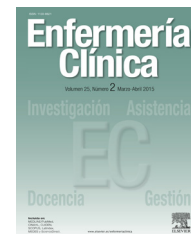




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ORIGINAL ARTICLE

Psychoeducational therapy with families of paranoid schizophrenia patients

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KEYWORDS

Family;
Psychotherapy;
Schizophrenia

Abstract

Aim: The study aimed to measure the effectiveness of psychoeducational therapy on the burden of families of paranoid schizophrenia patients.

Methods: An experimental research design was used in this study with an equivalent control group using 84 random allocation samples at a mental hospital in Semarang. The study instrument was the Indonesian version of the care burden scale (CBS). The Mann-Whitney test was used for the data analysis.

Results: The findings obtained show the effectiveness of psychoeducational therapy on family burden in the experimental group as opposed to standard therapy in the control group (before: $Z = -1.27$; $p = .092$, and after: $Z = -3.47$; $p = .002$).

Conclusion: We conclude that family psychoeducational therapy, as given to the experiment group, can decrease the family burden for the family of a paranoid schizophrenia patient. The application of family psychoeducational therapy can serve as guidance for the psychiatric nurse in reducing the family burden in the care of patients with paranoid schizophrenia.

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PALABRAS CLAVE

Familia;
Psicoterapia;
Esquizofrenia

Terapia psicoeducativa para familias de pacientes con esquizofrenia paranoide

Resumen

Objetivo: El objetivo del estudio fue medir la efectividad de la terapia psicoeducativa en la carga familiar de los pacientes con esquizofrenia paranoide.

Métodos: En este estudio se utilizó un diseño de investigación experimental con un grupo de control equivalente que utilizó 84 muestras de asignación aleatoria en un hospital psiquiátrico en Semarang. El instrumento del estudio fue la versión indonesia de la escala de carga del cuidador (CBS). Se utilizó la prueba Mann-Whitney para analizar los datos.

Resultados: Los hallazgos obtenidos muestran la efectividad de la terapia psicoeducativa sobre la carga familiar en el grupo experimental en comparación con la terapia estándar en el grupo control (antes: $Z = -1,27$; $p = 0,092$; después: $Z = -3,47$; $p = 0,002$).

Conclusión: Concluimos que la terapia psicoeducativa de la familia, como la aplicada en el grupo experimental, puede disminuir la carga familiar en las familias de pacientes con esquizofrenia paranoide. La aplicación de una terapia psicoeducativa familiar puede servir de guía a la enfermera psiquiátrica en la reducción de la carga familiar en el cuidado de pacientes con esquizofrenia paranoide.

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What is already known about this topic

Families with paranoid schizophrenia patient are commonly worried and confused. Family burden commonly comes from the inability to meet the caring needs of paranoid schizophrenia patients. Family-based nursing interventions are needed when dealing with mental health patients. The psychoeducational therapy has been implemented widely over the world, evidence on its usefulness is available on literature.

What this paper adds

The psychoeducational therapy reduces the family's burden in taking care of the paranoid schizophrenia patients. It improves the ability of a family to take care of patients with paranoid schizophrenia by improving the awareness of family strength. Psychoeducational therapy is a valuable nursing intervention that helps to understand the problems and needs of patients with paranoid schizophrenia.

Introduction

Families with paranoid schizophrenia patient are commonly worried and confused. Their confusion related to the illness, emotional, physical, financial, time and social burden.¹ Mubin reported that families with mental illness patients often come through psychological complain because of the patient's strange behavior.² The psychological complaints may vary from family's anxiety, shame, feeling of being

isolated, uselessness, sorrow, and long-term psychological trauma.^{1,3}

Schizophrenia patients commonly come through relapse of 50–90% in developing country.⁴ Patients with continued therapy come through relapse at 40% and patients with no therapy continuity experience 65% relapse within a year. Meanwhile, the patients with no therapy continuity for two years reached relapse rate at 80%.⁵ Within a year, paranoid schizophrenia patients at Semarang Mental Hospital went through relapse and re-hospitalized at the average rate of 43%.⁶ Awad and Voruganti found that relapse in schizophrenia associated with the increasing of caregiver burden.⁷

The burden of families of schizophrenia associated with chronic stress that affect family members who have task of caring.⁸ The inability to take care of the paranoid schizophrenia patients may impact to the patient's relapse if it is not supported by professional help and intervention. The family burden is a state happened as the result of the imbalance between family's need and family's ability in handling the stressor. Paranoid schizophrenia may create an impact on the family of which call it as the burden. The burden consists of objective and subjective burden. The objective burden is indicated by the rising of relationship problem between the family members, the isolated social interaction, working activity, financial difficulty, and the negative impact on family members' physical health. The long-term burden may reduce the ability of a family in taking care of the patient and may need some therapy from the expert.

The family psychoeducational therapy was designed to reduce the family burden and improve the ability of the family to take care the paranoid schizophrenia patient. In addition, the family psychoeducational therapy in family with paranoid schizophrenia helps the family to find out more about the patient's characteristic with some symptoms such delusion, hallucination, violence, and how to manage the episodes.⁹ The management of delusion,

hallucination, and violence is carried through trustworthy relationship, never debating the delusion/hallucination, giving comfort and pay more attention to the circumstances.¹⁰ Psychoeducational is needed as the effort to reduce family burden and improve family's ability in taking care family member with paranoid schizophrenia. The aim was the family is expected to understand the characteristics of paranoid schizophrenia, unpredictable behavior change of the patient, eliminating psychological burden, and family's support management.

However, while there is evidence of family psycho education, but none of the study investigated the effectiveness psychoeducational therapy to decrease the burden of family with paranoid schizophrenia patients in Indonesia. Therefore, this study is needed to measure the effectiveness of psychoeducational therapy on burden of the families of paranoid schizophrenia. This study is congruent to the Indonesia culture that viewed the important of family roles as the main caregiver to take care of the patient with paranoid schizophrenia.

Methods

Study design

An experimental design with an equivalent control group was adopted. The family burden from both groups was measured before and a week after the intervention. Psychoeducational therapy with families of paranoid schizophrenia was performed in the experimental group for three weeks, while the control group accepted the standard educational care from the hospital.

The psychoeducational therapy with families of paranoid schizophrenia was administered by the psychiatric nurse who supported the trial but had no access to the trial data or the data analysis. The psychiatric nurse as therapist had specific qualification in family psychoeducation training, familiar with the literature and the association for contextual behavioral science and familiar working with family. The authors of this study were solely responsible for the design and conduct as well as the analysis of the study. The therapy was given to the family in three sessions for three weeks. In the first week, it was the education and learning about paranoid schizophrenia, then the education and learning about stress management in the second week, also education about environment modification skill and health care utilization.

Setting

The mental health hospital in Semarang Central Java was used to collect the particular data. The hospital is as the central referral hospital for patients with mental health disorder. The setting was taken in this study as the paranoid schizophrenia has a schedule for family psychoeducational therapy as a standard of the hospital. The CONSORT guideline was followed to ensure the randomization method for this study (see Fig. 1).

Research subject

In taking the sample, the researcher applied inclusion criteria for the nuclear families with paranoid schizophrenia who had a patient that relapse in less than six months. The family caregivers also require doing not have chronic diseases, because the family can produce the activities as the caregiver for the patients. The sample taken from the random allocation of 84 respondents defined the 42 respondents of the experimental group and 42 respondents of the control group at the hospital.

Instruments

The Indonesian version of care burden scale (CBS) was used for our study. The CBS is a 22-item subjective questionnaire designed to measure the experience of family burden.¹¹ The CBS was developed from original version of the Zarit burden interview with a minimum score at 0 and maximum score at 88.¹² We used the questionnaire scoring as follows: 0 = never, 1 = rarely, 2 = sometimes, 3 = quite frequently, and 4 = nearly always. The scores range from 0 to 20 = little or no burden; 21 to 40 = mild to moderate burden; 41 to 60 = moderate to severe burden; 61 to 88 = severe burden. The reliability of CBS in the Indonesian version is good. From a prior validation study in 2008, we tested the instrument for families with the same characteristic in Central Java.² The result indicated that the validity of the instrument was good ($r = 0.349$) and the reliability was high (Cronbach alpha = 0.910). It is concluded that the instrument used in this study is valid and reliable in Indonesian version.

Ethical consideration

An ethical approval was obtained from Diponegoro University with a number of the ethical clearance 307/EC/FK-RSDK/2016. The anonymity, confidentiality, and beneficence were applied to this study in order to meet the ethical of the research. The informed consent was given to the respondents before they participate in this study. The respondents were ensured for their participating in this study, which there was no any harm and consequences regarding the nursing service for their family members who were in the hospital.

Data analysis

During the study, there was no dropped out of the respondent. The entire data both in experimental group and control group was in normal distribution. Therefore, to test the hypothesis between the experimental and control group, Mann-Whitney test was used.

Results

Demographic characteristic of the respondents

Most of the family members in this study were male, married, and private sector workers. The comparison of the

CONSORT 2010 Flow Diagram

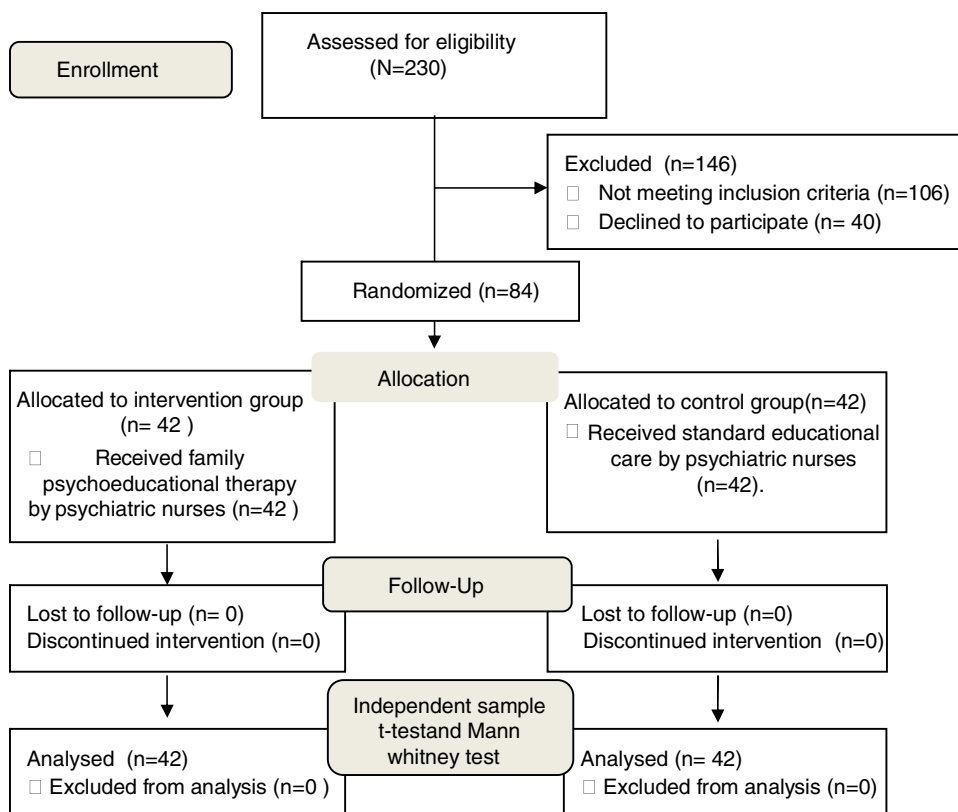


Figure 1 Consort flow chart. The implementation of family psychoeducational therapy.

socio-demographic characteristics between both groups is summarized in Table 1.

The effect of family psychoeducational therapy to reduce the family burden of paranoid schizophrenia patients

Changes of family burden scores in the experimental group before was 44.45 (10.26) in moderate to severe burden and after psychoeducation therapy was 34.88 (10.30) in the mild to moderate burden, while in the control group before was 43.62 (7.73) in moderate to severe burden and after standard educational care was 42.29 (6.83), still in moderate to severe burden. The Mann-Whitney test revealed that, before the family psychoeducational therapy, there was no significant difference between the family burden of the experimental group and control group ($p=0.092 > 0.05$). Meanwhile, after the family psychoeducational therapy, there was a significant difference between the family burden of the experimental group and control group ($p=0.002 < 0.05$). In other words, the experimental group had less family burden compare to the control group (Table 2).

Discussion

The findings showed that the psychoeducational therapy with families of paranoid schizophrenia was able to reduce the family's burden in taking care of the paranoid schizophrenia patient. The reduced family burden as the result of psychoeducational therapy had also been delivered by the previous studies as held by Dixon which concluded that family psychoeducational therapy was able to reduce significant family burden in taking care of the schizophrenia patient.¹³ Similar with two researchers, Nasr and Wardaningsih who used randomized controlled trial also agreed that family psychoeducational therapy was able to improve the ability of a family in taking care of the schizophrenia.^{14,15}

Rizky et al. concluded that family-based nursing interventions is needed to lower care burden.¹ Psychoeducational therapy in this study was applied by the psychiatric nurses to improve family perception toward the patient, take care of the patient, and manage stress to reduce the family burden. The family was taught about stress management and identified the burden of the family in taking care of the patient with paranoid schizophrenia. Psychoeducational therapy integrates education about paranoid

Table 1 Comparison of the respondents' characteristics of the schizophrenia paranoid's family between both groups (N=84).

Indicators	Experimental group (n = 42)		Control group (n = 42)		Comparative tests between groups
	SD	Mean	SD	Mean	
Age					$t = 0.108$,
Family burden	10.26	44.45	6.83	42.29	$p = 0.326$
Indicators	No.	%	No.	%	Comparative tests between groups
Gender					
Male	27	64.29	22	52.38	$\chi^2_{(1)} = 0.306$; $p = 0.274$
Female	15	35.71	20	47.62	
Marriage status					
Unmarried	2	4.76	4	9.52	$\chi^2_{(1)} = 0.280$; $p = 0.581$
Married	39	92.86	36	85.71	
Divorced	1	2.38	2	4.76	
Occupation					
Unemployed	6	14.29	6	14.29	$\chi^2_{(1)} = 0.096$; $p = 0.947$
Private sector worker	24	57.14	23	54.76	
Civil servant	5	11.90	4	9.52	
Labor	7	16.67	9	21.43	
Education					
Not educated	1	2.38	0	0	$\chi^2_{(1)} = 0.639$; $p = 0.650$
Elementary school	11	26.19	10	23.81	
Middle school	14	33.33	13	30.95	
High school	15	35.71	19	45.24	
University	1	2.38	0	0	

Table 2 The difference of family burden before and after receiving family psychoeducational therapy in family with paranoid schizophrenia (N = 84).

Indicators	Experimental group (n = 42)	Control group (n = 42)	Z	p
Family burden before the intervention, average (mean rank)	45.87	39.13	-1.27	0.092
Family burden after the intervention, average (mean rank)	51.73	33.27	-3.47	0.002

schizophrenia and stress management. Subjective burden management that taught to the respondents was by implemented deep breath relaxation to cope with the psychological problems such anxiety, sorrow, and shame. Deep breath relaxation was taught to the respondents with a guidance from therapist during the meeting session and was continued independently by the respondents using the given deep breath therapy practice module. On the other hand, the management of objective burden was managed by discussing the solution for certain problems experienced by the family in which the researcher acted as the facilitator. This way, the decision to solve the problem was defined by the family itself. By the application of the family psychoeducational therapy, the researcher drew the significant result that family psychoeducational therapy was able to improve the ability of the family in taking care of the paranoid schizophrenia patient and reducing the family burden.

The mechanism behind this improvement is awareness of family strength. Through psychoeducation, a process of acceptance and education on family apply the strength

to limit relapse in mentally ill family members.¹⁶ This supported by Thara et al. found that there was a significant gain caregiver's knowledge with information and experience sharing using family psycho education program in 26 of the primary care giver in Chennai.¹⁷ Through psychoeducation, family get better understanding of caring schizophrenia as a part of family support.¹⁸ The result of this study in line with the research of 30 random clinical studies showed that family psychoeducation therapy significantly reduced the relapse rate, improve patient's recovery, and improve family's prosperity.^{19,20}

Based on the researcher's analysis, family psychoeducational therapy was able to reduce family burden which affected the ability to take care of the patient and recommended as the important therapy for the family. The improvement of family's ability after the family psychoeducational therapy was in line and supported by some previous studies such as the research by Chien, that family psychoeducational therapy was able to improve the family function, and the duration of patient's re-hospitalization.²¹

The research by Ran et al. also concluded that family psychoeducational therapy was able to fix and improve the ability of a family in taking care of schizophrenia.²² Wardaningsih et al. reported that family psychoeducational therapy was able to improve the ability in taking care of the patients with hallucination.¹⁵ From this perspectives, the psychoeducational therapy was able to improve the ability of a family to take care of the patients with paranoid schizophrenia and recommended as the important therapy for the family.

This study has several limitations. The participants of our study were only families with paranoid schizophrenia, so that the findings may not be generalized for those in another schizophrenia diagnosed. Another limitation is the findings of this study indicated that the short-term effects of psychoeducational therapy held with families of paranoid schizophrenia for three weeks. In Beijing, study also asserted by Li and Arthur showed that family education on schizophrenia by nurses had a significant effect on families' knowledge and on patient symptoms and overall functioning, particularly at 9 months after discharge.²³ The long-term effect of the psychoeducational therapy should be investigated. A next step to follow up the result of psychoeducational therapy should be done by psychiatric nurse to maintain family's ability in stress management and minimize burden of caring task.

Conclusion

The psychoeducational therapy can be successfully applied by psychiatric nurses. This study's findings showed that this intervention could ameliorates family burden. A difference between the intervention group at the end of the intervention of psychoeducational therapy and the control group who only got standard educational care was significant. By improving the ability to take care, family in this study should be more understand about the problems and needs of patients with paranoid schizophrenia.

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Conflict of interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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References

1. Rizki Fitriyarsari, Ah Yusuf, Nursalam, Rr Dian Tristiana, Hanik Endang Nihayati. Family members' perspective of family Resilience's risk factors in taking care of schizophrenia patients. *Int J Nurs Sci.* 2018;5:255–61, <https://doi.org/10.1016/j.ijnss.2018.06.002>.
2. Mubin MF. Pengalaman stigma dan beban keluarga merawat pasien dengan gangguan jiwa [Tesis]. Jakarta: Universitas Indonesia; 2008.
3. Dinos S, Stevens S, Serfaty M, Weich S, King M. Stigma: the feelings and experiences of 46 people with mental illness. *Br J Psychiatry.* 2004;184:176–81.
4. Suzuki Y, Yasumura S, Fukao S, et al. Associated factors of rehospitalization among schizophrenia patients. *Psychiatry Clin Neurosci.* 2003;57:555–61.
5. Kazadi N, Moosa M, Jeenah F. Factors associated with relapse in schizophrenia. *S Afr J Psychiatry.* 2008;14:52–62.
6. Amino Gondohutomo Mental Health Hospital. *Medical Record Schizophrenia Paranoid* 2017.
7. Awad AG, Voruganti LN. The burden of schizophrenia on caregivers: a review. *Pharmacoeconomics.* 2008;26:149–62.
8. Caqueo-Urizar A, Maldonado JG, Ferrer-García M. Attitudes and burden in relatives of patients with schizophrenia in a middle income country. *BMC Fam Pract.* 2011;12:101–10, <http://dx.doi.org/10.1186/1471-2296-12-101>.
9. Rector NA. Dysfunctional attitudes and symptom expression in schizophrenia: differential associations with paranoid delusions and negative symptoms. *J Cognit Psychother.* 2004;18:163–7.
10. Smith KJ, Craft-Rosenberg M. Using NANDA, NIC, and NOC in an undergraduate nursing practicum. *Nurse Educ.* 2010;35:162–6.
11. Zarit SH, Reever KE, Bach-Peterson 1. Relatives of the impaired elderly: correlates of feelings of burden. *Gerontologist.* 1980;20:649–55.
12. Zarit SH, Zarit JM. Instructions for the burden interview. University Park: Pennsylvania State University; 1987.
13. Dixon L, Adams C, Lucksted A. Update on family psychoeducation for schizophrenia. *Schizophrenia Bull.* 2000;26:5–20.
14. Nasr T, Kausar R. Psychoeducation and the family burden in schizophrenia: a randomized controlled trial. *Ann Gen Psychiatry.* 2009;8:6.
15. Wardaningsih S, Keliat BA, Susanti H. Penurunan Beban dan Peningkatan Kemampuan Merawat Keluarga dengan Klien Halusinasi Melalui Family Psychoeducation. *Jurnal Keperawatan Indonesia.* 2008;12:168–72.
16. Tlhowe TT, du Plessis E, Koen MP. Strengths of families to limit relapse in mentally ill family members. *Health SA Gesondheid.* 2017;22:28–35.
17. Thara R, Padmavati R, Lakshmi A, Karpagavalli P. Family education in schizophrenia: a comparison of two approaches. *Indian J Psychiatry.* 2005;47:218–21.
18. Erawati E, Keliat BA. The family support for schizophrenia patients on community a case study. *Eur Psychiatry.* 2015;30:917.
19. McFarlane WR, Dixon L, Lukens E, Lucksted A. Family psychoeducation and schizophrenia: a review of the literature. *J Marital Fam Ther.* 2003;29:223–45.
20. Gutiérrez-Maldonado J, Caqueo-Urizar A. Effectiveness of a psycho-educational intervention for reducing burden in Latin American families of patients with schizophrenia. *Qual Life Res.* 2007;16:739–47.
21. Chien WT, Wong KF. A family psychoeducation group program for Chinese people with schizophrenia in Hong Kong. *Psychiatr Serv.* 2007. Available at <http://psychiatryonline.org/data/Journals/PSS/3809/07ps1003.pdf> [serial on the Internet].
22. Ran M-S, Xiang M-Z, Chan CL-W, Leff J, Simpson P, Huang M-S, et al. Effectiveness of psychoeducational intervention for rural Chinese families experiencing schizophrenia. *Soc Psychiatry Psychiatr Epidemiol.* 2003;38:69–75.
23. Zheng L, Arthur D. Family education for people with schizophrenia in Beijing, China: randomized controlled trial. *Br J Psychiatry.* 2005;187:339–45.