# Effect of Tailored Counseling for Patients with Leukemia on Their Self-care

***Thesis***

Submitted for Partial Fulfillment of the

Requirements of the Doctorate in

Nursing Science Degree
(Medical-Surgical Nursing)

***By***

Reda Mohamed El-Sayed Ramadan

**(M.Sc. Nursing)**

**Assistant Lecturer of Medical-Surgical Nursing**

**Faculty of Nursing - Ain Shams University**

**Faculty of Nursing**

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***Under Supervision***


Prof. Tahany Ahmed El-Senousy
**Professor of Medical-Surgical Nursing**
**Faculty of Nursing - Ain Shams University**

Prof. Essam Abd El-Wahed Hassen
**Professor of Medicine and Hematology**
**Faculty of Medicine - Ain Shams University**

Dr. Neamet Allah Gomaa Ahmed
**Lecturer of Medical-Surgical Nursing**
**Faculty of Nursing - Ain Shams University**



**Faculty of Nursing**
**Ain Shams University**
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# ABSTRACT

Leukemia is a life-threatening illness that significantly affects a patient's physiological, psychological, and social well-being. The main **objective**; of this study was to evaluate the effect of the counseling program on patient's self-care. The **research hypothesis**; counseling will affect positively on self-care for patients with leukemia. The **study subjects** consisted of 37 patients diagnosed with leukemia at the Hematology Unit in Ain Shams University Hospital. The **tools of data collection** were;***1) Patient assessment sheet***; to assess socio-demographic, disease characteristics and family history as well as smoking habits and level of knowledge regarding to leukemia ***2)*** Quality of life scale ***3)*** Activities of daily living scale ***4)*** Observational checklist ***5)*** Self-care questionnaire, and ***6)*** Counseling program according to patient's needs. The **results** revealed that there were highly statistically significant differences for patients under study in relation to patient's level of knowledge, skill performance and self-care between pre and post counseling program. In **conclusion**; the counseling program implementation improved patients' knowledge, skill performance and self-care. The study **recommended that**, counseling program should be available in a form of illustrated booklet in hematology unit as a reference for patients.

**Key words:** Leukemia, Self-care, Quality of life, Counseling

# LIST OF ABBREVIATIONS

| | |
|---|---|
| **ACS** | American cancer society. |
| **ALL** | Acute lymphocytic leukemia. |
| **AML** | Acute myelogenous leukemia. |
| **BMT** | Bone marrow transplantation. |
| **BRMs** | : Biologic response modifiers. |
| **CLL** | Chronic lymphocytic leukemia. |
| **CML** | Chronic myelogenous leukemia. |
| **CNS** | Central nervous system. |
| **CSF** | Cerebrospinal fluid. |
| **CSFs** | Colony-stimulating factors. |
| **CT** | Computed tomography. |
| **DNA** | Deoxyribo nucleic aid. |
| **EBV** | Epstein-Barr Virus. |
| **ECG** | Electrocardiogram. |
| **FAB** | French-American-British. |
| **FISH** | Fluorescent in situ hybridization. |
| **GI** | Gastro-intestinal. |
| **GVHD** | Graft-versus host disease. |

| | |
|---|---|
| **HLA** | Human leukocyte antigen. |
| **HTLV-1** | Human T-lymphocytic virus-1. |
| **IV** | Intravenous. |
| **MAb** | Monoclonal antibody. |
| **MDS** | Myelodysplastic syndrome. |
| **MRI** | Magnetic resonance imaging. |
| **NCI** | National cancer institute. |
| **NS** | Not significant |
| **QOL** | Quality of life |
| **RBCs** | Red blood cells. |
| **ROM** | Range of motion |
| **S** | Significant. |
| **SCT** | Stem cell transplantation. |
| **SD** | Standard deviation. |
| **SPSS** | Statistical Package for Social Science. |
| **WBCs** | White blood cells. |
| **WHO** | World Health Organization. |
| $\mathbf{X^2}$ | Chi-square test |

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# INTRODUCTION

Leukemia is a group of malignant disorders of white blood cells. In leukemia, the usual ratio of greater numbers of red blood cells than white blood cells is reversed. Bone marrow is gradually replaced by immature, abnormal cells. Eventually, these abnormal cells spill into the circulation and invade other organs such as the liver, spleen, and lymph nodes. If the disease is not treated, leukemic cells replace all normal blood cells, leading to death ***(Burke, LeMone, Mohn-Brown & Eby, 2007).***

Approximately 28,900 new cases of leukemia occur each year in the United States, and the numbers have been increasing over the past three decades ***(Phipps, Marek, Monahan, Neghbors, Sands & Green, 2003)***. Although often thought of as a disease of children, the number of adults affected with leukemia is 10 times that of children ***(Lewis, Heitkemper & Dirksen, 2004)***.

Although the cause of most leukemias is unknown, certain risk factors have been identified. People with certain genetic disorders such as Down syndrome have a higher incidence of leukemia. Environmental risk factors play a role as well. Risk factors for myeloid leukemia include cigarette smoking and chemicals such as benzene. Exposure to ionizing radiation increases the risk for several types of leukemia. Patients who have undergone treatment for cancer have an increased risk.

The human T-cell leukemia virus-1, a retrovirus, is known to cause certain leukemias ***(LeMone & Burke, 2008).***

Leukemia can be classified as acute or chronic and by the cell type, if lymphocytes or their precursors in the bone marrow are the malignant cell type, the term lymphocytic is used. For abnormalities of myeloid stem cells in the bone marrow, the term myelocytic is used ***(Rodgers, 2008; and Misaghian et al., 2009).***

Acute leukemia is characterized by abrupt onset and rapid progression. Chronic leukemia has a gradual onset, a prolonged clinical course, and relatively long survival ***(Daniels, Nosek & Nicoll, 2007).***

The most common signs and symptoms are fever, sweets, bone pain, weight loss, malaise, fatigue, bruising, gingival bleeding, epistaxis and splenomegaly ***(Swearingen, 2003; and Gates, Fink & Scheetz, 2008).*** Diagnosis of leukemia is usually confirmed with bone marrow examination ***(Burke, LeMone, Mohn-Brown & Eby, 2007).***

Treatment of leukemia as stated by ***Daniels, Nosek & Nicoll (2007) and The National Cancer Institute (NCI) (2009)*** may include supportive therapy, chemotherapy, radiation therapy, bone marrow or stem cell transplantation, immunotherapy, target therapy, and surgery to remove an enlarged spleen ***(Black & Hawks, 2005; and Kumar & Clark,***

***2005).*** The most effective treatment for leukemia is chemotherapy, which may involve one or a combination of anticancer drugs that destroy cancer cells ***(Lewis, Heitkemper & Dirksen, 2004).*** Therapies of leukemia have undesirable side effects. Nursing care focuses on the physical and psychosocial effects of the disease and its treatment ***(Burke, LeMone, Mohn-Brown & Eby, 2007).***

The patient and the significant other must be taught to understand the importance of the continued diligence in disease management and the need for follow-up care. The patient and significant other must be taught about the drugs and self-care ***(Lewis, Heitkemper & Dirksen, 2004).***

Self-care, learned behavior with deliberate actions responding to need, includes activities an individual performs to maintain health ***(White, 2005).***

Nurses are in key positions to facilitate the achievement of self care which requires sophisticated communication skills, teaching skills, specialized knowledge and an awareness of the multiple factors affecting nurse-patient relationship during the provision of care ***(Parissopoulosl & Kotzabassaki, 2004).***

The diagnosis of leukemia often brings with it the need to make difficult decisions at a time of profound stress for the patient and family ***(Lewis, Heitkemper & Dirksen, 2004)***. Nurses encounter patients during times of major health changes

and are in key positions to help them make decisions and adopt behaviors that greatly alter health ***(Black & Hawks, 2005)***. Fortunately, counseling can help improve coping and decision-making skills ***(American Society of Clinical Oncology, 2009).***

Counseling is the process of helping a patient to recognize and cope with stressful psychological or social problems, to develop improved interpersonal relationships and to promote personal growth. It involves providing emotional, intellectual and psychological support to patients ***(Kozier, Erb, Berman, Snyder, Lake & Harvey, 2008).***

Nurses are responsible for initiating, updating, and reinforcing patients learning. They must also design strategies that will sustain necessary motivation for patients to maintain a maximum quality of self–management throughout their lives ***(Lenone 2000; and Larsen, Hughes & Dewees, 2001).***

## Significance of the Study

Leukemia which is a type of cancer is the most feared of all diseases known to mankind. Modern therapies offer hope for remission and possibly cure for some patients, but leukemia is still a diagnosis equated with pain, expensive long-term therapy, and potential death ***(Lewis, Heitkemper & Dirksen, 2004)***.