

DEVELOPMENT OF ONCOLOGY NURSE NAVIGATION MODEL: A QUALITATIVE STUDY*

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Abstract:

Aim: This research aimed to develop an Oncology Nurse Navigation Model for Turkey.

Material and methods: This research was qualitative research that used a phenomenological research design. The research sample consisted of patients who received at least one dose of chemotherapy or radiotherapy, nurses and physicians who worked for at least six months and worked in the care process of the patients in the oncology clinic of a training and research hospital in Edirne. The data were collected through the semi-structured interview method which was made individually using the "Descriptive Information Form" created by the researcher for patients, nurses and physicians and the "Semi-Structured Interview Form" created separately for each target group.

Results and discussion: The results of this research were presented in three sections. The socio-demographic and descriptive characteristics of the participants were included in the first section. Eight themes were determined as a result of interviews with patients, nurses and physicians. These were; communication, psychological needs, health services provided, coping with cancer, experienced symptoms during the cancer process, nursing roles, physician services and caring for cancer patients. The results of these themes were presented under the headings in the second section. The results of the similar and different aspects of the results obtained from patients, nurses and physicians were included in the third section.

Conclusion: As a result of this research, the cancer patients' navigation services needs were determined during the cancer diagnosis and treatment process. An Oncology Nurse Navigation Model was created according to these identified needs. It is recommended that this model be used in studies and be tested in different groups.

Keywords: Cancer, Navigation, Nursing Model, Oncology Nursing

Introduction

Old or abnormal cells should enter the apoptosis mechanism; however, this mechanism could be out of control by some reasons. This situation is called "Cancer" [1-3]. According to the TÜİK, cancer is the second leading cause of death in Turkey [4]. The rise in cancer cases has contributed to an increased recognition of the significance of advancing oncology Nursing [5, 6]. In the cancer journey, patients and their families encounter barriers and challenges in various aspects including physical, psychological, financial, and social matters [7, 8]. Navigation programs are commonly employed nowadays for addressing these problems. The primary objective of patient navigation, which initially emerged for cancer patients in the United States, is to reduce cancer morbidity and mortality by eliminating barriers to cancer care that may be associated with financial, psychological, logistical, communicational, or healthcare-related factors [9-11]. Navigation services require the involvement of nurses with specific skills, similar to those working in the field of Oncology [12,13]. It is believed that in the forthcoming

years, as the population of cancer patients increases in Turkey, it is necessary to develop an Oncology Navigation Model specific to its healthcare system in order to reduce the costs associated with cancer care and to enhance the quality of care for patients. In this context, the aim of this research is to develop an Oncology Nursing Navigation Model for Turkey.

Materials and Methods

The design of this research was phenomenological research, which is one of the qualitative research designs. This research was conducted with the aim of developing an Oncology Nursing Navigation Model adaptable for Turkey's healthcare system. The research was conducted between April and August 2022 at a state hospital's oncology service and outpatient chemotherapy unit in Edirne and a training and research hospital's oncology service in Edirne. The purposive sampling method was used from qualitative research methods in this research. Interviews were conducted with three different groups which were patients, nurses and physicians in this research (Figure 1).

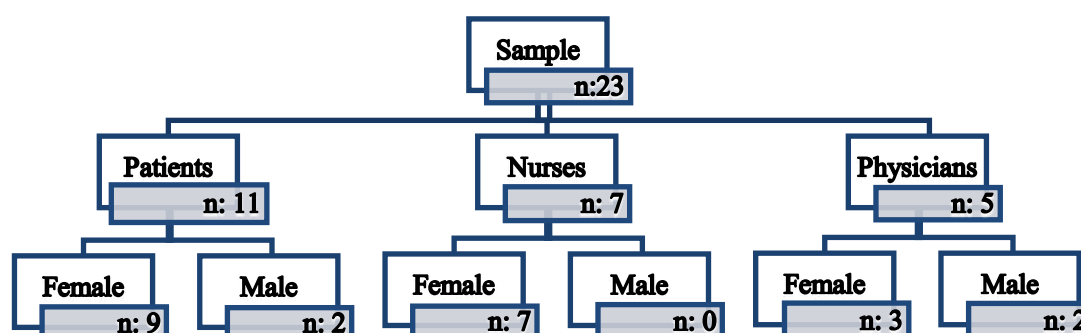


Figure 1: The sample size of the research

Inclusion and Exclusion Criteria of The Research

Inclusion Criteria

For patients: having received a minimum of 1 dose of chemotherapy/radiotherapy, being willing to participate in the research, being in a good cognitive state and being 18 years old or older. For nurses: Having a minimum of 6 months of work experience in the oncology service, being willing to participate in the research, and actively working in the care process of cancer patients. For physicians: Being a specialist physician who has worked in the oncology service for 6 months and being willing to participate in the research.

Exclusion Criteria

For patients: Not having started the treatment, being in the terminal stage, being in a insufficient cognitive status, and not being willing to participate in the research. For nurses: Working outside the oncology department, not being involved in the care process of cancer patients, not being willing to participate in the research. For physicians: Being specialist physicians who have worked in the oncology department for less than 6 months, not being willing to participate in the research.

The Data Collection Instruments and Assessment of The Data

The data were collected using separately prepared Introductory Information Forms and Semi-Structured Interview Forms for patients, nurses, and physicians. The Semi-Structured Interview technique was employed during the interviews, with participants' knowledge and verbal and written consent obtained, and the conversations were recorded using audio recording devices. The recorded interviews were transcribed and analysed using content analysis, a frequently used qualitative research techniques. Thematic analysis technique was utilized during the analysis process to identify, analyse, and report the themes. Data were collected from different sources (patients, nurses, physicians), and the findings obtained from the interviews were sent to the participants for validation. The interviews were independently read and evaluated by the researchers using an inductive approach. Common subcodes were established in Microsoft Excel and the data were classified accordingly. The researchers reached a consensus on the themes and provided the final version based on the relevance of the codes. The themes and codes were reviewed by an expert faculty member specialized in oncology nursing and medicine. After obtaining the expert opinion, any unclear parts in the themes and codes were clarified.

The Ethical Dimension of the Research

Ethics committee approval and institutional permissions were obtained before starting the study. The participants were informed before the research was conducted, and their written and verbal consent was obtained. Within the ethical framework of the study, the full names of the participants were not used.

Results

The average age of the interviewed patients in the study was found to be 58 years. The majority of the participating patients were female (9 individuals), elementary school graduates (8 individuals), living with more than two people (6 individuals), non-smokers and non-alcohol consumers (8 individuals), with chronic illnesses (7 individuals), diagnosed with breast cancer (7 individuals), having a family history of cancer (10 individuals), and receiving chemotherapy and radiotherapy treatments (9 individuals). In the study, the average age of the nurses was found to be 33.42 years. All nurses were

female and university graduates. The average duration of their professional experience was 11.28 years, and the average duration of their work in oncology was found to be 2.65 years. The average age of the interviewed physicians in the study was found to be 38.6 years. Three out of five physicians were female, and four of them were specialist physicians. The average duration of their professional experience was 15.4 years, and the average duration of their work in oncology was five years. The study was conducted with 11 patients, seven nurses, and five physicians through semi-structured interviews. Eight main themes, 40 codes, and 111 sub-codes were identified from these interviews.

Theme 1: Communication

In this study, it was expressed by the participants that the communication between patients and healthcare professionals was good, but certain barriers such as time constraints, workload, and staff shortage could potentially create communication problems. Additionally, it was reported that nurses and physicians didn't experience difficulties in team communication with each other.

Patient 11: *"... well, you know, I see doctors and nurses working together in collaboration...."*

Nurse 6: *"I didn't have any issues in terms of communication. As long as you approach and treat others the way you would like to be treated, there won't be any problems, naturally."*

Physician 2: *"Communication is important. I mean, I give importance to communication. Because, in the end, we are all here for the patient. I think the more quality communication we have with each other, the more beneficial it will be for the patient."*

Theme 2: Psychological Needs

As a result of this study, it was concluded that patients are psychologically affected during the cancer process, they require psychological support, and the uncertainties and loneliness during the cancer process also have a psychological impact on patients.

Patient 9: *"I was deeply affected psychologically when I received the cancer diagnosis, my mental state was shattered."*

Nurse 5: *"For example, their psychology is affected during the process of scheduling appointments for diagnostic tests and providing biopsies, fear of uncertainty."*

Physicians 1: *"Patients are really struggling psychologically during this process, both the patients themselves and their family, because cancer doesn't only affect the patient."*

Theme 3: Provided Healthcare Services

In this study, difficulties such as transportation barriers, economic constraints, and limited access to diagnostic tests and treatments were identified among patients.

Patient 8: *"Afterwards, for example, it would be better if this department were available in every hospital. You know, it would be better if it didn't necessarily have to be in large hospitals."*

Nurse 1: *"As I said, transportation is often a problem for patients here. There are people who come from distant places to receive treatment. When there are no treatment facilities available where the patients are, they have to come here. Unfortunately, not every place is equipped as well as this one."*

Physicians 3: *"It becomes challenging to access doctors in the field of oncology, especially when there are only a few specialists, and most of them work in private ..."*

Theme 4: Coping With Cancer

In this study, it was found that accepting the disease, striving to overcome cancer, believing in the possibility of overcoming the disease, and engaging in religious practices were among the coping strategies employed by patients in dealing with cancer.

Patient 4: *"I even went to the emergency a few times because I had nausea."*

Nurse 4: *"People living alone experience side effects like nausea and vomiting, they naturally become worried and don't know what to do."*

Physician 5: *"Malnutrition brings along many things, such as weakness, weight loss, diarrhea, and susceptibility to illnesses. Patients naturally find themselves in a different situation from their previous lives, which requires resilience and mental endurance to adapt to and maintain..."*

Theme 5: Symptoms Experienced During The Cancer Process

In this study, common physical symptoms identified among the three participant groups included fatigue, vomiting, and hair loss. The psychological symptoms experienced by the patients, as revealed in this study, were characterized by fears of treatment-related uncertainties and the fear of abandoning their loved ones.

Patient 8: *"You start sweating like crazy. Suddenly, a fever hits you, followed by shivering. You're stuck between life and death while taking the red meds."*

Nurse 4: *"Well, they often complain of pain, especially in the legs, weakness, and pain in patients with ports..." (Hem4).*

Physician 4: *"Patients are affected by the side effects during the treatment process. Like weakness, fatigue, or nausea these symptoms occur in patients, and of course, they affect patients both physically and psychologically."*

Theme 6: Nursing Roles

In this study, it was found that patients benefited from nursing services. Nurses expressed in the quotations that they perceived themselves as competent in areas such as providing education, delivering care, communication, and coordination.

Patient 8: *"Well, the nurses, yeah, they were helpful. They said, your doctor explained it, but we should mention it here too."*

Nurse 3: *"I think I'm capable of most things, but sadly, I don't feel confident in providing psychological support. Every patient is different, and it's challenging to know how to empathise with each one, naturally."*

Physician 3: *"Nurses here are involved in many aspects of patient care, treatment, and education."*

Theme 7: Physicians Services

In this study, it was found that patients benefited from medical services. It was also observed that patients had higher levels of trust in physicians compared to nurses. Furthermore, physicians were found to face challenges in allocating time for patient care.

Patient11: *"My surgeon is a very good doctor, someone who genuinely follows up on their patients and takes the matter seriously. My oncologist is also very good. I really liked them."*

Nurse4: *"Our doctor makes an effort to allocate sufficient time for patients, and it is important for cancer patients. In case of an urgent situation during the treatment process, patients can directly contact the doctor. This provides great comfort for the patients."*

Physician1: *"It's not the same everywhere, but in clinics where there is only one physician and the patient load is high, the situation naturally changes. Allocating time becomes even more challenging..."*

Theme 8: Caring For Cancer Patients

The results of this study showed the importance of family involvement in the cancer journey, highlighting that both patients and their families are affected by this process and face challenges in coping.

Patient1: *"Yes, it was really difficult for my family"*

Nurse1: *“There are also many individuals who are emotionally affected, some expressing feelings of irritability, losing hope, and experiencing various family issues. One person, a thousand stories you know...”*

Physician3: *“The process is exhausting for both the patient and their family. Patients and their family can also require psychological support.”*

Discussion

One of the important principles of navigation is communication, and there are studies in the literature indicating the importance of communication in the cancer process [14–17]. There are studies in the literature demonstrating the existence of communication problems between patients and healthcare professionals [18, 19]. In this study, it was observed that the communication between patients and healthcare professionals is generally good, but certain barriers such as time constraints, workload, staff shortage, high patient volume, and psychological factors can hinder effective communication. However, it was noted that nurses and physicians did not experience difficulties in team communication.

It is well-known that cancer patients have high psychosocial needs [20–23]. In line with the literature, this study found that patients are psychologically affected by the cancer process and experience psychological problems.

There are studies indicating that cancer patients face difficulties in accessing healthcare services, such as transportation issues, economic problems, appointment scheduling, diagnostic tests, and treatment access [14, 18, 24–28] Munoz et al., 2018. This study found with the literature and reveals a shared need for a navigator in accessing healthcare services, as identified through interviews with patients.

The coping strategies employed by cancer patients, as reported in the literature, include medication use, distraction, avoidance, acceptance, self-blame, fighting the illness, utilizing religious practices, and seeking social support [29, 30]. Consistent with the literature, the study findings indicate that patients utilize coping mechanisms such as belief in God, accepting the illness, practicing religious methods, exercising patience/gratitude, seeking emergency care, and taking medication.

Cancer is a disease that can have both physical and psychological effects on patients [20, 31–33]. The study findings indicate that patients experience physical and psychological symptoms such as hair loss, fatigue, weakness, anxiety, and fear. The convergence of symptoms reported by both patients and healthcare professionals is considered an indication of healthcare professionals' knowledge, attentiveness, and positive communication with the patients in this regard.

There are studies in the literature indicating that nurses provide communication, counseling, guidance, direction, psychological support, and physical care to cancer patients, but time constraints are encountered [34, 35]. The findings of this study align with the nursing roles and the time constraint issue described in the literature.

Although navigation services are implemented worldwide, they are not widely recognized [36]. The findings of this study indicate a lack of knowledge among healthcare professionals regarding nursing navigation. This highlights the importance of developing an oncology navigation model for our country.

Families are also affected by the cancer process, just like the patients [37-40]. The findings of this study also revealed that both patients and their families are affected by this process and encounter difficulties in coping

Results and Recommendation

In light of the findings of this Research, it was concluded that cancer patients encounter difficulties/barriers in various aspects during the diagnosis and treatment process, including communication, psychological well-being, transportation and economic challenges, accessing diagnostic tests and treatment, scheduling appointments with physicians, coping with cancer, effectively managing symptoms, experiencing side effects, and maintaining relationships with caregivers and family members. The study indicated the need for a navigator in addressing these issues. It was determined that oncology nurses have various roles in the diagnosis and treatment process of cancer, such as guidance and counseling, educator role, caregiver role, as well as communication and coordination. However, it has also been observed that they encounter difficulties in fulfilling roles such as providing psychological and emotional support. It was found in this research that nurses and physicians lack knowledge about ONH. Based on these findings, Oncology Nursing Navigation Model was developed for Turkey.

Keywords: *Cancer, Navigation, Nursing model, Oncology nursing.*

References

1. WHO. *Cancer*. World Health Organisation (İnternette). 2022, 3 Şubat. Retrieved date: 28.10.2022, <https://www.who.int/news-room/fact-sheets/detail/cancer>
2. WHO. *WHO report on cancer: setting priorities, investing wisely and providing care for al*. World Health Organisation (İnternette) 2020, 3 Şubat. Retrieved date: 28.10.2022, <https://www.who.int/publications/i/item/9789240001299>
3. ACS. *What Is Cancer*. American Cancer Society (İnternette) 2022, 14 Şubat. Retrieved date: 28.10.2022, <https://www.cancer.org/content/dam/CRC/PDF/Public/6041>

4. TÜİK. *Ölüm ve Ölüm Nedeni İstatistikleri, 2019*. Türkiye İstatistik Kurumu (İnternette) 2020, 24 June. Retrieved date: 14.04.2023, <https://data.tuik.gov.tr/Bulten/Index?p=Olum-ve-Olum-Nedeni-Istatistikleri-2019-33710>
5. Cummings, G. G., Lee, S., & Tate, K. (2018). The evolution of oncology nursing: Leading the path to change. *Can Oncol Nurs J*, 28(4), 314-317
6. Tarakçıoğlu Çelik, G. H. (2016). Onkoloji Hemşireliğinde Semptom Yönetimi. *Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi*, 5(4), 93-100. Retrieved date: 14.04.2023, <https://dergipark.org.tr/tr/pub/gumussagbil/issue/32262/358454>
7. Ayvat, İ., & Atlı Özbaş, A. (2021). Yaşlı kanser hastalarının destekleyici bakım gereksinimleri: gereksinimler de yaşıyor mu? *Hacettepe Üniversitesi Hemşirelik Fakültesi Dergisi*, 8(1), 93-100. Retrieved date: 14.04.2023, <https://dergipark.org.tr/tr/download/article-file/1678102>
8. Hendren, S., Chin, N., Fisher, S., Winters, P., Griggs, J., Mohile, S., & Fiscella, K. (2011). Patients' barriers to receipt of cancer care, and factors associated with needing more assistance from a patient navigator. *J Natl Med Assoc*, 103(8), 701-710. Retrieved date: 14.04.2023, [https://doi.org/10.1016/s0027-9684\(15\)30409-0](https://doi.org/10.1016/s0027-9684(15)30409-0)
9. Freeman, H. P. (2012). The origin, evolution, and principles of patient navigation. *Cancer Epidemiol Biomarkers Prev*, 21(10), 1614-1617. Retrieved date: 14.04.2023, <https://doi.org/10.1158/1055-9965.EPI-12-0982>
10. Peart, A., Lewis, V., Brown, T., & Russell, G. (2018). Patient navigators facilitating access to primary care: A scoping review. *BMJ Open*, 8(3), e019252. Retrieved date: 13.03.2023, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5875656/pdf/bmjopen-2017-019252.pdf>
11. EOHSP. *What are patient navigators and how can they improve integration of care?* European Observatory on Health Systems and Policies (İnternette) 2022, 10 Ocak. Retrieved date: 09.05.2022, <https://eurohealthobservatory.who.int/publications/i/what-are-patient-navigators-and-how-can-they-improve-integration-of-care>
12. Seek, A. J., & Hogle, W. P. (2007) Modeling a better way: navigating the healthcare system for patients with lung cancer. *Clin J Oncol Nurs*, 11, 81-85. Retrieved date: 10.03.2023, <https://store.ons.org/pubs/article/222101/download>
13. Rodrigues, R. L., Schneider, F., Kalinke, L. P., Kempfer, S. S., & Backes, V. (2021). Clinical outcomes of patient navigation performed by nurses in the oncology setting: an integrative review. *Rev Bras Enferm*, 74(2), e20190804. Retrieved date: 14.04.2023, <https://doi.org/10.1590/0034-7167-2019-0804>
14. Freeman, H. P. (2012). The origin, evolution, and principles of patient navigation. *Cancer Epidemiol Biomarkers Prev*, 21(10), 1614-1617. Retrieved date: 14.04.2023, <https://doi.org/10.1158/1055-9965.EPI-12-0982>
15. Hasan, I., & Rashid, T. (2016). Clinical communication cancer patients & considerations to minimize the challenges. *J. Cancer Ther*, 7, 107-113. Retrieved date: 10.03.2023, https://www.scirp.org/pdf/JCT_2016022217071785.pdf
16. Adesi Kyei, K., & Kyei, K. A. (2015). The Role of communication in cancer management. *Cancer Research Journal*, 3(1), 1. Retrieved date: 14.04.2023, <https://doi.org/10.11648/J.CRJ.20150301.11>
17. Budde, H., Williams, G. A., Winkelmann, J., Pfirter, L., & Maier, C. B. (2021). The role of patient navigators in ambulatory care: OVERVIEW of systematic reviews. *BMC Health Serv Res*, 21(1), 1166. Retrieved date: 11.04.2023, <https://doi.org/10.1186/s12913-021-07140-6>
18. Cartmell, K. B., Bonilha, H. S., Simpson, K. N., Ford, M. E., Bryant, D. C., & Alberg, A. J. (2020). Patient barriers to cancer clinical trial participation and navigator activities to assist. *Adv Cancer Res*, 146, 139-166. Retrieved date: 11.01.2023, <https://doi.org/10.1016/bs.acr.2020.01.008>
19. Zafar, A., Baessler, F., Ihrig, A., Mayer, G., Bugaj, T. J., Maatouk, I., Staeudle, J., Friederich, H. C., & Schultz, J. H. (2022). Barriers to access cancer-related services for men in high-income

- countries: A narrative review looking beyond socioeconomic disadvantages. *Aging Cancer*, 3, 147–160. Retrieved date: 10.04.2023, <https://doi.org/10.1002/aac2.12059>
20. Tel Aydın, H., & Günay, D. (2020). The determination of the supportive care needs of patients diagnosed with cancer. *Cumhuriyet Medical Journal*, 42(2), 152–162. Retrieved date: 14.04.2023, <http://cmj.cumhuriyet.edu.tr/en/download/article-file/1211599>
 21. Jimenez-Fonseca, P., Calderon, C., Carmona-Bayonas, A., Muñoz, M. M., Hernández, R., Mut, L., Iret, M., Ghanem, I., Beato, C., Cacho, Lavín, D., Ivars, Rubio, A., Carrión, R., & Jara, C. (2018). The relationship between physician and cancer patient when initiating adjuvant treatment and its association with sociodemographic and clinical variables. *Clin Transl Oncol*, 20(11), 1392–1399. Retrieved date: 14.04.2023, <https://doi.org/10.1007/s12094-018-1870-z>
 22. Kim, H., Kim, K., & Kim, Y. H. (2022). Associations between mental illness and cancer: a systematic review and meta-analysis of observational studies. *Eur Rev Med Pharmacol Sci*, 26(14), 4997–5007. Retrieved date: 10.04.2023, https://doi.org/10.26355/eurrev_202207_29286
 23. Polański, J., Misiąg, W., & Chabowski, M. (2022). Impact of Loneliness on Functioning in Lung Cancer Patients. *Int J Environ Res Public Health*, 23, 15793. Retrieved date: 14.04.2023, <https://doi.org/10.3390/ijerph192315793>
 24. Altice, C. K., Banegas, M. P., Tucker-Seeley, R. D., & Yabroff, K. R. (2016). Financial Hardships Experienced by Cancer Survivors: A Systematic Review. *J Natl Cancer Inst*, 109(2), djw205. Retrieved date: 14.04.2023, <https://doi.org/10.1093/jnci/djw205>
 25. Penson, D. F. (2016). Re: Financial hardship associated with cancer in the United States: Findings from a population-based sample of adult cancer survivors. *J Urol*, 196(4), 1234. Retrieved date: 14.04.2023, <https://doi.org/10.1016/j.juro.2016.06.056>
 26. Pauge, S., Surmann, B., Mehliş, K., Zueger, A., Richter, L., Menold, N., Greiner, W., & Winkler, E. C. (2021). Patient-reported financial distress in cancer: a systematic review of risk factors in universal healthcare systems. *Cancers*, 13(19), 5015. Retrieved date: 14.03.2023, <https://doi.org/10.3390/cancers13195015>
 27. George, M., Smith, A., Ranmuthugula, G., & Sabesan, S. (2022). Barriers to accessing, commencing and completing cancer treatment among geriatric patients in rural Australia: A Qualitative Perspective. *Int J Gen Med*, 15, 1583–1594. Retrieved date: 13.04.2023, <https://doi.org/10.2147/IJGM.S338128>
 28. Gupta, A., Meena, J. P., & Seth, R. (2020). Reasons for missed chemotherapy appointments in retinoblastoma patients undergoing chemotherapy: A report from a Tertiary Care Hospital from India. *Cancer Rep (Hoboken)*, 3(6), e1279. Retrieved date: 14.04.2023, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7941559/pdf/CNR2-3-e1279.pdf>
 29. Nipp, R. D., El-Jawahri, A., Fishbein, J. N., Eusebio, J., Stagl, J. M., Gallagher, E. R., Park, E. R., Jackson, V. A., Pirl, W. F., Greer, J. A., & Temel, J. S. (2016). The relationship between coping strategies, quality of life, and mood in patients with incurable cancer. *Cancer*, 122(13), 2110–2116. Retrieved date: 14.03.2023, <https://doi.org/10.1002/cncr.30025>
 30. Cruz, V., & Echeverría, W. (2022). Coping strategies in cancer patients. A single center study. *Rev Oncol Ecu*, 32(2), 169–179. Retrieved date: 14.04.2023, https://docs.bvsalud.org/biblioref/2022/09/1391898/ao-4_estrategias-de-afrontamiento-en-pacientes-con-cancer-del-_Glog5Uj.pdf
 31. Berezowska, A., Passchier, E., & Bleiker, E. (2021). Professional patient navigation in a hospital setting: a randomized controlled trial. *Support Care Cancer*, 29(4), 2111–2123. Retrieved date: 13.04.2023, <https://doi.org/10.1007/s00520-020-05721-5>
 32. Karakartal, D. (2018). Kanser hastalarının yaşadıkları psiko-sosyal sorunların incelenmesi. *Uluslararası Beşeri Bilimler ve Eğitim Dergisi*, 4(9), 48–62. Retrieved date: 13.04.2023,
 33. Pearce, A., Haas, M., Viney, R., Pearson, S. A., Haywood, P., Brown, C., & Ward, R. (2017). Incidence and severity of self-reported chemotherapy side effects in routine care: A prospective

- cohort study. *PLoS one*, 12. e0184360. Retrieved date: 13.04.2023, [10.1371/journal.pone.0184360](https://doi.org/10.1371/journal.pone.0184360)
34. Bafandeh Zende, M., Hemmati Maslakkp, M., & Jasemi, M. (2022). Nurses' perceptions of their supportive role for cancer patients: A qualitative study. *Nursing Open*, 9, 646– 654. Retrieved date: 13.04.2023, <https://doi.org/10.1002/nop2.1112>
35. Komatsu, H., & Komatsu, Y. (2004) The Role of nurse on the treatment decision support for older people with cancer: A systematic review. *Healthcare*, 11, 546. Retrieved date: 12.04.2023, <https://doi.org/10.3390/healthcare11040546>
36. Schnitzer, S., Kohl, R., Fügemann, H., Gödde, K., Stumm, J., Engelmann, F., Grittner, U., & Rieckmann, N. (2022). Patient navigation—who needs what? Awareness of patient navigators and ranking of their tasks in the general population in germany. *Int J Environ Res Public Health*, 19(5), 2846. Retrieved date: 14.04.2023, <https://doi.org/10.3390/ijerph19052846>
37. Ünal Toprak, F., & Vural, G. (2016). Jinekolojik Onkolojide Navigasyon ve Navigatör. *Journal of Anatolia Nursing and Health Sciences*. 19(1), 0-0. Retrieved date: 14.04.2023, <https://dergipark.org.tr/tr/download/article-file/230103>
38. Kebede, B. G., Abraha, A., Andersson, R., Munthe, C., Linderholm, M., Linderholm, B., & Berbyuk Lindström, N. (2020) Communicative challenges among physicians, patients, and family caregivers in cancer care: An exploratory qualitative study in Ethiopia. *PLoS ONE*, 15(3), e0230309. <https://doi.org/10.1371/journal.pone.0230309>
39. Agne, J. L., Bertino, E. M., Grogan, M., Benedict, J., Janse, S., Naughton, M., Eastep, C., Callahan, M., & Presley, C. J. (2021) Too many appointments: assessing provider and nursing perception of barriers to referral for outpatient palliative Care. *Palliat Med Rep*. 2(1), 137-145. Retrieved date: 14.04.2023, doi: 10.1089/pmr.2020.0114
40. Akkanat Karagil, F. M., & Harmancı, H. (2022). Kanser tanısı alan birey ve ailesinde ruh sağlığı. *Karatay Sosyal Araştırmalar Dergisi*, (9), 63-90. Retrieved date: 14.04.2023, doi: 10.54557/karataysad.1172368

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