

Assessing Efficacy of Life Skills Training Program on Mental Health Status of Schizophrenic Inpatients' Family

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Abstract

Objective: Current Study was designed and conducted with the aim of assessing efficacy of life skills training (LST) on Mental Health Status (MHS) of schizophrenic families.

Material and Methods: This study was quasi-experimental with pretest posttest and control group. Case group of this study consisted of all families, whom one of their family members was admitted to psychiatric Hospital (Sari, Iran) (Feb 2015 to Aug). Accordingly, control group was paired with case group in terms of age and educational status. Statistical sample consisted of 40 individuals, who were randomly assigned into two groups of case group and control group. Sampling method was simple random sampling (SRS). Case control received an intensive life skills training during 12 sessions. Participants answered to questionnaire in two steps (pretest, posttest). In order to assess data, covariance was used.

Results: There are meaningful differences in pretest and posttest of Physical Complaints, obsession- compulsion, interpersonal sensitivity, depression, aggression, phobia and psychosis between groups ($p < 0.05$).

Conclusion: Teaching life skills to family members of schizophrenic patients had positive impact and is important to consider in treatment process of schizophrenia.

Keywords: Life Skills Training; Mental Health; Schizophrenia

Introduction

Background

Schizophrenia tampers with various aspects of its victims' life such as social, emotional and cognitive [1]. Initially, Emil Kraepelin was the one who categorized schizophrenia as specific disorder; Bleuler firstly coined and postulated the term "schizophrenia" [2]. Family and patient psychoeducation have demonstrated significant improvement in clinical and social outcomes for patients suffering from severe mental disorders and their families. However, these evidence-based practices are not widely implemented at service delivery level especially in less developed countries [3]. Low and middle income countries face many challenges in meeting their populations' mental health care needs. Though family caregiving is crucial to the management of severe mental health disabilities, such as schizophrenia [2]. Although both patients with schizophrenia and their caregivers report elevated levels of depression, anxiety, and stress (DASS), affective

symptoms in patients and family members seldom constitute a primary treatment focus [4]. The fallacy regarding schizophrenia epidemiology is that universal incidence of this malady is the same among various cultures and countries [5]. Patient undergoes various unfavorable states such as depression, anxiety and aggression. Apart from pharmacotherapy, patients need tailored psychosocial intervention [6,7]. Mental health is a state of welfare in which every individual understands and reach his/her own capacity and potential, maintains competency regarding coping with the normal stresses of life [8].

Well-being is a vibrant concept, which consists of personal, social, and psychological aspects as well as health-related activities [9]. These facets include the following: self-acceptance, forming healthy bounding with others, autonomous and independent set of actions, power to manage and tolerate complex circumstances in order to meet oneself needs, maintaining realistic goals [10]. Life skills are capabilities that enable us to maintain adaptive and practical behavior. Life skills curricula designed for individuals often highlight communications and practical skills [11]. Current Study was conducted with the aim of assessing efficacy of life skills training (LST) on Mental Health Status (MHS) of schizophrenic families which may effective in treatment and recurrence. All in all, in Iran we did not find any similar study; hence, notifying aforementioned dilemmas, it appeared vital and plausible to conduct this study.

Materials and Methods

Current study was quasi-experimental with pretest-posttest and control group. Case group of this study consisted of all families, whom one of their family members was admitted to psychiatric Hospital (Sari, Iran) because of schizophrenia. Accordingly, control group was paired with case group in terms of age, sex and educational status. Statistical sample consisted of 40 individuals based on G-Power with potency 80 who were randomly assigned into two groups of case group (families of men patients and families of women patients) and control group. Sampling method was simple random sampling (SRS). Case control received an intensive life skills training during 12 sessions, each week 3 sessions with duration of 90 minutes per session; control group didn't received any intervention. Participants answered to questionnaire in two steps (pretest, posttest). In order to assess data, covariance was used.

Inclusion Criteria

- Families, which had schizophrenic patient in psychiatric hospital. Schizophrenia was diagnosed and confirmed by psychiatrist based on DSM-5 criteria.
- Patients without diagnosis of MR that was confirmed via Raven IQ test (patients' IQ was more than 70).
- Age range of patients' family members was 25 - 60.
- Family members reached score higher than 22 in GHQ (General Health Questionnaire).
- Participants signed consent forms in order to participate in study.

Exclusion Criteria

- Demonstrating psychotic symptoms and alarming suicidal ideations among family members of patients.
- Having other psychiatric disorders, which was diagnosed by psychiatrist.
- Receiving psychotropic or other psychological interventions.
- Having IQ less than 70 according to Raven IQ test.

Tools

Case control received an intensive life skills training during 12 sessions, each week 3 sessions with duration of 90 minutes per session; control group didn't received any intervention. Participants answered to questionnaire in two steps (pretest and posttest). In order to assess data, covariance was used. Detailed plan for training sessions is illustrated in table 1.

Skill	Session	Objectives and Interventions
Self-awareness/mindfulness	1 st	<ul style="list-style-type: none"> Greeting and Orientation Teaching Self-Awareness Techniques Teaching how to discover one's self characteristics Group exercise: Participants were asked to precisely announce and write their characteristics on paper Home work: Completing the task which was given during session
	2 nd	<ul style="list-style-type: none"> Discussing homework and problem solving Teaching Self-Awareness Techniques Teaching how to discover one's self abilities Teaching how to discover one's self achievements and progressions Listing all of the abilities and talents in various fields Group exercise: Participants were asked to precisely announce and write their abilities and talents on paper Home work: Completing the task which was given during session
	3 rd	<ul style="list-style-type: none"> Discussing homework and problem solving Teaching Self-Awareness Techniques Teaching how to discover one's self interests and joys Teaching how to spot one's self weak points Teaching how to discover one's self failures and drawbacks Acquiring comprehensive definition of one's self Group exercise: Participants were asked to precisely announce and write their interests, weak points and failure on paper Home work: Completing the task which was given during session

Interpersonal relationships	4 th	<ul style="list-style-type: none"> • Discussing homework and problem solving • Completing task regarding reaching comprehensive definition of one's self • Teaching relationship Skills • Definition of relationship and notion of it • Basic structures of relationship • Identifying and teaching relationship type • Identifying and teaching dysfunctional relationship pattern • Group Exercise: Participants were asked to identify their dysfunctional relation pattern and write them on a paper • Home work: Completing the task which was given during session
	5 th	<ul style="list-style-type: none"> • Discussing homework and problem solving • Teaching Interpersonal Skills • Teaching basics of relationship • Teaching and Exercise vital skills of efficient skills • Teaching relationships impediments • Teaching two major rules in initiating effective relationships • Group Exercise: Participants were asked to identify their relationships impediments and write them on a paper • Home work: Completing the task which was given during session
	6 th	<ul style="list-style-type: none"> • Discussing homework and problem solving • Teaching efficient interpersonal techniques personally to each group member • Explaining various interpersonal relationship styles • Teaching various interpersonal skills • Explaining pros and cons of each interpersonal styles • Group Exercise: Participants were asked to identify their interpersonal relationship styles and write them on a paper • Teaching infrastructure of self assertion • Group Exercise: Role playing self-assertive behavior in class • Homework: Working on the task given in the session and write them on paper

Coping with Emotion	7 th	<ul style="list-style-type: none"> • Discussing homework and problem solving • Teaching Coping with Emotion Techniques • Teaching how to identify anger and it's symptoms and causes • Identifying anger and aggression • Teaching anger to aggression transformation steps • Teaching symptoms of anger • Teaching destructive patterns related to anger • Group Exercise: Writing one example of anger experience and identifying related destructive patterns • Teaching how to deal with anger • Group Exercise: Anger management role playing • Homework: Recording and writing one example of anger experience, it's consequences and identifying related destructive patterns
	8 th	<ul style="list-style-type: none"> • Discussing homework and problem solving • Teaching Coping with Emotion Techniques • Teaching how to identify sadness and it's symptoms and causes • Teaching role of negative internal thoughts in formation and continuity of sadness • Teaching destructive patterns related to sadness • Group Exercise: Writing one example of sad experience and identifying related destructive patterns • Teaching sadness coping skills • Group Exercise: Sadness management role playing • Homework: Recording and writing one example of sadness experience, it's consequences and identifying related destructive patterns
	9 th	<ul style="list-style-type: none"> • Discussing homework and problem solving • Teaching Coping with Emotion Techniques • Teaching how to identify anxiety and it's symptoms and causes • Teaching role of negative internal thoughts in formation and continuity of anxiety • Teaching destructive patterns related to anxiety • Group Exercise: Writing one example of anxious experience and identifying related destructive patterns • Teaching anxiety coping skills • Group Exercise: Anxiety management role playing • Homework: Recording and writing one example of anxious experience, it's consequences and identifying related destructive patterns

Coping With Stress	10 th	<ul style="list-style-type: none"> • Discussing homework and problem solving • Teaching coping with stress skills • Identifying relationship between stress and function of it's symptoms • Identifying causes and roots of psychological pressure • Teaching destructive thinking patterns • Teaching logical thinking skills • Group Exercise: Writing one example of stressful experience and identifying related destructive patterns • Homework: Recording and writing one example of stressful experience, it's consequences and identifying related destructive patterns
	11 th	<ul style="list-style-type: none"> • Discussing homework and problem solving • Teaching coping with stress skills • Teaching various approaches in coping with stressful situations (emotion focused, avoidance and solution focused) • Teaching various approaches regarding dealing with stressful circumstances • Group Exercise: Role playing in dealing with stressful situation and implementing useful techniques • Identifying characteristics of resistant individuals • Group Exercise: Writing an example of stressful experience, it's consequence, identifying destructive related patterns and how to deal with it • Homework: Recording and writing one example of stressful experience, it's consequence, identifying related destructive patterns, implementing proper techniques and approaches in dealing with stress
	12 th	<ul style="list-style-type: none"> • Discussing homework and problem solving • Summarizing former materials from previous sessions and offering practical structure from learned skills

GHQ (General Health Questionnaire): This questionnaire was developed in the 1970s; GHQ quantifies the risk of developing psychiatric disorders and to some extent maintains prognostic power. This tool shed light on two aspects: 1. Inability to function normally and obvious distress in person 2. Assessment of well-being of individuals.

- Cronbach alpha coefficient (0.82 to 0.86).
- Malakouti and Colleagues (2007) postulated that GHQ-28 maintain satisfactory internal consistency; cronbach's alpha, split-half coefficients and test-retest reliability were 0.9, 0.89 and 0.58 respectively [12].

The Symptom Checklist-90-R (SCL-90-R): Leonard R. Derogatis (1970) made this checklist; SCL-90-R is a 90-item self-report symptom inventory, which assesses psychological symptoms and psychological distress. It is suitable regarding using for individuals within the society, together with individuals with either medical or mental conditions. This checklist consists of 9 subscales: Somatic complaints,(SOM), Obsessive-Compulsive (OBS), Interpersonal Sensitivity (INT), Depression (DEP), Anxiety (ANX), Hostility (HOS), Phobic Anxiety (PHOB), Paranoid Ideation (PAR), and Psychoticism (PSY). The global measures are referred to as the Global Severity Index (GSI), the Positive Symptom Distress Index (PSDI), and the Positive Symptom Total (PST). According to Derogatis, internal consistency of this scale with respect to Depression and Psychosis are 0/95 and 0/77 respectively [13]. In Iran, Mirzayee (1980) conducted a study regarding normalization of this form [14].

With respect to analyzing data, in current study we used descriptive statistics methods such as frequency, frequency percentage, mean and standard deviation. Finally, we used covariance and SPSS-20 and analyzing raw data.

Results

In current study, sample size was consisted of 50% if women patients' families and 50% men patients' families. According to table 2, mean and SD of mental health dimensions is decreased after life skills training sessions among women patients' families.

Groups Variables		Mean	SD
Physical Complaints	Case Group-Before Study	70.6	35.7
	Case Group-After Study	56.7	13.5
	Control Group- Before Study	72.9	17.07
	Control Group- After Study	71.1	14.6
Obsession	Case Group-Before Study	88.3	7.71
	Case Group-After Study	74.6	5.4
	Control Group- Before Study	90.9	16.05
	Control Group- After Study	89.1	7.6
Sensitivity in Interpersonal Relationship	Case Group-Before Study	28.7	7.1
	Case Group-After Study	17.5	6.5
	Control Group- Before Study	28.9	7.5
	Control Group- After Study	27.1	6.1
Depression	Case Group-Before Study	31.8	8.2
	Case Group-After Study	27.1	5.5
	Control Group- Before Study	31.7	6.7
	Control Group- After Study	30.6	3.7
Hostility	Case Group-Before Study	25.8	2.3
	Case Group-After Study	22.4	4.3
	Control Group- Before Study	25.4	3.5
	Control Group- After Study	23.2	3.2
Aggression	Case Group-Before Study	27.2	8.8
	Case Group-After Study	23.8	7.6
	Control Group- Before Study	26.9	7.6
	Control Group- After Study	24.5	6.5
Phobia	Case Group-Before Study	25.3	7.1
	Case Group-After Study	15	4.08
	Control Group- Before Study	24.8	6.7
	Control Group- After Study	23.5	6.6
Paranoid Thoughts	Case Group-Before Study	28.4	4.4
	Case Group-After Study	24.5	6.3
	Control Group- Before Study	25.1	4.04
	Control Group- After Study	24.9	2.3
Psychosis	Case Group-Before Study	26.2	12.6
	Case Group-After Study	22.3	10.6
	Control Group- Before Study	29.8	4.7
	Control Group- After Study	28.7	5.2

Table 2: Descriptive indexes of Mental Health dimensions among women patients' families.

According to table 3, mean and SD of mental health dimensions is decreased after life skills training sessions among men patients' families.

Groups Variables		Mean	SD
Physical Complaints	Case Group-Before Study	52.6	4.7
	Case Group-After Study	27.1	5.9
	Control Group- Before Study	51.9	2.6
	Control Group- After Study	52.2	14.5
Obsession	Case Group-Before Study	31.5	5.03
	Case Group-After Study	20.8	3.9
	Control Group- Before Study	17.8	5.2
	Control Group- After Study	19.3	4.7
Sensitivity in Interpersonal Relationship	Case Group-Before Study	28.8	3.9
	Case Group-After Study	23.3	5.01
	Control Group- Before Study	14.8	4.3
	Control Group- After Study	15.2	5.2
Depression	Case Group-Before Study	20.4	8.2
	Case Group-After Study	17.4	9.3
	Control Group- Before Study	15.9	8.1
	Control Group- After Study	16.6	8.5
Hostility	Case Group-Before Study	25.1	3.9
	Case Group-After Study	18.6	5.03
	Control Group- Before Study	14.5	7.1
	Control Group- After Study	16.4	8.08
Aggression	Case Group-Before Study	22.2	9.7
	Case Group-After Study	21.6	9.6
	Control Group- Before Study	16.6	4.3
	Control Group- After Study	17.4	7.8
Phobia	Case Group-Before Study	21.7	3.3
	Case Group-After Study	17.6	4.9
	Control Group- Before Study	15.2	5.8
	Control Group- After Study	15.9	4.7
Paranoid Thoughts	Case Group-Before Study	22.5	5.7
	Case Group-After Study	18.2	5.5
	Control Group- Before Study	18.2	3.01
	Control Group- After Study	18.2	4.3
Psychosis	Case Group-Before Study	30.6	10.9
	Case Group-After Study	27.9	9.8
	Control Group- Before Study	19.9	3.9
	Control Group- After Study	19.2	9.7

Table 3: Descriptive indexes of Mental Health dimensions among men patients' families.

Before analyzing data we assured that data distribution is normal via Kolmogorov-Smirnov Test. According to table 4, data is distribution is normal. Thus, we used parametric tests in order assess study's hypotheses.

Variables	Kolmogorov-Smirnov		
	Parameter	Dof	Significance Level
Physical Complaints	0.93	20	0.16
Obsession	0.47	20	0.98
Interpersonal Sensitivity	1.12	20	0.16
Depression	0.95	20	0.32
Hostility	0.15	20	0.19
Aggression	0.14	20	0.48
Phobia	0.18	20	0.24
Paranoid Thoughts	1.15	20	0.12
Psychosis	1.12	20	0.13

Table 4: Results of Normal Distribution of Current Study Hypothesis.

According to table 5, in current study, Significance level (P) in all variables of the study is more than 0.01. With respect to level of significance and not rejecting a null hypothesis, data has normal distribution. Hence, we used parametric test in order to assess study hypotheses.

¹ Physical Complaints	Source	D.f	Mean Squares	Level of Significance
	Covariance	1	6485.6	0.70
	Pretest	1	224.3	0.41
	Intergroup	1	18.009	0.00
	Intragroup	17	314.9	
	Total	20		
² Obsession	Covariance	1	372.68	0.35
	Pretest	1	15.49	0.60
	Intergroup	1	51.39	0.01
	Intragroup	17	55.95	
	Total	20		
³ Interpersonal Sensitivity	Covariance	1	614.08	0.001
	Pretest	1	108.12	0.64
	Intergroup	1	7.70	0.009
	Intragroup	17	33.91	
	Total	20		
⁴ Depression	Covariance	1	413.30	0.28
	Pretest	1	40.22	0.100
	Intergroup	1	16.29	0.00
	Intragroup	17	13.46	
	Total	20		

⁵ Hostility	Covariance	1	1560.80	0.23
	Pretest	1	28.76	0.39
	Intergroup	1	58.70	0.00
	Intragroup	17	38.23	
	Total	20		
⁶ Aggression	Covariance	1	736.09	0.76
	Pretest	1	32.10	0.42
	Intergroup	1	4.48	0.001
	Intragroup	17	47.90	
	Total	20		
⁷ Phobia	Covariance	1	718.07	0.15
	Pretest	1	134.13	0.25
	Intergroup	1	135.3	0.003
	Intragroup	17	60.16	
	Total	20		
⁸ Paranoid Thoughts	Covariance	1	44.36	0.95
	Pretest	1	228.78	0.10
	Intergroup	1	0.05	0.001
	Intragroup	17	14.92	
	Total	20		
⁹ Psychosis	Covariance	1	132.41	0.001
	Pretest	1	330.56	0.28
	Intergroup	1	9.02	0.00
	Intragroup	17	7.31	
	Total	20		

Table 5: Summary of Covariance Analysis in Case-Group and Control-Group excluding Reciprocal Effect.

According to Table 5:

¹There is meaningful difference between posttest of Physical Complaints between two groups.

²There is meaningful difference between posttest of obsession between two groups.

³There is meaningful difference between posttest of interpersonal sensitivity between two groups.

⁴There is meaningful difference between posttest of depression between two groups.

⁵There is meaningful difference between posttest of hostility between two groups.

⁶There is meaningful difference between posttest of aggression between two groups

⁷There is meaningful difference between posttest of phobia between two groups.

⁸There is meaningful difference between posttest of paranoid thoughts between two groups

⁹There is meaningful difference between posttest of psychosis between two groups.

Discussion

The findings from this study suggest that life skills training approaches can reduce symptoms in family members of patients with a diagnosis of schizophrenia, particularly, the psychosocial problems associated with the illness. It was also shown that such interventions do not have any adverse side effects. Although the findings do not allow rejection of the null hypothesis and need to be treated with caution, whether such interventions can enhance social or community functioning maybe cleared at the present time. According to current study: there is meaningful difference between posttest of Physical Complaints, obsession, interpersonal sensitivity, depression, hostility, aggression, phobia, paranoid thoughts and psychosis between two groups possibly because of effects of life skills training (LST). The findings support further investigation of this approach to life skills training and recommendations are presented below regarding the best way of pursuing such an inquiry.

Results of current study show that LST maintains positive impact on reducing physical complaints among family members of schizophrenic patients; these results are consistent with the results of the studies conducted by Wiguna and Colleagues [15], Russ Calafell and Colleagues, Kaligis and Setiastoni [8]. Furthermore, with respect to results of current study it was concluded that LST maintains positive impact on alleviating obsession among family members of schizophrenic patients; these results are consistent with the results of the studies conducted by Wiguna and Colleagues [14], Calafell and Colleagues [10], Kaligis and Setiastoni [8], Chen and Colleagues [4]. Results of current study showed that LST maintains positive impact on reducing interpersonal sensitivity among family members of schizophrenic patients; these results are consistent with the results of studies conducted by Wiguna and Colleagues [15], Russ Calafell and Colleagues [10], Kaligis and Setiastoni [8]. In similar study, Calafell and Colleagues [10] concluded that LST maintains positive influence on social withdrawal, social cognition, social interactions and quality of life. Results of current study is demonstrative of positive impact of LST on reducing depression, aggression, hostility, phobia, paranoid thoughts and psychosis among family members of schizophrenic family members and these results are consistent with the results of the study conducted by Wiguna and colleagues [15], Russ Calafell and Colleagues [10], Kaligis and Setiastoni [8], Chen and colleagues [5], Bahari and Colleagues [14], Marchira and colleagues [17], Tusi and colleagues [18]. In aforementioned study positive impact of LST programs on reducing depression, aggression, hostility, phobia, paranoid thoughts and psychosis were discussed. Finally, it appears plausible that for future research LST should be conducted among different population and specific patients with specific needs. Although arguments may be presented recommending greater standardization of the independent variable, that is, individualized life skills training, in order to ensure greater consistency between therapists in the intervention that is provided, it is argued here that this may detract from the main strength of a formulation-based approach. Using the myriad of theories allows the therapist to adapt the intervention in the most effective and acceptable way to the specific needs of each individual patient. The results of the study, although mixed, support the importance of conducting these types of researches. Recommendations about how to conduct a well-controlled, with larger sample pool and in longer period of training research trial of the effectiveness of life skills training have been made. In addition to the development of such designs, it may be useful to adopt methodologies based upon qualitative paradigms to understand fully the process by which health care professionals can work to minimize the problems associated with severe mental illness. It is therefore recommended that while the design of a future study should conform to the features of a randomized controlled trial, the experimental intervention should remain a manual based but formulation-driven approach, which acknowledges the multifaceted nature of the factors, implicated in the maintenance of life skill deficits.

A future randomized controlled trial may need to use such a measure to assess fully the impact of life skills training on negative symptoms. Such assessments will need to be conducted at intervals after the intervention has finished in order to assessing the durability of skill acquisition beyond the phase of intervention.

Limitation

This study examines the use of a life skills training in only a relatively small sample. The extent to which the gains made can be attributed to the intervention under investigation is limited given the failure to include a control group, as is the degree to which the findings can be generalized to all patient family members with a diagnosis of schizophrenia outside this trial. The findings do, however, support the development of a well- designed trial to allow large-scale rigorous evaluation.

Conclusion

Teaching life skills to family members of schizophrenic patients had positive impact and is important to consider in treatment process of schizophrenia.

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