

## Research Article

# Analysis of nurses' role in transition care for patients with oncology diseases at Georgi Stranski University Hospital, Pleven, Bulgaria

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## Summary

Despite the advances in diagnostic technologies, oncology diseases in Bulgaria are detected at advanced stages. Nurses play a key role in planning, coordinating and delivering complex care. This review aimed to evaluate the role of nurses in the transition care for oncology patients and give recommendations for its updates according to the existing transition care models. In five oncology departments, we studied 67 patients and 49 nurses using a direct individual self-administered questionnaire. Data was processed with Microsoft Office Excel 2019 и SPSS v.26. A significant number of nurses affirmed providing information to the patients within their competence (77.6%), but only orally in two-thirds of cases (65.3%). Moreover, in most cases, it happens on discharge when the patient is agitated and cannot remember all the recommendations. After discharge, the patients would seek advice from an oncologist (76.1%), with only one would ask a nurse. Patients rely on the help of their families (64.2%) to cope with the disease. Nurses should play a crucial role in improving the quality and safety of care. Intervention programs for the prevention of oncology diseases should be prepared.

**Key words:** Oncology nurse competencies, oncology patients, patient education, prevention programs, transition care models



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## Introduction

The high incidence of oncology diseases is a leading medical and social problem. Despite improvements in treatment and diagnostic technologies, oncology diseases in Bulgaria are diagnosed at advanced stages (Valerianova and Atanasov 2020). Nurses play a key role in planning, coordinating and delivering complex care within a short time frame (Chu et al. 2022). Transition care focuses on targeted assessment of the condition, communication between professionals, and education of the patient and relatives in self-care (Blom et al. 2015).

The oncology care provided in Georgi Stranski University Hospital, Pleven, Bulgaria, complies with the mission of the hospital and oncology standards, regulations on preventive examinations and dispensary providing health care to ill and healthy persons by highly qualified health professionals, based on the competencies defined by the National and European Oncology Nursing Organizations. Both

globally and in Bulgaria, oncology diseases are a leading medical and social problem with increasing morbidity, a leading cause of death in the active population and high financial costs for diagnosis, treatment and rehabilitation. Technology advancements increase patient survival (Coschi et al. 2021). Despite advances in treatment, oncology diseases are detected in advanced stages. The reasons are complex, but with an accent on the importance of cancer prevention, patient and family education and communication between interdisciplinary healthcare teams which work smoothly together to assist patients in planning, coordinating, and delivering complex care in short time frames (Foust 2012). The prevention of oncology diseases is gaining popularity among medical specialists and the broad public. The reason is that this is the most successful way to decrease the incidence and increase the effectiveness of the treatment (Tolotti et al. 2022).

Nurses play a crucial role in improving the quality and safety of transition care (Challinor al. 2016). Transition care is “a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or levels of care within the same location” and includes patient and family education (Mayer et al. 2017). Transition care for oncology patients is complex for several reasons:

- Chronic diseases require complicated treatment plans carried out provided by several professionals;
- Transitions occur when patients are transferred within a setting, between settings, or during hand-offs of responsibility between healthcare professionals;
- Transitions occur when a healthcare team teaches patients to take care of themselves when they leave a setting;
- Communication is an essential component of effective care transitions (Young et al. 2020).

Existing transition care models emphasize coordination and continuity of care among health professionals who work collaboratively with the patient and family to improve patient outcomes. Other researchers suggest standardized aspects of the process like nurse instructions, medication reconciliation, scheduling post-discharge visits with GP specialists, and/or a follow-up phone call from the nurse. All care models emphasize the benefits of improved care coordination, better pre-discharge education, and follow-up healthcare strategies (Truant et al. 2017).

The focus is on three interventions for improving transition care: targeted assessment of the condition and co-occurring problems, communication between professionals, and education of the patient and his relatives in self-care. Poor coordination and inadequate communication lead to poor patient outcomes (Tolotti et al. 2022).

The aim of the study was to evaluate the role of nurses in the transition care of oncology patients and give recommendations for updating it according to the existing transition care models.

## Material and methods

The ideas of transition care were studied and examined from the viewpoint of two groups: patients and nurses in five oncology departments (Clinic of Oncosurgery, Clinic of Oncogynecology, Department of Radiation Therapy, Department

of Medical Oncology, Department for Follow-up of patients with oncology diseases) in Dr Georgi Stranski University Hospital in Pleven, Bulgaria. Data were collected between January 2023 and September 2023 by a semi-structured interview among 67 patients and a direct individual self-administered questionnaire among 49 nurses in the field of oncology care and assessment of patient needs. Data was processed with Microsoft Office Excel 2016 и SPSS v.25.

## Results

The importance of and attitude toward transition care can be discussed from the viewpoint of both nurses and patients.

### Analysis of the nurses' response

We found that most nurses were in the age group of < 30, followed by the age 60+. The most significant proportion of nurses included the group with more than 20 years of professional experience, followed by those with up to 5 years, which illustrated that the middle generation is lowly represented. More than half of them had a bachelor's degree of high education, but their professional experience in the specialized field of oncology care was relatively low. (Table 1).

**Table 1.** Distribution of nurses by age, education and experience (N, %).

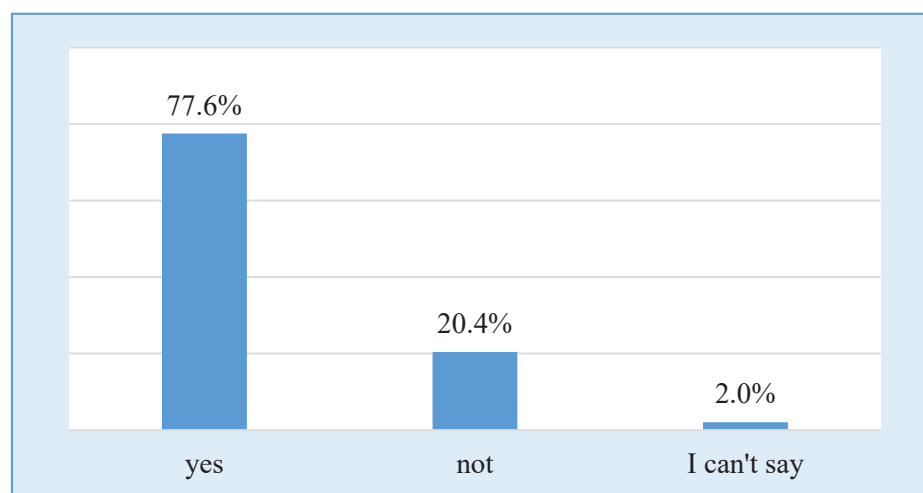
Characteristics	Count	Proportion (%)
<b>Age</b>		
< 30	19	33.3
31–39	6	10.5
40–49	7	12.3
50–59	6	10.5
60 <	11	19.3
<b>Sex</b>		
woman	43	75.4
man	6	10.5
<b>Education</b>		
Secondary education	–	–
A college education	3	6.1
Higher – specialist	14	28.6
<b>Higher – bachelor</b>	<b>27</b>	<b>55.1</b>
Higher – master	5	10.2
<b>Professional experience</b>		
<b>Up to 5 years</b>	<b>17</b>	<b>34.7</b>
6–10 yrs.	7	14.3
11–15 yrs.	3	6.1
16–20 yrs.	4	8.2
<b>Over 20 yrs.</b>	<b>18</b>	<b>36.7</b>
<b>Professional experience in an oncology unit</b>		
<b>Up to 5 years</b>	<b>24</b>	<b>49</b>
6–10 yrs.	13	26.5
11–15 yrs.	6	12.2
16–20 yrs.	3	6.1
<b>Over 20 yrs.</b>	<b>3</b>	<b>6.1</b>

All 49 nurses (100%) believed communicating with patients during treatment and recovery is very important. However, more than half of nurses had never, or only incidentally, been involved in cancer prevention (32.7%) and (18.4%), respectively. Furthermore, 42.9% had never participated in follow-up monitoring, 14.3% did this incidentally (Table 2). These figures emphasize the need for better knowledge about levels and approaches to prevention and building a positive attitude toward preventive activities. Notably, the highest percentage falls on activities that nurses never perform or perform daily, which comes to explain the specificity of work in different oncological environments (Table 2).

**Table 2.** Frequency of activities performed by nurses.

Activities	Never	Incidentally	More often than once a month	More often than once a week	Daily	No answer	Total
<b>Prevention of oncology diseases</b>	<b>16 (32.7%)</b>	9 (22.5%)	3 (6.1%)	1 (2.0%)	14 (28.6%)	4 (8.2%)	49 (100.0%)
<b>Participation in dispensary monitoring</b>	<b>21 (42.9%)</b>	7 (18.4%)	3 (6.1%)	1 (2.0%)	14 (28.6%)	1 (2.0%)	49 (100.0%)
<b>Interaction with patient organizations for support of the patients</b>	<b>30 (61.2%)</b>	5 (16.3%)	2 (4.1%)	1 (2.0%)	5 (10.2%)	3 (6.1%)	49 (100.0%)
<b>Participation in continuing education programs</b>	<b>31 (63.3%)</b>	7 (18.4%)	0 (0.0%)	0 (0.0%)	2 (4.1%)	7 (14.3%)	49 (100.0%)

A significant number of the nurses reported providing information to the patients according to their competencies (77.6%). Even though this represents the opinion of most respondents, every fifth nurse saves herself the trouble of this conversation (Fig. 1).



**Figure 1.** Nurses' responses about providing information to the patients according to their competencies.

They usually informed patients how to provide self-care at home (yes, 53.1%, and closer to 32.7%) at discharge (Fig. 2).

The information provided was more frequently oral (65.3%) than written (30.6%) (Fig. 3). It could be a problem because, on discharge, the patient is agitated and unable to remember all the recommendations, especially if not health-educated. Therefore, written information that the patient can read in peace when he gets home is preferable.

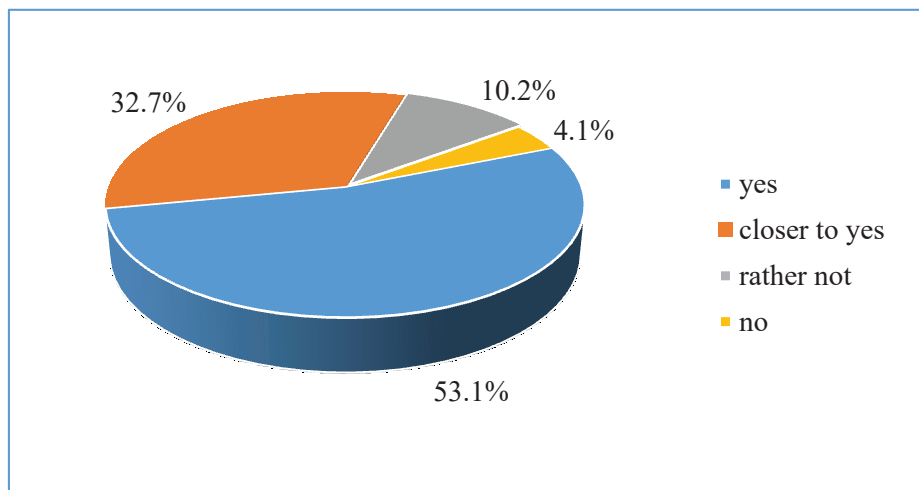


Figure 2. Nurses' information to patients about home care after discharge.

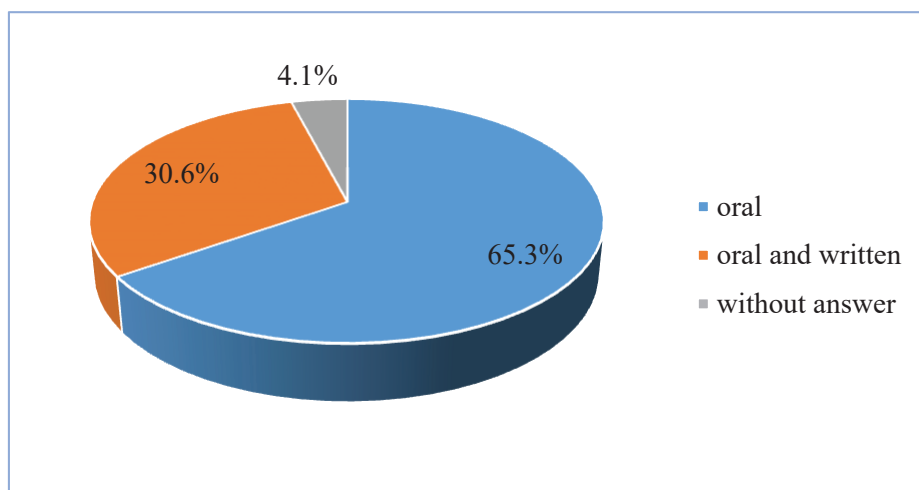


Figure 3. Distribution of nurses according to the type of provided information.

### Analysis of the patients' responses

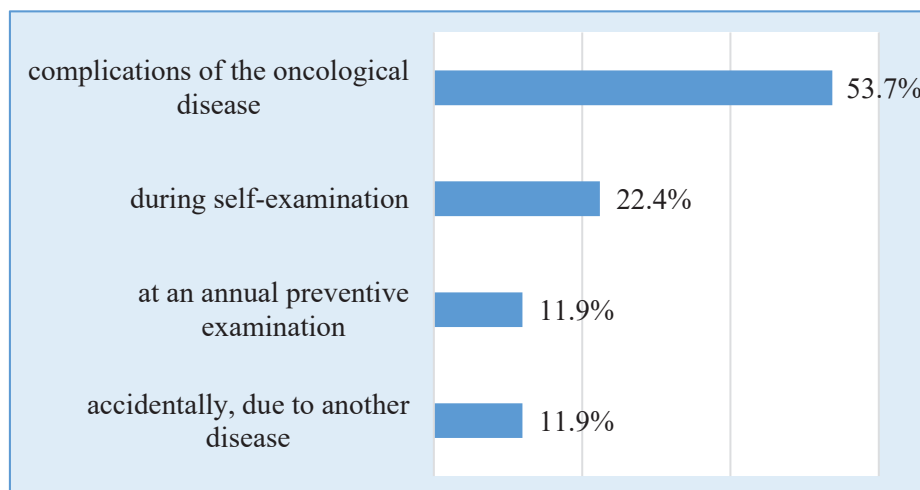
Men prevailed over women in the patients' group. The individuals aged 60+ predominated. The proportion of patients with secondary education was the highest, followed by persons with higher education (Table 3).

The most frequent cancer locations were breast cancer (32.8%) and colon, rectum, and stomach (29.9%), followed by cancer of the female genitalia, uterus, ovaries (22.4%), lung and mediastinum (7.5%), skin, larynx, pharynx (7.5%). The results confirm global negative cancer statistics (2022) regarding the most frequent cancers in women and men, according to the International Agency for Research on Cancer (IARC).

More than half of the patients (53.7%) were hospitalized with manifestations or complications of the oncology disease. In 22.4% of the cases, it was discovered during a self-examination, 11.9% – at regular check-ups, and 11.9% – accidentally due to another disease (Fig. 4). Results show an insufficiency of active prevention and monitoring. The nurses' assistance could be very valuable in monitoring and caring for patients with a chronic disease course. In primary outpatient care, patients should be monitored for recurrences and metastases

**Table 3.** Distribution of patients by major signs (N, %).

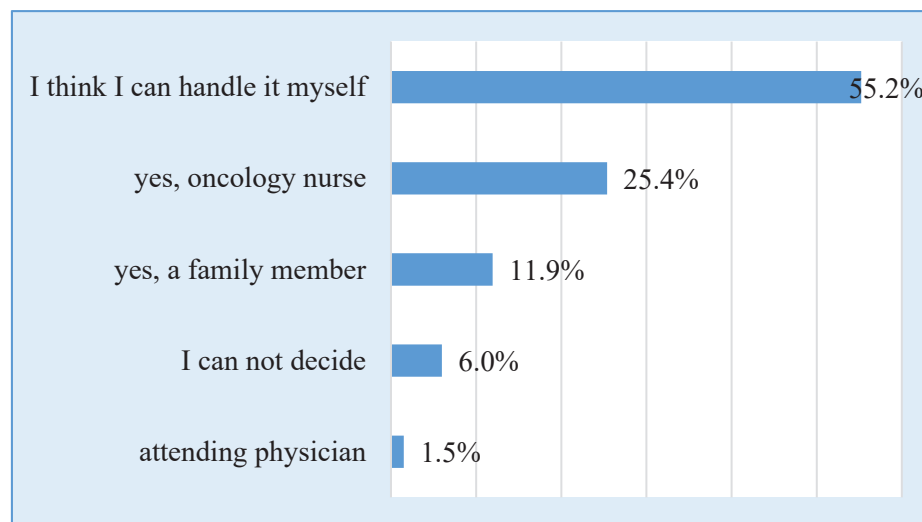
Characteristics	Count	Proportion (%)
<b>Age</b>		
< 30 years	1	1.5
31–39 yrs.	2	3
40–49 yrs.	3	4.5
50–59 yrs.	13	19.4
<b>60–69 yrs.</b>	<b>27</b>	<b>40.3</b>
70–79 yrs.	17	25.4
80 yrs. >	4	6
<b>Sex</b>		
woman	19	28.4
<b>man</b>	<b>48</b>	<b>71.6</b>
<b>Education</b>		
Primary education	10	14.9
Secondary education	<b>39</b>	<b>58.2</b>
A college education	6	9
Higher education	12	17.9
<b>Place of residence</b>		
<b>Town</b>	<b>43</b>	<b>64.2</b>
Village	24	35.8
<b>Ethnicity</b>		
<b>Bulgarian</b>	<b>63</b>	<b>94</b>
Gypsies	3	4.5
Turks	–	–
Jews	–	–
Russians	1	1.5



**Figure 4.** Distribution of the patients by way of detection of the disease.

in distant organs, and intervention programs should be developed at each stage of chronic disease throughout the disease course. In this way, the activities of specialized units and specialists will be supported. These programs should cooperate with health workers' efforts to change the lifestyle of affected individuals and preventable risk factors. Such cooperation would effect both the length and life quality of patients.

During their stay in the hospital, half of the patients stated they could manage on their own, while a quarter preferred an oncology nurse to look after them when they could not take care of themselves. Patients trusted a nurse because nurses spent long hours with them and were aware of their condition, therapy, needs, pains, and fears (Fig. 5).



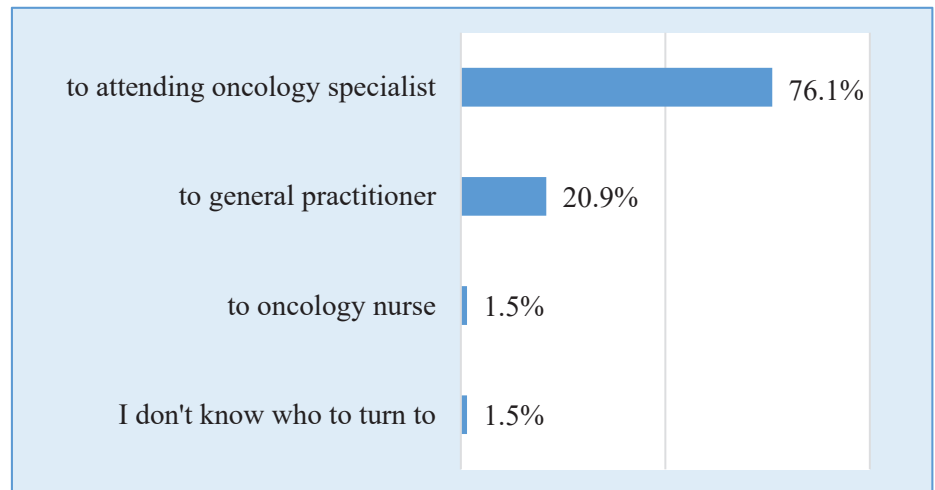
**Figure 5.** Distribution of the patients’ preferences by need of constant presence of nurses in hospital settings.

Although 90% of patients need information on how to care for themselves at home after discharge, 13.4% declared no need for information. According to the type of information, a significant proportion indicated that they preferred oral (68.7%), oral and written (16.4%), written (7.5%), neither oral nor written (7.5%).

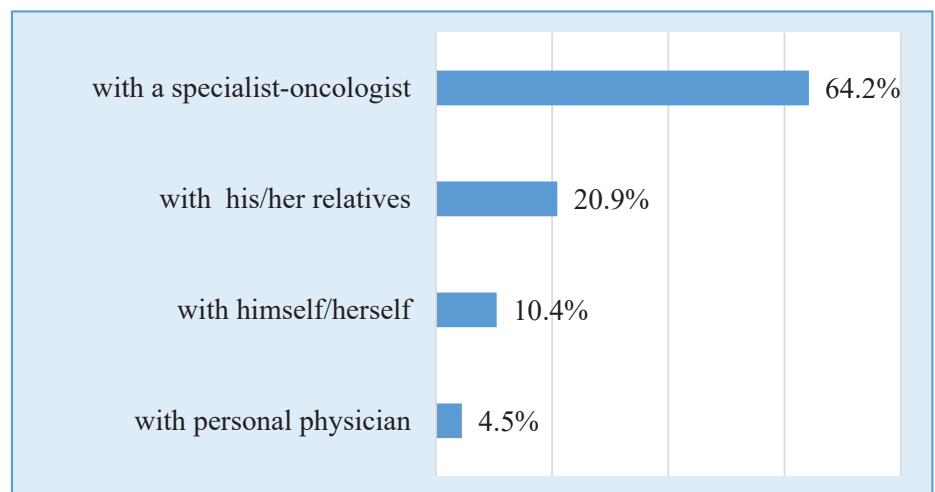
After discharge, in case that oncology patients have questions or any problems related to the disease they would turn to the attending oncology specialist (76.1%) for advice, to the general practitioner (20.9%), only one indicates the nurse, and one doesn’t know who to turn to for advice. Patients underestimate the nurse’s role after discharge. Although they are satisfied, more than 60% do not want a home visit. This contradicts world practices, where home care for the chronically ill is highly developed. This indicates that the nurse is perceived mostly in her subordinate position rather than as an independent level in the process of treatment and care.

Most often respondents make decisions about treatment and care with help of an oncology specialist (64.2%), and their relatives (20.9%). That is understandable. Patients trust the specialists and rely on the people closest to them at a time of such great stress (Kang et al. 2012). A number of studies have investigated the level of stress and fears of patients during oncology disease, treatment, effects of treatment and after the positive outcome of treatment (Kreitler et al. 2007; Nikbakhsh et al. 2014). Many of them believe that it is tantamount to a death sentence or that it will return at some point in their lives. None of the patients identified the oncology nurse as an advisor on chronic disease care issues (Fig. 7).

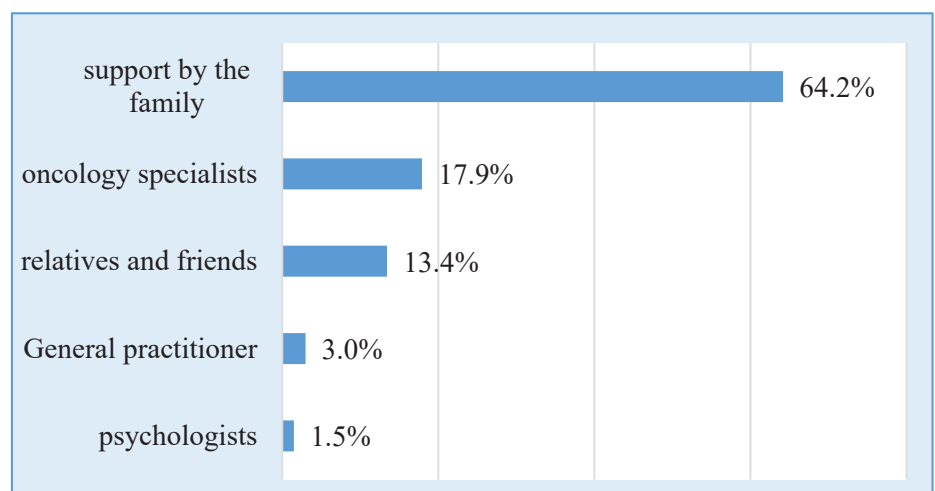
Patients usually seek the help of the family when they cope with the consequences of the disease (64.2%), an oncology specialist (17.9%), relatives and friends (13.4%), General practitioner (3%) and a psychologist (1.5%) (Fig. 8).



**Figure 6.** Distribution of patients' referral to specialists after discharge.



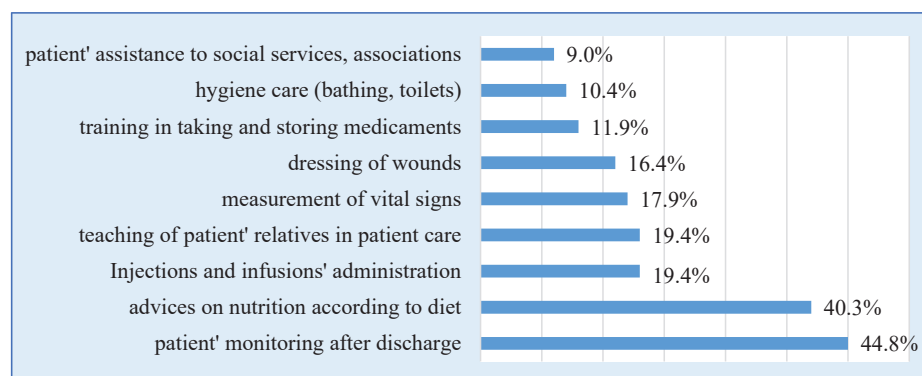
**Figure 7.** Distribution of patients according to preference to make decisions about treatment and care.



**Figure 8.** Distribution of patients according to the assistance in dealing with the consequences of the disease.

Regarding problems related to the disease, patients most often talk with family (56.7%), with a specialist (34.3%), with other patients who have experienced the same disease (4.5%), with colleagues and friends (3%), one of the respondents does not want to talk to anyone.

The nurse can be helpful and provide nursing care in the patient's home in various directions. The aim of this care is to help the patient recover his independence more quickly. Patients see the nurse's role as monitoring and supporting (44.8%), giving advice on nutrition (40.3%), education at patient and relatives about plan of care (19.4%), performing manipulations (19.4%) etc. (Fig. 9)



**Figure 9.** Distribution of patients according their opinion about the benefit of post-hospital nursing care.

## Conclusion

The role of nurse in patient and/or his family education is underestimated. Nurses as part of a multidisciplinary team should play a key role in the follow-up care and education of oncology patients and their relatives at all levels of prevention through development of community education programs. Nurses play a key role in planning, coordinating and delivering complex care. The focus is on three interventions to improve care transitions: targeted assessment of the condition and co-occurring problems, communication among professionals, and education of the patient and their relatives in self-care. There are no written recommendations from the nurse regarding diet, regimen, check-ups, assessment of needs, check-ups, or they are in the process of being implemented. Recommendations are verbal from the attending physician. Intervention programs for the prevention of oncology diseases should be developed in the community to educate the patient and/or his relatives. Nurses play a vital role in improving the quality and safety of care transitions.

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## Additional information

### Conflict of interest

The authors have declared that no competing interests exist.

### Ethical statements

The authors declared that no clinical trials were used in the present study.

The authors declared that no experiments on humans or human tissues were performed for the present study.

Informed consent from the humans, donors or donors' representatives: An ethics committee, Medical University – Pleven.

The authors declared that no experiments on animals were performed for the present study.

The authors declared that no commercially available immortalised human and animal cell lines were used in the present study.

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### Author contributions

All authors have contributed equally.

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### Data availability

All of the data that support the findings of this study are available in the main text.

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