**ORIGINAL ARTICLE** 



## Designing a need-based program for relieving psychological distress of family caregivers of leukemia patients: a randomized controlled trial

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Received: 12 February 2021 / Accepted: 8 June 2021 / Published online: 15 June 2021 © The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature 2021

## Abstract

**Purpose** The family of leukemia patients, due to their caring role, often feels psychological distress. A practical need-based program carefully considers the set of requirements of nursing service recipients. This paper illustrates the efficacy of a designed family-need-based program on relieving stress, anxiety, and depression of family caregivers of leukemia patients. **Methods** In this controlled trial, sixty-four family caregivers of leukemia patients referring to a medical center in Iran were recruited by convenience sampling and randomly divided into study and control groups. The study group attended a designed need-based program. The control group did not receive the intervention. Stress, anxiety, and depression of both groups were simultaneously measured and compared in three time-points using the scale of stress, anxiety, and depression (DASS-42). Data were analyzed using descriptive and inferential statistics.

**Results** Before the program, the average scores of stress, anxiety, and depression were  $31.16 \pm 4.14$ ,  $21.37 \pm 6.31$ , and  $27.56 \pm 4.24$  for the study group and  $31.09 \pm 4.48$ ,  $20.34 \pm 6.56$ , and  $28.78 \pm 4.72$  for the control group. After the program, the average scores of stress, anxiety, and depression were  $10.56 \pm 3.37$ ,  $6.75 \pm 2.99$ , and  $7.37 \pm 2.76$  for the study group and  $34.87 \pm 2.51$ ,  $23.65 \pm 4.96$ , and  $32.56 \pm 3.49$  for the control group, respectively. Results of the independent *t* test indicated no considerable difference before the program (P > 0.05) and a significant difference after the program (P < 0.001) between the two groups.

**Conclusion** This family-need-based program can decrease the level of stress, anxiety, and depression of the family caregivers of leukemia patients and may potentially alleviate the psychological distress of family caregivers over their caring role.

Keywords Anxiety · Depression · Family caregivers · Leukemia · Needs assessment · Stress

## Introduction

Family caregivers nowadays play a crucial role in caring for patients [1], whilst unlike professional caregivers, such as registered nurses, medical-surgical nurses, and psychiatric-mental health nurse practitioners, informal caregivers,

Trial registration number: IRCT2013093011895N2. Date of registration: 2014–05-06

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<sup>2</sup> Department of Psychiatric Nursing, Student Research Center, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran generally family members or friends, provide a broad variety of support, such as psychological, physical, emotional, social, and financial to individuals with a vast variety of medical conditions [2]. This scene is an instance of the considerable psychological distress experienced by family caregivers during leukemia treatment [3].

Evidence has shown families of patients, who were diagnosed with leukemia, experience significant psychological distress due to being in the state of emotional burden related to factors associated with stressors, and demands that are difficult to cope with [4, 5]. The study of Peterson, Chung and Barrera (2020) has indicated that psychological distress, including stress, anxiety, and depression, experienced by family caregivers of leukemia patients can adversely affect the quality of care provided by the family caregivers [6]. Segrin et al., (2018) in their study, furthermore, reported acute stress, anxiety, and

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