Original Article



Assessment of Unmet Supportive Care Needs of Vietnamese Cancer Patients after First-Time Hospital Discharge

Hoai Thi Yen Nguyen, MSN, Oanh Thi Hoang Tran, MSN, Tiet Thi Mai, BSN, Huyen Thi Thu Ngo, BSN

Community Nursing Department, Faculty of Nursing, Da Nang University of Medical Technology and Pharmacy, Da Nang City 50000, Vietnam.

Received 22 October 2022 • Revised 27 March 2023 • Accepted 7 April 2023 • Published online 25 July 2023

Abstract:

Objective: The research was conducted to identify and assess the unmet supportive care needs of patients with cancer after a first-time hospital discharge.

Material and Methods: This was a cross-sectional study using the Cancer Survivors' Unmet Need (the CaSUN). A total of 163 cancer patients of Danang Oncology hospital were invited to the study after they were discharged from the hospital for the first-time. Data was entered and analyzed using SPSS version 20.0.

Results: In total 68.7% of participants expressed at least one unmet supportive care need after a first-time hospital discharge. Specifically, 13.7% showed their unmet needs at a weak level, 31.3% had a moderate level and 23.7% a high level. However, the common unmet supportive care needs domain concerned Information and medical care (75.1%); Life perspective (70.8%); Emotions and relationships (64.2%) and Quality of life (63.6%).

Conclusion: Most cancer patients indicated one or more unmet supportive care needs after first-time hospital discharge. This result will support improving healthcare service quality and raising awareness of nursing when providing care for cancer patients in the community.

Keywords: cancer patients, first-time hospital discharge, unmet supportive care needs

Contact: Hoai Thi Yen Nguyen, MSN

Da Nang City 50000, Vietnam. E-mail: hoainty3010@gmail.com

Faculty of Nursing, Da Nang University of Medical Technology and Pharmacy,

© 2023 JHSMR. Hosted by Prince of Songkla University. All rights reserved.

This is an open access article under the CC BY-NC-ND license

(http://www.ihsmr.org/index.php/ihsmr/about/editorialPolicies#openAccessPolicy).

J Health Sci Med Res 2024;42(1):e2023969 doi: 10.31584/jhsmr.2023969 www.jhsmr.org

Introduction

Around the world, more than 18 million people are diagnosed with cancer and 9.6 million people die from cancer every year¹. In 2020, statistics revealed that out of 100,000 people, 159 people were newly diagnosed with cancer, and 104 people died from cancer in Vietnam².

Each cancer patient spends most of their time in the hospital being either diagnosed, treated, or cared for before being discharged³. Today, along with the increasing number of people with cancer, there is a significant change in the treatment and caring process, as most patients are discharged very quickly before fully recovering⁴. Therefore, many patients struggle with some side effects of therapy, physical complications and psychological sequelae; such as anxiety, depression, fear of recurrence, impaired body image and social challenges; such as difficulty maintaining social relationships as well as daily impairment after being discharged from hospital^{5,6}. Unfortunately, most studies have found that many people with cancer do not receive enough support or care to cope with these challenges 3,5,7. This has led to a growing interest in cancer care, and a focus on the concept of unmet supportive care needs.

An unmet supportive care needs assessment to explore the gap between services assessed as necessary to deal with health problems and the services people with cancer receive. Thereby, helping to improve supportive care services for out-patients as well as their overall quality of life after hospital discharge⁷. Currently, primary healthcare services in Vietnam have not been developed synchronously; thus, the relationship between medical staff and outpatients is almost completely terminated as soon as the patient is discharged from the hospital⁸. While cancer is considered a chronic disease⁹, which affects all aspects of a patient's health and life from onset to death, assessing the home care needs of cancer patients after hospital discharge is considered an important factor in improving the quality of care and prolonging the patient's survival time¹⁰.

Edib at al. pointed out that cancer patients being discharged on the first time often have bad experiences, as most of them are living with fears, confusion, and pressure due to a lack of experience, knowledge, and skills to handle problems arising from the disease. This leads to a much higher level of unmet supportive care needs of cancer patients who are discharged for the first time compared to subsequent discharges¹¹. In Vietnam, a study by Lien et al. assessed the care needs of cancer patients, with results on 76.3% of participants requiring palliative care at home¹². Besides this study, no other comprehensively Vietnamese research was found that assessed the post-discharge supportive care needs of cancer patients, despite the number of cancer patients being treated at home has increased in recent years².

For clinical nursing interventions, identifying and managing the unmet supportive care needs of cancer patients after discharge is a pivotal component of home health care services to minimize the risk of physical impairment as well as reducing the patient's discomfort and anxiety when they return to "normal life" 13. Specifically, physical, psychological, financial, and social problems have caused significant impacts on cancer patients. The unmet supportive care needs of cancer patients after hospital discharge account for the highest proportion compared to other stages of the treatment process 14-16. Thus, providing home health care services from nurses can help patients regain emotional stability, social adaptability, and physical strength; and most patients expect to receive support from nurses even after treatment is over and they have retunred back to normal life¹⁷. However, up to now, the awareness of the unmet supportive care needs of cancer patients after discharge from the hospital is still a concept that has not been properly understood, nor received enough attention to by many nurses, to be included in the context of care and support for patients before, during and after discharge from the hospital.

Assessing the unmet supportive care needs of cancer survival patients has been a matter of interest in the world. Although, a lot of research has been conducted in this area, the studies conducted on any group of cancer patients being discharged for the first time are still very limited. Therefore, this study was conducted to identify and assess the unmet supportive care needs of patients with cancer after a first-time hospital discharge.

Material and Methods

We conducted a cross-sectional study to assess 163 people with cancer, who had been treated at the Da Nang Oncology Hospital, Vietnam after their first time of hospital discharge. The study was carried out from January to October 2022.

Eligibility criteria

In total, 163 participants were selected. Those that were eligible consisted of: being over 18 years of age, being diagnosed with cancer, without considering their cancer type; being treated for the first time at Da Nang Oncology Hospital, with any form of treatment; being discharged after first-time treatment, and then subsequently being hospitalized again within one month at Da Nang Oncology Hospital, for medical re-examination.

We excluded those patients who were diagnosed with any type of mood disorder before cancer, patients who were severely ill, or were unconscious and unable to communicate during the time in which the researchers recruited participants.

Study sampling

All cancer patients meeting the inclusion criteria, were approached, informed about and invited to participate by a researcher; from June 2022 to July 2022. During the 2 months of data collection, 163 cancer patients were invited to participate via a convenient sampling method.

Specifically, for patients who meet the sampling criteria, after the patient completed the admission procedure, the research team approached the patients, provided information about the research objective, and invited the patient to participate into the research. All patients signed a consent form to participate in the study, then, the research team started the process of interviewing questions, according to the study questionnaire.

Study tools

Unmet supportive care needs of people with cancer were assessed based on a Cancer Survivors' Unmet Needs (CaSUN) questionnaire, developed by Hodgkinson et al. in 2007, with Cronbach's alpha score of 0.96.4 The original questionnaire contained 35 needs, divided into four domains. The first issue is Information and Medical care, this group includes 9 questions of descriptions for the patient's needs concerning current medical condition information and their experience when receiving medical home health care. Secondly, the Quality-of-life issue includes 7 questions to assess the impact of cancer on various areas of a patient's life; including health and daily activities. The Emotions and relationships issue is assessed by 10 questions, it describes a patient's emotional response to being considered a cancer survivor and the impact of cancer on his/her relationships while being treated at home. Cancer survivors find that their cancer experience has changed the way they see life and the future; therefore, the last 7 questions are used to evaluate Life perspective issues. However, with the agreement of the original author, and to ensure the CaSUN's application in the context of Vietnam, a few, minor adjustments were made; such as wording changes and the elimination of two quality-of-life domain items (one for need of help accessing legal services and another for the need of more accessible hospital parking). The average number of needs in a domain was presented because different domains contain different quantities of items. Domains are evaluated by summing up all their items. Using the Likert-5 point scale to evaluate; with: "0 - No need", "1 - Need met", "2 - Low unmet need", "3 - Moderate unmet need", and "4 - High unmet need." This was used to rank and categorize all items and domains. The total scores were the sum of all the needed items; thereby, higher scores indicated more needs (range 0-33)¹⁸.

Before being put into use, the Vietnamese version of the scale was tested for reliability by a small study on 30 samples of cancer patients admitted for the first time for treatment at Da Nang Oncology Hospital. Specifically, the Cronbach alpha score for the whole set of questions was 0.97; for each sub-scale, the need for information and medical care was 0.95; quality of life was 0.89; for emotional and relationship needs was 0.92, and for life, perception it was 0.90.

Research ethics

The study was conducted after it was approved by the Medical Ethics Committee of Da Nang University of Medicine and Pharmacy, and received approval to allow access to patients at the Departments of Da Nang Oncology Hospital.

The significance and purpose of the study were clearly explained, and then the patients who agreed to participate in this study voluntarily signed the consent form. In addition, patients had the right to refuse or stop participating in the study at any time. The research process did not in any way interfere with treatment and care. Patients were fully respected and their personal information was kept confidential.

Data analysis

SPSS 25.0 software was used to analyze data, using descriptive statistics to analyze sociodemographics, the frequency of unmet supportive care needs overall, for each item, and in each domain.

Results

Participants' characteristics

The mean age of the participants was 54.97±15, 58.3% were male and up to 84.0% were married. There were 48.5% and 28.8% of participants whose educational level was secondary or upper, respectively. The majority of the participants were diagnosed with colorectal (19,6%) and stage II cancer (48.5%). The level of social support of participants was quite high (35.06±9.5). The score of depression among patients was at a moderate level (11.4±2.27). Further demographic and psychosocial characteristics are shown in Table 1.

Table 1 Characteristics of participants

n, %
54.97 (15.0)
95 (58.3)
68 (41.7)
37 (22.7)
79 (48.5)
47 (28.8)
137 (84.0)
17 (10.4)
4 (2.5)
5 (3.1)
82 (50.3)
47 (28.8)
34 (20.9)
1 (0.6)
3 (1.8)
8 (4.9)
10 (6.1)
22 (13.5)
32 (19.6)
87 (53.4)
24 (14.7)
79 (48.5)
27 (16.6)
33 (20.2)

Prevalence of unmet supportive care needs of cancer patients at the first-time discharge

In the first-time discharge, only 15.6% participants answered that their supportive care needs were met, 15.9% had no needs, while 23.7% showed that their unmet supportive care need was of a high level. The participants, whose Information and medical care need and Quality of life need was at high level, accounted for the largest number; at 27.4% and 27.1%, respectively.

Top ten unmet supportive care needs of cancer patients at first-time discharge

Table 3 summarizes the 10 most often stated unmet needs. The highest frequency cited as an unmet need was ongoing medical staff available to assist with services whenever they needed (81.0%). However, six of the top ten unmet needs were in the CaSUN's Information needs & Medical care issue Domain, including information wherein medical staff talked to each other about their care (79.8%), available local healthcare services (79.1%), and the very best medical care (78.5%).

Table 2 Unmet supportive care needs of cancer patients at first-time discharge

Domains	No need	Need met	Level of unmet supportive care need		
			Low	Moderate	High
Total needs	15.9	15.6	13.7	31.1	23.7
Information and medical care	7.2	17.7	14.5	33.2	27.4
Quality of life	20.9	15.5	11.8	24.7	27.1
Emotions and relationships	20.6	15.2	12.7	31.7	19.8
Life perspective	15.5	13.7	16.0	33.6	21.2

Table 3 Top ten unmet supportive care needs of cancer patients at first-time discharge

No.	The CaSUN questions	Domains	% Reporting	%	%
	In the last month, I		unmet need	Need meet	No need
1	need ongoing medical staff, to whom I can go to find out about services whenever I need	E	81.0	12.3	6.7
2	need to know that all my doctors talk to each other to coordinate my care	1	79.8	15.3	4.9
3	need local health care services that are available when I require them	1	79.1	12.9	8.0
4	need to feel like I am managing my health together with the medical team	1	79.1	13.5	7.4
5	need the very best medical care	1	78.5	17.8	3.7
6	need help to try to make decisions about my life in the context of uncertainty	L	77.3	13.5	9.2
7	need help to make my life count	L	77.3	12.9	9.8
8	need any complaints regarding my care to be properly addressed	1	76.1	17.2	6.7
9	need help to find out about financial support and/or government benefits to which I am entitled	Q	75.5	11.0	13.5
10	need information provided in a way that I can understand	1	75.5	18.4	6.1

E=emotional & relationship issue, I=information needs & medical care issue, L=life perspective, Q=quality of life

Discussion

Unmet supportive care needs reflect the level of services or support that an individual perceives as necessary to achieve the best quality of life at the time of illness as well as the multidimensional impact of cancer on patients when discharged home¹⁹.

The results of this study show that the percentage of cancer patients that expressed at least some unmet supportive care needs after the first-time hospital discharge is high (68.5%). This percentage is higher than in the study by Santin, while this difference can be explained by all of the cancer patients in Santin's study having been discharged from the hospital within 2-15 years. So, the unmet supportive care needs were almost resolved or supported for a long time beforehand18. This result is consistent with Edib's comment, in that the unmet supportive care needs of cancer patients being discharged for the first time are higher than that of patients with cancer in subsequent hospital discharges11. This could be explained after a firsttime hospital discharge, while some people with cancer live well most of the others may struggle with a variety of physical, psychological, emotional and financial problems. These can prevent them from settling into normal life before being diagnosed with cancer²⁰. At a severe level, some cancer patients have to be re-admitted to the hospital for treatment immediately after leaving the treatment place, and show a very high degree of unmet needs for their first-time post-discharge³.

Similar to the studies on the unmet supportive care needs of cancer patients after discharge, this study also shows the highest sub-scale of unmet supportive care needs in providing comprehensive sources of information for patients (75.1%)^{5,16}. The importance of information and communication after discharged has been emphasized in the study of Harrison, while this study once again reaffirmed this need¹. Based on the Supportive Care Framework, serves as a guiding tool for cancer care and management

professionals to understand what kind of help a patient may need, and builds a plan for service delivery²¹.

In addition, the results of the top ten unmet supportive care needs of cancer patients at first hospital discharge showed that 6 out of 10 of the needs were related to the health system and the information domain. Most cancer patients after their first treatment with cancer want to be informed about what healthcare workers can do to help them stay healthy. Additionally, how to connect to medical staff, even after discharge, so they and their families can seek help when needed. On the other hand, information resources and direct supportive care services provided to patients often tend to be interrupted, which further increases their need for access to information and care²². Regarding providing information on self-care solutions that can empower patients to look after their health efficiently and conveniently, in collaboration with health care by community nurses as needed as well as some strategies for cancer patients and their family members after discharge, mobile communication is becoming a trend to help maintain their quality of life and reduce anxiety23. However, at present, post-discharge information and support activities in Vietnam have not been implemented synchronously and effectively, which explains why the demand for information and supportive care in our study participants is at a higher level than that of other needs sub-scales. Although, the health system as well as the medical staff themselves always tried to provide the most suitable and available care for patients after discharge, the research results reported that the health system and information needs of those participants still needs to be improved. Better coordination among health care professionals was also key; especially as patients' transition from acute care to rehabilitation and primary/community care providers²⁴.

Similar to Kotronoulas article, the emotional aspect of cancers placed at the top of the ten-list of unmet supportive care needs that was tabulated in Table 3.

Specifically most of the patients indicated that: "they need ongoing medical staff to whom they can go to find out about services whenever they are needed,' after the patient left the hospital²⁵. Discharge from the hospital was a very different process, because the sudden and/or forewarned end of medical care could leave people with cancer feeling anxious, stressed and abandoned. On the other hand, in Vietnam, the direct supportive care services provided to patients often tended to be terminated or interrupted, which further increased their need to access doctors or nurses. This studies results were in full agreement with previous studies by Lisy, and Lithner; wherein, both authors stated that an individualized discharge plan would not only increase attendance and satisfaction, but also be more effective in reducing the length of stay and number of hospital admissions^{22,26}. In recent years, two authors: Ohlsson-Nevo (2016) and Simard (2013), have experimented with a few educational interventions for cancer patients to enhance emotional support for their cancers, but these supportive activities have not yet shown a clear effect^{27,28}.

This study has some limitations. First, this study only collected data at the first time of the patient's discharge, so it was nearly impossible to compare the changes in unmet supportive care needs for a longer time. Therefore, further studies should include an additional assessment point when the patient has been discharged from the hospital for the second or following times, to better monitor the above changes and impacts. Second, regarding the time of data collection, in Vietnam, most cancer patients are discharged quite quickly and have almost no connection with medical staff after discharge. Additionally, the limitation of the community health care network makes data collection by phone, online questionnaire or mailing was considered as not feasible. The patient's connection problems forced us to collect data on the first day when the patient come back to the hospital after one month discharge, so when asking the patient to recall and give answers about their health status and unmet supportive care needs at home may have been influenced by several factors related to the patient's physical and psychological well-being.

Even while having these limits, this study could not negate that identified unmet supportive care needs of cancer patients after discharge from the hospital plays an important role in the community healthcare system. From the nursing community pespective, the study results provide nurses with knowledge regarding the unmet supportive care needs of cancer patients after first-time hospital discharge, and reassess the effectiveness of care services provided to cancer patients. Therefore, it can inform service planning/redesign of the primary care programs at the time of patient discharge. Additionally, it could be required knowledge for nursing education programs towards an appropriate body of knowledge and practice in post-discharge supportive care needs of cancer patient management for the primary care field.

Conclusion

Most cancer patients expressed at least one unmet supportive care need after a first-time hospital discharge. Information and medical care, Life perspective, Emotions and relationships domains were the third unmet supportive care needs, with the highest proportion in order. The unmet supportive care needs within the Emotions and relationships domain that stood in the first place, among the top ten of the most prominent unmet needs, was for finding ongoing medical staff services whenever a patient required them.

If nurses can provide effective home care services, it helps to minimize unmet supportive care needs of the patient; thereby, helping to improve the quality of life and contribute to prolonging the life of the patient.

Conflict of interest

The authors have no conflicts of interest associated with the material presented in this paper.

References

- International agency for research of cancer: Cancer today, estimated number of prevalent cases (5-years) worldwide, both sexes, all ages [homepage on Internet]. 2020 [cited 2023 Feb 25]; Available from: https://gco.iarc.fr/today/data/factsheets/ populations/704-viet-nam-fact-sheets.pdf
- International agency for research of cancer: Cancer in Vietnam [homepage on Internet]; 2020 [cited 2023 Feb 25]; Available from: https://gco.iarc.fr/today/data/factsheets/ populations/704-viet-nam-fact-sheets.pdf
- Rooeintan M, Khademi M, Toulabi T, Nabavi FH, Gorji M. Explaining postdischarge care needs of cancer patients: a qualitative study. Indian J Palliat Care 2019;25:110–8.
- 4. Hodgkinson K, Butow P, Hunt GE, Pendlebury S, Hobbs KM, Lo SK, et al. The development and evaluation of a measure to assess cancer survivors' unmet supportive care needs: the CaSUN (Cancer Survivors' Unmet Needs measure). Psychooncology 2007;16:796–804.
- Abdollahzadeh F, Moradi N, Pakpour V, Rahmani A, Zamanzadeh V, Mohammadpoorasi A, et al. Un-met supportive care needs of Iranian breast cancer patients. Asian Pac J Cancer Prev 2014;15:3933–8.
- Schmid-Büchi S, Halfens RJG, Müller M, Dassen T, van den Borne B. Factors associated with supportive care needs of patients under treatment for breast cancer. Eur J Oncol Nurs 2013;17:22–9.
- Solan LG, Beck AF, Brunswick SA, Sauers HS, Wade-Murphy S, Simmons JM, et al. The family perspective on hospital to home transitions: a qualitative study. Pediatrics 2015;136:e1539-49. doi: 10.1542/peds.2015-2098.
- Jenkins C, Ho HT, Nghiem HLP, Prue G, Lohfeld L, Donnelly M, et al. A qualitative study on the unmet needs of cancer carers in Vietnam. Research Square [serial on the Internet].
 April [cited 2021 Jul 3]; Available from: https://assets.researchsquare.com/files/rs-18831/v1/f78d21fa-c640-4055-bfea-0ada4bf20dd8.pdf?c=1631832641
- American cancer society: Managing Cancer as a Chronic Illness [homepage on Internet]; 2019 [cited 2023 Feb 25].
 Available from: https://www.cancer.org/about-us/policies/ content-usage.html
- 10. Okediji PT, Salako O, Fatiregun OO. Pattern and predictors

- of unmet supportive care needs in cancer patients. Cureus. 2017;9:e1234. doi: 10.7759/cureus.1234
- 11. Edib Z, Kumarasamy V, Abdullah BN, Rizal AM, Dubai SARA. Most prevalent unmet supportive care needs and quality of life of breast cancer patients in a tertiary hospital in Malaysia. Health Qual Life Outcomes 2016;14:1–10. doi: 10.1186/s12955– 016-0428-4.
- 12. Lien TT, Tung LT. Current palliative care needs of cancer patient being treated in the cancer center-thai binh generral hospital in 2019. Nam Dinh J of Nurs Sci [serial on the Internet]. 2019 Oct [cited 2023 Apr 23]. Available from: https://jns.vn/index. php/journal/article/view/180/176
- Corcoran S, Dunne M, McCabe MS. The role of advanced practice nurses in cancer survivorship care. Semin Oncol Nurs 2015;31:338–47.
- Bonevski B, Sanson-Fisher R, Girgis A, Burton L, Cook P, Boyes A. Evaluation of an instrument to assess the needs of patients with cancer. Cancer 2000;88:217–25.
- 15. Boyes A, Girgis A, Lecathelinais C. Brief assessment of adult cancer patients' perceived needs: development and validation of the 34-item Supportive Care Needs Survey (SCNS-SF34). J Eval Clin Pract 2009;15:602-6. doi: 10.1111/j.1365-2753.2008.01057.x
- 16. Cheng KKF, Darshini Devi R, Wong WH, Koh C. Perceived symptoms, and the supportive care needs of breast cancer survivors six months to five years post-treatment period. Eur J Oncol Nurs 2014;18:3–9. doi: 10.1016/j.ejon.2013.10.005
- 17. Burris JL, Armeson K, Sterba KR. A closer look at unmet needs at the end of primary treatment for breast cancer: a longitudinal pilot study. Behav Med 2015;41:69–76.
- Santin O, Murray L, Prue G, Gavin A, Gormley G, Donnelly M. Self-reported psychosocial needs and health-related quality of life of colorectal cancer survivors. Eur J Oncol Nurs 2015 19:336–42.
- Carey M, Lambert S, Smits R, Paul C, Sanson-Fisher R, Clinton-McHarg T, et al. The unfulfilled promise: a systematic review of interventions to reduce the unmet supportive care needs of cancer patients. Support Care Cancer 2012;20:207–19. doi: 10.1007/s00520-011-1327-1
- Harrison JD, Young JM, Auld S, Masya L, Solomon MJ, Butow
 PN. Quantifying postdischarge unmet supportive care needs

- of people with colorectal cancer: a clinical audit. Colorectal Dis 2011;13:1400–6.
- Konstantinidis TI, Spinthouri M, Ramoutsaki A, Marnelou A, Kritsotakis G, Govina O. Assessment of unmet supportive care needs in haematological cancer survivors. Asian Pac J Cancer Prev 2019;20:1487–95.
- Lithner M, Klefsgard R, Johansson J, Andersson E. The significance of information after discharge for colorectal cancer surgery-a qualitative study. BMC Nurs 2015;14:36. doi: 10.1186/ s12912-015-0086-6
- 23. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. Acta Psychiatr Scand 1983;67:361–70.
- Hoai TYN. Post-discharge unmet supportive care needs of breast cancer patients: a systematic review. J Health Sci Med Res 2022;41:1–14.
- 25. Kotronoulas G, Papadopoulou C, Burns-Cunningham K,

- Simpson M, Maguire R. A systematic review of the supportive care needs of people living with and beyond cancer of the colon and/or rectum. Eur J Oncol Nurs 2017;29:60–70.
- Lisy K, Langdon L, Piper A, Jefford M. Identifying the most prevalent unmet needs of cancer survivors in Australia: A systematic review. Asia Pac J Clin Oncol 2019;15:e68–78. doi: 10.1111/ajco.13176
- Ohlsson-Nevo E, Andershed B, Nilsson U. Psycho-educational intervention on mood in patients suffering from colorectal and anal cancer: A randomized controlled trial. Nord J Nurs Res 2017;37:135–42. doi: 10.1177/2057158516679790
- Simard S, Thewes B, Humphris G, Dixon M, Hayden C, Mireskandari S, et al. Fear of cancer recurrence in adult cancer survivors: a systematic review of quantitative studies. J Cancer Surviv 2013;7:300–22. doi: 10.1007/s11764-013-0272-z