

**Ministry of Higher  
Education and Scientific  
Research  
Babylon University  
College of Nursing**



وزارة التعليم العالي والبحث العلمي  
جامعة بابل  
كلية التمريض

## **((Assessment of the knowledge of students of the College of Nursing about leukemia in the City of Hilla))**

**A Project Submitted to the Council of the College of Nursing,  
University of Babylon in Partial Fulfillment of the Requirements for  
the Degree of Bachelor Science of Nursing**

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## بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

" وَأَنْزَلَ اللَّهُ عَلَيْكَ الْكِتَابَ وَالْحِكْمَةَ وَعَلَّمَكَ مَا لَمْ تَكُن تَعْلَمُ [] وَكَانَ فَضْلُ اللَّهِ عَلَيْكَ عَظِيمًا "

صدق الله العلي العظيم

صورة النساء الآية ١١٣

## الإهداء

إلى صاحب السيرة العطرة والفكر المستنير،  
فلقد كان له الفضل الأول في بلوغني التعليم العالي  
(والدي الحبيب)، أطال الله في عمره.

إلى من وضعتني على طريق الحياة، وجعلتني رابط الجأش  
وراعتني حتى صرت كبيرا  
(أمي الغالية)، أطال الله في عمرها.

إلى إخوتي؛ من كان لهم بالغ الأثر في كثير من العقبات والصعاب. إلى

جميع أساتذتي الكرام؛ ممن لم يتوانوا في مديد العون لي أهدي إليكم

بمختار الموسم.

## Supervisor certificate:

I certify that my research project entitled ( Assessment of the knowledge of students of the College of Nursing about leukemia in the city of Hilla)Prepared in the nursing department (**community health**)

University of Babylon  
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### **By the students:**

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**The name of the supervisor:**

**Prof. Dr. Naji Yasser**

**Signature:**

## كلمه شكر

نحمد الله عز وجل الذي وفقنا في إتمام هذا البحث العلمي، والذي ألهمنا

الصحة والعافية والعزيمة

فالحمد لله حمدا كثيرا

نتقدم بجزيل الشكر والتقدير إلى الاستاذ الدكتور المشرف "ناجي ياسر"

على كل ما قدمه لنا من توجيهات ومعلومات قيمة ساهمت في إثراء موضوع دراستنا في

جوانبها المختلفة، كما نتقدم بجزيل الشكر إلى أعضاء لجنة المناقشة الموقرة.

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## Abstract

Cancer is the second leading cause of death in the world, and about 8.8 million people died in 2017, according to the World Health Organization. Attributable to one in six deaths worldwide, low- and middle-income countries account for nearly 70% of cancer deaths, and almost a third of all cancer deaths are due to the following five behavioral factors. Adequate intake of fruits and vegetables, physical inactivity, tobacco use, alcohol, tobacco use is the most important risk factor associated with cancer, responsible for approximately 22% of cancer deaths, and is common for symptoms of cancer. Late appearance and inability to access diagnostic and treatment services.

A descriptive study was conducted at the College of Nursing, Babylon, from December 2022 to the end of April 2023. (50samples) were taken from students of the College of Nursing in Babylon.

The percentage of females reached 46% and for males 54%, and the ages of the participants ranged between 20-24

years, and the participation rate reached 92%, while the percentage of ages ranged between 24-30% 8%, and the research was conducted. In all stages of the College of Nursing, and the percentage of the largest participants for the fourth stage was 52%.

Developing educational programs for leukemia patients that increase their knowledge about leukemia, its treatment and diet, so that patients and their families participate in these programmes. Developing and designing educational leaflets and pamphlets that are part of educational programs to spread awareness and knowledge about leukemia, its causes, complications and treatments...and make that part of the responsibilities of health educators and nurses.





Chapter One  
Introduction

# 1. 1. Introduction

Cancer is the second leading cause of death in the world, and about 8.8 million people died in 2017, according to the World Health Organization. Attributable to one in six deaths worldwide, low- and middle-income countries account for nearly 70% of cancer deaths, and almost a third of all cancer deaths are due to the following five behavioral factors. Adequate intake of fruits and vegetables, physical inactivity, tobacco use, alcohol, tobacco use is the most important risk factor associated with cancer, responsible for approximately 22% of cancer deaths, and is common for symptoms of cancer. Late appearance and inability to access diagnostic and treatment services [1].

Tobacco and alcohol use, an unhealthy diet, and physical inactivity are major risk factors associated with leukemia worldwide. Certain chronic infections are risk factors for leukemia and are of greatest importance in low- and middle-income countries. Leukemia is likely to respond For effective treatment if detected early, and lead to an increase in the probability of survival of those infected with it and to reduce rates of morbidity resulting from it and treat it at lower costs, and significant improvements can be made to the lives of patients with leukemia by detecting it early and avoiding delaying their care [ 3,2].

The nature of leukemia and its treatments may be the same for all patients, but the difference in patients' reactions to it and how they respond to injury and how to adapt to it, from its inception and entering into symptoms, and all of this is determined by several factors that differ from one patient to another such as the duration and severity of the injury, and the patient's family and social support and support. And factors due to the patient's self, such as his acceptance of the disease, and his willpower, which was previously formed in his personality in the different stages of development [4], and that the patient's ability to

successfully agree or not depends to a large extent on his previous acquired experiences, as well as on the extent of his success in building a positive perception of . And that this compatibility can be stabilized by meeting the educational needs of these patients, including educational needs related to diet, physical condition, treatment, medication, social and other needs. Other necessary education, which represents the compass meeting to raise the level of adaptation and their ability to agree with themselves[5].

Nursing plays an important role in caring for leukemia patients, and this is not limited to providing care for them during the treatment session in the hospital The Oncology Center goes beyond that, where the nurse receives the patient and performs all the necessary analyzes.blood, weight and clinical evaluation to educate and reassure him about his health condition, and this role extends to the moment he leaves the center,And monitoring the occurrence of any complications resulting from the disease, and the nurse provides the necessary preventive care to the patient and assesses his condition.Clinically, in addition to providing advice and guidance and educating him regarding his health condition, all of the aforementioned nursing roles in care A patient with leukemia gives a brief but very important idea of the importance of the role of nursing in caring for leukemia patients through

Comprehensive health care that is provided and based on a serial and organized nursing process linked to his educational needs, as that The educational needs of the patient are considered a cornerstone and a basic starting point for providing this care [6] Hence the importance of this study stems from To assess the educational needs of patients with leukemia.

Because a leukemia patient has many physical and psychological needs, the nursing role is very challenging. A diagnosis of leukemia can elicit a great fear of death, which makes the patient unable to cope with it, and increases his need for diligent support in addition to teaching [7]. In addition, the patient's family needs to be informed about the treatment and

prognosis. Therefore, the nurse must develop an educational plan with short- and long-term goals, specific nursing procedures, and periodic evaluation of progress towards achieving the goal [8]. Satisfying basic human needs promotes wellness on the contrary [9] while unmet needs can lead to altered health status of the client [10]. For nurses, it is essential to meet patients' physical, psychological, social and educational needs [11]. Moreover, they should be sensitive to the information-seeking behavior of cancer patients and their families [12]

## **1.2. Objectives of the Study**

- 1-Assessment of nurses students' knowledge toward blood cancer.
- 2-Identify relationships between Social demographic of students knowledge



## Chapter second

## 2-1.methodology

Quantitative design (a descriptive study was conducted at the College of Nursing in Babylon from December 2022 to the end of April 2023, 50 samples were taken from students of the College of Nursing in Babylon. The questionnaire included sexual parts: leukemia, signs and symptoms of leukemia, risk factors and treatment of leukemia

**Study design:** A descriptive study conducted on nursing students in Babylon province.

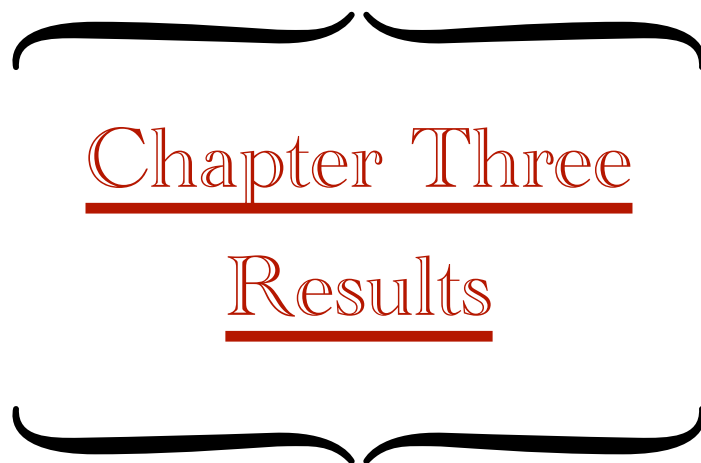
**Study location:** College of Nursing, University of Babylon

**Sample size:** 50

**Study period:** December 2022 - April 2023

**Sampling procedure:** All nursing students  
,non probability(convenience sampling)

Available in different aspects of the hospitals during the survey were included in the study.



Chapter Three  
Results

### 3-1 .Table 1

Describe the demographic data of the participants(n=50)

Variables	Mean±SD	Minimum	Maximum
Age	22±2.4	19	35
		Frequency	Percent
Education	first	4	8%
	Second	10	20%
	Third	8	16%
	Forth	28	56%
Gender	Male	26	52%
	Female	24	48%
Marital status	Single	41	82%
	Married	9	18%
Residual	Rural	17	34%
	Urban	33	66%

The results of our study revealed that the average age of the participants is  $22 \pm 2.4$ , 56% are in the fourth stage, 52% of them are men, 82% of them are unmarried, and 66 live in urban areas, as shown in (Table 1).



### 3-2. Table 2

N	Leukemia	Yes	No
١	They are malignant disorders that affect the .blood and blood-formed tissues Bone marrow _ Lymphatic system _Spleen _	14%	54 %
٢	.Leukemia is contagious	22%	78%
٣	The body with leukemia produces huge numbers of white blood cells that do not .function	24%	76%
٤	Leukemia only affects the elderly	90%	10%

Assess participants' knowledge about leukemia(n=50)

N	Factors	Yes	No
١	Excessive radiation exposure	84%	16%
٢	Working with people with leukemia	26%	74%
٣	Smoking.	82%	18%
٤	Exposure to industrial chemicals	90%	10%
٥	History of other cancers	80%	20%
٦	Impaired immunity	76%	24%
٧	The fat	48%	52%
٨	Heredity	66%	34%
٩	Advanced age	28%	62%

N	Signs and symptoms of leukemia	Yes	No
1	Feeling tired and tired	92%	8%
2	Vomiting	56%	54%
3	Easy bleeding and bruising.	82%	18%
4	Swelling and bleeding gums.	90%	10%
5	Loss of appetite or feeling fullness after eating a little food.	80%	20%
6	Muscle pain.	74%	26%
7	Pain in the stomach	58%	52%
8	Unexplained night fever or sweats.	56%	54%
9	Enlarged lymph nodes	68%	32%
10	Lose too much weight for no reason.	80%	20%
11	Headaches	78%	22%
12	Crowd.	38%	62%
13	The temperature rises	88%	22%
14	Shortness of breath	56%	44%
15	Repeated infections	54%	46%
16	Nausea	64%	36%
17	Humor	32%	68%
18	Joint pain.	82%	18%
19	Suffiness and discomfort in the abdomen.	58%	42%
٢٠	Drought	60%	30%

N	Diagnosis	Yes	No
1	Complete blood count CBC test	86%	14%
2	Examination of blood swab under a microscope	88%	12%
3	Liver analysis and communic	76%	24%
4	A rise in the number of white blood cells WBC	78%	22%
5	Bone marrow biopsy	74%	26%
6	Analysis of kidney function	54%	46%
7	Urine analysis	60%	40%

N	Methods of treatment	Yes	No
1	Chemotherapy	86%	14%
2	Treatment with antibiotics	84%	16%
3	Surgery	64%	36%
4	Protection from transmission during treatment	58%	42%
5	Stem cell transplantation during radiotherapy and chemotherapy	78%	22%
6	Diet therapy (diet)	58%	42%
7	Radiation therapy.	78%	22%
8	Vascular catheterization	36%	64%

The results of our study revealed that knowledge of blood cancer is good 73%, knowledge of breast cancer causes is good 76%, signs and symptoms are medium 62%, knowledge of diagnosis is also good 77%, and treatments are good 75%, as shown in Table 2. 2

### .3-3Table 3

The relationship between demographic data and knowledge of leukemia

Variables		Education				p value
		First	second	Third	Forth	
knowledge	No	0	1	1	5	0.766
	Yes	4	9	7	23	
Reasons	No	3	2	1	3	0.019
	Yes	1	8	7	25	
Signs and symptoms	No	0	2	0	2	0.383
	Yes	4	8	8	26	
Diagnosis	No	0	1	0	3	0.711
	Yes	4	9	8	25	
Treatment	No	0	2	0	3	0,483
	Yes	4	8	8	25	

The results of our study revealed that there is a statistically significant relationship between the level of education and the causes of leukemia  $p < 0.05$ . There is no statistically significant relationship between the level of education and knowledge, signs and symptoms, diagnosis and treatment  $p > 0.05$  ( Table 3)



# Chapter four



## 4-1. Discussion of the Results

This study aims to determine the level of knowledge of nursing students regarding leukemia. We found that the knowledge of nursing students was higher than the average score, the average age of the participants is 22, their ages ranged between 19 and 30, and the number of samples (50 samples), the percentage of males was 54% and the percentage of females was 46%, 66% lived in urban areas and 34% in rural areas. The results of a number of studies indicated a moderate level of knowledge among male and female nurses, consistent with our findings. A similar study was conducted in Ain Shams University Hospitals [13].

The current study showed that students' knowledge of leukemia was good with a percentage of (73%), good for risk factors with a percentage of (76%), average to signs and symptoms by (62%), good for causes with a percentage of (77%), and good for students' knowledge of treatment methods with a percentage of (75%), which is what Consistent with a study conducted in Australia [14], the results of our study also revealed that there is a statistically significant relationship between the level of education and the causes of leukemia. This result agreed with the results of the Krishnasamy et al (2011) study, which aimed to assess the educational needs of leukemia patients, and showed that 1% of the patients had a high level of needs related to the symptoms of the disease and its treatment methods, and 29 of them had an average level of educational needs related to

leukemia. Symptoms of the disease and its treatment [15]. On the other hand, the results of the current study did not agree with the results of an Indian study conducted by Halkett et al (2014) to assess the level of educational needs of patients with bone marrow cancer, which showed that 92% of the respondents had a very high level of educational needs related to symptoms, treatment, and complications of this treatment, while only 8% of them, They have a low level of educational needs related to the symptoms, treatment and complications of the disease [16].

The results of the current study were also generally good Students' knowledge of their role in caring for leukemia patients. Few areas have such low percentages of valid knowledge, and this one was Regarding infection prevention precautions, nursing care for skin complications. These two areas are important given the height Susceptibility of leukemic patients to infections and skin problems. In line with this, Lachance et al. [17], in a study in Canada, reported that patients with chronic lymphocytic leukemia They are highly susceptible to infection, which can have negative effects their illnesses and deaths. Therefore these authors suggested Immunoglobulin replacement therapy for prevention and management from infections. In agreement with our findings, a recent study in the South Africa reported a similarly low level of knowledge about infection control among nurses [18].

## **4-2. Conclusion:**

- 1-High percentage of study sample were Males 54%
- 2- high percentage of the study sample between 20 to 24 was 91.6 %
- 3-The study sample were fourth stage with percentage 52%
- 4-The percentage of knowledge among students was higher than the average

## **4-3. Recommendations :**

In the light of the results of the current study, the following recommendations can be suggested:

- 1- Developing educational programs for leukemia patients that increase their knowledge about leukemia, its treatment and diet, so that patients and their families participate in these programmes.
- 2- Developing and designing educational leaflets and pamphlets that are part of educational programs to spread awareness and knowledge about leukemia, its causes, complications and treatments...and make that part of the responsibilities of health educators and nurses.
- 3- Re-application of the current study on a wider segment of patients to obtain a more comprehensive, broader and more detailed database and accuracy.



## The reference

- [1]. WHO(2017) <https://www.who.int/ar/news-room/fact-sheets/detail/cancer>
- [2]. Kahn, N. (2007). Leukemia types, treatments, complication. J. Eur Cancer, 44: 195–204
- [3]. Gralla, M. (2005). The Perugia Antiemetic Consensus Guideline process: methods, procedures, and participants. J. Supp Care Cancer, 13, 77–79
- [4]. Holland, T. (2008). The new standard of quality cancer care: integrating the psychosocial aspects in routine cancer from diagnosis through survivorship. J. Cancer, 14, 425 –428
- [5]. Armstrong, D. (2009). Social and psychological effects among cancer patients. J. Social Science Med, 24, 651– 657
- [6]. Ahmed, E. , (2010). Assessment of Nurses Knowledge and Performance Regarding the Nursing Care Given to Leukemia patients. Unpublished Master Thesis Department of Medical Surgical Nursing Science, Faculty of Nursing, Tanta University, pp: 62–78
- [7]. Leukemia & Lymphoma Society (2011) Leukemia, long-term and late treatment effects.
- [8]. Bruce Joe Simmons–Morton, Walter HJ (2010) Introduction to Health Education and Health Promotion, WB Saunders, Philadelphia.

- [9]. Surhone LM, Tennoe MT, Henssonow SF (2010) Maslow's Hierarchy of Needs, VDM Publishing.
- [10]. Bastable SB, Grambet P, Jacobs KG (2011) Health Professionals as Educator: Principles of Teaching and Learning, Jones and Bartlett Learning, Sudbury, MA.
- [11]. Aziz N. M. , Roland J. H (2011) Trends and developments in cancer survival research: challenge and opportunity. *Semin Radiat Oncol* 13: 248–266.
- [12]. Kav S, Tokdemir G, Tasdemir R, Yalili A, Dinc D (2012) Patients with cancer and their relatives' beliefs, information needs and information-seeking behavior about cancer and treatment. *Asian Pac J Cancer Ex* 13: 6027–6032.
- [13]. Salem BN (2005) Care of neonates with respiratory distress on mechanical ventilators, Master thesis, Faculty of Nursing, Ain Shams University.
- [14]. Wu S, Chee D, Ugalde A, Butow P, Seymour J, and Schofield P (2015) Lack of congruence between patients' and health professionals' perspectives of adherence to imatinib therapy in treatment of chronic myeloid leukemia: A qualitative study *Palliat Support Care* 13: 255–263.
- [15]. Kishnasamy, H, Carrier, E. and Horton, G. (2001). Educational needs of cancer patients with Leukemia. *J. Eur Cancer*, 22,15 20
- [16]. Halkett, K. Dalton, WS. and Legant, P. (2014). Learning needs of Bon morrow cancer patients. *J. PLOS ONE*, 5: 12–6.

[17]. Lachance S, Christofides AL, Lee JK, Sehn LH, Ritchie BC, et al. (2016) A Canadian perspective on the use of immunoglobulin therapy to reduce infectious complications in chronic lymphocytic leukemia. *Curr Oncol* 23: 42–51.

[18]. Dramowski A, Whitelaw A, Cotton MF (2016) Healthcare-associated infections in children: Knowledge, attitudes and practice of paediatric healthcare providers at Tygerberg Hospital, Cape Town. *Paediatr Int Child Health* 29: 1–7

## خلاصة

السرطان هو السبب الرئيسي الثاني للوفاة في العالم ، وتوفي حوالي 8.8 مليون شخص في عام 2017 ، وفقاً لمنظمة الصحة العالمية . تُعزى إلى حالة وفاة واحدة من كل ست وفيات في جميع أنحاء العالم ، تمثل البلدان المنخفضة والمتوسطة الدخل ما يقرب من 70٪ من وفيات السرطان ، وتقريباً ثلث جميع وفيات السرطان ترجع إلى العوامل السلوكية الخمسة التالية . يعتبر تناول الفاكهة والخضروات بشكل كاف ، وقلّة النشاط البدني ، وتعاطي التبغ ، والكحول ، وتعاطي التبغ من أهم عوامل الخطر المرتبطة بالسرطان ، وهو المسؤول عن ما يقرب من 22٪ من وفيات السرطان ، وهو شائع لأعراض السرطان . الظهور المتأخر وعدم القدرة على الوصول إلى خدمات التشخيص والعلاج .

أجريت دراسة وصفية في كلية التمريض بابل في الفترة من كانون الأول (ديسمبر) 2022 إلى نهاية نيسان (أبريل) 2023 . تم أخذ (50 عينة) من طلاب كلية التمريض في بابل .

بلغت نسبة الاناث 46٪ وللذكور 54٪ وتراوحت اعمار المشاركين ما بين 20-24 سنة وبلغت نسبة المشاركة 92٪ بينما تراوحت نسبة الاعداد ما بين 24-30٪ و 8٪ و تم إجراء البحث . في جميع مراحل كلية التمريض وكانت نسبة أكبر المشاركين للمرحلة الرابعة 52٪ .

تطوير برامج تثقيفية لمرضى اللوكيميا تزيد من معرفتهم بسرطان الدم وعلاجه ونظامه الغذائي ، بحيث يشارك المرضى وذويهم في هذه البرامج . تطوير وتصميم النشرات والنشرات التثقيفية التي هي جزء من البرامج التعليمية لنشر الوعي والمعرفة حول سرطان الدم وأسبابه ومضاعفاته وعلاجاته . . . . وجعل ذلك جزءاً من مسؤوليات المربين الصحيين والممرضات .

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جامعة بابل  
كلية التمريض

## ((تقييم معرفة طلاب كلية التمريض جامعة بابل بسرطان الدم في مدينة بابل))

بحث مقدم من الطلاب الى مجلس كلية التمريض جامعة بابل وهو من شروط الحصول على  
شهادة البكالوريوس

بحث التخرج المقدم من الطلاب

حيدر خضير صاحب  
حيدر طعمه خضير  
حيدر فالح حسن  
دوريز خضر عباس

بإشراف:

د. ناجي ياسر

