

Explaining Postdischarge Care Needs of Cancer Patients: A Qualitative Study

Mansooreh Rooeintan, Mojgan Khademi^{1,2}, Tahereh Toulabi^{1,2}, Fatemeh Heshmati Nabavi³, Mojtaba Gorji⁴

Student Research Committee, Lorestan University of Medical Sciences, Khorramabad, ¹Dr. Social Determinants of Health Research Center, Lorestan University of Medical Sciences, Khorramabad, ²Dr. School of Nursing and Midwifery, Lorestan University of Medical Sciences, Khorramabad, ³Dr. Evidence Based Care Research Center, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, ⁴Dr. Medical Oncologist Hematologist, Lorestan, Khorramabad, Iran

Abstract

Aim: This study aimed to explain the postdischarge care needs of cancer patients. **Materials and Methods:** In this qualitative content analysis, nine cancer patients presenting to the department of chemotherapy or an oncologist's office, four of patients' accompaniments, four nurses, and two oncologists were selected purposefully until data saturation. They underwent deep individual interviews. Data were collected from October 2016 to June 2017. Data were analyzed using Zhang's method with an inductive approach to extract the themes. **Results:** Data analysis led to the formation of two main categories of healing and relaxation needs (with subcategories of "respect and friendship," "trust and confidence," "relief," "patience and tolerance," "empowerment," and "protection from tension and excessive pressure") and monitoring and balancing conditions (with subcategories of "care monitoring" and "protection"). **Conclusions:** Postdischarge needs are a set of needs for primary exposure to diagnosis, outpatient attendance at the hospital and treatment centers, access to the treatment team, family readiness, and care systems and community needs for acceptance and care of these patients. The discharge plan should be designed in accordance with the needs set out above, so that the patients can meet the needs of the acute and disease encounter phase and also can manage the emerging postdischarge needs, such as empowerment.

Keywords: Needs, neoplasms, patient care, patient discharge

INTRODUCTION

Cancer is one of the main causes of death in many countries. In 2012, 14.1 million people were infected with cancer and 8.2 million people died from cancer.^[1] Cancer in Iran is the third leading cause of death, and cancer mortality in Iran is expected to increase to 62,000 by 2020.^[2]

Early diagnosis and advanced treatments have led to an increase in the survival of these patients. In 2012, 13.7 million people with cancer survived in the United States.^[3] In Iran, the 5-year survival rate for cancer patients is 66% in males and 72% in females.^[4]

Despite its positive effects, increased chances of survival can lead to a variety of physical and psychological complications and changes in the quality of life in these patients.^[5] Today, in addition to increased survival, the treatment and care setting has also changed and patients mostly continue treatment in outpatient centers instead of the hospital;^[6] thus, patients

are discharged from the hospital before full recovery.^[7] Transferring from hospital to home is stressful for patients and their families, and if this transfer fails, it results in adverse outcomes such as rehospitalization, additional financial burden for the patients and their families, and the health care system.^[8] Furthermore, these patients do not have supportive care and safety services that they received at the hospital after being discharged, and they are distressed by the loss of hospital support. Therefore, postdischarge care is a key point in the care of these patients.^[9] One of the quality care measures of these patients is patient-centered care^[10] that is care based on the patients' needs.^[11] Therefore, providing postdischarge quality care to these patients depends on identifying their

Address for correspondence: Dr. Mojgan Khademi, Social Determinants of Health Research Center, Lorestan University of Medical Sciences, Khorramabad, Iran. E-mail: khademi_moj@yahoo.com

Access this article online

Quick Response Code:



Website:
www.jpalliativecare.com

DOI:
10.4103/IJPC.IJPC_164_18

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: 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.

postdischarge care needs. Evidence suggests that recognizing needs and planning based on them can reduce health-care costs and increase patient independence.^[12] Furthermore, failure to acknowledge postdischarge needs of patients leads to failure to provide them and the occurrence of numerous problems. Evidence suggests that some of these problems include increased anxiety, mental and physical health impairment, emotional problems, and reduced ability to adapt in the patients.^[7]

Nurses play a key role in the continuity of care after treatment and in improving the quality of life of cancer survivors.^[13] Therefore, it is important for nurses to gain enough knowledge about the postdischarge needs of patients, especially in Iran, where there is no defined system for postdischarge care. This knowledge will enable the nurses, even in the absence of formal postdischarge care systems, to use the short-term admission of patients and provision of outpatient services to them for establishing close relations with the patients and their families and provide them with the necessary support for postdischarge care.

Many studies have been conducted to recognize the needs of these patients, but this domain requires producing more knowledge. Most studies have focused on one or more specific dimensions of needs, such as psychosocial needs,^[14] which collected valuable results to support patients, but lacked a comprehensive approach to the needs. Furthermore, some studies focused on the needs of patients at the time of knowing the diagnosis,^[15] and there are many uncertainties about the postdischarge needs of the patients. Moreover, most studies have been conducted with a quantitative approach which cannot explore the needs of patients in detail. Therefore, the present study was conducted to explain the postdischarge care needs of cancer patients.

MATERIALS AND METHODS

This qualitative research was carried out using qualitative content analysis method with a conventional approach because qualitative research has a holistic approach^[16] and can lead to a more comprehensive identification of the needs.

Sampling

Key participants were cancer patients discharged from hospitals who used hospital services to continue their outpatient treatment. Nonkey participants were patients' families, nurses, and physicians. The sampling continued purposefully until data saturation from 2016 to 2017.

The common inclusion criteria for all participants were a willingness to participate in the study, having a rich experience, age over 18 years, ability of verbal communication in Persian, no cognitive disorders, and stability of the emotional state. The inclusion criteria for the patients were a definitive diagnosis of cancer, patients' knowledge of their illness, and discharge from the hospital. The exclusion criteria were being a terminal patient and using palliative care services. The inclusion

criteria for family members were being the main caregiver as acknowledged by the patient or the participants themselves and awareness of the patient's diagnosis. The inclusion criteria for physicians were having one of the hematology, oncology, or radiotherapy specialties with at least 2 years of experience in the field. The inclusion criteria for nurses were working in one of the hematology, oncology, bone marrow transplantation, or chemotherapy departments with a minimum of 1 year of work experience in the field.

Data collection

This study began after obtaining the code of ethics (LUMS. REC. 1395. 159). After briefing the participants about the research objectives, they were provided with adequate explanation about the details of the research, the confidentiality of the data, and their freedom to leave the research whenever they wished. Interviews were conducted in the outpatient department where patients received their chemotherapy or an oncologist's office.

Data were collected using individual interviews for 30–60 min depending on the participants' tolerance. To start the interviews, this general question was asked: "What needs have you felt since your discharge from hospital?" During the interviews, the above question was rephrased for each type of participant. According to participants' responses, probing questions were also asked. Interviews continued until no new data were identified. Data were saturated with a total of 19 participants (nine patients, four accompaniments, two oncologists, and four nurses working in the oncology department). Two interviews were conducted with 10 people to make a total of 29 interviews. The interviews were recorded if participants agreed; otherwise, notes were taken during the interview. Twenty interviews were recorded and nine interviews were not. All audio files were saved in a proper place, and interviews were transcribed by the researcher. The parts that might have divulged participants' identity were removed from the text of the interviews.

Data analysis

Data analysis was performed by "Zhang" method.^[17] First, all the interviews and what has happened during the interviews were transcribed word for word for data preparation. Then, the theme of each part of the text was specified, and each theme was assigned a code. New data collection continued simultaneously with data coding. Then, categories were created through categorizing data, each of which had a single concept. To characterize the clarity and rigor of the categories, part of the text was coded and the rigor of the codes was checked. If the level of data rigor was low, the coding rule was revised. This continued until a sufficient code rigor was established. After ensuring the rigor of the coding scale, the whole text was coded and again the coding rigor of the whole text was checked. Then, the theme of the categories and the relationships among them were identified and patterns were discovered. Finally, the method and findings were described in the form of a final

report, and attempts were made to present the meaning of these descriptions in an appropriate way.

To increase the rigor of data, four criteria of credibility, dependability, confirmability, and transferability were considered.^[18] To increase the credibility, the researcher had sufficient collaboration and close interaction with the participants, and member check and peer check were performed. To increase the dependability, the analysis processes and results were described in detail as far as possible in order to provide a clear understanding for readers of how data were analyzed and what strengths and weaknesses they had. To increase the transferability of the findings, the maximum variation sampling method was used (age, sex, and occupation).^[19]

RESULTS

The demographic information of the participants is presented in Table 1.

The categories and subcategories derived from data analysis and semantic sentences related to each of them are presented in Table 2.

Healing and relaxation

One of the needs of cancer patients after the discharge was “healing and relaxation” that had the subcategories of “respect and friendship,” “trust and confidence,” “relief,” “patience and tolerance,” “empowerment,” and “protection from tension and excessive pressure.”

Respect and friendship

One of the important needs of patients was “respect and friendship.” Patients referred to some need indicators while expressing their experiences, such as the need for being treated with love, warm greetings, and politeness.

Participant No. 12 (Patient): “You surely need loving behaviors of others, everyone needs to be treated politely or welcomed and greeted warmly.”

Trust and confidence

“Trust and confidence” was another need of the patients. They referred to some indicators such as the need for building trust between the patient and the physician. By experience, trust is an important element in patient–physician relationship, as well as in treatment success. It is a need that exists in patients even after discharge.

Participant No. 7 (Patient): “... patients need to trust their physicians, and I reached this trust, too.”

Another indicator of “trust and confidence” was the patients’ need for a sense of confidence in their survival, cancer treatability, and the reversibility of treatment-induced apparent changes. That is because most patients are demoralized after discharge, with the notion that by having cancer they are going to die or they are isolated with the onset of alopecia following chemotherapy or breast removal following mastectomy. However, when others reassure them that cancer can be

controlled and its complications will be alleviated, they regain their lost spirit. That is why patients need to be assured that cancer is treatable and that treatment-induced apparent changes will be reversed.

Participant No. 9 (Patient): “After being discharged. I was very upset and cried a lot. Because I thought I was dying.”

Participant No. 7 (Patient): “... After surgery, I saw that I don’t have one of my breasts. It was very bad, and I got really upset and depressed. When I had chemotherapy and I lost my hair I had a terrible time, too, and I was isolated for a while. Until the doctor told me not to worry and that he’d restore my breast with prosthesis such that I’d go beg him to do the same for the other healthy one, too. The doctor ... also told me that my hair would grow again. That’s how I regained my morale.”

Relief

Exposure to cancer was the cause of overwhelming pain for most patients. Pain relief and reducing other physiological troubles were important concerns for most participants.

Participant No. 9 (Patient): “Previously, the chemotherapy drugs were strong, and there were many complications. For example, when I got home, I had severe nausea and body pain, and I would have liked them to relieve sooner.”

Patients’ suffering was not limited to physical problems. Distress caused by exposure to the disease has also made them severely in need of healing and relaxation.

Participant No. 9 (Patient): “Once I kicked out our relatives that have come to visit us and were weeping. I asked them to get out. I told them why they come and just cry. The patient needs peace.”

Patience and tolerance

Every human makes a mistake. “Patience and tolerance” means to ignore mistakes and other inappropriate reactions and maintain a caring relationship or proper cooperation with the person. This was one of the needs of patients that were expressed by the patients and nurses.

Participant No. 14 (Nurse): “... These patients need more cooperation. Sometimes they need some favors. For example, what’s wrong if they can’t attend some exams? They have to be given another chance; not to be expelled from the university.”

This nurse talked about the need of these patients for patience from nurses and the continuation of the care relationship despite improper responses from them or their accompaniments:

“Just now, one of the patients’ accompaniments insulted the nurses. The nurses got angry and didn’t visit their patient, and I talked to nurses and told them the accompaniments were angry because of their patient. Take it easy. We have to be patient and do our job. Then the nurses forgave them and started to treat the patient.”

Empowerment

“Empowerment” was another need of the patients, which meant the need to increase the ability to face the situation and

Table 1: Demographic information of the participants

		Participant									
		1	2	3	4	5	6	7	8	9	10
Type of participant (patient, patient's family, nurse, physician)		Patient	Patient's sister	Patient	Patient's mother	Patient	Patient's mother	Patient	Patient's spouse	Patient	Patient
Sex		Female	Female	Female	Female	Female	Female	Female	Male	Female	Male
Age (year)		62	38	23	48	19	45	47	52	46	25
Marital status		Married	Single	Single	Married	Single	Married	Married	Married	Married	Single
Education		Junior college	High school diploma	Bachelor's degree	Illiterate	Bachelor student	High school diploma	Bachelor's degree	High school diploma	Primary school	High school diploma
Occupation		Retired	Retired	Unemployed	Housewife	Student	Housewife	Housewife	Retired	Housewife	Unemployed
Type of cancer		Ovarian	Ovarian	Breast	Breast	Lymphoma	Lymphoma	Breast	Breast	Breast	Spinal tumor
Place of residence (urban or rural)		Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Rural
The cancer duration for the patients; or work experience in oncology for the nurses and physicians		5 months	0	6 months	0	1 year	0	2 years	0	8 months	6 months
Number of chemotherapy courses		5	0	5	0	18	0	10	0	11	5
Number of radiotherapy courses		0	0	0	0	0	0	30	0	0	0
The type and number of surgeries underwent by the patient		1 (ovarian)	0	0	0	1 (throat)	0	1 (mastectomy)	0	1 (mastectomy)	1 (spinal cord tumor)
Number of children		4	0	0	3	0	3	2	2	2	0
		Participant									
		11	12	13	14	15	16	17	18	19	
Type of participant (patient, patient's family, nurse, physician)		Patient	Patient	Patient	Nurse	Physician	Physician	Nurse	Nurse	Physician	Nurse
Sex		Female	Male	Male	Female	Male	Male	Male	Female	Male	Female
Age (year)		60	55	38	43	50	28	25	25	40	26
Marital status		Married	Married	Married	Married	Married	Married	Single	Single	Married	Single
Education		High school diploma	Primary school	Primary school	Bachelor's degree	Specialist	Bachelor's degree	Bachelor's degree	Bachelor's degree	Specialist	Bachelor's degree
Occupation		Retired	Tailor	Farmer	Nurse	Physician	Nurse	Nurse	Nurse	Physician	Nurse
Type of cancer		Breast	Prostate	Colon	0	0	0	0	0	0	0
Place of residence (urban or rural)		Urban	Urban	Rural	Urban	Urban	Urban	Urban	Urban	Urban	Urban
The cancer duration for the patients; or work experience in oncology for the nurses and physicians		1.5 years	4.5 years	1 year	2.5 years	6 years	1 year	1 year	1 year	5 years	36 months of work experience
Number of chemotherapy courses		16	24	3	0	0	0	0	0	0	0
Number of radiotherapy courses		36	0	0	0	0	0	0	0	0	0
The type and number of surgeries underwent by the patient		1 (mastectomy)	0	1 (colon)	0	0	0	0	0	0	0
Number of children		3	2	1	2	2	0	0	0	0	0

Table 2: Categories and subcategories related to the postdischarge care needs of cancer patients

Main categories	Subcategories
Healing and relaxation	Respect and friendship
	Trust and confidence
	Relief
	Patience and tolerance
	Empowerment
	The use of emotional and internal powers
	Awareness through education and guidance
	Financial support
Monitoring and balancing conditions	Protection from tension and excessive pressure
	Care monitoring
	Protection

had three subcategories of “the use of emotional and internal powers,” “education and guidance awareness,” and “financial support.”

The use of emotional and internal powers

One of the patients’ needs was “the use of emotional and internal powers” that was expressed by the nurses and patients’ family. The participants referred to some indicators such as the need for the healing power of the family. In fact, patients’ need for family’s accompaniment is not only during admission, but it also has a significant role in maintaining their morale after discharge.

Participant 17 (Nurse) said about the postdischarge needs of patients: “Most of our patients need their family’s accompaniment. When they see they’re not alone, they’ll relax.”

Among indicators of “the use of emotional and internal powers” was patients’ need to be encouraged to increase patience and tolerance, fight for survival, continue the treatment, and use their talents. In fact, encouragement, as an internal power, can increase the patient’s ability to tolerate the condition.

Participant No. 9 (Patient): “Patients need encouragement. For example, I encouraged myself and told myself that I should be treated and tolerate the side effects of chemotherapy drugs and increase my tolerance to get well. These things raised my morale.”

Participant No. 9 (Patient’s mother): “I wish the patients were encouraged to use their talents. For example, my daughter is an artist. Her paintings are great. This could raise her morale.”

Awareness through education and guidance

Getting adequate and valid information about the nature of the disease, the strategies for treating the disease, advantages and disadvantages of each strategy, and how to control the physiological disorders caused by the treatment are other postdischarge needs of the patients, which were indicated by patients, nurses, and physicians. According to the participants’ experiences, such information had a crucial role in reducing the anxiety and distress of the patients and have led to their treatment adherence.

Participant No. 1 (Patient): “Before chemotherapy, the doctor told me that it has some complications. He told me to have liquids to make the medicines’ poison leave my body faster. The doctor told me these complications are temporary and everyone experiences them. Realizing that everyone experiences these complications made me calm and made the complications more tolerable.”

Participant No. 16 (Nurse): “If the patients don’t know about their treatment, its complications and how to control them, after the treatment they’ll come and say they’ve got worse. What treatment is this!? They may stop their treatment. When they become familiar with these complications and how to control them in advance, they won’t say they’ve got worse. Because they know the reason for those complications and they’ll continue their treatment more consistently.”

Participant No. 3 (Patient): “I learned more about cancer and its treatments by reading a booklet that the hospital gave me, and it was very good that I was introduced to the disease ... It made me feel very good and I became much more hopeful and even I want to study to get my master’s.”

Some participants also stated that the patients’ spouses also need to be educated and informed about the above-mentioned points, as well as about the time, the frequency and conditions for having sexual relations with the patient, because meeting this need of the spouses will make them have a better relationship with the patient, and will be effective in improving patients’ mental state and power to face their conditions.

Participant No. 14 (Nurse): “I had a patient that told me her husband didn’t understand at all that she couldn’t sleep with him every week. She was constantly tired and bored because of the complications of the treatment. Her husband beat her for sex, and he told her that he wanted to marry another woman. I had another patient that called me and said her husband was going to marry another woman because he couldn’t have sex with her anymore. He said she had cancer and would transmit it to him by sex. These things ruin the patients psychologically. The spouses of these patients also need the education to know the nature of the disease ...”

Financial support

Most patients face financial problems after discharge due to various reasons such as the high cost of chemotherapy drugs, the lack of insurance coverage for all drugs and diagnostic tests, having low-income jobs or unemployment due to the disease, and they need “financial support” in order to meet this need and increase their power of confronting their condition.

Participant No. 1 (Patient): “One of our needs is the costs. For example, they give you a prescription to take your medications for chemotherapy, and you see that a single prescription costs 15 million Rials, and insurance only compensates a small portion of it. Well, this will make us face the need for financial support for our treatment.”

Participant No. 13 (Patient): “I haven’t worked for one year because of my disease. My treatment costs have put a lot of pressure on me ... If you don’t have a financial problem, your morale will be better and you’ll get well sooner.”

Protection from tension and excessive pressure

Exposure to cancer itself creates a lot of tension and pressure. Discharge from the hospital can aggravate these tensions and pressures on the patient and family by changing the location and process of care. Therefore, one of the basic needs of patients and their families is the control of situations that can aggravate these stresses. For example, access to an adequate number of oncologists on all days of the week, the possibility of performing chemotherapy even on official holidays, and a temporary residential place for patients from other cities and their accompaniments can prevent excessive stress on the patients and families.

Participant No. 2 (Patient’s sister): “One of our needs after discharge was that the doctor ... was in Khoram Abad the first three days of the week and we have only this doctor here. If we have a problem or question in the days that the doctor goes to Tehran, we don’t know what to do. We won’t have access to a doctor. It distresses us ... Another need is that chemotherapy isn’t performed on official holidays and if the next appointment for chemotherapy is a holiday, it’ll be delayed. Because chemotherapy isn’t done on that day and you have to wait a week before the doctor comes back here and gives a new date, and this makes me feel very stressed if the date that the doctor gives me is a holiday.”

Participant No. 8 (Patient’s spouse): “There is no place here that the patients or their accompaniments that come from another city can stay. This stresses the patients and their accompaniments ...”

Another issue that can prevent an excessive pressure on the patients and families mentioned by them is the need for planning to shorten the process of procuring the chemotherapy medications, allocating enough pharmacies providing these medications, establishing a hospital equipped for these patients, and establishing well-equipped health centers in the villages with skilled and expert personnel.

Participant No. 13 (Patient): “Our village doesn’t have a health center and the nearest health center is 20 km away from our village. Usually, this health center doesn’t have all the necessary drugs and if something happens to us, we have to go to the city and this is very stressful for us. We need to have a health center in our village ... There is only one state pharmacy here that has our drugs. So the pharmacy is overcrowded and we have to wait 3-4 h in line or even more. This waste of time is annoying ... There must be more pharmacies here ... To get our drugs from this pharmacy, we have to do a lot of paperwork and get a thousand letters and signatures so that the pharmacy gives us our drugs. Insurance must confirm it. Here must confirm it. There must confirm it. These paper works annoy us. The process of getting the drugs should be shorter.”

Participant No. 10 (Patient): “I took my cell making Ampoules [GCSF Amp] to the health center to have it injected. They didn’t. They thought its illegal narcotics. Because they didn’t know what it was for? I had to go to the city to get it injected. The staff of this clinic should know about our drugs so that we don’t have to go to the city for an injection.”

Participant No. 8 (Patient’s spouse): “Arak has a large and well-equipped hospital for cancer patients, but what about here? For example, we have to go to other cities for a nuclear scan or radiation therapy ... Well; it annoys us and puts a lot of pressure on us. Here, too, there is a need for a well-equipped hospital like Arak for cancer patients.”

Monitoring and balancing conditions

“Monitoring and balancing conditions” is one of the other needs of patients with the subcategories of “care monitoring” and “protection.”

Care monitoring

One of the patients’ needs expressed was “care monitoring,” which meant that there was a need for monitoring the performance of the treatment personnel in providing patient care in order to provide an appropriate level of care to the patient and identify and remove relevant deficiencies.

Participant No. 7 (Patient): “My doctor delayed my treatment for 6 months. Why? Because there is no one to supervise. We need the doctors to be supervised.”

Protection

“Protection” is another need of patients, which means protecting the patients against any factor or behavior that threatens them. This need has many dimensions, such as the need to protect patients’ properties and their dignity and health.

Participant No. 11 (Patient): “Most chemotherapy personnel mistreat us. For example, once I went to see the doctor to write the consumption order of my chemotherapy drugs on them. They said the doctor was not there and has gone to a class. I asked why that doctor was never there? ... So they hold a grudge against me. We need someone to defend us and our rights in these situations.”

Participant No. 13 (Patient): “The personnel of the chemotherapy department are very careless. For example, the doctor told them to give me an appointment for Monday, but they had forgotten it ... When I came for chemotherapy on that day, they told me I didn’t have an appointment. In sum, you spend a lot and come here, but your chemotherapy is delayed and not done. We need these people to be more precise to defend our life and money.”

DISCUSSION

The postdischarge care needs of the patients were healing and relaxation (with subcategories of “respect and friendship,” “trust and confidence,” “relief,” “patience and tolerance,” “empowerment,” and “protection from tension and excessive pressure”) and monitoring and balancing the conditions (with subcategories of “care monitoring” and “protection”).

Receiving “respect and friendship” from all people around the patient, especially the family, relatives, and staff of care centers, is one of the important needs of the patients that relax them. Maslow in 1943 considered the need for love, belonging, and respect as the basic human needs,^[20] which become more important during illness. Evidence indicated that dignified behaviors of health-care providers were among the needs of cancer patients.^[21] Not only receiving respect from the health care providers but also intimacy, affinity, solidarity and the need for love, and family support^[22] have also been reported as the needs of cancer patients. Despite the identification of this important need, there are reports of mistreatment and humiliation of the patients after discharge by people around them.^[23] Meanwhile, respectful behavior is an effective factor in creating a sense of value in patients and enhances the empowerment process.^[21]

“Trust and confidence” is another need of cancer patients, which is important not only during admission but also after discharge.

Creating a sense of confidence in patients about survival and treatability was one of their major concerns. Evidence suggests that today, the overall mortality rate of cancer has declined dramatically,^[24] and progress in treatment has increased patients’ survival.^[3] However, cancer patients and their families are afraid of death or relapse and feel severe disappointment after being discharged from the hospital. This fear of relapse may persist for many years after discharge and cause discomfort.^[23] Eliminating this concern will raise the morale of the patients.

Another need was to ensure the patients that treatment-induced changes in appearance such as alopecia will be resolved or to ensure them that there was a possibility of breast reconstruction following mastectomy. According to evidence, alopecia has a great negative effect on the body image and self-confidence. However, hair growth starts at 2.6 ± 1.6 months after chemotherapy.^[25] Furthermore, losing breasts after mastectomy can cause severe mental disorders and result in anxiety and depression in the patient.^[26] Therefore, one of the basic needs of patients is to be ensured about the possibility of eliminating or compensating the complications. This reassurance has a significant role in maintaining the morale and reducing anxiety and depression in them.

When communicating with these patients and reassuring them, trust in therapists is a major need and an important factor in the success of and adherence to the treatment. Evidence suggests that trust has a fundamental role in the effective relationship between physician and patient.^[27] In a study, one of the concerns of patients was the trust in the physician’s expertise.^[28] Trust is an important factor in accepting treatment recommendations and adherence to them in the patients and it is effective in patients’ satisfaction with medical care.^[27]

The need for “relief” from physical and mental suffering was another need of the patients. According to the evidence, patients with cancer experience numerous pains and symptoms

due to diagnostic and therapeutic procedures, such as surgery, chemotherapy, and radiotherapy including lethargy, anorexia, and dry mouth, which lead to mental disturbances, such as anxiety and depression and changes in the quality of life.^[5] Effective management of these symptoms is one of the priorities of care for these patients.^[29] Several studies have highlighted the psychological conditions of these patients and their need for psychosocial support.^[30] Provision of emotional and social support by nurses will reduce the psychological pressures from the cancer diagnosis and treatment process.^[12]

Another postdischarge need of patients was “patience and tolerance.” The pain and suffering caused by the disease can affect the patients’ ability to perform tasks, or by reducing their patience cause communication problems such as bitterness and aggression from them. In such a situation, patients need patience, understanding, acceptance, and forgiveness from others. Evidence suggests that human mistakes are inevitable.^[31] Forgiveness is a response to interpersonal mistakes and can lead to health and happiness.^[32] The results of a study showed that forgiveness plays an important role in improving patient’s relationships with nurse and physician^[33] and provision of effective care by health-care providers and the family. Another dimension of this concept is tolerance with patients in the community, especially in work environments. For different reasons, patients may not be able to perform their duties as before. Evidence suggests that cancer survivors report problems such as colleague’s lack of understanding after returning to work, which can cause them to quit their job, reduced self-esteem, or social isolation while returning to work can improve the quality of life of these patients.^[34] Therefore, understanding the patient’s conditions and being easy on them can help them to be able to normalize their lifestyle by performing tasks in part.

Another need of patients was the need for “empowerment” to enhance the ability to face the situation.

One of the most important sources of power is the presence and support of the family. In one study, one of the needs of people with malignant esophagus cancer was the need for love and support from family and friends. It was very difficult to fight the disease without family support for patients.^[22] Cancer patients’ need for family assistance is not only present during treatment but also will continue for a while after the end of the treatment.^[23]

Living with cancer means feeling disabled and losing power and energy.^[35] One of the patients’ problems was a loss of motivation, power, and energy in this study. Therefore, encouraging patients to be patient and tolerant, resistant for survival, and adherent to treatment, and even encouraging them to use their talents, has been a major need for them and has increased their motivation, power, and energy to face the situation.

“Awareness through education and guidance” was one of the key needs of patients, people around them, and in particular their spouses, which greatly contributed to patients’ ability to cope with their situation. Evidence suggests that most cancer patients need more information about the disease and

treatment.^[36] A comprehensive training plan that is tailored to the learning needs of the patients can reduce health-care costs and contribute to increasing the independence of the patients.^[12]

The need for “financial support” is another important need. Most patients are affected by financial problems associated with treatment,^[37] and this economic impact lasts on survivors for years after the diagnosis.^[3] This financial burden on cancer survivors can delay treatment and compromise their physical health.^[38] Therefore, intervention against the financial problems caused by cancer care is essential^[37] and increases the ability of affected people and their families to face their condition.

Exposure to cancer causes suffering and stress and a lot of pressure on the patient and the family, which will double after discharge. Therefore, “protection from tension and excessive pressure” is a major need for these patients and their families. Access to the treatment team or informed individuals after discharge can prevent the imposition of excessive stress on patients and their families. According to a study, patients also need to have regular contact with health personnel after discharge while most of them feel that they are abandoned after discharge.^[23]

The continuity of care and treatment, especially the possibility of regular chemotherapy, is a very important need that participants have mentioned. Delaying this program due to interruptions because of holidays or the absence of a physician can affect the effectiveness of the treatment and life of the patients. Evidence indicates that delay in care can have severe consequences, such as reduced treatment effect and reduced survival.^[39]

An important issue that has been associated with additional stresses in the patient and family was the necessity to consider the needs of family members and accompaniments who attend health centers for outpatient treatment. A study reported the need for primary welfare facilities for accompaniments. This can affect the satisfaction of families with the medical centers.^[40]

Other issues that reduce the impact of excessive pressure on patients and their families after discharge are planning to shorten the process of preparing chemotherapy drugs and allocating a sufficient number of pharmacies holding these drugs to make their provision faster and easier in order to reduce the pressure on patients and their families. The establishment of a well-equipped hospital for these patients and well-equipped health centers in the villages with expert and skilled personnel can also reduce the pressure on patients and their families by reducing the need for unnecessary travels. A study recommended that if specialized cancer centers are properly distributed, the compulsory travels of patients from remote areas to specialized centers in large cities are greatly reduced and the pressure on these patients is reduced.^[41]

The need for “care monitoring” and postdischarge outpatient services was another need of the patients meant that there was a need for monitoring the performance of the treatment personnel

in providing patient care in order to provide an appropriate level of care to the patients and identify and remove relevant defects. According to evidence, monitoring health workers will increase their productivity.^[42]

“Protection” means the need for protecting patients’ properties, dignity, and health. A study reported that in addition to protecting the physical health of patients, physicians are also required to protect their properties.^[43] Another study argued that professional nursing should focus on protecting patients’ dignity.^[44] Such protection of the property, dignity, and health of patients can play a significant role in increasing the satisfaction of patients and their families with the treatment team and creating peace of mind after discharge.

CONCLUSIONS

Most patients are discharged very quickly from the hospital and are still focused on the early stages of exposure to the disease and related psychological responses. Therefore, many of the needs of the acute and pre-discharge phases still continue after discharge. Furthermore, many medical and hospital care needs persist, as patients and families continue to have an outpatient attendance in such centers to continue their treatment. Therefore, postdischarge needs are a complex set of needs for primary exposure to diagnosis, outpatient attendance at the hospital and treatment centers, access to the treatment team, family readiness, and care systems and community needs (such as the place of study and work) for acceptance and care of these patients. The discharge plan should be tailored to the needs set out here, and in addition to meeting the needs of the acute and disease encounter phase, and it should manage the emerging needs resulted from the discharge, such as empowerment.

Limitations

In this study, we tried to maximize the transferability of the results through sampling with maximum diversity. In this study, the presence of the interviewer at the participants’ home was not possible because of the cultural complexities, and therefore, only patients who came to the hospital or offices to continue to receive outpatient treatment or examination were recruited, which could cause limitations. There is also the possibility of not fully expressing the needs by male patients since the interviewer was a female.

Recommendations

These needs can be the basis for conducting further research, such as the design of a postdischarge need testing tool. It is also recommended to conduct functional research for the design and evaluation of postdischarge care systems.

Acknowledgments

This article is extracted from a research project. It was approved by deputy of research and technology of Lorestan University of Medical Sciences, Iran. The authors thank the university and all the participants.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

- Torre LA, Bray F, Siegel RL, Ferlay J, Lortet-Tieulent J, Jemal A, *et al.* Global cancer statistics, 2012. *CA Cancer J Clin* 2015;65:87-108.
- Keyghobadi N, Rafiemanesh H, Mohammadian-Hafshejani A, Enayatrad M, Salehiniya H. Epidemiology and trend of cancers in the province of Kerman: Southeast of Iran. *Asian Pac J Cancer Prev* 2015;16:1409-13.
- Guy GP Jr., Ekwueme DU, Yabroff KR, Dowling EC, Li C, Rodriguez JL, *et al.* Economic burden of cancer survivorship among adults in the United States. *J Clin Oncol* 2013;31:3749-57.
- Rampisheh Z, Motamed N, Amiri M, Ostevar A. Survival Analysis of Cancer Patients Registered in the Cancer Registry System of Bushehr Province 2001-2013. PhD Thesis. Bushehr University of Medical Sciences and Health Services, Iran; 2014.
- Yahaya NA, Subramanian P, Bustam AZ, Taib NA. Symptom experiences and coping strategies among multi- ethnic solid tumor patients undergoing chemotherapy in malaysia. *Asian Pac J Cancer Prev* 2015;16:723-30.
- Sklenarova H, Krümpelmann A, Haun MW, Friederich HC, Huber J, Thomas M, *et al.* When do we need to care about the caregiver? Supportive care needs, anxiety, and depression among informal caregivers of patients with cancer and cancer survivors. *Cancer* 2015;121:1513-9.
- Alaviani M, Khosravan S, Hoseyni R, Hoseyni M. Caring needs of discharged patients from medical-surgical wards of Gonabad hospitals. *Nurs J Vulner* 2015;2:25-35.
- 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.
- Harrison SE, Watson EK, Ward AM, Khan NF, Turner D, Adams E, *et al.* Cancer survivors' experiences of discharge from hospital follow-up. *Eur J Cancer Care (Engl)* 2012;21:390-7.
- Harrison JD, Young JM, Price MA, Butow PN, Solomon MJ. What are the unmet supportive care needs of people with cancer? A systematic review. *Support Care Cancer* 2009;17:1117-28.
- Epstein RM, Street RL Jr. The values and value of patient-centered care. *Ann Fam Med* 2011;9:100-3.
- Baghaei R, Sharifi M, Mohammadpour Y, Sheykhi N. Evaluation of the effects of educational package on controlling the complications of chemotherapeutic agents on symptom scales of quality of life in patients with breast cancer undergoing chemotherapy. *J Urmia Nurs Midwifery Fac* 2013;11:667-79.
- Corcoran S, Dunne M, McCabe MS. The role of advanced practice nurses in cancer survivorship care. *Semin Oncol Nurs* 2015;31:338-47.
- Santin O, Murray L, Prue G, Gavin A, Gormley G, Donnelly M, *et al.* Self-reported psychosocial needs and health-related quality of life of colorectal cancer survivors. *Eur J Oncol Nurs* 2015;19:336-42.
- Ravanbakhsh E, Ahmadi F, Mohammadi E, Tirgariseraj A. Support: The most basic needs of cancer patients when confronted with a diagnosis of the disease. *J Mazandaran Univ Med Sci* 2012;22:21-30.
- Rolfé G. Validity, trustworthiness and rigour: Quality and the idea of qualitative research. *J Adv Nurs* 2006;53:304-10.
- Zhang Y, Wildemuth B. Qualitative Analysis of Content. Available from: https://www.ischool.utexas.edu/~yanz/Content_analysis.pdf. [Last accessed on 203 Mar 13].
- Ryan F, Coughlan M, Cronin P. Step-by-step guide to critiquing research. Part 2: Qualitative research. *Br J Nurs* 2007;16:738-44.
- Polit D, Beck C. *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. 8th ed. Philadelphia: Lippincott Williams and Wilkins; 2008.
- Fisher M, Royster D. Mathematics teachers' support and retention: Using Maslow's hierarchy to understand teachers' needs. *Int J Math Educ Sci Technol* 2016;47:993-1008.
- Kvåle K, Bondevik M. What is important for patient centred care? A qualitative study about the perceptions of patients with cancer. *Scand J Caring Sci* 2008;22:582-9.
- Missel M, Birkelund R. Living with incurable oesophageal cancer. A phenomenological hermeneutical interpretation of patient stories. *Eur J Oncol Nurs* 2011;15:296-301.
- Mikkelsen TH, Søndergaard J, Jensen AB, Olesen F. Cancer rehabilitation: Psychosocial rehabilitation needs after discharge from hospital? *Scand J Prim Health Care* 2008;26:216-21.
- Edwards BK, Ward E, Kohler BA, Ehemann C, Zauber AG, Anderson RN, *et al.* Annual report to the nation on the status of cancer, 1975-2006, featuring colorectal cancer trends and impact of interventions (risk factors, screening, and treatment) to reduce future rates. *Cancer* 2010;116:544-73.
- Choi M, Kim M, Park S, Park G, Jo S, Cho K, *et al.* Clinical characteristics of chemotherapy-induced alopecia in childhood. *J Am Acad Dermatol* 2014;70:499-505.
- Schmidt JL, Wetzel CM, Lange KW, Heine N, Ortmann O. Patients' experience of breast reconstruction after mastectomy and its influence on postoperative satisfaction. *Arch Gynecol Obstet* 2017; 296:827-34.
- Brennan N, Barnes R, Calnan M, Corrigan O, Dieppe P, Entwistle V, *et al.* Trust in the health-care provider-patient relationship: A systematic mapping review of the evidence base. *Int J Qual Health Care* 2013;25:682-8.
- Wright E, Holcombe C, Salmon P. Doctors' communication of trust, care, and respect in breast cancer: Qualitative study. *BMJ* 2004;328:864.
- Coolbrandt A, Dierckx de Casterlè B, Wildiers H, Aertgeerts B, Van der Elst E, van Achtenberg T, *et al.* Dealing with chemotherapy-related symptoms at home: A qualitative study in adult patients with cancer. *Eur J Cancer Care (Engl)* 2016;25:79-92.
- Faller H, Weis J, Koch U, Brähler E, Härter M, Keller M, *et al.* Perceived need for psychosocial support depending on emotional distress and mental comorbidity in men and women with cancer. *J Psychosom Res* 2016;81:24-30.
- Makary MA, Daniel M. Medical error-the third leading cause of death in the US. *BMJ* 2016;353:i2139.
- Abazari S, Forozaandeh E. Loneliness and forgiveness in diabetic patients. *Int J Basic Sci Appl Res* 2012;1:55-7.
- Khodabakhsh M, Kiani F. Amnesty and reviewing its role in caring behaviors of nurses and mental health. *J Med Ethics* 2013;7:11-32.
- Spelten ER, Sprangers MA, Verbeek JH. Factors reported to influence the return to work of cancer survivors: A literature review. *Psychooncology* 2002;11:124-31.
- Esbensen BA, Swane CE, Hallberg IR, Thome B. Being given a cancer diagnosis in old age: A phenomenological study. *Int J Nurs Stud* 2008;45:393-405.
- Jenkins V, Fallowfield L, Saul J. Information needs of patients with cancer: Results from a large study in UK cancer centres. *Br J Cancer* 2001;84:48-51.
- Zafar SY. Financial toxicity of cancer care: It's time to intervene. *J Natl Cancer Inst* 2016;108:djv370.
- Fenn K, Evans S, McCorkle R, DiGiovanna M, Pusztai L, Tara Sanft D, *et al.* Impact of financial burden of cancer on survivors' quality of life. *J Oncol Pract* 2014;10:332-8.
- Kent EE, Forsythe LP, Yabroff KR, Weaver KE, de Moor JS, Rodriguez JL, *et al.* Are survivors who report cancer-related financial problems more likely to forgo or delay medical care? *Cancer* 2013;119:3710-7.
- Abedi H, Khademi M, Daryabeigi R, Alimohammadi N. Educational needs of hospitalized elderly patients' caregivers: A basic concept for nursing education. *Iran J Med Educ* 2006;6:65-73.
- Bazyar M, Pourreza E, Harirchi A, Akbari F, Mahmoodi M. Evaluation of direct and non-therapeutic costs of cancer patients admitted to cancer center of Imam Khomeini hospital in Tehran in 2010. *Hosp Quart* 2012;11:39-50.
- Frimpong JA, HELLERINGER S, Awoonor-Williams JK, Yeji F, Phillips JF. Does supervision improve health worker productivity? Evidence from the upper east region of Ghana. *Trop Med Int Health* 2011;16:1225-33.
- Shah N. Physicians' role in protecting patients' financial well-being. *Am Med Assoc J Ethics* 2013;15:162-6.
- Heijkenskjöld KB, Ekstedt M, Lindwall L. The patient's dignity from the nurse's perspective. *Nurs Ethics* 2010;17:313-24.