

Exploring the Current Situation of Cancer Patients' Management from Patients' Perspective: A Multicenter Cross-Sectional Study

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ABSTRACT

Cancer has grown as a significant condition accountable for a substantial number of fatalities annually across the globe. The cancer burden is globally leveling up, imposing significant physical, emotional, and financial pressures on individuals, families, communities, and healthcare systems. To explore the challenges faced in cancer management from the perspectives of patients in Baghdad & Karbala. A cross-sectional study was performed from November 2024 to February 2025 at the Imam Al-Hussein Center for Cancer and Hematology and Imam Al-Hassan Al-Mujtaba Teaching Hospital in Karbala Governorate, along with Al-Kadhmain Medical City-Al-Jawad Oncology Center in Baghdad Governorate. The convenience sample of Iraqi patients diagnosed with cancer was gathered. **Results:** Three hundred participants participated in an interviewer-administered questionnaire. The mean age was 54.15±13.48 years, 56.0% were female, and 67.7% were married. The study found that breast cancer was the most frequently diagnosed type among the participants (37.6%). The top four side effects faced by the participants were weakness (92.3%), loss of appetite (86.0%), loss of hair (69.7%), and diarrhea (60.7%). Most of the patients were informed the doctors or nurses (84.3%) when they faced side effects. In addition, the primary means of transportation to the centers was taxis (47.3%). The central place where patients stayed while dealing with cancer was at their homes (87.3%). Other challenges involved not understanding what comes next, not having access to a clean toilet throughout the day, waiting for a long time to be seen by hospital staff, and being afraid of the progression of their disease. Other people often react inconsiderately/unsympathetically, and usually have trouble sleeping. To overcome these limitations, a well-established healthcare infrastructure should be implemented, communication skills should be improved, and multidisciplinary teams should be developed, including oncologists and psychiatric physicians.

Keywords: cancer, patients, challenges, current situation, multicenter.

INTRODUCTION

Cancer has grown as a significant condition accountable for a substantial number of fatalities annually across the globe¹. The American Cancer Society (ACS) published the Global Cancer Statistics 2024. The incidence of cancer is projected to increase to 35 million cases by 2050². In 2022, the Iraqi Cancer Registry (ICR) documented 39,068 new cancer cases, with a total cancer mortality of 11,421³. The issue escalates alongside the predominant cancers in Iraq, namely breast, lung, colorectal, brain, central nervous system, and leukemia, which exhibit a consistent upward trajectory; however, their incidence appears lower than global averages, likely due to inadequate registration and the absence of a national surveillance system⁴. Furthermore, the cancer burden is globally leveling up, imposing significant physical, emotional, and financial pressures on individuals, families, communities, and healthcare systems⁵. However, according to the patient's perspective, problems include access difficulties, long queue times, distance, transportation, and fiscal barriers⁶. Moreover, healthcare providers clinically must have multimodal therapies that are already fostered worldwide for the management of cancer, which continues to be challenging⁷. Another dilemma is that drug toxicity and side effects of chemotherapy detrimentally affect the quality of life of breast cancer patients⁸.

The diagnosis and treatment of cancer of uncertain primary origin, where the basic anatomical site of tumor development remains unspecified, is challenging due to late presentation, diagnostic difficulties, and limited, non-selective therapeutic options⁹. So, patients with cancer who experience many geographic and healthcare system troubles are subjected to a significant retard in receiving diagnosis and treatment, especially for malignancies that are highly responsive to early intervention¹⁰. The majority of the 807 Iraqi women involved in a cross-sectional study at the Clinical Pharmacy Department, University of Baghdad, exhibited insufficient understanding regarding breast cancer (BC)¹¹. Additionally, a cross-sectional study in Iraq highlighted the widespread dissatisfaction among patients, emphasizing the necessity for enhancements in healthcare service quality and accessibility to improve cancer patient satisfaction¹². Accurately assessing the magnitude of these unmet requirements and identifying variables influencing their incidence and distribution can provide valuable insights to healthcare practitioners, aiding them in addressing these issues¹³. Assessing the patient experience aids in comprehending how the cancer control system will meet patients' physical, emotional, and practical requirements during diagnosis and treatment planning¹⁴. To the best of our knowledge, no previous research has been conducted in Iraq to explore the challenges faced by patients during cancer treatment. This research aims to explore these challenges, where most hindrances are discussed.

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MATERIALS AND METHODS

Study Design: This cross-sectional study was conducted from November 2024 to February 2025 at the Imam Al-Hussein Center for Cancer and Hematology and Imam Al-Hassan Al-Mujtaba Teaching Hospital in Karbala Governorate, along with Al-Kadhmain Medical City-Al-Jawad Oncology Center in Baghdad Governorate.

Study participants: A convenient sample of Iraqi patients diagnosed with cancer.

Inclusion Criteria

1. Patients who have been diagnosed with any cancer for a minimum of 6 months
2. Individuals who are currently engaged in active treatment
3. Adults aged 18 years or older
4. Patients who consent to participate in this study

Exclusion Criteria

1. Patients who are not receiving any form of treatment at present
2. Individuals who have been diagnosed with cancer for less than 6 months,
3. Patients who remain unaware of their cancer diagnosis,
4. Individuals who cannot understand or respond to the questionnaire because of physical or cognitive limitations.

Data collection: Data collection and outcome measurements of the questionnaire from previous research were adopted^{6,15,16}, with some modifications applicable to Iraqi patients. The questionnaire was translated from English to Arabic, and five academic pharmacists with experience in pharmacy practice research did face validation.

Table 1. Sociodemographic characteristics of cancer patients

Variables	Baghdad (n=100)	Karbala (n=200)	Total (n=300)
Age (years) mean ± SD	55.53±14.40	53.46±12.98	54.15±13.48
Sex n (%)			
Female	60 (60.0%)	108 (54.0%)	168 (56.0%)
Male	40 (40.0%)	92 (46.0%)	132 (44.0%)
Education level			
Illiterate	22 (22.0%)	53 (26.5%)	75 (25.0%)
Primary	37 (37.0%)	51 (25.5%)	88 (29.3%)
Secondary	25 (25.0%)	47 (23.5%)	72 (24.0%)
College	16 (16.0%)	49 (24.5%)	65 (21.7%)
Employment status			
Unemployed	60 (60.0%)	104 (52.3%)	164 (54.8%)
Retired	10 (10.0%)	20 (10.1%)	30 (10.0%)
Employed	30 (30.0%)	75 (37.7%)	105 (35.1%)
Are you living in the same city as the center?			
No	6 (6.0%)	58 (29.0%)	64 (21.3%)
Yes	94 (94.0%)	142 (71.0%)	236 (78.7%)
Marital status			
Married	66 (66.0%)	137 (68.5%)	203 (67.7%)
Divorced	9 (9.0%)	14 (7.0%)	23 (7.7%)
Single	12 (12.0%)	14 (7.0%)	26 (8.7%)
Widowed	13 (13.0%)	35 (17.5%)	48 (16.0%)
Monthly income			
Low income	71 (71.0%)	110 (55.0%)	181 (60.3%)
Middle income	25 (25.0%)	69 (34.5%)	94 (31.3%)
High income	4 (4.0%)	21 (10.5%)	25 (8.3%)

SD= standard deviation, n = number

Table 2: Types of Cancer & Cancer Treatments

Cancer	Baghdad (n=100)	Karbala (n=200)	Total (n=300)
Breast cancer	38 (38%)	75 (37.5%)	113 (37.6%)
Lung cancer	6 (6%)	18 (9%)	24 (8%)
Lymphoma	5 (5%)	15 (7.5%)	20 (6.6%)
Leukemia	9 (9%)	9 (4.5%)	18 (6%)
Colon cancer	6 (6%)	10 (5%)	16 (5.3%)
Bladder cancer	5 (5%)	9 (4.5%)	14 (4.6%)
Prostatic cancer	6 (6%)	7 (3.5%)	13 (4.3%)
Brain cancer	4 (4%)	6 (3%)	10 (3.3%)
gastric cancer	2 (2%)	7 (3.5%)	9 (3%)
Multiple myeloma	2 (2%)	6 (3%)	8 (2.6%)
Cervical cancer	3 (3%)	4 (2%)	7 (2.3%)
Hepatocellular carcinoma	2 (2%)	4 (2%)	6 (2%)
Ovarian cancer	0 (0%)	5 (2.5%)	5 (1.6%)
Others #	12 (12%)	25 (12.5%)	37 (12.3%)
Cancer treatment			
Chemotherapy	59 (59.0%)	121 (60.5%)	180 (60.0%)
Radiation	30 (30.0%)	38 (19.0%)	68 (22.7%)
Biological	7 (7.0%)	11 (5.5%)	18 (6.0%)
Pain relieves	12 (12.0%)	47 (23.5%)	59 (19.7%)
Hormonal	4 (4.0%)	18 (9.0%)	22 (7.3%)

Uterine cancer, Endometrial cancer, Pancreatic cancer, Salivary gland cancer, Bile duct cancer, Esophageal cancer, Intestinal cancer, Nasopharyngeal carcinoma, Skin cancer, soft tissue sarcoma, Testicular cancer, Anal cancer, Cholangiocarcinoma, Foot cancer, Hand cancer, Kidney cancer, and Tongue Cancer.

They have more than 10 years of experience in research. All of their recommendations were considered, and the questionnaire was modified according to their recommendations. The reliability test was performed using Cronbach's alpha; the result was 0.789. The data related to the study was collected using a data collection sheet designed for the study. For each patient involved in the research, the following information was recorded:

1. Sociodemographic characteristics: Age, sex, educational level, employment status, place of residence, marital status, and monthly income.
2. Cancer-related variable: type of cancer.

After that, the questionnaire form is composed of five major parts. The first part involves seven items about cancer treatment and any obstacles that may be faced. The second part consists of three items about Transportation & lodging. The third part concerns four items about barriers to care and any other challenges patients may face. The fourth part discusses a Likert scale item that contains **nine response options** about psychosocial support, with zero being (not applied to me) and five being (a very big problem). The last part discusses a Likert scale item that contains ten response options regarding whether the patients face different situations, such as drugs out of stock, not understanding what comes next, and more, with one being (not hard at all) and five being (very hard). The final question was whether there was anything else patients would like to share to help improve patient support. Some questions can be answered with more than one option. If a question did not apply to the patients, they could skip it.

Statistical analysis: The Anderson-Darling test was used to assess the normality of data; data were represented as mean ± standard deviation for normally distributed data, median and interquartile range (25% to 75% percentile range) for not normally distributed data. Discrete

variables are presented using their number and percentage. GraphPad Prism version 10.4.0 for Windows, GraphPad Software, San Diego, California, USA, is a software package used to make statistical analyses¹⁷.

RESULTS

Sociodemographic characteristics of the study population

The study recruited 300 patients from three centers, 100 from each center. As summarized in Table 1, the characteristics of participants were the following: the mean age was 54.15±13.48 years, 56.0% were female, and 67.7% were married. Additionally, 88.0% of patients had primary school education and had low income (60.3%). More than half of the patients were unemployed (54.8%), and more than two-thirds (78.7%) had lived in the same city as the center where they were treated.

Cancer Treatment

The study exposed that breast cancer was the most frequently diagnosed type among the participants (37.6%), followed by lung cancer (8%) and lymphoma (6.6%). Multiple treatment options were used for cancer patients; two-thirds of them used chemotherapy (60%). The details are shown in Table 2.

Additionally, more than two-thirds of the patients (71.3%) were not informed how many weeks or months were needed to come to the center for treatment. The mean number of sessions was 17.82±10.90. Moreover, about two-thirds of the participants (70.3%) did not consult about the possible side effects that they may face. The study found that the top four side effects faced by the participants were weakness (92.3%), loss of appetite (86.0%), and hair loss (69.7%), as shown in Table 3.

Weakness was reported as a very worrying side effect (57.6%), followed by loss of appetite (56.8%), vomiting (102, 57.6%), diarrhea (54%), as shown in Figure 1 and Figure 2.

Like a polygon on the radar plot, each shape represents a ten-point increase in score, with 0 representing the center and increasing by ten points on the outside.

Table 3. Types of side effects faced by the patients

SE	Baghdad (n=100)	Karbala (n=200)	Total (n=300)
Number	100	200	300
Weakness	93(93.0%)	184(92.0%)	277(92.3%)
Loss of appetite	88(88.0%)	170(85.0%)	258(86.0%)
Hair loss	62(62.0%)	147(73.5%)	209(69.7%)
Diarrhea	62(62.0%)	120(60.0%)	182(60.7%)
Vomiting	56(56.0%)	122(61.0%)	178(59.3%)
Darkening of somebody parts	66(66.0%)	96(48.0%)	162(54.0%)
Joint pain	52(52.0%)	59(29.5%)	111(37.0%)
Constipation	36(36.0%)	53(26.5%)	89(29.7%)
Skin rash	22(22.0%)	54(27.0%)	76(25.3%)
Headache	20(20.0%)	48(24.0%)	68(22.7%)
Dizziness	10(10.0%)	39(19.5%)	49(16.3%)
Nausea	21(21.0%)	24(12.0%)	45(15.0%)
Wound	4(4.0%)	16(8.0%)	20(6.7%)
Anemia	4(4.0%)	12(6.0%)	16(5.3%)
Fever	6(6.0%)	10(5.0%)	16(5.3%)
Cough	3(3.0%)	10(5.0%)	13(4.3%)
Others #	15 (15%)	15 (7.5%)	30 (9.9%)

Osteoporosis, urinary tract infection, depression, cracked skin, hot flash, urinary incontinence, difficulty swallowing, obesity, nail changes, severe gastric pain, Mucositis, itching in the breast, dysphagia, change in the taste of food, ulcer in the lower and upper extremities.

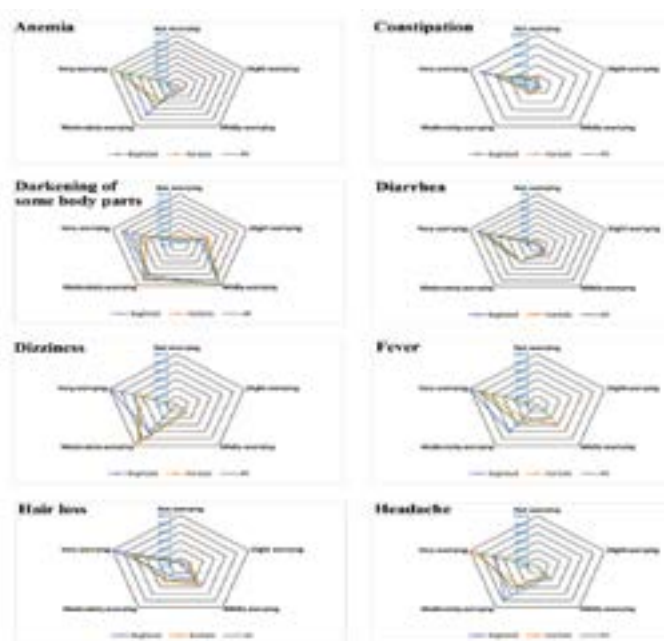


Figure 1. Radar plot of the levels of worrying about side effects

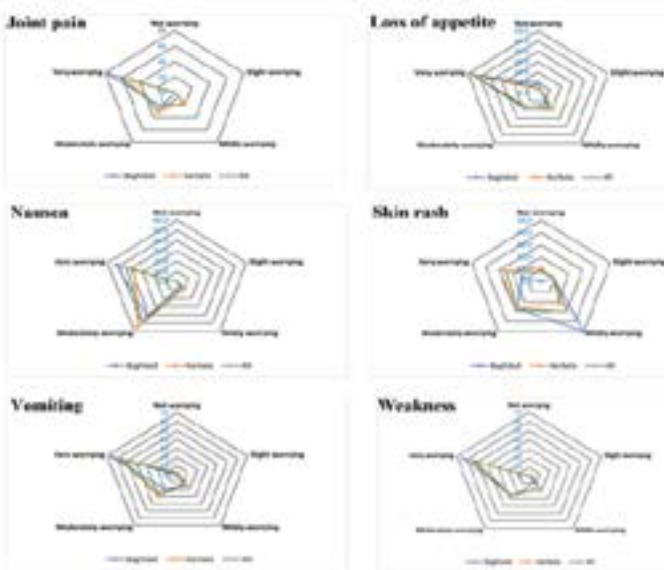


Figure 2. Radar plot of the levels of worrying about side effects

Most patients were informed doctors or nurses (84.3%) when they faced side effects, as shown in Table 4.

Transportation & lodging

The primary means of transportation used by the patients was taxis (47.3%). The main place patients stayed while dealing with cancer was at their homes (87.3%), and most of the participants' family members accompanied them during the treatment journey (86.7%), as shown in Table 5.

Barriers to care

Most participants attended all their appointments, while approximately (7.3%) missed them. The possible reasons for this miss were money, family responsibility, other health problems, uncomfortable with treatment, work demands, each accounting for (8 %) of the participants, followed closely by distance (7.3%), as shown in Table 6.

Regarding the information received, more than a third of the participants reported that they received enough information about their disease and treatment (42.0%), as shown in Table 7.

The study participants rated the type of assistance received as follows: Getting help with a place to stay, rating it as not important at all (71.3%), and the need for information about their health condition, rating it as very important (60.3%). The details are presented in Table 8.

Table 4. Action taken by the patients when facing side effects

Variables	Baghdad (n=100)	Karbala (n=200)	Total (n=300)
Continued treatment	0 (0.0%)	7 (3.5%)	7 (2.3%)
Did not inform anyone	17 (17.0%)	20 (10.0%)	37 (12.3%)
Discontinued treatment	0 (0.0%)	2 (1.0%)	2 (0.7%)
Informed doctor/nurse	83 (83.0%)	170 (85.0%)	253 (84.3%)
Use alternative medicine	0 (0.0%)	1 (0.5%)	1 (0.3%)

Table 5. Transportation & lodging faced by study participants

Variables	Baghdad (n=100)	Karbala (n=200)	Total (n=300)
Means of transportation to the hospital			
Taxi	44 (44.0%)	98 (49.0%)	142 (47.3%)
Bus	26 (26.0%)	25 (12.5%)	51 (17.0%)
Walked	1 (1.0%)	2 (1.0%)	3 (1.0%)
Private car	29 (29.0%)	75 (37.5%)	104 (34.7%)
Place of residence during treatment			
Home	91 (91.0%)	171 (85.5%)	262 (87.3%)
Friend/Relative's house	5 (5.0%)	26 (13.0%)	31 (10.3%)
In the hospital (admission)	4 (4.0%)	3 (1.5%)	7 (2.3%)
Care providers during treatment			
Family member	80 (80.0%)	180 (90.0%)	260 (86.7%)
Friends	3 (3.0%)	6 (3.0%)	9 (3.0%)
No one	17 (17.0%)	14 (7.0%)	31 (10.3%)

Table 6. The reasons that prevented the patients from coming to the center

Variables	Baghdad (n=100)	Karbala (n=200)	Total (n=300)
Money	5 (5.0%)	19 (9.5%)	24 (8.0%)
Family responsibility	5 (5.0%)	19 (9.5%)	24 (8.0%)
Distance	5 (5.0%)	17 (8.5%)	22 (7.3%)
Having other problems	5 (5.0%)	19 (9.5%)	24 (8.0%)
Was uncomfortable with the treatment	5 (5.0%)	19 (9.5%)	24 (8.0%)
Work demands	5 (5.0%)	19 (9.5%)	24 (8.0%)

Table 7. Patients' rating of the information provided by the center about illness and treatment

Variables	Baghdad (n=100)	Karbala (n=200)	Total (n=300)
I did not receive any information	25 (25.0%)	55 (27.5%)	80 (26.7%)
I received information, but it was insufficient for me	25 (25.0%)	69 (34.5%)	94 (31.3%)
I received enough information for me	50 (50.0%)	76 (38.0%)	126 (42.0%)

Table 8. Rating the type of assistance received when dealing with their health situation[†]

Variables	Baghdad (n=100)	Karbala (n=200)	Total (n=300)
Getting to know about my disease, the treatment[‡], and the side effects			
Not important at all[†](1)	22 (22.0%)	26 (13.0%)	48 (16.0%)
Slightly important (2)	4 (4.0%)	19 (9.5%)	23 (7.7%)
Moderately important (3)	3 (3.0%)	21 (10.5%)	24 (8.0%)
Important (4)	7 (7.0%)	17 (8.5%)	24 (8.0%)
Very important[†](5)	64 (64.0%)	117 (58.5%)	181 (60.3%)
Talking to someone who has had a similar health condition to mine, about my fears, or talking to someone about my disease			
Not important at all[†](1)	33 (33.0%)	54 (27.0%)	87 (29.0%)
Slightly important (2)	9 (9.0%)	20 (10.0%)	29 (9.7%)
Moderately important (3)	20 (20.0%)	22 (11.0%)	42 (14.0%)
Important (4)	10 (10.0%)	28 (14.0%)	38 (12.7%)
Very important[†](5)	28 (28.0%)	76 (38.0%)	104 (34.7%)
Getting help about where to go for each service within the hospital			
Not important at all[†](1)	28 (28.0%)	82 (41.0%)	110 (36.7%)
Slightly important (2)	17 (17.0%)	59 (29.5%)	76 (25.3%)
Moderately important (3)	31 (31.0%)	33 (16.5%)	64 (21.3%)
Important (4)	15 (15.0%)	12 (6.0%)	27 (9.0%)
Very important[†](5)	9 (9.0%)	14 (7.0%)	23 (7.7%)
Getting help with transportation			
Not important at all[†](1)	77 (77.0%)	82 (41.0%)	159 (53.0%)
Slightly important (2)	4 (4.0%)	32 (16.0%)	36 (12.0%)
Moderately important (3)	9 (9.0%)	20 (10.0%)	29 (9.7%)
Important (4)	5 (5.0%)	15 (7.5%)	20 (6.7%)
Very important[†](5)	5 (5.0%)	51 (25.5%)	56 (18.7%)
Getting help with a place to stay			
Not important at all[†](1)	93 (93.0%)	121 (60.5%)	214 (71.3%)
Slightly important (2)	3 (3.0%)	39 (19.5%)	42 (14.0%)
Moderately important (3)	3 (3.0%)	15 (7.5%)	18 (6.0%)
Important (4)	1 (1.0%)	5 (2.5%)	6 (2.0%)
Very important[†](5)	0 (0.0%)	20 (10.0%)	20 (6.7%)

Psychosocial Support

The participants of the study rating the severity of problems that they encounter as a very big problem like fear from disease (58.7%), while rating the severity of the other situations as not important at all like feeling physically imperfect (39.7%) and finally rating the severity of some problems as not applied to them like different doctor gave different information (78.7%). The details are presented in Table 9.

Other situations faced by the patients and/or the caregivers

Participants rated the situations they faced as not hard at all: Having their records (93.3%), also rated the waiting list as moderately hard (37.3%), and not having a place to rest throughout the day was slightly hard (33%); the details are presented in Table 10.

DISCUSSION

This study discusses the current situation of cancer patients. However, the findings of this study indicated that more than half of the patients were unemployed (54.8%) and had low incomes (60.3%); this may affect the provision of treatment and adherence to it. Despite free medicines and services within the centers, Iraq Pharmaceutical Country Profile 2020 confirmed the deficiency of essential medicines in public healthcare facilities^{18,19}. According to the study results, breast cancer was the most

Table 9. Rating the severity of problems in situations that the patients encounter during their treatment

Variables	Baghdad (n=100)	Karbala (n=200)	Total (n=300)
I am afraid of the progression of my disease. †			
Not applied to me †(0)	4 (4.0%)	10 (5.0%)	14 (4.7%)
No problem at all (1)	5 (5.0%)	11 (5.5%)	16 (5.3%)
Slightly problematic (2)	3 (3.0%)	17 (8.5%)	20 (6.7%)
Moderately problematic (3)	7 (7.0%)	23 (11.5%)	30 (10.0%)
Big problem (4)	16 (16.0%)	28 (14.0%)	44 (14.7%)
Very big problem (5)	65 (65.0%)	111 (55.5%)	176 (58.7%)
Other people often react in an inconsiderate/unsympathetic. ‡			
Not applied to me †(0)	7 (7.0%)	10 (5.0%)	17 (5.7%)
No problem at all (1)	7 (7.0%)	9 (4.5%)	16 (5.3%)
Slightly problematic (2)	8 (8.0%)	21 (10.5%)	29 (9.7%)
Moderately problematic (3)	13 (13.0%)	35 (17.5%)	48 (16.0%)
Big problem (4)	21 (21.0%)	31 (15.5%)	52 (17.3%)
Very big problem (5)	44 (44.0%)	94 (47.0%)	138 (46.0%)
I feel physically imperfect.			
Not applied to me †(0)	19 (19.0%)	25 (12.5%)	44 (14.7%)
No problem at all (1)	45 (45.0%)	74 (37.0%)	119 (39.7%)
Slightly problematic (2)	9 (9.0%)	62 (31.0%)	71 (23.7%)
Moderately problematic (3)	5 (5.0%)	14 (7.0%)	19 (6.3%)
Big problem (4)	7 (7.0%)	6 (3.0%)	13 (4.3%)
Very big problem (5)	15 (15.0%)	19 (9.5%)	34 (11.3%)
I am afraid of not being able to work anymore.			
Not applied to me †(0)	14 (14.0%)	19 (9.5%)	33 (11.0%)
No problem at all (1)	43 (43.0%)	60 (30.0%)	103 (34.3%)
Slightly problematic (2)	11 (11.0%)	44 (22.0%)	55 (18.3%)
Moderately problematic (3)	15 (15.0%)	25 (12.5%)	40 (13.3%)
Big problem (4)	4 (4.0%)	18 (9.0%)	22 (7.3%)
Very big problem (5)	13 (13.0%)	34 (17.0%)	47 (15.7%)
I often have trouble sleeping.			
Not applied to me †(0)	5 (5.0%)	5 (2.5%)	10 (3.3%)
No problem at all (1)	11 (11.0%)	20 (10.0%)	31 (10.3%)
Slightly problematic (2)	13 (13.0%)	32 (16.0%)	45 (15.0%)
Moderately problematic (3)	17 (17.0%)	50 (25.0%)	67 (22.3%)
Big problem (4)	15 (15.0%)	31 (15.5%)	46 (15.3%)
Very big problem (5)	39 (39.0%)	62 (31.0%)	101 (33.7%)
I am often tense and nervous.			
Not applied to me †(0)	4 (4.0%)	1 (0.5%)	5 (1.7%)
No problem at all (1)	7 (7.0%)	8 (4.0%)	15 (5.0%)
Slightly problematic (2)	18 (18.0%)	28 (14.0%)	46 (15.3%)
Moderately problematic (3)	29 (29.0%)	38 (19.0%)	67 (22.3%)
Big problem (4)	14 (14.0%)	31 (15.5%)	45 (15.0%)
Very big problem (5)	28 (28.0%)	94 (47.0%)	122 (40.7%)
It isn't easy to talk with my family about my situation.			
Not applied to me †(0)	61 (61.0%)	84 (42.0%)	145 (48.3%)
No problem at all (1)	12 (12.0%)	46 (23.0%)	58 (19.3%)
Slightly problematic (2)	1 (1.0%)	36 (18.0%)	37 (12.3%)
Moderately problematic (3)	3 (3.0%)	13 (6.5%)	16 (5.3%)
Big problem (4)	3 (3.0%)	6 (3.0%)	9 (3.0%)
Very big problem (5)	20 (20.0%)	15 (7.5%)	35 (11.7%)
Since I developed cancer, I have been going out less.			
Not applied to me †(0)	25 (25.0%)	16 (8.0%)	41 (13.7%)
No problem at all (1)	8 (8.0%)	20 (10.0%)	28 (9.3%)
Slightly problematic (2)	6 (6.0%)	38 (19.0%)	44 (14.7%)
Moderately problematic (3)	14 (14.0%)	32 (16.0%)	46 (15.3%)

Big problem (4)	18 (18.0%)	37 (18.5%)	55 (18.3%)
Very big problem (5)	29 (29.0%)	57 (28.5%)	86 (28.7%)
A different doctor gave different information about my illness.			
Not applied to me †(0)	94 (94.0%)	142 (71.0%)	236 (78.7%)
No problem at all (1)	3 (3.0%)	34 (17.0%)	37 (12.3%)
Slightly problematic (2)	0 (0.0%)	7 (3.5%)	7 (2.3%)
Moderately problematic (3)	0 (0.0%)	2 (1.0%)	2 (0.7%)
Big problem (4)	1 (1.0%)	2 (1.0%)	3 (1.0%)
Very big problem (5)	2 (2.0%)	13 (6.5%)	15 (5.0%)

frequently diagnosed type among the participants (37.6%). This finding is congruent with multiple studies in the world that found that breast cancer is a common concern globally²⁰⁻²³. The possible explanation is the high spread of risk factors, such as hormonal factors in women, an early screening program to detect it, and awareness programs available in government institutions. Interestingly, study participants used Multiple treatment options; about two-thirds used chemotherapy (60%). As described in another study, Chemotherapeutic drugs have played a significant role in recent decades²⁴. Another important finding was that the top four side effects faced by the participants were weakness, loss of appetite, hair loss, and diarrhea. This finding aligns with a study conducted in Spain, where 76.4% of participants reported fatigue as their predominant symptom²⁵. Another study found that women diagnosed with breast cancer identified alopecia as the third most undesired consequence of chemotherapy²⁶.

In addition, participants in this study reported several side effects as very worrying side effects like joint pain, weakness, and vomiting. It is likely because they do not have enough information about the side effects and are not psychologically prepared for them, so they are afraid of these side effects. This prediction agrees with another study that suggested improving awareness and mitigating adverse chemotherapy effects through counseling²⁷. Most of the patients in this study reported to their doctors or nurses (84.3%) when they faced side effects and did not miss their appointments during their treatment journey. This may be because cancer disease is a serious condition and can't be taken lightly; very few participants (7.3%) missed their sessions. Similar results were described in a randomized controlled trial of patient navigation that found that adherence rates varied between 87% and 94%²⁸. In contrast, a cross-sectional survey in Uganda suggested numerous individuals failed to attend medical appointments. The insufficiency of medication funds was the predominant reason for missed appointments¹⁶. The present study disclosed that even more than one-third of the participants rated that they received enough information about their disease (42%); two-thirds of them were not consulted about side effects (71.3%) or how many sessions were needed to come to the Centre (70.3%). It is possible that due to a shortage of healthcare providers and a large number of patients, the physicians do not have enough time to explain the disease.

This result agrees with another study that shows that participants reported a low satisfaction rate with the guidance information supplied upon entering the center¹². Another study finding is that more than one-third of the participants used taxis for transportation (47.3%). It is probably due to the patients' financial condition; they didn't own cars and couldn't ride buses because their health conditions did not allow for that. However, multiple studies have described transportation barriers and found that missed sessions due to transportation issues can affect patients' treatment success^{29,30}. The other important finding is that the main place participants stayed while dealing with cancer was at their homes (87.3%), as most participants lived in the same city as the Center (78.7%). Those who live in another city may go back daily if their duration of administration is less than 8 hours. In contrast, a study

Table 10. Rating of challenges faced by the patients and/or the caregivers

Variables	Baghdad (n=100)	Karbala (n=200)	Total (n=300)
Being thirsty throughout the day			
Not hard at all (1)	78 (78.0%)	71 (35.5%)	149 (49.7%)
Slightly hard (2)	9 (9.0%)	48 (24.0%)	57 (19.0%)
Moderately hard (3)	3 (3.0%)	34 (17.0%)	37 (12.3%)
Hard (4)	2 (2.0%)	13 (6.5%)	15 (5.0%)
Very hard (5)	8 (8.0%)	34 (17.0%)	42 (14.0%)
Being hungry throughout the day			
Not hard at all (1)	84 (84.0%)	77 (38.5%)	161 (53.7%)
Slightly hard (2)	10 (10.0%)	49 (24.5%)	59 (19.7%)
Moderately hard (3)	2 (2.0%)	31 (15.5%)	33 (11.0%)
Hard (4)	3 (3.0%)	16 (8.0%)	19 (6.3%)
Very hard (5)	1 (1.0%)	27 (13.5%)	28 (9.3%)
Not having a place to rest throughout the day.			
Not hard at all (1)	24 (24.0%)	73 (36.5%)	97 (32.3%)
Slightly hard (2)	40 (40.0%)	59 (29.5%)	99 (33.0%)
Moderately hard (3)	28 (28.0%)	45 (22.5%)	73 (24.3%)
Hard (4)	7 (7.0%)	13 (6.5%)	20 (6.7%)
Very hard (5)	1 (1.0%)	10 (5.0%)	11 (3.7%)
Not having access to a clean toilet throughout the day.			
Not hard at all (1)	5 (5.0%)	70 (35.0%)	75 (25.0%)
Slightly hard (2)	13 (13.0%)	52 (26.0%)	65 (21.7%)
Moderately hard (3)	30 (30.0%)	43 (21.5%)	73 (24.3%)
Hard (4)	21 (21.0%)	22 (11.0%)	43 (14.3%)
Very hard (5)	31 (31.0%)	13 (6.5%)	44 (14.7%)
Waiting for a long time to be seen by hospital staff			
Not hard at all (1)	15 (15.0%)	34 (17.0%)	49 (16.3%)
Slightly hard (2)	14 (14.0%)	47 (23.5%)	61 (20.3%)
Moderately hard (3)	37 (37.0%)	75 (37.5%)	112 (37.3%)
Hard (4)	13 (13.0%)	17 (8.5%)	30 (10.0%)
Very hard (5)	21 (21.0%)	27 (13.5%)	48 (16.0%)
Not finding my way around the hospital.			
Not hard at all (1)	94 (94.0%)	1 5 9 (79.5%)	253 (84.3%)
Slightly hard (2)	6 (6.0%)	29 (14.5%)	35 (11.7%)
Moderately hard (3)	0 (0.0%)	10 (5.0%)	10 (3.3%)
Hard (4)	0 (0.0%)	2 (1.0%)	2 (0.7%)
Very hard (5)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Not understanding the information I've received about my disease.			
Not hard at all (1)	90 (90.0%)	1 4 1 (70.5%)	231 (77.0%)
Slightly hard (2)	9 (9.0%)	22 (11.0%)	31 (10.3%)
Moderately hard (3)	1 (1.0%)	28 (14.0%)	29 (9.7%)
Hard (4)	0 (0.0%)	5 (2.5%)	5 (1.7%)
Very hard (5)	0 (0.0%)	4 (2.0%)	4 (1.3%)
Having my records lost by hospital staff			
Not hard at all (1)	93 (93.0%)	1 8 7 (93.5%)	280 (93.3%)
Slightly hard (2)	5 (5.0%)	12 (6.0%)	17 (5.7%)
Moderately hard (3)	0 (0.0%)	1 (0.5%)	1 (0.3%)
Hard (4)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Very hard (5)	2 (2.0%)	0 (0.0%)	2 (0.7%)
Not understanding what comes next.			
Not hard at all (1)	50 (50.0%)	42 (21.0%)	92 (30.7%)
Slightly hard (2)	25 (25.0%)	51 (25.5%)	76 (25.3%)

Moderately hard (3)	20 (20.0%)	45 (22.5%)	65 (21.7%)
Hard (4)	3 (3.0%)	31 (15.5%)	34 (11.3%)
Very hard (5)	2 (2.0%)	31 (15.5%)	33 (11.0%)
Drugs out of stock			
Not hard at all (1)	65 (65.0%)	1 0 4 (52.0%)	169 (56.3%)
Slightly hard (2)	18 (18.0%)	63 (31.5%)	81 (27.0%)
Moderately hard (3)	7 (7.0%)	15 (7.5%)	22 (7.3%)
Hard (4)	3 (3.0%)	8 (4.0%)	11 (3.7%)
Very hard (5)	7 (7.0%)	10 (5.0%)	17 (5.7%)

in Canada found that over half of the respondents (61.7%) indicated that traveling for cancer therapy hindered their capacity to perform their job or academic responsibilities. In comparison, nearly a quarter (23.4%) stated that such travel completely obstructed their ability to work³¹.

According to Cateche-Condor et al., patients residing in remote locations or distant from treatment centers face considerable obstacles when trying to access cancer therapy. Reliable transportation can be scarce in these places, making it hard for patients to attend appointments and maintain a regular treatment regimen³². Family support was noticed in this study, and most participants came with their families to the Center (86.7%). The possible reason for this may be that they had social support, as more than two-thirds were married (67.7%) and not living alone. In contrast to this finding, a study in Uganda demonstrated that Numerous individuals were deficient in social support. It was shocking that many of the study's participants were not staying with their caregiver(s) and that most arrived at the cancer clinic alone¹⁶. Moreover, a prospective, cross-sectional, multicenter study found that Encouragement from close companions correlated with an enhanced battling spirit in women with breast cancer³³. The participants also reported that it is essential for them to have information about their health condition (60.3%). The explanation for this may be to know what will happen to them, not be surprised by it, and not know what to do. This finding aligns with those reported by Josef et al., which indicated a predominantly elevated demand for information. Numerous patients stated that they experienced feelings of being overwhelmed or inadequately informed at various stages of the process.

Particularly during a consultation, the quantity of information provided to the patient seems critical and must align with their specific demands³⁴. Another significant thing for the participants was talking to someone with a similar health condition (43.7%). Maybe they can share their experiences and suffering with each other. Similar results were conducted in younger patients with cancer who exhibit a keen interest in engaging in peer support initiatives. Notwithstanding the internet age, conventional methods of peer support remain vital in assisting individuals with cancer³⁵. However, the study shows that some assistance is not important for the patients, such as aid with accommodation, likely due to most of them already living in the same city. Help with transportation, probably not believing it will be provided, and guidance on where to go within the hospital. The possible explanation is that the centers are small. There were directional labels to point patients. These findings align with a study in Maseru, Lesotho, which found that participants had positive views of cancer care and preferred rapid medical consultation for cancer symptoms³⁶.

Other essential findings showed some challenges in psychosocial support, like fear of the disease (58.7%), and Other people often reacting [inconsiderate/unsympathetic (46%).These results align with a descriptive study in Baghdad that found that individuals among all

groups had substantial psychological demands above 60%³⁷. Also, another study indicates that if healthcare providers comprehensively understood the psychological challenges faced by cancer patients, all parties involved in medical care would gain³⁸. Elshami et al. indicated that in the Middle East, the predominant barriers to accessing cancer care are fear³⁹. Generally, a recent research study in Iraq showed a low level of unmet needs among cancer patients¹³.

The participants in this study rated the situation of different information given by other doctors (78.7%) as not applicable to them, possibly indicating that there is an evidence-based guideline for cancer disease, and not based on personal opinion. Also, the participants had no difficulty talking with their families (48.3%). Maybe they have a supportive and understanding family. This study also showed that most participants rated most situations faced in the center as not hard at all. Unlike these findings, AL-Awadi et al indicated that Participants expressed dissatisfaction with some services rendered by physicians, nurses, or institutions. The findings underscored the imperative to customize healthcare services, improve accessibility, and raise the total quality of care to increase patient happiness substantially¹².

On the other hand, several participants have difficulties in some of these situations, like the Waiting list (37.3%), who do not have a place to rest (33%). The potential explanation for this is that the number of patients is large compared to the number of healthcare workers and the limited number of radiation devices. Also, it is possible because the centers need expansion, reconstruction, and development. Similar results were reported in Lesotho, indicating that Patients experienced difficulties queuing for treatments at several healthcare facilities⁶. Ramutumbu et al. discovered that patients experience discomfort due to prolonged wait times and a deficiency of physicians, which impede timely diagnosis and treatment⁴⁰.

LIMITATION

There is a dearth of up-to-date research, a pervasive condition, and a mountain of data to collect and analyze. Additionally, most patients were recruited from consulting clinics because surveying hospitalized patients is not feasible due to their health conditions.

CONCLUSION

To overcome these limitations, a well-established healthcare infrastructure should be implemented, communication skills should be improved, and multidisciplinary teams should be developed, including oncologists and psychiatric physicians. Additionally, cancer centers should have adequate funding to improve their service, and health insurance for cancer patients is essential.

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