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The Role of Psychoeducation Interventions in Preventing Schizophrenia Recurrence

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ABSTRACT

Schizophrenia disorder is a neurodevelopmental brain disorder characterized by impaired neurotransmitter interactions in the central nervous system. This schizophrenic disorders require treatment aimed at overcoming the disruption of neurotransmitter interactions in the central nervous system. Psycho-education (PE) can not only be applied to individuals with schizophrenia but can also be applied to families and groups. PE is widely given to patients with psychiatric disorders, including family members and people with interest in treating these patients. This literature review aims to discuss the role of psycho-education in schizophrenic patients.

1. Introduction

Schizophrenia is a severe mental disorder that can be obtained worldwide with a prevalence of around 1% of the population. Schizophrenia disorders usually last chronic and tend to be severe and persistent and accompanied by acute exacerbations and decreased function of the patient's role. The onset of the schizophrenic disorder is usually in late adolescence or early adulthood^{1,2}. Schizophrenia disorder is a neurodevelopmental brain disorder characterized by impaired neurotransmitter interactions in the central nervous system. This schizophrenic disorders require treatment aimed at overcoming the disruption of neurotransmitter interactions in the central nervous system.^{2,3}

In the course of schizophrenic disorders, management of schizophrenic disorders is an essential and complicated part. This is because the

management of schizophrenic disorders does not only include one aspect but must include bio-psychosocial and spiritual elements. Psychosocial factors involving patients and their families are essential in long-term management and prevention to prevent a recurrence⁴. This literature review aims to discuss the role of psycho-education in schizophrenic patients.

Definition of schizophrenia

Schizophrenia, according to Eugen Bleuler, is a term that indicates a schism between thoughts, emotions and behaviour in affected patients. Meyer argues that schizophrenia and other mental disorders are reactions to various stresses of life, which are called syndromes of a schizophrenic reaction². Schizophrenia is a description of a syndrome with a variety of causes (many not yet known) and extensive

disease course, as well as several consequences that depend on consideration of genetic, physical, social and cultural influences—generally characterized by fundamental deviations and characteristics of thoughts and perceptions, as well as by improper or blunted effects. Clear awareness (clear consciousness) and intellectual abilities are usually maintained, even though inevitable cognitive setbacks can develop later⁵. Whereas recurrence is defined as the return of a disease after it seems to subside, recurrence shows previous symptoms that have arisen, are quite severe and interfere with daily activities⁶. Nearly 1% of the world's population suffers from schizophrenia during their lifetime. Symptoms of schizophrenia usually appear in late teens or young adults. Onset in men is usually between 15-25 years and in women between 25 - 35 years.⁷ Until now, the aetiology of schizophrenia involves multifactorial. In general, the causes of schizophrenia are distinguished by the following factors:

Biological factors

No pathognomonic functional and structural disorders are found in schizophrenia. Nevertheless, some organic disorders can be seen (have been replicated and compared) in subpopulations of patients. The most common disorders are widening of the three and lateral ventricles, stable which is sometimes seen before the onset of the disease, bilateral atrophy of the medial temporal lobe and more specifically the hippocampus gyroscope, the hippocampus, and amygdala, the spatial disorientation of the hippocampal pyramid cells, and decreased dorsolateral prefrontal cortex volume.⁷

Genetic

It can be ascertained that there are hereditary factors that also determine the onset of schizophrenia. This factor has been proven based on research on schizophrenic families and especially single egg twins. The morbidity rate for stepparents is 0.9 - 1.8%, while for siblings 7-15%, for children with one parent suffering from schizophrenia 7-16%, if both parents

suffer from schizophrenia 40 - 68%, for twin eggs (heterozygotes) 2 - 15%, and for twin eggs (monozygotes) 61 - 86%. However, genetic influences are not as simple as Mendel's law. It is suspected that the potential for schizophrenia is reduced through recessive genes. This potential may be strong, it may also be weak, but then it depends on the individual's environment whether schizophrenia will occur or not.⁸ Some of the genes found in schizophrenics include 1q, 5q, 6p, 6q, 8p, 10p, 13q, 15q, and 22q. The presence of dystrobrevin DTNBP 1 and Neuregulin 1 gene mutations is associated with the appearance of negative symptoms in schizophrenic patients. Besides, schizoid, schizotypal, and paranoid personalities have a high likelihood of developing schizophrenia.

Family factors

Chaos and family dynamics play an essential role in generating recurrence and maintaining remission. Patients who return home often relapse the following year when compared to patients who are placed in a daycare centre⁷. High emotional expression (such as patients who live with hostile families, shows excessive anxiety, is very protective of the patient, is very critical) from the family is thought to cause high recurrence in patients. Another thing is that patients are easily influenced by pleasant or sad stress. The family has essential responsibilities in the care process at the mental hospital, preparation for discharge and care at home so that the client's adaptation goes well. The quality and effectiveness of family behaviour will help the patient's health recovery process so that the patient's health status improves.^{8,9}

Biochemical factors

The biochemical aetiology of schizophrenia is unknown. The most common hypothesis is central neurotransmitter disorder, which is an increase in central dopamine activity (the dopamine hypothesis)⁷. The hypothesis based on three main findings, namely the effectiveness of neuroleptic drugs (e.g. phenothiazine) in schizophrenia, it works to block post synapse dopamine receptors (type D2); psychosis

caused by amphetamine use. The psychosis that occurs is difficult to distinguish, clinically, from acute paranoid schizophrenic psychosis. Amphetamine releases central dopamine. Amphetamines also worsen schizophrenia; an increase in the number of D2 receptors in the caudate nucleus, accumbent nucleus, and putamen in schizophrenia.

Diathesis-stress method

One model for integrating biological factors, psychosocial and environmental factors is the diathesis-stress model. This model illustrates that a person may have a specific vulnerability (diathesis) which, when subjected to stressful environmental influences allows the development of symptoms of schizophrenia. In the most common model of stress, diathesis can be biological or environmental or both.

Psycho-education

Psycho-education has been quite popular in clinical practice for the past 30 years in America and throughout the world. However, for Indonesia itself, this form of intervention has not been widely applied to schizophrenia. Psycho-education is a form of education or training for someone with a psychiatric disorder who aims at the treatment and rehabilitation process. The goal of psycho-education is to develop and increase patient acceptance of diseases or disorders that he experiences, increasing patient participation in therapy, and developing coping mechanisms when patients face problems related to the disease.^{10,11}

Psycho-education is an intervention that can be done on individuals, families, and groups that focus on educating participants about significant challenges in life, help participants develop sources of support and social support in meeting these challenges, and develop coping skills to meet these challenges.¹²

Psycho-education (PE) can not only be applied to individuals with schizophrenia but can also be applied to families and groups. PE can be used as part of the treatment process, and as part of rehabilitation for patients who experience certain diseases or disorders,

it can even be used as a media to prevent a recurrence. PE is widely given to patients with psychiatric disorders, including family members and people with interest in treating these patients.¹³

The focus of psycho-education is as follows: educating participants about challenges in life, help participants develop sources of support and social support in facing life's challenges, develop coping skills to face life's challenges, develop emotional support, change the attitudes and beliefs of participants towards a disorder (disorder), identify and explore feelings about an issue and develop problem-solving skills.

Identifying and exploring feelings about an issued according to Walsh (2010), PE can be a single intervention, but it is also often used in conjunction with several other interventions to help participants deal with specific life challenges developing problem-solving skills. One combination of psycho-education interventions such as Aguglia E, Elisabetta PF (2007) who assessed the effectiveness of a combination of long-term drug therapy and psycho-education interventions in schizophrenic patients in reducing recurrence.^{10,14}

Psycho-education is not the same as psychotherapy, although there is sometimes an overlap between the two interventions. Psycho-education sometimes becomes part of psychotherapy. Walsh (2010) explains that psychotherapy can be understood as a process of interaction between a professional and his client (individual, family, or group) that aims to reduce distress, disability, malfunctions of the client system in the function of cognition, affection, and behaviour. Psychotherapy is also more focused on the individual who gets the intervention, whereas psycho- education focuses on the more extensive system and tries not to pathology the patient.¹⁵

Psycho-education media

Psycho-education is not a treatment, but it is designed to be part of the overall treatment plan. For example, knowledge of one's illness is essential for

individuals and their families to be able to design optimal treatment and treatment plans. It is often difficult for patients and family members to accept a patient diagnosis, so this psycho-education intervention has the function of contributing to the de-stigmatization of psychological disorders and to reduce barriers to treatment. With the development of the use of the internet, the education program in terms of providing information has become more accessible. Therefore, besides publishing brochures, pamphlets, booklets, and mental health service posters can also create websites that provide a variety of general information about mental health issues, especially schizophrenia.

In Aguglia's research (2007), psycho-education is used with interactive education methods that involve patients and their families, and the meeting took place in eight sessions with material explaining starting from the definition of schizophrenia, causes of schizophrenia, treatment, psychosocial treatment strategies, preventing recurrence, and the role of the family in assisting the treatment process of schizophrenic patients.^{16,17}

Models of psycho-education programs

The models of this psycho-education program come in various forms. Can be a family psycho-education or multiple groups, single or mixed sessions, according to the circumstances. Based on a survey conducted at all psychiatric institutions in Germany, Austria and Switzerland, the number of participants in each group of psycho-education programs ranged from 6 to 15 participants who met once every 1-2 weeks, for approximately 1 - 1.5 hours. The program has 8-12 sessions and is guided by two moderators.¹⁶

Mixed psycho-education session involving 150 patients and families of people with schizophrenia, the interactive education method takes place in 8 meeting sessions for 60 - 90 minutes once meetings are held on the Italian community psychiatric network, showed the results of a significant decrease in the number of schizophrenic recurrences. 10 From the results of a meta-analysis of 16 studies, it was found that

programs with some sessions of less than ten did not affect the burden of care. Then there are also some studies that have found that single psycho-education is more beneficial than group psycho-education. However, further research is needed on this matter, and to date, not many studies have examined the smallest effective "dose" of psycho-education that needs to be carried out.¹⁶

Psycho-educational material

Things that are considered necessary are knowledge about schizophrenia and its management, improving communication patterns in the family, skills in crisis intervention, improve problem-solving skills, improves family adaptability, and encouraging family and caregiver participation in social activities. Based on a survey conducted in Europe, the main topic given was the initial symptoms of recurrence, pharmacotherapy and side effects, contingency plans during emergencies/crises, and emotional aspects related to stigmatization, isolation, guilt and shame.¹¹

The role of psycho-education in preventing schizophrenia recurrence

Management of schizophrenia remains a significant challenge even though antipsychotic developments and family and social interventions have progressed rapidly. Although the relevant results obtained can reduce the length of stay in the hospital through community coaching and the use of psychopharmaceuticals, it turns out the recurrence rate of patients with schizophrenia is still high. A variety of treatment modalities are needed for comprehensive care in schizophrenic patients. Antipsychotic drugs are the basis of treatment, their use to minimize the severity of the symptoms of schizophrenia. To achieve and maintain functional recovery and disappearance of symptoms of schizophrenia other interventions including individual and group psychotherapy, family therapy, case management, hospital care, home visits and social and vocational rehabilitation services are needed. In the management of schizophrenia patients, a holistic, eclectic approach is used, that humans

must be viewed as a complete whole, including the existence of the closest environmental factors, namely the family. Families play a role in the maintenance and rehabilitation of family members who have schizophrenia.

People with a mental health condition often become a burden to the family due to prolonged care and treatment and a tendency to relapse. Families sometimes become saturated, so they no longer pay attention to patients. Patients need the help of others who encourage and motivate to be independent. Therefore, social support from the family is needed. A review of studies published in the field of schizophrenia therapy, since the early 1980s, confirms that psychosocial therapy, combined appropriately in long-term antipsychotic therapy, can reduce the percentage of recurrence in one year to around 54%. If psycho-education interventions are carried out with patients and their families, recurrence in the following year drops to 27%. Among psychosocial interventions, psycho-education for patients and their families has been considered the most promising and thriving in the last thirty years.¹⁰⁻¹⁵

Recent changes in the treatment of schizophrenic disorders enable us to combine traditional therapies using atypical antipsychotics and psychosocial interventions that appear to be reliable in dealing with positive and negative symptoms of schizophrenia. Given the explicit goals of treating schizophrenic disorders not only to control symptoms but also to prevent a recurrence, invite patients to adhere to prescribed treatment plans, restore social function and work and to achieve a better quality of life. Since the 1970s, many studies have confirmed that long-term participation and stable drug therapy can better prevent recurrence compared to intermittent drug therapy. However, unfortunately, only 50% of people affected by schizophrenia undergo adequate drug therapy for an extended time.¹⁷

On the other hand, not all patients respond equally to drug therapy and that the treatment does not show the same results as every patient because of not all patients and their families like it. Several studies have

shown that about one-third of patients who were compliant initially, was reduced to one-third of adherents to half of the course of therapy, and only one-third were compliant until the end of treatment.^{8,12}

Related to prolonged treatment in schizophrenia patients, of course, have several causes that can cause discontinuation in treatment. One of the causes came from the family as for economic reasons¹⁵. Also, several causes of mental illness recurrence, one of them is a family function related to health, namely health care function. Family is a complex system. The family system can function well and maintain the health of its members, and support the development of each member and accept and make changes. However, the family system can also cause dysfunctional, even if only one or a few family members, will affect other family members. Through family psycho-education, it is expected that family knowledge related to patient illnesses increases and family acceptance of the patient's condition becomes better than before, so that patient treatment can achieve excellent outcomes as well as decreasing the patient's recurrence rate. In the family, it is expected that a family member can play a unique role as someone who assists patients (caregiver) who in this case, experience disabilities and limitations related to the disease. The assistance starts from seeking treatment or therapy that is needed by the patient, ensuring compliance with taking medication to prevent a recurrence, recognizing symptoms of recurrence and further actions, recognizing symptoms of the emergence of side effects.¹¹

Through psycho-education also, families are provided with knowledge of how the family's role in helping schizophrenic patients undergo treatment, including also the role in providing emotional support, affection, and attention. Greenberg found that the quality of life of schizophrenic patients was seen to be higher in family caregivers who expressed warmth, close and supportive relationships. In the 2007 Aguglia study, also showed significant results related to the role of psycho-education in reducing the

recurrence rate of schizophrenia patients, which was assessed by several psychiatric rating scales in terms of several aspects including, decrease in positive symptoms, decrease in negative symptoms, increase in quality of life, as indicated by a decrease in the number of re- hospitalizations and the number of days of stay.

Psycho-education is systematic and structured information about a disease or disorder and its handling, including emotional aspects, which aims to enable the family to adapt to the disease or disorder adequately. Psycho-education is proven to reduce relapse rates, improve medication adherence, have a positive effect on the course of the disease, reduce the burden of care, have a positive influence on situations in the family, and help better adaptability.

2. Conclusion

Schizophrenia is a severe mental disorder that can be obtained worldwide with a prevalence of around 1% of the population. Schizophrenia disorders usually last chronic and tend to be severe and persistent and accompanied by acute exacerbations and decreased function of the patient's role. Among psychosocial interventions, psycho-education for the patient and the patient's family has been considered the most promising in reducing schizophrenia recurrence rates.

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