

Supportive Care Needs (SCN) of Cancer Patients Referred to the Medical Centers in Iran

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Abstract

Objective: The aim of this study was to evaluate the Supportive Care Needs of cancer patients in Iran. **Methods:** This descriptive-analytical, cross-sectional study was conducted on cancer patients referred to public and private medical centers in Gorgan (Northern Iran) in 2020. Cancer patients referred to private medical centers were recruited into the study using the convenience sampling method. The reliable and valid “Supportive Care Needs Survey-Short Form” (SCNS-SF) with 34 items in five domains of need (physical and daily living, psychological, sexuality, patient care and support, health system, and information) was used to collect data. **Results:** Out of 247 patients, 54.7% were females with a mean age of 46.15 ± 9.36 . The most common site of involvement was breast (25.1%), and the duration of involvement was 7.51 ± 6.79 months. The total mean of SCNs was 68.80 ± 18.5 so that the highest (73.68 ± 15.03) and lowest (60.42 ± 27.19) SCNs were related to physical and daily living as well as sexual domains, respectively. The highest frequency (62.3%) of SCNs was related to “fatigue/lack of energy”. **Conclusion:** This study showed that cancer patients experienced many unmet needs in various dimensions. Therefore, it is necessary to address these needs simultaneously treating the disease and developing and implementing a care plan based on patients’ priorities.

Keywords: Neoplasms- patients- palliative care- Iran

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Introduction

Cancer is one of the most important health problems worldwide (Zhang and Chai, 2020). In recent decades, experts in addition to people should pay more attention to this disease because of its increased and harmful effects on all physical, emotional, spiritual, social, and economic dimensions (Moosavi et al., 2020). The global burden of cancer is growing rapidly. It is predicted that the new cases of cancer estimated 18.1 million in 2018 are projected to reach 24.1 million worldwide by 2030 (Bray et al., 2018). Cancer is in epidemiological transition in Iran and the third leading cause of death after cardiovascular diseases and accidents (Hosseini et al., 2020). Roshandel et al., (2020) in their study by analyzing the short-term prognosis of cancer incidence have demonstrated that the number of new cases of cancer in Golestan province is anticipated to reach 61.3 by 2025, indicating an overwhelming need for an effective cancer control program in this population. The diagnosis of cancer compared to other diseases causes high stress and affects all aspects of the patient’s life (Derakhshanpour et al., 2020). Despite the advances in cancer treatment, the prognosis for cancer remains poor.

This disease causes many physical and mental disorders in patients and affects their daily lives (Jabbarzadeh Tabrizi et al., 2016).

Studies suggest that cancer patients are exposed to adverse physical, psychological, and social problems during the period of cancer diagnosis and treatment. Physical complaints such as fatigue and disability, psychological problems including fear of pain and death as well as social problems like changes in family dynamics affect all cancer patients (Nair et al., 2018). Accordingly, the SCNs increase in these patients (Jabbarzadeh Tabrizi et al., 2016; Yarza et al., 2020).

Supportive care can help cancer patients better manage the cancer-related problems they face at different stages of the disease (Chou et al., 2020; Evans Webb et al., 2021). Therefore, supportive care is defined as the provision of basic services that meet the physical, mental, social, informational, and spiritual needs of cancer patients during the disease (Edib et al., 2016; Tabari-Khomeiran et al., 2023).

According to the American Cancer Society, providing optimal care and treatment services to cancer patients requires investigating and recognizing their care needs

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(Mirzaei et al., 2019). Therefore, the first vital step in caring for cancer patients is accurate and regular assessment of their supportive care needs (SCNs) including physical, psychological, social, spiritual, financial, informational, and health care needs (Kolagari et al., 2022).

Hence, assessing care needs is an important strategy to identify unresolved concerns of these patients to help them achieve good and efficient care (Khajoei et al., 2023; Mirzaei et al., 2019; Tian et al., 2019).

The “care needs” as an umbrella term cover all physical, informational, emotional, functional, social and spiritual needs of a cancer person (Ramezanzade Tabriz et al., 2017) and are considered as a need (requirement or necessity) for certain measures or resources in care that is necessary and useful to achieve optimal health and well-being (Wang et al., 2018). Numerous studies emphasize the correct identification of physical, psychological, socio-economic, informational and unique spiritual needs of each patient in medical settings to receive appropriate medical services (Cho and Yoo, 2020).

Assessing the needs of cancer patients helps physicians and caregivers focus on their patients’ specific problems as well as assist the patients to solve them through using specific interventions and protocols. The results of the studies of Wang et al., 2018, Moghadam et al., 2016, and Lewandowska et al., 2021 on unmet care needs in advanced cancer patients have suggested that insufficient attention is paid to the SCNs of cancer patients, and many unmet needs have been reported in various areas. Thus, it is necessary to take measures in the oncology wards to assess the needs of patients, which should be done through clinical interviews and special questionnaires as a routine task (Al-Omari et al., 2022; Chiesi et al., 2017) to provide better quality supportive care services by identifying and managing the needs of cancer patients. Due to the high cancer rate in Golestan province and since no study has been performed in this province on the supportive needs of adult patients (aged 18-60 years), the current study was conducted to determine the SCNs of cancer patients.

Materials and Methods

Study design

This descriptive-analytical cross-sectional study was conducted on 247 cancer patients referred to only one public (Panj-e-Azar Hospital) and private (office of oncologists) centers in Gorgan (northern Iran) in 2020.

Participants

Inclusion criteria were a) patients aged 18-60 years, b) definitive diagnosis of cancer based on pathology results and approval of oncologist, c) patients attending from the stage of cancer diagnosis to the end of treatment, d) sufficient awareness to answer questions, e) no specific mental illness, and f) no use of psychotropic substances. Moreover, the exclusion criterion was the incomplete completion of the questionnaire. This study used an easy, non-probability and available sampling method. Thus, the researcher referred to selected sampling centers daily on various days of the week.

Data collection tool

Data were collected using demographic information form (age, sex, ethnicity, place of residence and level of education), clinical form (type of cancer, duration of cancer and stage of treatment) and SCNs questionnaire which was taken by the Australian Institute of Psychology and Cancer Research. The Supportive Care Needs Survey (SCNS) is an instrument used to assess the perceived needs of adults diagnosed with cancer. The initial version of the survey in the English language contained 59 items that covered five specific needs pertaining to psychological, health system and information, physical and daily living, patient care and support, as well as sexuality needs (Cho and Yoo, 2020). The practicality of the survey was then further improved and re-introduced as the 34-item short-form Supportive Care Need Survey (SCNS-SF34). The new version has been proven to have better internal validity and reliability than the original version (Boyes et al., 2009). Since then, the short, improved version has been widely used in many countries and translated into different languages, such as in Chinese (Au et al., 2011), Korean (Hwang and Park, 2006), Japanese (Okuyama et al., 2009), French (Brédart et al., 2012), German (Lehmann et al., 2012) and Malasian (Azman et al., 2021). The reliability of the translated version of SCNS-SF34 varied across cultures with the Cronbach alpha values ranging from 0.64 (Chinese version) to 0.94 (Germany version). These values are comparable to those of the original English version (from 0.86 to 0.96). Cronbach’s alpha coefficient for the whole instrument was 0.88 (Moradi et al., 2013). The reliability of this questionnaire after studying on 20 cancer patients was $r=0.9$, determined by a retest-test method by shahsavari (Shahsavari et al., 2016). The tool had 34 questions in five domains of needs: physical and daily living (5 items), psychological (10 items), sexuality (3 items), patient care and support (5 items) as well as health system and information (11 items). Findings were based on the mean with the minimum and maximum scores of 34 and 170, respectively. The answer to each item is based on the five-option Likert scale such as “no need - no use”, “satisfied with the received help”, “low need”, “medium need” and “high need”, ranged from 1 to 5, respectively. A higher score indicated a greater need. Scores were considered in each dimension from zero to one hundred (Boyes et al., 2009).

Data collection method

The current study applied an easy, non-probability and available sampling method. In this way, the researcher referred to selected sampling centers daily on various days of the week. After explaining the objectives of the project for patients and obtaining their consent, the questionnaires were distributed among eligible people and then were collected.

Data analysis method

The data were analyzed using SPSS 18 at a significance level of 0.05. Quantitative data were described using mean and standard deviation, as well as qualitative data, were described using absolute and relative frequencies. Due to the lack of normal distribution of quantitative data,

the non-parametric Mann-Whitney and Kruskal-Wallis tests were used.

Ethical considerations

The present study was approved by the Research Ethics Committee of Golestan University of Medical Sciences with the code of IR.GOUMS.REC.1399.057.

Results

In the current study, 247 cancer patients with the mean and standard deviation of 46.15±9.36 and age range of 18-60 years were studied. Of these, 135 (54.7%), 223 (90.3%), 186 (75.3%), 86 (34.8%) and 141 (57.1%) patients were female, married, Fars, illiterate and rural residents, respectively. Of the total patients, 62 (25.1%) and 49 (19.8%) had breast and colon cancers, respectively. Among them, 237 patients (96%) were in the chemotherapy phase. The mean and standard deviation of the cancer duration was 7.51±6.79 months with a range of 1-48 months.

The findings showed that cancer patients reported the highest and lowest SCNs in the area of “physical and daily living” and “sexuality”, respectively. Also, in addition to physical problems, they did not receive good information about many aspects of their disease and they reported a high need for help in the field of “health system and information” (Table 1). The results of the present study showed that there is no significant relationship between physical needs of cancer patients and demographic variables, and all patients reported high physical needs. In the field of psychological needs, the most need to receive help was the “grief feelings” and “fear of disease progression”.

The results of the Mann-Whitney test showed indicated that there was a significant difference between the SCNs of men and women in the “psychological” and “sexual” domains. Therefore, men need more psychological and sexual supportive care. the findings of the current study exhibited that more than half of cancer patients needed “attention of hospital staff and sensitivity to emotional needs. The findings of the current study exhibited that more than half of cancer patients needed “attention of hospital staff and sensitivity to emotional needs”.

Table 1. SCNs Mean and Standard Deviation of the Cancer Patients

SCNs domains	Mean and standard deviation
SCNs	68.80±18.50
Physical and daily living	73.68±15.03
Psychological needs	69.12±15.88
Sexuality	60.42±27.19
Care and support	69.33±14.53
Health system and information	71.44±13.69

In addition, there was a significant relationship between the SCNs of cancer patients and their education level only in the supportive domain (p<0/05). In other domains, there was no significant relationship between patients’ needs and their education level so that people with elementary education needed more help in the supportive domain. No significant relationship was found between the SCNs domains of cancer patients with their place of residence and age (Table 2). The results of the ongoing study illustrated that in the domain of health system and information, patients are most in need of “receiving written information about important aspects of self-care” and “receiving information in the form of booklets and brochures about disease control and its complications at home”

Table 3 shows the greatest need for assistance in different areas. The highest unpleasant need (62.3%) was related to “fatigue/lack of energy”.

Discussion

This study aimed to determine the SCNs of cancer patients, and it was concluded that the SCNs frequency in these patients was higher in the domains of “physical and daily living” and “health system and information” than other domains, respectively, which is consistent with a similar study on the elderly population with cancer in Gorgan (Masoudi et al., 2020) and (Azman et al., 2021).

This result represented that cancer patients did not receive good information about many aspects of their disease in addition to the physical problems caused by the disease and treatment stages. However, the total mean of

Table 2. Mean and Frequency of the SCNs of Cancer Patients in Terms of Demographic Variables

Variables	Physical and daily living		Psychological		Sexual		Care and support		Health system and information		
	Mean±SD	P-value	Mean±SD	P-value	Mean±SD	P-value	Mean±SD	P-value	Mean±SD	P-value	
Sex	Female	72.70±15.60	0.1	67.40±16.42	0.05	55.18±29.87		68.40±13.83	0.2	70.63±12.66	0.3
	Male	74.86± 14.29		71.20±15.00		66.74±22.10	0/004	70.44±15.32		83.14±42.72	
Age	40-18	74.71±14.03		68.02±16.01		54.92±31.85		70.91±13.45		73.27±12.46	
	60-40	73.26±15.43	0.5	69.57±15.84	0.2	62.64±24.83	0.1	68.69±14.93	0.2	70.71±14.12	0.1
Residence	City	73.54± 15.12		69.41±15.36		61.93±25.49		68.61±13.51		71.47±12.80	
	Village	73.86±14.98	0.7	68.75±16.60	0.7	58.41±29.31	0.6	70.28±15.80	0.1	71.41±14.84	0.9
	Illiterate	72.79±14.64		69.36±16.03		57.94±26.00		69.30±16.03		69.47±14.58	
Education level	Primary	72.93±18.60		70.48±17.53		65.39±30.32		74.02±16.62		75.34±15.70	
	Secondary	75.48±13.12	0.8	67.66±14.59	0.6	62.36±25. 80	0.1	71.45±08.48	0.002	73.46±08.75	0.1
	Diploma	74.91±14.30		69.67±15.07		61.61±24.59		67.45±12.76		71.16±12.48	
University	72.82±13.55		66.08±16.40		53.98±33.03		62.17±12.04		69.07±13.47		

Table 3. The Highest Frequency of SCNs in Cancer Patients

Supportive Care Needs	Number (%)	Domains
Fatigue /lack of energy	154 (62.3)	physical and daily living
Feeling unwell most of the time	150 (60.7)	physical and daily living
Attention of hospital staff and their sensitivity to emotional needs	141 (57.1)	Patient care and support
Possibility to choose about the hospital admitted	139 (56.3)	Patient care and support
Receiving written information about important aspects of self-care	139 (56.3)	Health system and information
Grief feelings	137 (55.5)	Psychological needs
Fear of cancer progression	135 (54.7)	Psychological needs
Booklets and brochures about disease control and its complications at home	135 (54.7)	Health system and information

SCNs was significant in different domains, indicating the high need in all mentioned dimensions in these patients. Besides, most previous studies in Iran and other countries demonstrated that cancer patients had many unmet SCNs in various domains that are compatible with the present study (Fazeli et al., 2017; Ramezanzade Tabriz et al., 2017; Wang et al., 2018).

In the ongoing study, the most common SCN in cancer patients was “physical and daily living”, which is the same as a study conducted on cancer women in Indonesia (Afiyanti et al., 2018). These results were not far from expectation since 96% of patients were entered into the current study in the chemotherapy phase, and the chemotherapy drugs had many side effects.

In some studies, the greatest SCN was reported in other domains, especially the domain of “health and information system” (Al-Omari et al., 2022; Chiesi et al., 2017; Kolagari et al., 2022; Mirzaei et al., 2019; Okati-Aliabad et al., 2022). One of the reasons for the difference among the priorities of needs in various dimensions in diverse studies can be the timing of sampling, characteristics of the studied samples, especially their cultural characteristics as well as difference between service levels and economics of different regions.

Cancer patients in the present study reported the greatest supportive need in terms of “lack of energy and fatigue” and “feeling unwell.” The most prominent unmet need of cancer patients in the physical domain was “fatigue and inability to do work”, observed in other studies (Moghaddam et al., 2016; Wang et al., 2018). Nair et al., 2018 studied cancer patients with different cultures in the UAE and stated lack of energy and fatigue in 75% of these patients, which was higher in the domain of “physical and daily living” than in other domains.

Cancer-related fatigue is a mental, unpleasant and resistant symptom that manifests itself as physical (lack of energy, need for rest), emotional (decreased motivation or interest) and cognitive (deficiency in concentration and attention) fatigues can be caused by cancer or related treatments (Mardanian Dehkordi and Babashahi, 2018).

The results of the present study demonstrated that there was no significant relationship between the physical needs of cancer patients and demographic variables as well as all patients reported high physical needs. This high prevalence of physical symptoms including “fatigue and lack of energy”, affecting the quality of daily life is quite worrying (Dobova and Pérez-Cuevas, 2020).

This highlights the need to focus on early and adequate management for physical rehabilitation as an important component of cancer care (Evans Webb et al., 2021). Moreover, adequate knowledge of medical staff in this field is necessary to provide care programs to reduce the symptoms of cancer patients. In general, helping cancer patients to meet their physical needs is important because achieving a high quality of life and an acceptable level of physical health and function requires overcoming the problems caused by the disease and treatment.

The current study represented that cancer patients did not receive good information about many aspects of their disease in addition to the physical problems and reported a high supportive need in the domain of “health system and information”. This supportive need in cancer patients has been reported in many studies in Iran (Al-Omari et al., 2022; Evans Webb et al., 2021; Fazeli et al., 2017; Pérez-Fortis et al., 2017) and other countries (Williams et al., 2018) with high priority, representing that cancer patients expect to be well-informed about their illness and self-care.

The information need refers to the needs for patients to have sufficient knowledge of their disease and treatment as well as to seek the needed information to regulate behavior based on the fact that cancer patients who are aware of the disease, treatment, and management after treatment have less anxiety (Cho and Yoo, 2020). Gaining cancer information can lead to better patient decisions, better response to treatment, lower levels of anxiety and depression, higher quality of life and satisfaction with care, and control.

The results of the ongoing study illustrated that in the domain of health system and information, patients are most in need of “receiving written information about important aspects of self-care” and “receiving information in the form of booklets and brochures about disease control and its complications at home”, which are consistent with the studies of Williams et al., (2018) and Olamijulo Fatiregun et al., (2019). In the current study, no significant relationship was found between “health system and information” and demographic variables, and all patients expressed a high need for help in receiving information.

In justifying the priority of needs to the health system and information, the present study suggested that most patients were eager to obtain information, especially about “knowing what helps them recover,” but most of them

were unaware of their condition and did not get enough information from their medical staff and as a result, they got information from other sources. This indicates that the medical staff including doctors and nurses due to the high workload provides inadequate training to cancer patients. Therefore, patients are often faced with uncertainty and a large number of questions about the disease and treatment, requiring that the health workers make more efforts to assess the needs. To study the supportive needs of cancer patients, the findings of the current study exhibited that more than half of cancer patients needed “attention of hospital staff and sensitivity to emotional needs”, which are similar to those of Masoudi et al. who evaluated the needs of elderly patients with cancer (Masoudi et al., 2020).

There was no significant relationship between support domain with age, gender and place of residence, but people with lower education reported more SCNs. Supporting basic human needs is a public need, requiring to be addressed by health workers. Due to the specific conditions of cancer, the patients seem to expect more attention and compassion from the medical staff. Because nurses are the primary caregivers on treatment teams, they can communicate effectively with patients and provide more support to patients by identifying patients’ needs and feelings. In the “psychological” domain of the present study, the greatest SCN was in the “grief feelings” and “fear of disease progression”, which is in agreement with the result of Edib and Giuliani and park (Giuliani et al., 2016). Psychological need refers to patients’ need to support attention to the psychological burden they experience during diagnosis and treatment.

Cancer patients complain of high fear and uncertainty about the disease progression. In addition, high levels of unmet SCNs increase anxiety or depression and reduce the quality of life and therapeutic adaptation (Cho and Yoo, 2020; Fazeli et al., 2017). In the ongoing study, men reported more psychological need and expressed vice versa (Nair et al., 2018). This difference may be due to the cultural differences in these two studies. In the present study, cancer patients reported that the least need was in the sexual domain, which was found in many studies (Okati-Aliabad et al., 2022). However, it seems that the lower needs in the sexual domain were due to the patients’ unwillingness to discuss sexual concerns caused by their culture, in which talking about sexual issues is associated with many limitations. Addressing daily sexual issues as a part of cancer treatment may overcome some of these cultural barriers and meet this aspect of patients’ care needs. Various studies and the present study have indicated that cancer patients in different stages of the disease have special SCNs that should not be ignored. Care centers can prioritize patients’ needs and then take steps to meet them. Furthermore, according to the results of the present study, identifying needs and understanding the importance of these needs can result in better provision of supportive care.

In conclusion, Cancer patients have high care needs, especially in the domains of “physical and daily living” as well as “information”; hence, there is an urgent need for sustained and long-term interventions as well as support

to help patients achieve increased satisfaction with care, improve treatment outcomes and have a better quality of life.

Understanding and assessing the needs of cancer patients by health workers can help sensitize these workers and enable them to prioritize these needs to provide appropriate counseling, care and, support services to patients. According to the current results, it is suggested that further study should be conducted to investigate the SCNs in one type of cancer according to the severity of the disease and its stage.

Author Contribution Statement

All of the co-authors had enough contribution in all stages of the research project. AM, AS Contribute in data collection .AM,L J Contribute in writing the manuscript. GH R,NB contribute in result interpretation and analysis. All authors have read and approved the final draft.

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Ethical Consideration

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Conflicts of Interest

Authors have no conflict of interest to declare.

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