concept the lack of adequate protective equipment to care for cancer patients, lack of clear standard of care for working in the oncology ward, and insufficient allocation of time off, the need for higher salaries and benefits for oncology nurses.

"We do not have a clean room to prepare the chemotherapy drugs. We do not have special facilities. We only wear a filtered mask. They should care for the health of nurses and provide a clean room. This is the standard. At the beginning of the outbreak of the COVID-19 diseases, they gave us personal protective equipment such as gowns and aprons, but after a while, they say we cannot provide these..." (Participant Nurse, No. 5).

"It even seems that they can use psychologists in the chemotherapy ward... A psychologist is needed. It makes no difference, both the patient and the nurse need counseling. The psychologist can teach us how to behave with the patients and their companions, they can hold training classes for patient companions... During the outbreak of the COVID-19 disease, this need is felt more. All of us, the patient, his/her family, and the nurse, suffer from mental health problems..." (Participant Nurse, No. 5).

"There is no difference between nurses in terms of financial issues, time off, and benefits... They paid us little for working during the outbreak of the COVID-19 disease." (Participant Nurse, No. 4).

"I believe we should even give force time off to nurses working in this ward, but unfortunately, again due to work problems and shortage of nurses, some days, they have to work two shifts for two shifts even

and without rest. These days, our nurses are constantly tested positive for the COVID-19 disease and they do not come to work and other nurses have to cover their shifts..." (Participant Manager, No.2).

## Discussion

The purpose of this study was to explain the supportive activities in the oncology ward during the COVID-19 pandemic. The first extracted theme was the supportive atmosphere in the oncology ward. In line with the present study, Maningo-Salinas [9] has concluded that the oncology nursing environment is a challenging setting due to the physical and psychological stress that cancer patients face. According to Slatyer et al. [19] a supportive and encouraging work environment increases motivation.

Other studies have shown that some features of the hospital can create a positive work environment, increase nurses' job satisfaction, and support their efforts in providing quality care to patients [20].

According to the experiences gained from this study, patient support was one of the factors that created a supportive atmosphere in the oncology ward during the COVID-19 pandemic. Similarly, Evans Webb et al. [5] have considered support as the main need of cancer patients. Soltani and Khoshnood [6] also have stated that patient support helps cancer patients cope with the stress of the disease and cancer treatment. The emotional fragility and early suffering of cancer patients was another experience highlighting the nature of their support-seeking behavior during the COVID-19 pandemic. As in the study by Korotkin et al. [21], we found out that patient's vulnerability makes patient support necessary in nursing. This vulnerability has increased during the COVID-19 disease.

Seeking support in the oncology ward was the second theme extracted in this study. This theme comprises two categories, namely professional support and patient advocacy. Similarly, Sodeify and Habibpour [22] have reported that several factors affect the nurse's support, one of which is the managerial factor.

Regarding the manager's trust, Toh et al. [13] have also stated that nursing managers can provide a suitable work environment through increasing organizational support. Managerial characteristics as well as the amount of support that nurses receive for the provision of care affect their performance [24]. Martinussen and Davidsen [14] also have reported that managers' support for nursing staff could play a key role in their productivity. Tomey [25] also emphasizes the need for nursing managers' support and reports that their support empowers employees and improves their efficiency. He believes that supporting nurses prevents unnecessary pressure on them and motivates nurses to provide

the best support and care to their patients. Therefore, considering that the nursing staff are very tired due to the outbreak of the COVID-19 disease, they also need psychological support. It seems that the best measure for supporting nurses is the attention and encouragement of managers.

The third theme found in this study was supportive divergence, which included categories of poor family support, poor perceived social support, unsupportive behaviors, and being far from supportive care standards in the oncology ward. A noteworthy point in the participants' experiences regarding this category was that nurses's family members were distressed due to working in the oncology ward. In this regard, Buonocore and Russo [25] also believe that nurses tolerate more work-family conflict due to working in unusual conditions, insomnia, and insomnia-related problems, being in contact with patients and observing painful situations. Concerning the results about leaving the oncology ward. Ekici et al. [26] have also stated that work-family conflict is associated with the oncology nurses. In particular, the higher the level of conflict, the higher the leaving rates will be. Consistent with the results of the present study, Fathi et al. [27] state that the increased conflict with family, spouses, and children in nurses was associated with the COVID-19 disease. Another experience of the study participants was the lack of perceived social support for working in the oncology ward. Fathi et al. [27] also reveal that staying away from others due to fear of transmuting or getting the COVID-19 disease was one of the experiences of medical staff leading to a lack of social support. The other experience revealed in this study was unsupportive behaviors during the COVID-19 pandemic. These behaviors in nurses included not being understood by the managers, challenging professional communication, making attempts to leave the oncology ward due to having conflict with the manager, and challenging communication between the head nurse, nurse, and physician. Similar to the present study, Wazqar [28] shows that unsupportive management is a kind of despotic and violent supervision over subordinates. In other words, the manager behaves in a way that shows a lack of interest in subordinates, a lack of respect for them, and incomprehension of their personality. The managers' support plays an important role in the motivation, and self-efficacy of employees. Regarding being far from the supportive standards in oncology care, we found staff's lack of time off and low salaries and benefits for nurses working in the oncology ward. Wong et al. [29] also concludes that nurses experience many problems due to long working hours, irregular work schedules, limited weekends, excessive job demands, and insufficient earnings. Another experience in this study was



the lack of personal protective facilities. Also Sperling [30] identified personal protection as one of the main concerns of nurses during the outbreak of the COVID-19. They believed that a nurse should be assured first about the provision of personal protection equipment to provide quality care.

### Limitations

In this qualitative study, the participants were selected from a diverse background, but these findings may not be representative for the experiences of all the nursing and managers and patients. Since this study was conducted during the COVID-19 epidemic, it was very difficult to reach the participants and arrange interviews with them.

### Conclusions

The results of the present study showed that one of the important aspects of cancer management is the provision of supportive care. Awareness about these issues can play an important role in the oncology ward to provide effective supportive care for cancer care during the COVID-19 pandemic. Also the results of the study have shown that the supportive activities in the oncology ward during the COVID-19 pandemic are affected by various factors. The experiences of participants provide new insight into supportive activities around managing oncology wards supportive needs during such stressful times.

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### Conflict of interest

Authors declare no conflict of interest.

### References

1. Bulut C, Kato Y. Epidemiology of COVID-19. *Turk J Med Sci*. 2020; 50(SI-1): 563–570, doi: [10.3906/sag-2004-172](https://doi.org/10.3906/sag-2004-172), indexed in Pubmed: [32299206](https://pubmed.ncbi.nlm.nih.gov/32299206/).
2. Worldometer. <https://www.worldometers.info/coronavirus> (05.01.2022).
3. Tsamakidis K, Gavriatopoulou M, Schizas D, et al. Oncology during the COVID-19 pandemic: challenges, dilemmas and the psychosocial impact on cancer patients. *Oncol Lett*. 2020; 20(1): 441–447, doi: [10.3892/ol.2020.11599](https://doi.org/10.3892/ol.2020.11599), indexed in Pubmed: [32565968](https://pubmed.ncbi.nlm.nih.gov/32565968/).
4. Evans Webb M, Murray E, Younger ZW, et al. The Supportive Care Needs of Cancer Patients: a Systematic Review. *J Cancer Educ*. 2021; 36(5): 899–908, doi: [10.1007/s13187-020-01941-9](https://doi.org/10.1007/s13187-020-01941-9), indexed in Pubmed: [33492650](https://pubmed.ncbi.nlm.nih.gov/33492650/).
5. Soltani L, Khoshnood Z. Social support needs in patients with cancer: A qualitative study. *Middle East J Cancer*. 2021; 12(3): 429–438, doi: [10.30476/mejc.2021.83954.1210](https://doi.org/10.30476/mejc.2021.83954.1210).
6. Vaartio-Rajalin H, Leino-Kilpi H. Nurses as patient advocates in oncology care: activities based on literature. *Clin J Oncol Nurs*. 2011; 15(5): 526–532, doi: [10.1188/11.CJON.526-532](https://doi.org/10.1188/11.CJON.526-532), indexed in Pubmed: [21951739](https://pubmed.ncbi.nlm.nih.gov/21951739/).
7. Sebrant L, Jong M. What's the meaning of the concept of caring?: a meta-synthesis. *Scand J Caring Sci*. 2021; 35(2): 353–365, doi: [10.1111/scs.12850](https://doi.org/10.1111/scs.12850), indexed in Pubmed: [32271480](https://pubmed.ncbi.nlm.nih.gov/32271480/).
8. Maningo-Salinas MJ. Relationship between moral distress, perceived organizational support and intent to turnover among oncology nurses. Capella University : Minneapolis.
9. Galehdar N, Kamran A, Toulabi T, et al. Exploring nurses' experiences of psychological distress during care of patients with COVID-19: a qualitative study. *BMC Psychiatry*. 2020; 20(1): 489, doi: [10.1186/s12888-020-02898-1](https://doi.org/10.1186/s12888-020-02898-1), indexed in Pubmed: [33023535](https://pubmed.ncbi.nlm.nih.gov/33023535/).
10. Van Bogaert P, Peremans L, Diltour N, et al. Staff Nurses' Perceptions and Experiences about Structural Empowerment: A Qualitative Phenomenological Study. *PLoS One*. 2016; 11(4): e0152654, doi: [10.1371/journal.pone.0152654](https://doi.org/10.1371/journal.pone.0152654), indexed in Pubmed: [27035457](https://pubmed.ncbi.nlm.nih.gov/27035457/).
11. Dobre O. Employee motivation and organizational performance. *Rev of App Socio-Econ Res*. 2013; 5(1): 53–60.
12. Toh SG, Ang E, Devi MK. Systematic review on the relationship between the nursing shortage and job satisfaction, stress and burnout levels among nurses in oncology/haematology settings. *Int J Evid Based Healthc*. 2012; 10(2): 126–141, doi: [10.1111/j.1744-1609.2012.00271.x](https://doi.org/10.1111/j.1744-1609.2012.00271.x), indexed in Pubmed: [22672602](https://pubmed.ncbi.nlm.nih.gov/22672602/).
13. Martinussen PE, Davidtsen T. 'Professional-supportive' versus 'economic-operational' management: the relationship between leadership style and hospital physicians' organisational climate. *BMC Health Serv Res*. 2021; 21(1): 825, doi: [10.1186/s12913-021-06760-2](https://doi.org/10.1186/s12913-021-06760-2), indexed in Pubmed: [34399744](https://pubmed.ncbi.nlm.nih.gov/34399744/).
14. Karaca A, Durna Z. Patient satisfaction with the quality of nursing care. *Nurs Open*. 2019; 6(2): 535–545, doi: [10.1002/nop2.237](https://doi.org/10.1002/nop2.237), indexed in Pubmed: [30918704](https://pubmed.ncbi.nlm.nih.gov/30918704/).
15. Galehdar N, Toulabi T, Kamran A, et al. Exploring nurses' perception of taking care of patients with coronavirus disease (COVID-19): A qualitative study. *Nurs Open*. 2021; 8(1): 171–179, doi: [10.1002/nop2.616](https://doi.org/10.1002/nop2.616), indexed in Pubmed: [33318825](https://pubmed.ncbi.nlm.nih.gov/33318825/).
16. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res*. 2005; 15(9): 1277–1288, doi: [10.1177/1049732305276687](https://doi.org/10.1177/1049732305276687), indexed in Pubmed: [16204405](https://pubmed.ncbi.nlm.nih.gov/16204405/).
17. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today*. 2004; 24(2): 105–112, doi: [10.1016/j.nedt.2003.10.001](https://doi.org/10.1016/j.nedt.2003.10.001), indexed in Pubmed: [14769454](https://pubmed.ncbi.nlm.nih.gov/14769454/).
18. Lincoln Y, Guba E. But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New Directions for Program Evaluation*. 1986; 1986(30): 73–84, doi: [10.1002/ev.1427](https://doi.org/10.1002/ev.1427).
19. Slatyer S, Coventry LL, Twigg Di, et al. Professional practice models for nursing: a review of the literature and synthesis of key components. *J Nurs Manag*. 2016; 24(2): 139–150, doi: [10.1111/jonm.12309](https://doi.org/10.1111/jonm.12309), indexed in Pubmed: [25975609](https://pubmed.ncbi.nlm.nih.gov/25975609/).
20. Shang J, Friesse CR, Wu E, et al. Nursing practice environment and outcomes for oncology nursing. *Cancer Nurs*. 2013; 36(3): 206–212, doi: [10.1097/NCC.0b013e31825e4293](https://doi.org/10.1097/NCC.0b013e31825e4293), indexed in Pubmed: [22751101](https://pubmed.ncbi.nlm.nih.gov/22751101/).
21. Korotkin BD, Hoerger M, Voorhees S, et al. Social support in cancer: How do patients want us to help? *J Psychosoc Oncol*. 2019; 37(6): 699–712, doi: [10.1080/07347332.2019.1580331](https://doi.org/10.1080/07347332.2019.1580331), indexed in Pubmed: [30929593](https://pubmed.ncbi.nlm.nih.gov/30929593/).
22. Sodeify R, Habibpour Z. Nurses' perceptions of co-worker support in the workplace: Qualitative research. *Enferm Clin (Engl Ed)*. 2020 [Epub ahead of print], doi: [10.1016/j.enfcli.2020.04.005](https://doi.org/10.1016/j.enfcli.2020.04.005), indexed in Pubmed: [32680793](https://pubmed.ncbi.nlm.nih.gov/32680793/).
23. Butler M, Schultz TJ, Halligan P, et al. Hospital nurse-staffing models and patient- and staff-related outcomes. *Cochrane Database Syst Rev*. 2019; 4: CD007019, doi: [10.1002/14651858.CD007019.pub3](https://doi.org/10.1002/14651858.CD007019.pub3), indexed in Pubmed: [31012954](https://pubmed.ncbi.nlm.nih.gov/31012954/).
24. Marriner-Tomey A. Guide to nursing management and leadership. 6th ed. St. Mosby Elsevier 2000: 25, 201.

25. Buonocore F, Russo M. Reducing the effects of work-family conflict on job satisfaction: the kind of commitment matters. *Human Resource Management Journal*. 2012; 23(1): 91–108, doi: [10.1111/j.1748-8583.2011.00187.x](https://doi.org/10.1111/j.1748-8583.2011.00187.x).
26. Ekici D, Cerit K, Mert T. Factors That Influence Nurses' Work-Family Conflict, Job Satisfaction, and Intention to Leave in a Private Hospital in Turkey. *Hospital Practices and Research*. 2017; 2(4): 102–108, doi: [10.15171/hpr.2017.25](https://doi.org/10.15171/hpr.2017.25).
27. Fathi E, Malekshahi Beiranvand F, Hatami Varzaneh A, et al. Health Care Workers Challenges during Coronavirus Outbreak: The Qualitative Study. *RBS*. 2020; 18: 237–248.
28. Wazqar DY. Oncology nurses' perceptions of work stress and its sources in a university-teaching hospital: A qualitative study. *Nurs Open*. 2019; 6(1): 100–108, doi: [10.1002/nop2.192](https://doi.org/10.1002/nop2.192), indexed in Pubmed: [30534399](https://pubmed.ncbi.nlm.nih.gov/30534399/).
29. Wong K, Chan AHS, Ngan SC. The Effect of Long Working Hours and Overtime on Occupational Health: A Meta-Analysis of Evidence from 1998 to 2018. *Int J Environ Res Public Health*. 2019; 16(12), doi: [10.3390/ijerph16122102](https://doi.org/10.3390/ijerph16122102), indexed in Pubmed: [31200573](https://pubmed.ncbi.nlm.nih.gov/31200573/).
30. Sperling D. Nurses' challenges, concerns and unfair requirements during the COVID-19 outbreak. *Nurs Ethics*. 2021; 28(7-8): 1096–1110, doi: [10.1177/09697330211005175](https://doi.org/10.1177/09697330211005175), indexed in Pubmed: [33942658](https://pubmed.ncbi.nlm.nih.gov/33942658/).