

Effectiveness of an Educational Program on Nurses Knowledge toward Leukemic Patients at Kirkuk Oncology Center in Kirkuk City



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Abstract

Objective: To evaluate the effectiveness of an education program on nurses knowledge toward leukemia in Kirkuk Oncology center

Methodology: Quasi-experimental study carried out among 30 nurses at oncology center, the data collected by using questionnaire consisted of 43 items.

Results: 70% of the study group at age (20-29) years, 50% of them were males and females, Graduate Nursing Institute. They had low level of knowledge at pretest the grand mean was (1.25) and at posttest the level of knowledge improve to moderate level (1.6) after implementation of an educational program.

Conclusion: Nurses had un adequate knowledge about leukemia. Therefore it is need to identify the gap of knowledge and initiate training session to improve their information.

Recommendations: nurses had un adequate knowledge about leukemia. Therefore it is need to identify the gap of knowledge and initiate training session to improve their information.

Key words: effectiveness- education program- nurses knowledge- leukemic patients.

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Introduction

Malignant growth is relied upon to rank as the main source of death and the absolute most significant obstruction to expanding future in each nation of the world in the 21st century. As per gauges from the World Health Organization (WHO) in 2015, malignant growth is the first or second driving reason for death before age 70 years in 91 of 172 nations, and it positions third or fourth in an extra 22 nations (Bray et al., 2018).

The time period leukemia usually refers to white blood cells malignancies; a uncommon case springing up from crimson blood cells precursors is erythro-leukemia, additionally termed as Di-Guglielmo's disease. Leukemias contain types and subtypes. Acute leukemia consists of malignant problems that are unexpectedly deadly if left untreated but are doubtlessly curable with fabulous therapy. They are characterized via sudden uncontrolled boom of immature hemo-poietic cells at the expense of normal marrow function. Chronic myelocytic leukemia is a clonal sickness of pluripotent cells and is one of the myelo-proliferative disorders. Chronic lymphocytic leukemia is a neoplasm ensuing from proliferation of a single clone with heterogeneity of its own frozen at an early stage of lymphocyte differentiation and maturation (Hamayun, Khan, & Muhammad, 2005).

Objective: To evaluate the effectiveness of an education program on nurses knowledge in Kirkuk Oncology center.

Leukemia is a metastatic and malignant sickness for blood-making organs which is resulted due to incomplete evolution and tricky proliferation of white blood cells (WBCs) and its substrates in blood and bone marrow. Leukemia is accountable for 8% of complete cancer instances and includes all age organizations with exclusive occurrence and incidence rate in Iran and complete the world and reasons full-size dying toll and heavy prices for prognosis and treatment process (Koochi et al., 2015).

The nurses' presence is every day and regularly in the hospitals. Consequently, the relationship between the nurse and the affected person acquires a fantastic importance in the care process, The therapeutics communication is vital to promote warmth, loving and interest and, therefore, to promote measures towards the patient's psychological needs. Needs that can be extra observed with sufferers with cancer, for the reason that they are prone in associating the ailment with an eminent death. The nurse should as a consequence supply a holistic assistance, focusing the human being (Prearo, Gonçalves, Vinhando, & Menezes, 2011).

Nurses Knowledge: Nurses know-how it is a more technical thought that will require the nurse to combine statistics from various selections and to formulate a quantity of ideas about situation, and use analysis to

supply care to think and decrease uncertainty .

Educational Program: Any aggregate of getting to know trip made to facilitate adaptation of behavior carry out to fitness (Sharhan, 2016).

Effectiveness: The functionality to create a specific result or even to exert a unique measurable impact (Cambridge Dictionary, 2019).

Leukemic Patients: The functionality to create a specific result or even to exert a unique measurable impact (Cambridge Dictionary, 2019).

.Methodology

Design of the Study: The study design is a quasi-experimental.

Setting: The study was carried out on nurses working at oncology center in Kirkuk city.

Sample of the Study: The research sample includes (30) nurses working in oncology center. They are selected by using non

Rating and Scoring of the Study Instrument: The knowledge questionnaire form style was a multi choices have been scored and rated on two levels dichotomous scale correct answer and un correct answer,

probability sampling (purposive sample).The study sample has been chosen depending on the following nurses from all educational levels.

The study instrument was constructed depending on literature reviews and previous studies related to the leukemia. It is a questionnaire format for the research purpose and composed of three parts .

Demographic Data Form: This part consists of (3) items which include: (gender, age, level of education, in oncology wards and no. of training session related to the subject).

Index of knowledge: This part is related to the assessment of the knowledge of nurses for pre and post program. It is consisted of (43) items. The questionnaire constructed from the educational program of the study, the process of answering took about (30-45) minutes (the answering of questions done by using self-administrative method).

(2) points for the correct answer and (1) point for the un correct answer which assessed by cutoff point (0.33) due to scores (1 and 2) respectively. Scores of responses

are categorized according to the following level of nurses' knowledge: (1-1.33) = low level of knowledge, (1.34-1.67) = moderate level of knowledge and (1.68-2.00) = high level of knowledge.

Data Collection: The process of gathering information was conducted between December 8th 2019 to April 30th 2020.

Pilot Study: A trail version of a study (pilot study) was carried out from December 10th 2019 to 24th 2019 on (10) nurses at oncology center selected, prior to the original study and excluded from the sample of the study, and the process of answering took about (10-25) minutes (the answering of questions done by using self-administrative method).

Validity of the Study: Content validity of the instrument was determined by panel of experts who have had more than 5 years of experience in their field in relation to explore the lucidity, relevance, and adequacy of the questionnaire in order to accomplish the goals of the present study . The correction of the questions items were done and changed according to the notes and .

Results

Table (1) distribution of the study sample by their general information

	Variables	Frequency	Percent
Age	20-29	21	70.0
	30-39	8	26.7
	40-49	1	3.3

recommendations of the experts. The experts' suggestions and recommendations were taken into consideration and the final copy of the constructed instrument has become acceptable as a tool for conducting the study and to achieving the purpose.

Reliability: Reliability of the study: there are 2 types of reliability use for the research instrument is concerned with the consistency and dependability to measure a variable. The reliability of the questionnaire determined by (test-retest) for the stability reliability. Pearson correlation coefficient used to measure the reliability by using following formula. The correlation procedure is utilized to detect the reliability. The normal range of reliability coefficient is from (-1.00) through (.00) to (+1.00). The reliability coefficient is viewed as satisfactory when it is above (0.70) (Yount, 2006).

Statistical Data Analysis: The data of the study is done by using Microsoft offices excel 2010 and SPSS package ver. 20.

Gender	Total	30	100.0
	Male	15	50.0
	Female	15	50.0
Educational level	Total	30	100.0
	Graduate Preparatory nursing	12	40.0
	Graduate Nursing Institute	15	50.0
	Graduate Bachelor of Nursing	3	10.0
	Total	30	100.0

This table shows that 70% of the study were males and females, and graduate group at age (20-29) years, 50% of them nursing institute.

Table (2): Distribution the nurses knowledge toward leukemia Levels of Assessment Through the "Mean of Score" Among the Period of the Program (Pre, Post Test)

Period	Level of assessment	Frequency	Percent
Pretest	Low (1-1.33)	24	80
	Moderate (1.34-1.67)	6	20
	High (1.68-2)	-	-
	Total	30	100
	$\bar{x} \pm S.D$		1.25 \pm 0.123
Posttest	Low (1-1.33)	-	-
	Moderate (1.34-1.67)	24	80
	High (1.68-2)	6	20
	Total	30	100
	$\bar{x} \pm S.D$		1.6 \pm 0.093

$\bar{x} \pm S.D.$ =Arithmetic Mean (\bar{x}) and Std. Dev. (S.D.)

The findings of the study indicate that, according to the mean of the score level of assessment, There is low level of assessment of 24 (80%) of the nurses at level (1.00-1.33) the mean of score and standard deviation are (1.25 \pm 0.123) at the pre-test. there is moderate level of assessment of 24 (80%) of the nurses at level (1.34-1.67) the mean of score is (1.6 \pm 0.093) at the post test.

Table (3) Significant Comparison of the Period (Pretest and Posttest) for Knowledge toward leukemia

Sample groups	Periods	Matched Paired t-test	Sig. P- value	C.S.
Study group	Pre test Post test	17.5	0.00	HS

C.S. : Comparison Significant, NS : Non Significant at $P \geq 0.05$, S : Significant at $P < 0.05$, HS : Highly Significant at $P < 0.01$

This table shows that there is a highly significant difference at $P < 0.01$ between

Discussion of the Results

In table (1) regarding to the nurses age most of the nurses in the oncology units at age (20-29). These findings supported by a study conducted in Iraq, which found that nurses are with age group of (20-29) years (Salih, R. 2019). But, these findings not consisted by study conducted for improving the quality of nursing care for patients with leukemia which found that the study sample age above than 30years (Shafik, S. A., &Abd Allah, E. S. 2015) , also these findings not consisted by study conducted in Iraq, which found that the nurses working in oncology units had age more than 30 years, this finding not consisted with the present study finding (Ali, M. N., &Jaddoue, I. A. 2016).

Regarding to gender, there is an equal number between male and female. These findings supported by a study conducted in Iraq, which found that male and female that show equal number (male= 50% and female= 50%) (Salih, R. 2019). But, these findings unsupported by a study conducted for improving the quality of nursing care for patients with leukemia which found that females nurses more than males at oncology

the initial period of pre and posttest of the nurses Knowledge toward leukemia.

units (Shafik, S. A., &Abd Allah, E. S. 2015), also these findings not consisted by study conducted in Iraq, which found females more than males (Ali, M. N., &Jaddoue, I. A. 2016).

According to their educational level most of them were nursing institute graduate. These findings supported by a study conducted for improving the quality of nursing care for patients with leukemia which found that most of the nurses at oncology units had nursing institute graduated (Shafik, S. A., &Abd Allah, E. S. 2015). Also, These findings supported by a study conducted for assessment nurses knowledge and practice regarding educational needs for Patients with Leukemia which found that most of nurses had diploma degree in nursing (Taha, N. M., Zatton, H. K., & Ibrahim Zatton, H. I. 2017). But these findings unsupported by a study conducted in Iraq which found that (45%) of them were graduated from nursing high school which is the highest percentage among educational level variable (Salih, R. 2019).

In table (2) there is improve in the nurse's level of knowledge and in table (3) there is a highly significant

difference at $P < 0.01$ between the initial period of pre and posttest of the study group for nurses Knowledge toward leukemia.

These findings supported by a study conducted for improving the quality of nursing care for patients with leukemia which found that the implementation of the nursing education program has improved nurse's knowledge with statistically significant differences ($p < 0.001$). The study has concluded that the nursing education program has improved nurses' knowledge concerning the disease of leukemia, and patients were also satisfied with the quality of nursing care (Shafik, S. A., & Abd Allah, E. S. 2015). Also these findings agree with a study conducted in Iraq which found that educational program was highly effective on nurses' knowledge by high significance at $p\text{-value} = 0.001$. It is clear out of descriptive the noticeable increasing of mean score on nurses' knowledge during post-test I and II that indicate the effectiveness of educational program (Salih, R. 2019).

Recommendations

Implementation of the educational program about leukemia

and improve the knowledge of other nurses.

Training session for the nurses about care of patients with leukemia, procedures and reduce or prevent infection, chemotherapy, procedures when intravenous infusion and procedures when blood giving.

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