Original Article

Comparison of the Effect of Nurses' Education on Stress, Anxiety and Depression of Family Caregivers of Patients Hospitalized with Schizophrenia Disorder

Mohadeseh Raeisi[1], Ali Navidian[2], Nasrin Rezaee[3]*

[1]Department of Nursing, Zahedan University of Medical Sciences, Zahedan, Iran.
[2] Department of Psychiatric Nursing, Pregnancy Health Research Center, Zahedan University of Medical Sciences, Zahedan, Iran.
[3]Department of Nursing, Community Nursing Research Center, Zahedan University of Medical Sciences, Zahedan, Iran.

Abstract

Background of the Study: The present study aimed to determine the effectiveness of family education on depression, anxiety, and stress of family caregivers of the patients with schizophrenic disorders hospitalized in Zahedan Psychiatric Hospital. Methods: The present study was a randomized clinical trial; it evaluated the effect of a four-week psychological training program on 100 family caregivers of the patients with schizophrenic disorders hospitalized in Zahedan Psychiatric Hospital. Depression, anxiety, and stress of caregivers were determined using DASS, version 21, questionnaire. Results: Based on the analysis, the effect of education was only observed in the nurses' group, and the level of anxiety, stress, and depression decreased significantly. Having compared between the nurse and control group, the anxiety level in this group decreased significantly after the training program, and the two factors of stress and depression decreased considerably and tended to be significant. Results: In summary, the present study has shown that nursing education had a significant impact on anxiety, stress and depression factors in the patients' families; this can be employed as a new approach to improve schizophrenia patients and their families.

Keywords: Education, Nurse, Schizophrenia, Family caregiver, Stress, Anxiety, Depression

Introduction

The family is the first unit of society and has a special place in the diagnosis and treatment of mental disorders. When a family member becomes ill, it disturbs the balance in the family system in boundaries, roles, expectations, hopes and aspirations [1]. Family care is not a new phenomenon, and according to family and social commitments, it is the family norm. According to a 2009 survey conducted by the US National Alliance for Care, 65.7 million caregivers made up about 29 percent of the US adult population and 31 percent of all US families [2]. Although some adults with mental illnesses live independently, many live with family members and family members care for them; families play an important role in patients' daily activities [3]. An estimated 919 million people worldwide suffer from psychiatric disorders. According to the estimation of the World Health Organization, one in four people in the world experience one psychiatric disorder during their lifetime. About 19% of the adult population have mental disorders [4]. Also, according to the World Health Organization report in 2008, 14 percent of the total burden of illnesses was related to mental disorders such as schizophrenia and substance abuse; roughly three-fourth of these diseases occur in low-income and moderate-income countries . Studies have shown that the prevalence of schizophrenia is 1000/4.6 [5]. Also, statistics released by the World Health Organization indicated that 27 million people worldwide have schizophrenia in different shapes [6]. This ratio in Iran is almost similar to that of Western countries, with the prevalence of psychotic disorders by 0.89% in Iran [7].

Schizophrenia is a chronic psychiatric disorder that can lead to serious disabilities, not only in the patient but also in the family [8]. Studies have shown that having a person with mental illness exposes the family members and the family unit to the negative experiences of physical and mental

Address for correspondence: Nasrin Rezaee, Assistant Professor, Dep. of Psychiatric Nursing, School of Nursing and Midwifery, Zahedan University of Medical Sciences, Zahedan, Iran; Member of Community Nursing Research Center, Zahedan University of Medical Sciences, Zahedan, Iran.
Email: nasrin_rezaee2005 @ yahoo.com

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health. When a mentally ill person lives in the same home, he or she puts relatives at a higher risk of health, and even when the mentally ill member needs constant supervision or direct care, the caregiver's health risk becomes worse [9]. Also, due to the disagreement, the coordination and cooperation between family members and caregivers lead to increased problems among family members, so that it reduces the quality of family performance and is accompanied by lower levels of problem-solving in the family and lack of Parent-child efficacy. The burden of care also limits the caregiver's social relationships and his/her chances for personal and professional development [10].

Over the last two decades, the deinstitutionalization movement in the world has shifted the primary focus of care from psychiatric hospitals to the community-based mental health centers, because the funding, resources, and facilities of these professional centers are limited. Therefore, the families of patients with severe mental diseases were asked to take responsibility for the practical help and emotional support of these patients [11]. Along with this change in practice, restriction of social activities, leisure time, neglecting other family members, feelings of sadness and lack are among the problems reported by the caregivers [12, 13]. The interdependence between family members makes the health of each member affect other members of the family and the whole family [14]. The negative impact of people with serious mental disorders on their family members has been discussed since the 1950s. In the 1970s, the term "caregiver" has been used many times [8].

However, family care is an essential component of health services in societies [15]. Due to reduced time in performing personal activities and disruption of daily life, the caregivers face problems such as being a burden. Patient caregivers are at risk for the symptoms of stress, anxiety, depression, communication and financial problems, and social deprivation that are associated with their reduced quality of life [16]. The World Mental Health Organization believes that 80% of caregivers in the world are women. They can be the patient's wife, mother or daughter. Studies have shown that in women who are responsible for caring for patients, the depression and anxiety symptoms are 6 times more than those who are not [17]. Mental patients' family members often have a great deal of responsibility to support their patients [18]. These families usually take care of several mental patients and thus experience high stress [19]. Even when these patients do not live at home, the family is still an important source of financial and emotional support of these people [20]. Situational, social, and therapeutic stressors are some stressors experienced by a family [21].

When these patients do not live at home and spend time in the hospital, the family becomes an important source of support [19]. At this time, most families complain about their interactions with the mental health system [22] and report problems such as not knowing how to care for the patient [23]. On the other hand, the health care providers also have cited the burden of working and the lack of opportunities to educate them as their problems in interacting with the families of these patients. However, studies have shown that effective educational interventions in families with mental disorders can help reduce relapse [24, 25]. Studies have shown that families can contribute to the health system of the society in filling the gap in health services [26].

Family members play an important role in the lives of people with serious mental illness; they often seek supportive information, especially on treatment, support resources, coping, and problem-solving skills [27]. A research conducted by De Boer et al. has shown that 80% of caregivers need more support in the form of information, counseling or guidance [28]. The more the caregivers are aware of the disease and its effects on a person's life and the lives of others, the more they will gain control over the disease. In other words, by applying the knowledge and proper methods of transmitting it to others, the recurrence of mental disorders will be decreased, and the severity and duration of the disease will be reduced [29]. Family care resulting from clinical and psychosocial training in mental and physical disorders significantly affects caregiving. Greater supportive relationship between patient and caregiver, family members' attitude toward the patient, expressing feelings to the patient and the use of coping strategies, receiving social and professional support by the families are some cases [30-32].

However, caring for the mental patients has significant psychological stress and burden that can affect the caregiver's mental health in terms of anxiety, stress, depression, and quality of life [33]. Any disease, especially chronic diseases, puts different types of stresses on the family, such as economic costs and the burden of care. Also, chronic psychiatric disorders such as schizophrenia impose additional burdens on the family due to the lack of complete recovery, frequent hospitalization, and unemployment [34].

According to the studies on the prevalence of mental symptoms and psychiatric disorders in the country, it seems that the prevalence of psychiatric disorders has increased in recent years. Due to the nature of mental disorders like schizophrenia, regardless of the aspects of care that families have, they also have a stigma, so these families end up with more stress than caring for other patients; this leads to stress and more anxiety and depression. A nurse`s presence in family education can reduce the burden of caring by creating empathy. This study supports an approach of education by the nurse, so that, along with information training, it can provide supportive and empathetic aspects to the caregiver. Therefore, the purpose of this study was comparing the effect of nursing education on stress, anxiety, and depression of family caregivers of the patients with schizophrenia hospitalized in a psychiatric hospital.

PROCEDURE

Sampling method

Samples were selected at convenience from among the family caregivers of schizophrenic patients referring to the Baharan psychiatric hospital of Zahedan who met the inclusion criteria. They were placed randomly (by drawing lots) into two groups of nurse training and control.

Methodology and Used Instruments for Data Collection

The data collection tool in this study was a questionnaire consisting of three parts. The first part contained the caregiver's personal information including age, gender, marital status, education, job, place of residence, care duration, patient relationship, and the number of caring patients. The second part included the 21-item DASS Questionnaire for Stress, Anxiety, and Depression.

DASS-21 Questionnaire

DASS-21 Questionnaire for Stress, Anxiety, and Depression was first presented by Lovibond, S. H. & Lovibond, P. F. in 1995; it is the summarized form of the original 42-item questionnaire. Each subscale of Depression, Anxiety, and Stress consists of 7 questions, each of which is scored by the sum of the scores on the related questions. Each expression has options of never, low, moderate, and high, with the lowest score for each question being zero and the highest score being 3.

This version has been investigated in terms of psychometric properties in several studies, including the study of Henry and Crawford. This study has been conducted on a non-clinical English population (1794 persons). Internal consistency coefficients (Cronbach's alpha) of the whole scale were 0.93 and the three scales of depression, anxiety, and stress were reported to be 0.82, 0.88, and 0.90, respectively [35]. The reliability of this scale in Iran was reported in a sample of 400 people in Mashhad for depression 0.7, anxiety 0.66 and stress 0.76 [36].

Method of Implementation

The present study was interventional and quasi-experimental. After receiving a letter of introduction from the Research and Technology Committee, the researcher visited the Baharan Psychiatric Hospital in Zahedan and coordinated with the relevant authorities to assist in conducting the study. First, people with schizophrenia admitted to the men and women wards of Baharan Psychiatric Hospital were identified, then their families were contacted and their primary caregiver was identified, then she/he was invited to the hospital. We explained the research to the principal caregiver and selected him/her to participate in the study after filling the written informed consent. The samples were then randomly divided into two groups of nurse training and control. Initially, the total number of study subjects were provided with envelopes containing study groups (nurse training A, control C) and were randomly arranged. Samples were asked to choose an envelope, so the individuals were grouped. Both groups received pre-test by completing the questionnaires of anxiety, depression, and stress. The first intervention group received four sessions of the training program in two sessions per week (group 6-8) based on the content determined by the nurse. The initial content of the training sessions was tailored according to the educational needs and a review of internal and external studies and resources and existing guidelines was provided.

The educational content and structure of the sessions were prepared based on the available medical and nursing resources and with an emphasis on what the schizophrenic patient-caregiver should know. To assure the readiness of the nurses and to integrate the training method, several patient caregivers were trained regarding the competencies to be determined. The group of nurse training received the training program by the nurse in 4 sessions twice a week (6-8 person group) and volunteer. The researcher was a supervisor during the training sessions by the nurse. After 4 weeks, the research questionnaires were completed again as a posttest at home or in the hospital.

The control group did not receive any pieces of training other than the usual hospital training program during this time. The intervention group received a post-test within the same period (although there would be classes for the control group after the end of the research if desired). If one person left the study for any reason, another replaced him.

Table 1: The structure of sessions and educational content in the Nursing Education Group

Session	Educational content
First Session	Familiarity with the purpose of training sessions, the role of the family in the development and maintenance of family health; Familiarity with the Causes and Factors Affecting Schizophrenia Disorders; Familiarity with relapsing symptoms, and disease signs and symptom; Familiarity with the causes of aggression and aggressive states in patients; Importance of medication treatment and familiarity with drug side effects.
Second Session	Expressing emotions and group discussion about caregiver experiences in schizophrenic patient care and patient care problems; Relaxation training and ways to reduce anxiety; Practicing relaxation exercises (deep diaphragm breathing) and individual massage; How to fill leisure time.
Third Session	Reviewing identified experiences; The importance of coping with problems and solving the problem of accepting the problem (rather than crying and resorting to disturbing thoughts); Training in physical and mental health care strategies, self-care, adequate sleep and rest, exercise; Practicing relaxation exercises (deep and diaphragm breathing).

Fourth Session	Immunizing the patient's living environment and how to refer them to the relevant health centers and other support systems; The importance of maintaining intimate family relationships; Finding meaning in life.

Analyzing and Describing Data

SPSS software was used for analyzing the data. Frequency, mean, standard deviation, the domain of changes were determined by Descriptive statistics and then, dependent and independent t-tests were used for evaluating nurses` control group and comparison of nurses with the control group, respectively.

This study was approved in the Ethical Committee of Zahedan University of Medical Sciences (Code: IR.ZAUMS.-REC.1396.114). Providing information about the study, its goals, the timing of the training, obtaining written consent, ensuring that withdrawing the study is possible at any stage of the study were some of the ethical considerations. Samples were informed that they did not need to disclose their real name. The content of the discussions would not be published in any way. Therefore, the information was confidential.

Findings

Comparison of Nurse and Control Group Before and After Performing Educational Program

Based on the analysis, only in the nurse's group, the effect of education was observed and the level of anxiety, stress, and depression decreased significantly. No significant differences were observed in the control group (Table 2).

Table 2: Dependent t-test

	Mean	Std. Error Mean	Sig. (2-tailed)
Stress.Nurse. Before – Stress. Nurse. After	2.72000	.27854	.000
Anxiety. Nurse. Before – Anxiety. Nurse. After	2.36000	.31136	.000
Drpression. Nurse. Before – Deppresion. Nurse. After	2.28000	.29835	.000
Stress. Control. Before – Stress. Contrl. After	-.12000	.20926	.569
Anxiety. Control. Before – Anxiety. Control. After	-.08000	.21350	.709
Depression. Control. Before – Depression. Control. After	-.04000	.18508	.830

Comparison between Nurse and Control group after the Training Program

In a comparison of the nurse and the control group, the level of anxiety in this group decreased significantly after the training program, and the two factors of stress and depression decreased significantly and tended to be significant (Table 3).

Table 3: Comparison of independent sample

Characteristics	Nurse (Mean ± SD)	Control (Mean ± SD)	Sig
Stress	19.24 ± .99	21.52 ± .93	.097
Anxiety	11.48 ± 1.12	15.04 ± .98	.019
Depression	14.24 ± .96	16.32 ± .96	.130

Discussion

Studies showed that the prevalence of mental diseases worldwide is on the rise and our country is no exception. The caregivers of mental patients, especially schizophrenia patients, who endure an excess burden due to the lack of recovery, frequent hospitalization, and adult unemployment, play an important role in patient support and care. On the other hand, supportive systems for family caregivers who bear an excess mental burden of caring for these patients are not available in the country. There is also a shortage of nurses in the wards to train these families, so family nurses can complement the provision of health services to families. Reviewing studies has shown that family nurses have not been used so far for caregivers of mental patients in our country, less attention has been paid to the difference of caregiver education in studies. Therefore, performing this study seems necessary in Iran to compare the effect of education by the nurse on stress, anxiety, and depression of family caregivers of patients with schizophrenia disorders.

In the present study, the effect of an educational program on nurses exposed to schizophrenic patients was studied. This study showed that nurses' training had a significant effect on the anxiety, stress, and depression of their families. The impact of nurses' beliefs and education on schizophrenia patients has been studied, which indicated its direct impact on their families [37]. Another study has shown that nursing education and attending departmental supervisors did not reduce the level of psychological burden, anxiety, and relaxation in the families of patients and nurses, who were in contact with schizophrenic patients [38]. A study on the benefits of educating nurses at home on the families of schizophrenia patients indicated the higher cost of this approach than hospital treatment. However, the family is mentally calmer and experiences less stress [39].

Conclusion

In summary, the present study has shown that nursing education has a significant impact on anxiety, stress, and depression in the patients' families; we can employ it as a new approach to improve schizophrenia patients and their families.

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