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Impact of Family Psychoeducation Intervention on Relapse Prevention in Hospitalized Psychiatric Patients

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Abstract

Background: Family psychoeducation is considered as an intervention focused on individual rehabilitation of mental disorders through improving the caregiver's awareness about their family member's illness, risk factors, and treatment component and relapse prevention strategies.

Objectives: The aim of this study was to determine the impact of family psychoeducation on patients' relapse and length of stay in hospital.

Methods: In this retrospective study, registered data in the health information management unit, including demographic data, acute symptoms and signs and medical history, was used and sample selection was done through a purposive sampling procedure. Participants consisted of 2192 patients with severe mental disorders admitted to Ibn Sina Psychiatric Hospital in Bandar Abbas, Iran since 2009 to 2014. The recipients of psychoeducation comprised all immediate family members of the patients in psychiatric hospital who were available at time of discharge. Subjects were receiving standard pharmacologic treatment and one session of individual family psychoeducation interventions. The psychoeducation was presented by a psychologist and a nurse upon patient discharge day from hospital between 2011 and 2014. The findings including recurrence rate and admission durations were compared with data collected during the three years leading to the intervention (2009 to 2011). Data was assessed through Paired-sample *t*-test.

Results: The results revealed that receiving psychoeducation by family can positively affect the rate of readmission ($t = 41.30$, $P < 0.001$) and the length of stay in hospital ($t = 39.10$, $P < 0.001$).

Conclusions: Since psychoeducation of caregivers can be significantly influential in reducing the recurrence rate and duration of hospitalization, it is advisable after discharge for patients suffering from chronic mental disorders.

Keywords: Psychoeducation, Psychiatric Patient, Family, Relapse, Length of Stay

1. Background

Severe mental disorders are recognized as bio-psycho-social conditions which require a multimodal treatment approach. Since the 1980's, there has been much attention paid to psycho-educational interventions either to individual patients or their families (1). Psychiatric patients suffering from severe mental disorders exhibit various behavioral, social and economic problems which lead to their caregivers being unable to take care of them. They show high depression, anxiety and psychosomatic symptoms. Hence, considering mental health of the caregivers is of significance both regarding their own personal health and in terms of providing optimal care for their patient. Therefore, it is necessary to provide appropriate treatment, continuous care and social support for both the patients and their caregivers (2, 3). Psychoeducation can be provided by presenting actual information as well as clarifying the patient's response to this information (4).

Psychoeducation is considered as essential information about their illness, protective factors, available treatments, and prognosis and about how they can help themselves or the members of family to improve their long-term outcome (5). There is a growing body of research regarding effectiveness of family education in the prognosis of mental disorders. In a study by Itheman conducted on predictive variables of admission duration in acute psychiatric patients, being male, single, elderly and admitted to hospital against their will were found to be most significantly correlated with the length of hospitalization (6). Bamel et al. suggested that psychoeducation of the patients and their families would result in a 17% decrease in re-hospitalization rate and a 50% fall in the length of ad-

mission for schizophrenic cases (7). Hode delivered psychoeducation to psychotic patients and their family members in his study. He found that the efficacy of patient psychoeducation in treatment adherence or social functioning is conditioned to being accompanied by family education, whereas the positive effect of family psychoeducation is attainable, even without the patient's involvement. Nuntika, Thavichachart, Lueboonthavatchai in their study, ran by a team of one-day psycho-educational programming on 91 caregivers of schizophrenic patients, mentioned that the family attitude and behaviors toward their patients was improved as they found it helpful (8). Gracio et al. performed an article review through analyzing 22 papers regarding positive impact of family psycho-education (9).

2. Objectives

There are insufficient studies in the Iranian society especially in the field of psychiatry, of which most patients belong to low socioeconomic levels and it can affect the care and support of their patients. It seems that the present study can play a role in the treatment and rehabilitation process of these patients.

3. Methods

This study was quasi-experimental in design with convenience sampling. A total of 4049 caregivers participated in a one-session individual family psychoeducational intervention. The intervention for the caregivers of all patients was delivered immediately after every hospital discharge with the content explained in Box 1.

Box 1. Content of Psychoeducation

Content
1. Introduction.
2. What is your patient's illness.
3. Symptoms and risk factors.
4. Treatment, medication's prescriptions and side effects, risks of treatment withdrawal.
5. Early detection of relapse symptoms and what to do if it was detected.
6. Prevention of relapse: the importance of following subjects and their roles on relapse: scheduled communication with their physician, medication compliance, the amount and quality of sleep, patient's protection and knowing patient is not at fault, role of stress and its management, symptoms of committing suicide and its management, involving patient to some possible activities.

Caregivers were asked to ensure that their understanding of the content is relevant to the content of the study, and the vague points were redefined. A total of 2192 patients with severe mental disorders, aged 13 to 65 years, were admitted recurrently in Ibn Sina Psychiatric Hospital since 2009 to 2014. The intervention was started from 2011; however the data collection started from 2009. Then a comparison was done based on the readmissions and length of staying in hospital of the same patients between the 2 time periods (2009 to 2011 and 2011 to 2014) to evaluate the efficacy of such sessions. Data was assessed through Paired-sample *t*-test.

In this study the internal and external threats to the research design as well as efforts to control are presented as follows: selection and maturation history and mortality were controlled by gathering data from the same group through two periods of time (2009 - 2011 and 2011 - 2014). A large number of participants, using purposive sampling, and lack of testing reduced the risk of external validity which include reaction to interaction effect to testing threat, reactive effect of experimental arrangement, multiple treatment interference threat and interaction effects of selection biases and the experimental variables.

4. Results

The below tables present the demographic characteristics of patients. There were 2192 of whom 69.7% were male and 30.3% were female (Table 1).

Table 1. Gender of Patients

Gender	No. (%)
Male	1530 (69.7)
Female	662 (30.3)
Total	2192 (100)

Mean age of patient was 33. Minimum age was 12 and maximum age of patients was 83 (Table 2).

Out of the total, 30.4% lived in rural areas with the rest (69.6%) being city dwellers (Table 3).

Recipients of psychoeducation were 4049 in all, and the majority of them (23.12%) were mothers of patients (Table 4).

The average number of admissions in two time periods (before and after family psychoeducation) was assessed through Paired-sample *t*-test. According to the result, the frequency of admissions significantly decreased after family education ($t = 41.30$ and $P < 0.001$) (Table 5).

Results drawn from Paired-sample *t*-test comparing number of hospitalized days amongst cases before and after psychoeducation, showed hospitalization duration has significantly declined after family education (Table 6).

Table 2. Age of Patients

Age, y	No. (%)	Min	Max	Mean	SD
≤ 23	487 (22.2)	12.00	83.00	33.00	11.33
24 - 28	403 (18.4)				
29 - 34	467 (21.3)				
35 - 42	407 (18.6)				
≥ 43	428 (19.5)				

Table 3. Residence of Patients

Residence	No. (%)
Rural	666 (30.4)
Urban	1526 (69.6)

Table 4. Relation of Education Trainee to Patient

Relation to Patient	No.[a] (%)
Mother	936 (23.12)
Father	648 (16)
Sister	284 (7.02)
Brother	491 (12.13)
Offspring	239 (5.90)
Relatives	377 (9.31)
Spouses	450 (11.11)
Unknown	624 (15.41)
Total	4049 (100)

[a]The number of caregivers who received psychoeducation.

5. Discussion

The current study, which was conducted on the families of psychiatric inpatients for over three years regarding recurrence rate and duration of hospitalization, supports the efficacy of psychoeducation for caregivers in improving the treatment outcome for their patients.

Our findings are in concordance with those of Bomel et al., Niksalehi et al., and Perry et al. (7, 10, 11) in which the significant effect of family psychoeducation on treatment rate were shown. In these studies, a lower recurrence rate of mania (not depression) in bipolar patients whose families received psychoeducation was found. In addition, the findings of this study are in agreement with those of Javadpour and McWilliams in reduction of recurrence rate (12, 13). Javadpour et al. conducted a 2-year study among 108 discharged bipolar mood disorder patients. Results showed that pharmacotherapy with psychoeducation group showed a significant improvement in medication compliance, quality of life and the relapse rate compared to pharmacotherapy singly in the control group (14). A cohort study was implemented by McWilliams et al. amongst 63 patients and their 101 caregivers who completed a six-week caregiver psychoeducation course versus 60 patients as controls. Results indicated that the treatment group members did not take the same time to relapse and the length of stay during their first relapse was significantly shorter than the control group. The number of caregivers attending for each patient, and caregivers' gender were not significantly effective on outcomes (13, 14). Miklowitz et al. conducted a family-focused treatment for bipolar mood disorder adolescents in addition to pharmacotherapy. Family-focused treatment included 21 sessions of psychoeducation, communication training and problem-solving training. Results showed no significant difference between the two groups in remission rates; however these patients had fewer days of depression episodes during the 2 to 3 years of follow up period (15).

Nevertheless, results of this study are in contradiction with Sally who studied psychoeducation effects in schizophrenic inpatients in a clinical trial in China. This study was conducted on 73 schizophrenic cases and their families. Ten sessions of psychoeducation was delivered to the experimental group members and their families. The results at start, immediately after intervention, 6 months after intervention and in the next 12 months following the intervention were recorded. This study indicated that although positive results were seen in terms of follow up by patient, better mental state and better attitude toward the disease in the first two intervals of observation, they ceased to be witnessed by the 12th month following the intervention (16). The results of three intervals (immediate, 6 months and 12 months) showed positive outcomes in the first two times with no difference in the third iteration. This can only point to the significance of repeating and continuing psychoeducation in different intervals. In this study, psychoeducation was repeated at every admission while assessing and addressing family issues simultaneously.

5.1. Conclusions

The result of this study showed that brief family psychoeducation can be effective in informing families regarding the nature of disease and inability of patients in

Table 5. Paired-Sample *t*-test of Patient's Readmission Before and After Family Psychoeducation

Readmission	Mean	Std.	*t*	df	Sig.	Corr.	Sig.
Before-education 2009 - 2011 period	1.5	1.21	41.30	2191	0.001	0.36	0.001
After-education 2011 - 2014 period	0.46	0.97					

Table 6. Paired-Sample *t*-test of Average Length of Hospitalization

The Hospitalized Days	Mean	Std.	*t*	df	Sig.	Corr.	Sig.
Before-education	15.12	10.21	39.10	2191	0.001	0.21	0.001

controlling symptoms while encouraging them to pursue medication and reducing patient stress. This would ultimately lower the recurrence and re-hospitalization rates. The present study has some limitations including being conducted in the only psychiatric hospital in the province. Other variables like job, education level and socioeconomic status were intentionally ignored. Furthermore, the number of psychoeducation sessions varied from patient to patient as these sessions were held upon each admission to hospital, which varied in different patients. Based on our findings family education might improve their supportive relationships with their patients therefore can be considered as one of the essential issues in the discharge planning service of severe mental illness patients that require to be continuously revised and evaluated.

Supplementary Material

Supplementary material(s) is available here [To read supplementary materials, please refer to the journal website and open PDF/HTML].

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Footnotes

Authors' Contribution: Study concept and design: Sholeh Namazi, Sara Niksalehi, and Farangis Jamalizadeh; acquistion of data: Sholeh Namazi, Sara Niksalehi, Monavar Tashk, and Samaneh Bavaghar; analysis and interpretation of data: Sholeh Namazi, Sara Niksalehi, and Monavar Tashk; drafting of the manuscript: Sholeh Namazi, Malan Afandi, Sara Niksalehi, and Farangis Jamalizadeh; critical revision of the manuscript for important intellectual content: Sholeh Namazi, Sara Niksalehi, and Malan Afandi.

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