

Family Psychoeducation as an Intervention Tool in the Management of Schizophrenia and the Psychological Wellbeing of Caregivers

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Abstract

Background: Caregivers need to be imparted with specialized skills to retain their psychological well-being and to manage the patient with schizophrenia effectively. **Aim:** This study aims to understand the role of family psychoeducation (FPE) in the management of schizophrenia and the well-being of caregiver. **Materials and Methods:** The sample included 40 caregivers and patients, 20 each assigned randomly in treatment group (psychoeducation given) and the control group. Pre and post assessment of psychological wellbeing (PWB), symptoms of the patient, and emotional regulation was done through the scales mentioned in the study and analyzed through analysis of variance. **Results:** Statistically significant improvement in emotional regulation of caregivers and patient ($P = 0.05$) and improvement of PWB in caregivers ($P = 0.01$) as well as significant reduction in symptoms of patients ($P = 0.01$) found in the treatment group. **Conclusion:** FPE was found to be effective in improving PWB of caregivers and effective management of a patient with schizophrenia.

Keywords: Caregiver, psychoeducation, schizophrenia, wellbeing

INTRODUCTION

Schizophrenia – a form of psychosis – has affected 2.1 million people around the globe.^[1] Many families experience shock after knowing the diagnosis of schizophrenia of their family member.^[2] This grief deepens into distress in the early stages and maintained due to burden of care.^[3] This further, lowers the psychological well-being of the caregivers and results in anxiety and expressed emotions.^[4-6] Therefore, it is necessary to develop resilience and adaptability of the family members to stay with members suffering from mental illness.

Several studies have reported the efficacy of family psychoeducation (FPE). It is an effective tool in improving resilience, helps in inhibiting emotional over involvement and expressed emotion among the family member, lessening the chances of relapse, and rehospitalization of the patient.^[7-9] From the FPE, caregivers receive empathetic engagement, learns problem-solving skills, enhancement of their like-minded social network, clinical aid, and allied resources during an emergency, and due to the support system, their psychological

wellbeing (PWB) gets restored.^[10] While the line of studies based on FPE have shown promising results, very fewer studies in the Indian context did the trial of FPE on caregivers of schizophrenia. Therefore, the current study will add its finding as evidence on the efficacy of FPE in the Indian context.

MATERIALS AND METHODS

An intervention study is to compare the effect of psychoeducation among the equally distributed caregivers and patients through quasi-experimental design. The study carried out in between December 10, 2019 and March 3, 2020 in Delhi, Noida, and Ghaziabad. Convenient sampling technique was used to select the 40 participants (20 caregivers and 20 patients

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with schizophrenia distributed equally in two groups, i.e., treatment and control group participants) who used to visit the private psychiatric clinic. The participants comprised of family members of any age who are living with the patient of age range between 25 and 45 years from the past 2 years.

Initially, sociodemographic information were collected from participants and then pretested questionnaire were used to record the condition of both caregivers and patients before and after intervention has been done. To measure the PWB of the caregiver, Ryff PWB scale (Ryff's PWB) has been used.^[11] It is a 6-point likert scale with 42 items which is divided into 6 dimensions. Higher score indicate greater wellbeing. To understand the severity of symptoms of the patients, Positive and Negative Syndrome Scale (PANSS) has been used. It contains 30 items, 7 are positives, 7 are negative symptoms, and 16 are general psychopathology symptoms. Symptom severity for each item was rated on 7-point likert scale to understand the symptoms severity.^[12] Emotional self-rating scale (ESR) was included in the study to specify valence of 6 different forms of emotion on 5-point likert scale. This measure was similar to the subjective ratings of emotions used in other studies.^[13]

Along with evaluation measures, the prime objective was to do intervention through educating family about psychosis. It was done through *Psychoeducation Intervetion Package* with little modification.^[14] The package was divided into five sessions in which parents were first educated about schizophrenia then therapist applied the tactics to improve communication skills and normalized negative expressed emotions of the caregivers. The caregivers were empowered to prioritize their needs and social interests for their own mental health and taught to divide time between caregiving and recreational space.

Procedure

To understand the efficacy of FPE as an interventional procedure, two groups were formed. In the treatment group, caregivers were imparted with psychoeducation and the control group was left without intervention. The researcher was trained and conducted 5 psychoeducation sessions with caregivers, on 7–10 days' interval in the treatment group. The intervention continued for over 1.5 months. The decision of duration gap between baseline and endline assessment is based on the previous study conducted on the caregiver of patient with the same pathology.^[15] At the end of the intervention, both experimental and controlled groups were administered on the same scales as assessed before intervention. The researcher explained the purpose of the study and assured confidentiality of patients' information and written informed consent was taken.

Data analysis

Comparative analysis within and between the groups and changes in before and after FPE intervention was evaluated through one-way analysis of variance (ANOVA) at the statistical significance of 0.05 level through Statistical Package for the Social Sciences (SPSS) Windows Version 16.0: SPSS Inc., Chicago (IL), US.

Ethical consideration

The following study is a part of the more extensive research carried out for the doctoral thesis. The study got ethical clearance from the Ethical Committee of Galgotias University, Greater Noida, situated in Gautambudh Nagar district of Uttar Pradesh.

RESULTS

Sociodemographic characteristics of the respondents

A total of 40 patients and their caregivers were included in the study, in which, 20 (patients and caregivers) randomly assigned to the treatment group and 20 (patients and caregivers) to the control group. The sociodemographic characteristics of the caregivers and patients in addition to the clinical details were taken prehand [Table 1]. Concerning the caregivers and patients of both the groups, there is hardly any difference in terms of gender, education, occupation, and material status. However, the difference to be found significant in the relationship due to unmatched number in mother, father, daughter, son, and sibling in both the groups.

Characteristics of caregivers and patient in treatment and control group

Baseline response on PANSS, RYFF, and ESR scale was taken from all participants before the start [Table 2]. ANOVA was conducted to find out the distinctiveness of control group and treatment group. It was found that both the groups are equal as ANOVA revealed nonsignificant group difference for PANSS Scale and Ryff wellbeing scale. For ESR scale group, difference for basic emotion happiness, sadness, and surprise was found to be nonsignificant; however, group difference was significant for anger, disgust and fear, proves the fact that groups are counterbalanced and equal in nature.

Effect of intervention on caregiver's wellbeing and emotion regulation

To ascertain the improvement of well-being, emotional regulation in caregivers and emotional regulations in patients through FPE intervention, within-group and between the group differences were calculated through ANOVA. The effect of FPE was visible within the treatment group where caregivers mean score of pretreatment and posttreatment well-being on Ryff's PWB showed the significant difference [Table 3]. The wellbeing of the caregivers significantly improved. Whereas, there was no significant improvement and difference were seen in the control group of caregivers [Table 3]. Between the groups, there was a significant difference in mean score on post wellbeing measures and treatment group shown significant improvement than the control group [Table 3].

In terms of emotional regulation, the six domain of emotion means score compared in the pre and post period within the treatment group and control group. Caregivers showed a significant improvement in all domains of ESR in the treatment group, whereas no such improvement and significant differences were observed in any domain of control group [Table 4]. The

Table 1: Sociodemographic and clinical characteristics of participants

Characteristics	Frequency, n (%)				χ^2, P
	Treatment (n=20)		Control (n=20)		
	Caregiver	Patient	Caregiver	Patient	
Male	7 (70)	6 (60)	3 (30)	4 (40)	3.600, 0.113
Female	3 (30)	4 (40)	7 (70)	6 (60)	
Relationship					14.713, 0.005
Mother	1 (10)	0	3 (30)	0	
Father	5 (50)	1 (10)	1 (10)	0	
Daughter	1 (10)	4 (40)	0	0	
Son	2 (20)	2 (20)	0	4 (40)	
Spouse	0	2 (20)	1 (10)	1 (10)	
Sibling	1 (10)	1 (10)	5 (50)	5 (50)	
Education					2.289, 0.564
Intermediate	2 (20)	4 (40)	1 (10)	3 (30)	
Graduate	5 (50)	4 (40)	4 (40)	3 (30)	
Postgraduate	3 (30)	2 (20)	5 (50)	4 (40)	
Occupation					0.683, 0.867
Employed	8 (80)	0	8 (80)	2 (20)	
Homemaker	1 (10)	0	1 (10)	0	
Unemployed	1 (10)	10 (100)	1 (10)	8 (10)	
Marital status					0.107, 1.000
Married	7 (70)	1 (10)	5 (50)	8 (80)	
Unmarried	3 (30)	9 (90)	5 (50)	2 (20)	

Table 2: The result of caregivers and patient on RYFF'S Psychological Wellbeing Scale, Positive and Negative Syndrome Scale and Emotional Self-Rating Scale of treatment and control group (prior to any intervention in treatment group)

Groups	Precondition, mean (SD)		F and P
	Treatment group	Control group	
Ryff's PWB (caregiver)	165.2 (2.94)	164.2 (4.10)	0.39, 0.53
PANSS (patient)	132.9 (13.95)	131.6 (18.26)	0.032, 0.86
ESR caregiver			
Anger	3.4 (0.51)	2.6 (0.51)	12, 0.00
Disgust	2.8 (0.78)	2.2 (0.42)	0.45, 0.04
Happiness	2.8 (0.79)	2.6 (0.52)	0.45, 0.51
Sadness	2.6 (0.51)	2.6 (0.51)	0, 1
Surprise	2.6 (0.51)	3.0 (0.67)	2.25, 0.15
Fear	2.4 (0.51)	0.51 (1.6)	12, 0.00
ESR patient			
Anger	2.6 (0.52)	2.8 (0.67)	2.25, 0.15
Disgust	2.8 (0.42)	2.8 (0.42)	0, 1
Happiness	2.4 (0.52)	2.6 (0.52)	0.75, 0.39
Sadness	2.5 (0.42)	3.0 (0.67)	0.64, 0.43
Surprise	2.2 (0.42)	2.2 (0.42)	0, 1
Fear	2.8 (0.42)	2.8 (0.42)	0, 1

ESR: Emotional self-rating, PANSS: Positive and Negative Syndrome scale, SD: Standard deviation, PWB: Psychological Wellbeing Scale

result of caregiver's emotional regulation [Table 4] showed a substantial difference in post mean score in the treatment group and control group. Caregivers in the treatment group showed

Table 3: The result of caregivers and patients on RYFF'S Psychological Wellbeing Scale and Positive and Negative Syndrome Scale in both conditions (pre- and post-condition and post-post condition of treatment and control group)

Group	Treatment group (pre- and post-condition)		
	Mean (SD)		F and P
	Pre (n=20)	Post (n=20)	
Caregivers			
RYFF	165.20 (2.94)	200.60 (7.20)	207.32, 0.00
Patients			
PANSS	132.90 (13.95)	101.20 (7.34)	40.37, 0.00
Condition	Control group (pre- and post-condition)		
Caregivers			
RYFF	164.20 (4.10)	165.00 (2.83)	0.26, 0.62
Patients			
PANSS	131.60 (18.26)	131.00 (17.66)	0.01, 0.94
Group	Treatment and control group (post-postcondition)		
	Treatment group	Control group	F and P
Caregivers			
RYFF'S PWB	200.60 (7.20)	165.00 (2.83)	211.85, 0.00
Patients			
PANSS	101.20 (7.38)	131.00 (17.66)	24.24, 0.00

PANSS: Positive and negative syndrome scale, SD: Standard deviation, PWB: Psychological wellbeing scale

significant improvement in the domain of anger, disgust, sadness, and happiness over caregivers in the control group.

Table 4: The result of caregivers and patients on emotional self-rating in both conditions (pre and post condition and in post post condition of treatment and control group)

Group	Treatment group (pre and post condition)					
	Mean (SD)	Mean (SD)	F and P	Mean (SD)	Mean (SD)	F and P
	Caregivers (treatment group)			Patients (control group)		
ESR scale						
Anger	3.44 (0.53)	2.20 (0.79)	16.20, 0.00	2.60 (0.52)	2.30 (0.68)	1.24, 0.28
Disgust	2.80 (0.79)	1.40 (0.52)	22.05, 0.00	2.80 (0.42)	1.80 (0.79)	12.50, 0.00
Happiness	2.80 (0.79)	3.60 (0.52)	7.20, 0.01	2.40 (0.51)	2.30 (0.67)	0.14, 0.71
Sadness	2.60 (0.52)	1.80 (0.79)	7.20, 0.01	2.80 (0.42)	2.20 (0.42)	10.12, 0.00
Surprise	2.60 (0.52)	3.20 (0.52)	8.10, 0.01	2.20 (0.42)	1.60 (0.52)	8.10, 0.01
Fear	2.40 (0.52)	1.60 (0.52)	12.00, 0.00	2.80 (0.42)	1.80 (0.42)	28.12, 0.00
Group	Control group (pre and post condition)					
	Mean (SD)	Mean (SD)	F and P	Mean (SD)	Mean (SD)	F and P
	Caregivers (treatment group)			Patients (control group)		
Anger	2.60 (0.52)	2.80 (0.42)	0.90, 0.36	3.00 (0.67)	3.00 (0.67)	0.00, 1.00
Disgust	2.20 (0.42)	2.40 (0.52)	0.90, 0.36	2.80 (0.42)	2.70 (0.67)	0.16, 0.70
Happiness	2.60 (0.52)	2.60 (0.52)	0.00, 1.00	2.60 (0.52)	2.80 (0.79)	0.45, 0.51
Sadness	2.60 (0.52)	2.60 (0.52)	0.00, 1.00	3.00 (0.67)	3.00 (0.67)	0.00, 1.00
Surprise	3.00 (0.67)	3.00 (0.67)	0.00, 1.00	2.20 (0.42)	2.50 (0.71)	1.33, 0.26
Fear	1.60 (0.52)	2.00 (0.67)	2.25, 0.15	2.80 (0.42)	2.70 (0.48)	0.24, 0.63
Group	Treatment and control group (post-post condition)					
	Mean (SD)	Mean (SD)	F and P	Mean (SD)	Mean (SD)	F and P
	Caregivers (treatment and control group)			Patients (treatment and control group)		
ESR scale						
Anger	2.20 (0.79)	2.80 (0.42)	4.50, 0.05	2.30 (0.67)	3.00 (0.67)	5.44, 0.03
Disgust	1.40 (0.52)	2.40 (0.52)	18.75, 0.00	1.80 (0.79)	2.70 (0.67)	7.52, 0.01
Happiness	3.60 (0.52)	2.60 (0.52)	18.75, 0.00	2.30 (0.67)	2.80 (0.79)	2.32, 0.15
Sadness	1.80 (0.79)	2.60 (0.52)	7.20, 0.02	2.20 (0.42)	3.00 (0.67)	10.29, 0.00
Surprise	3.20 (0.42)	3.00 (0.67)	0.64, 0.43	1.60 (0.52)	2.50 (0.71)	10.57, 0.00
Fear	1.60 (0.52)	2.00 (0.67)	2.25, 0.15	1.80 (0.42)	2.70 (0.48)	19.70, 0.00

ESR: Emotional self-rating, SD: Standard deviation

Effect of intervention on patient's symptoms and emotional regulation

The findings of the patient in the domain of regulation of symptoms assessed by PANSS scale showed that within the group; in the treatment group, patient's PANSS mean score in posttreatment was significantly lower than pretreatment score, whereas there was no significant difference in pre-post mean PANSS score in the control group [Table 3]. Between the group, i.e., treatment and control groups, the posttreatment mean score of PANSS was found to be significant and patients who received FPE intervention showed significantly lower mean score than patient in the control group which did not receive any intervention [Table 3]. The patient within the treatment group, their ESR means score showed significant differences and improvements in the domain of disgust, sadness, surprise and fear. Whereas in the control group, there was no significant improvement in any domain. The result [Table 4] shows the post-ESR score between the group, i.e., treatment and control groups of the patient where a significant improvement in ESR score happened in the domain of disgust, sadness, surprise, and fear in the treatment group and no significant improvement was seen in the control group.

DISCUSSION

The aim of the study was to see the improvement of well-being of caregivers after the FPE intervention. In addition to this, how the enhancement of wellbeing of caregivers after the intervention has resulted in better management of schizophrenia. After the intervention, the end line response on RYFF' PWB, showed significant improvement in their well-being. The findings of the present study corroborate with the previous studies further confirms the efficacy of FPE.^[15,16] The study also assessed the role of psychoeducation to the management and maintenance of patients. The intriguing part of it was how the good psychoeducation received caregivers regulated the PANSS score. The findings of the study showed that the patient of the treatment group score significantly less after the psychoeducation receives by the caregivers. It happened due to understanding of symptoms and to act accordingly as per the situation which overall improved the management of the patient. A sense of coherence established between the patient and caregivers eventually led to the reduction of symptoms. This findings corroborated with the previous study,^[17] but contradicted with few studies done in the past.^[18,19] The mixed findings stress the researchers across

the country to replicate and to bring out whether the findings can be generalized to establish the role of psychoeducation in the management of symptoms of schizophrenia.

The findings on emotional regulation (the positive valence, i.e., happiness and the negative valence, i.e., anger, disgust, sadness, and fear) have shown a significant improvement among the caregivers of the treatment group. There has been a considerable reduction in the mean score of negative valence and significant improvement in positive balance. Previous studies also recognized the efficacy of psychoeducation in curbing expressed emotions and emotional over involvement.^[5,9]

Limitations

The study has shown promising result in preserving the mental health of the caregivers with certain limitations: (1) The research carried out with a small sample size and convenient sampling technique. (2) Six weeks intervention program seems inadequate in proving efficacy. Large cohort, longitudinal design in three-phase assessment can show real effectiveness. (3) Generalization of result to be made with caution since few confounders did not neutralize completely.

CONCLUSION

Schizophrenia is not only devastating for the sufferers but the family too. The findings of the study show improvement in the wellbeing and curbing of the distress, asking the state and private bodies to support caregivers with such intervention. However, relative positive impact on patient's symptoms, emotion regulation, wellbeing and their quality of life is still under question which compels further empirical evidence.

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Conflicts of interest

There are no conflicts of interest.

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