

A Literature Review of Schizophrenia Therapies Comparing Effects

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Abstract:

Schizophrenia is a complex and chronic mental health condition that affects a significant number of individuals across the globe. This disorder can have a profound impact on those who suffer from it, as well as their families and communities. Characterized by a range of symptoms that may include delusions, hallucinations, disorganized thinking, and reduced social engagement, schizophrenia can be a challenging condition to manage. Despite the difficulties it presents, with proper treatment and support, many people with schizophrenia can lead fulfilling lives. Understanding and awareness of this condition are crucial in fostering a supportive environment for those affected and advancing research towards more effective treatments and potential cures. Psychological treatment is considered a limited side-effect therapy compared to medication. Psychological treatment can be divided into several therapies. Those therapies have different effects and various aspects of improvement. This literature review attempts to show the function of family therapy, group therapy, social skills training, and vocational rehabilitation. A total of 17 empirical researches are included in this literature review. Through the review of previous studies, it could be proposed that the improvement of symptoms, quality of life and social functioning are different for each therapy.

Keywords: Schizophrenia; comparison, therapy.

1. Introduction

Schizophrenia, one type of mental disorder, is commonly misunderstood and mixed with Dissociative Identity Disorder (DID). However, rather than DID, where patients have two or more personalities, schizophrenia is a brain disorder that causes poorly understood and false beliefs [1]. Schizophrenia includes symptoms such as delusions, hallucinations, disorganized speech, trouble with thinking, and lack of motivation. These symptoms can be classified as positive symptoms, negative symptoms, and disorganized symptoms [2]. Based on this classification, the diversity and uncontrol of symptoms make Schizophrenia seriously impact the patients' working and everyday social life. Although Schizophrenia is not as regular as other mental illnesses, its impact is widespread. According to the World Health Organization (WHO), nearly 24 million people are affected by Schizophrenia, which is 0.32% of people around the world [3]. The incidence of Schizophrenia has not changed much over the past two centuries [4]. Since the factors of Schizophrenia are not single but are classified as genetic and environmental, psychiatrists make the diagnosis not only on the physiological brain observation but also based on subjects' self-reported subjective experience [4]. Based on protean causes, the thesis and treatments to improve the symp-

toms of Schizophrenia are also multiple, which include medical treatment, psychosocial interventions, hospital stays, and electroconvulsive therapy [5]. Although medical treatment is the most usual solution for illness, the concern about the side effects promotes the exploration and development of psychotherapy [6]. From the perspectives of society and family, group and individual, and learning and expressing, psychosocial intervention has several specific types of treatments. It is mainly divided into individual therapy, family therapy, social skills training vocational rehabilitation and supported employment [5]. The last three therapies are always performed in the group. However, different psychosocial have different impacts and therapeutic effects on patients. Therefore, this literature review is intended to provide extensive insight into the effects of family therapy, group art therapy, social skills training, and Vocational rehabilitation specifically. Because social skills training can be combined with individual, family, and group training, to clarify their difference, this literature review used group social skills training as an example.

2. Methodology

A full-scale literature search was conducted using the database Google Scholar. The following search terms were entered: psychosocial treatments, Schizophrenia,

individual therapy, family therapy, and social skills training. Additionally, further studies were supported by data from supplementary sources, such as the World Health Organization and Cleveland Clinic, and these were added in order to generate a more scientific and comprehensive literature review. Studies were selected in accordance with the following inclusion criteria. Studies had to (i) contain analysis relating to psychosocial treatments of Schizophrenia, (ii) have been published after 1990, and (iii) contain empirical data or authoritative reference This literature review will begin by presenting an overview of family therapy, group art therapy, social skills training, and Vocational rehabilitation. Next, the review describes the reduction of symptoms of the above therapies from three perspectives: (i) measure of mental state, (ii) quality of life, and (iii) social functioning. Following that, the review will explore the implications and conclude the comparison between the effects of different therapies.

3. Results

3.1 .Overview of Therapies

Family therapy includes psychoeducation, stress reduction, emotional processing, cognitive reappraisal, and structured problem-solving. The special condition of this therapy is the collaborative relationship between the treatment and the family. Because of the complexity of Schizophrenia, patients' physical health and mental health should both be considered. And a proper family emotional environment and the positive supporting attitude of relatives and caregivers can promote the improvement of treatment [7].

Group therapy is a treatment for schizophrenia patients in the form of a group. It can be related to art, music, and various ways. This therapy is effective for long-term group training [6]. Also, it is appropriate for outpatients and suitable for community mental health clinics and private practice settings [8]. Social skills training is based on behavior therapy principles and techniques. It is utilized to help patients communicate and express their requests to fit the demands of an independent life. Different from family therapy, social skills training is protean and is focused on operational components such as the identification of problems, behavioral rehearsal, and positive feedback [9]. Vocational rehabilitation focuses on the competitiveness and job fitness of patients. This therapy includes five main principles: the use of situational assessment in the evaluation of vocational skills and potential, competitive employment or supported employment, rapid replacement, ongoing vocational support, and tailoring job development to individual preferences[10].

3.2 .Reduction of Symptoms

3.2.1 Measures of mental state

The symptoms of Schizophrenia are generally classified as negative symptoms and positive symptoms during the research [11]. Negative symptoms include the absence of normal behavior and long-term disabilities [12]. Positive symptoms refer to the excess and distortion of behavior, such as delusions and hallucinations. Different kinds of therapy may have different extents of impact on negative symptoms and positive symptoms.

Family therapy can significantly reduce the total symptomatology [13]. According to Wu's research, for patients with schizophrenia, after receiving family therapy, the improvement of negative symptoms is 20%. The improvement of positive symptoms is 34.29%. In Wu's research, the effect of family therapy on the improvement of symptoms is much higher than that of group therapy, as its improvement of positive symptoms is 5.56%, and its improvement of negative symptoms is 27.78% [14]. However, group therapy has various types, and each type has a different impact on improving mental state. One of the group therapies is group art therapy, which is an expressive psychological therapy.

Group art therapy can also improve the symptoms. In Liu's research, using the positive and negative syndrome scale (PANSS), the research finds that both the mean score of the positive scale score and the mean score of the negative scale score of the intervention group are lower than those of the control group. Also, group art therapy is more effective in improving the negative symptoms [15]. Crawford's research, which uses randomized controlled trials to explore the use of group art therapy shows that group art therapy can reduce the overall number of symptoms of patients who received group art therapy for two years as the standard care [16].

Similar to group art therapy, social skills training can improve the reduction of symptoms. According to PANSS in the research of Rus-Calafell, negative symptoms are reduced more significantly than positive symptoms after social skills training. The reduction of negative symptoms is significantly related to the time based on the changes of symptoms from pre-treatment and post-treatment and the maintaining time of improvement from post-treatment to follow-up [17]. Also, PANSS was applied in the research of Granholm. This research shows that the interaction of group and time is significant for improving negative symptoms. Experiential negative symptoms improved significantly in cognitive behavioral social skills treatment. Time is also a primary factor in the PANSS Positive Subscale and can significantly improve the positive symptoms. Based on the significant improvements in function-

ing and negative symptoms, the research concluded that the cognitive behavioral treatment and social skills training were more potent compared to the supportive goal-setting interventions aimed at the above symptoms for schizophrenia patients [18]. According to Bio's research, similarly to social skills training, vocational rehabilitation has significant improvement in negative symptoms but has relatively no benefit for positive symptoms [19].

3.2.2 Life quality

According to research aimed at United States patients, the average cost of annual treatment for Schizophrenia patients who try to commit suicide is \$46,024, and the average cost of annual treatment for Schizophrenia patients who have violent behavior is \$18,778 [20]. Considering the cost of necessities, medical treatment, and the offset to the violent behavior and the limited earnings of patients, the economy is one of the main parts influencing the quality of life of schizophrenia patients. Besides the external factors, the quality of life is determined by personal physical features such as sleeping, eating, and exercising, personal-psychological features such as self-esteem, and social features such as recognizing, communicating, and working. As a result, the standard to measure the quality of life is multi-angles.

Family therapy can reduce the cost of treatment by reducing the relapse risk. Based on Rodolico's research, the reoccurrence rate is reduced to 9.7% after patients receive family psychoeducation [21]. Also, the follow-up study of family intervention for Chinese schizophrenia patients shows that before the family intervention, the recurrence rate was 43.8%. At the end of the second year of giving the family therapy, the research found that the recurrence rate was reduced to 20.0%. Also, because of the reduction in recurrence rate, the average cost of treatment was reduced, and the average earnings rose. The direct annual treatment is reduced by 173 yuan, and the indirect annual cost is reduced by 294 yuan, while the average annual earning of work resumption of patients is 634 yuan [22].

As a therapy treating multiple patients simultaneously, group therapy is cost-efficient because of its short waiting time and accessibility [23]. Besides the cost burden being reduced, group art therapy enhances patients' ability to recognize themselves properly, according to Liu's research. The research analyzed from perspectives of sleeping, eating, sexual functioning, and self-respect and found all of them have improvements after the group art treatment. Since the recovery of social and psychological functioning, the quality of life and the ability of cognition have increased [15].

Social skills training can improve the primary function and reduce the economic burden. The research measures

self-reported functioning by using the Independent Living Skills Survey (ILSS) to figure out the patients' primary functions, such as possessions, food preparation, and money management. The results show that primary functioning was improved and was significantly related to the interaction of group and time. Also, considering the cost and burden of psychosocial treatment, the investment in healing with cognitive behavioral and social skills treatment is limited because of efficient outcomes [18]. For the vocational rehabilitation, Bio used the quality of life scale and found out the improvement of the quality of life of vocational group was higher than that of controls [19].

3.2.3 Social function

Compared to standard care, family intervention significantly improved social functioning, according to Hahlweg's review [13]. Vidal's research presents that patients who received family behavioral therapy can get higher grades in social functioning. The results show that the social functioning is significantly related to time and the interaction of group and time. Also, carers of patients who received the behavioral family therapy showed a reduction in negative expressed emotion [15].

Liu's research uses general adaptation syndrome (GAS) to find out the changes of social functioning of patients with schizophrenia after they receiving the group art therapy. The research proposes that social support, working and learning, entertaining of patients have significantly been improved [15].

According to Kopelowicz et al., the measure of the effect of social skills training can be divided into seven main aspects, including social perception, processing of social information, responding and sending skills, affiliative skills, instrumental role skills, interactional skills, and behavior governed by social norms [24]. In the research of Rus-Calafell, social training improves social cognition during the treatment but does not have lasting performance as the study follows up the subjects [17]. Granholm's research explored the effect of cognitive behavioral social skills training (CBSST) by using the Maryland Assessment of Social Competence to assess basic problem-solving skills and communication abilities. The results show that CBSST can significantly enhance social competence, and the interaction of group and time is a significant factor in social competence. The research also shows that by receiving cognitive-behavioral and social skills training, patients can continue to learn and use those skills on functioning goals instead of forgetting them after they stop the treatment [18].

Vocational rehabilitation can improve the patient's neuropsychological performance. The research used the Wechsler Adult Intelligence Scale-III, Stroop Color-Word

Test, and Wisconsin Card Sorting Test to examine patients' intellectual abilities, verbal comprehension, and memory [25]. As a result, the research shows that there is a significant improvement in patients' comprehension. Bio and Gattaz measured the patients' cognitive performances and concluded that vocational rehabilitation could improve executive functions such as judgment and criticism.

4. Implication

Considering the effect of all mentioned treatments, the negative symptoms are more easily improved than positive symptoms. So the future research, and experiments should focus on improvements in positive symptoms. Regarding quality of life, although social skills training can benefit patients by improving their primary symptoms, Granholm proposed that further development should be done to control the dosage of treatment, considering both efficiency and cost [17]. Also, for both the improvement of quality of life and social functioning, researchers are expected to explore the amelioration of treatments to have lasting positive impacts.

5. Conclusion

For the mental state, the effect of therapies is always related to the time and the group interaction. Also, mostly using the PANSS, researchers always show that the negative symptoms can be improved better than positive symptoms. Family therapy is more efficient than group therapy, social skills training, and vocational rehabilitation. For the quality of life, group therapy and parts of social skill training and vocational rehabilitation, which develop in the form of group are relatively eco-friendly. Because of the high cost of individual therapy, most family therapies are less widespread. Also, because of the promising use and application of skills learned from social skill training and vocational rehabilitation, these therapies can improve patients' lives physically. For social functioning, all family therapy, group therapy, social skills training and, vocational rehabilitation have positive effects on improving patient's social abilities. The role of group therapy is comprehensive, from biological improvement to psychological interaction in daily life. At the same time, social skills training focuses on personal interacting skills, and vocational rehabilitation pays attention to executive functions.

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