ORIGINAL ARTICLE

Efficacy of Psychosocial Intervention on Patients with Schizophrenia

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ABSTRACT

Aim: To study the efficacy of psychosocial intervention on patients with schizophrenia. Schizophrenia is a disorder that affects about 1% of the human population with a relatively uniform distribution throughout the world. Pharmacotherapy alone is being considered critical for the successful management of patients with more severe positive symptoms of schizophrenia. The integration and coordination of psychosocial treatment including pharmacotherapy and rehabilitative services is widely advocated. The present study was designed to examine the relationship between the administration of antipsychotic medication and responsiveness to psychotherapeutic interventions.
Methodology: The study was based on experimental design. The sample of 20 (experimental-10& control- 10) was selected on the basis of purposive sampling technique. Fisher's exact test and t test were used to analyze the data.
Results: The findings suggest that the marked differences have been found in both groups in all the areas i.e. personal, social, occupational, physical, and general.
Conclusion: In the absence of psychosocial measures alone or with pharmacotherapy the target to return to the premorbid level of functioning or community rehabilitation cannot be attained.

Key Words: Psychosocial intervention, Pharmacotherapy, Schizophrenia.

INTRODUCTION

The schizophrenic disorder is characterized in general by fundamental and characteristic distortion of thinking and perception and by inappropriate or blunted affect[1]. Schizophrenic patients with the due course of time manifest a number of behavioral and cognitive changes which cause the impairment in the functioning of the individual's daily routine life resulting in occupational efficacy, interpersonal deficits and ability to take up the responsibility per se. The schizophrenic individuals often exhibit a wide range of impairments in effective functioning, and there is frequently no single behavioral problem that can be isolated as the sole target for intervention. Some schizophrenic patients are highly deficient in the skills needed to solve everyday living problems effectively. Executive function is the most impaired domain of cognition in schizophrenia, which may explain the many functional deficits of these patients .Whereas, moderate impairment in distractibility, delayed recall, visuo-motor skills, immediate memory span and working memory and mild impairment in perceptual skill, delayed recognition, confrontation naming and verbal and full scale IQ also characterize the illness among schizophrenic patients. Decreased motivation, self esteem, social interest and diminished emotional range and experience of emotions are also common. Disorganization of thought process and behavioral mood symptoms along with impairment in social functions are also generally present in schizophrenic patients.

Despite the advent of number of claimed miraculous antipsychotic, the expected results could not be achieved as the antipsychotics mainly focused on neurotransmitters

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which possibly produce such problems to certain extent. Pharmacotherapy alone is being considered critical for the successful management of patients with more severe positive symptoms of schizophrenia. According to this view, control of symptoms is considered to be requisite for participation in psychotherapeutic and rehabilitative measures. There is extensive evidence that social skills training and family therapy are effective interventions in rehabilitation.

A number of studies provide strong support for the effectiveness of social skill training in improving the outcome for patients with schizophrenia who are living in hospital as well in the community. Twamley et al (2003)[2] and Dickerson et al (2005)[3] has stated that a variety of psychosocial intervention , such as social skill training , vocational rehabilitation , psychotherapy and token economy all have effective components that hold promise for improving cognitive performance, symptoms and everyday functioning. To see the effects of cognitive behavioral therapy on work outcomes in vocational rehabilitation for participants with schizophrenia spectrum disorders Lysakera et. al. (2008)[4] conducted a study and results suggested a connection between cognitive-behavioral interventions and higher levels of work performance in people with schizophrenia.

Another study attempted by Horanab et al (2009)[5] on Social cognitive skills training in stabilized outpatient schizophrenics and their results support the efficacy of a social cognitive intervention for community-dwelling outpatients and encourage further development of this treatment approach to achieve broader improvements in social cognition and generalization of treatment gains. Wykesab et al. (2009)[6] suggested that younger people benefited more from cognitive remediation in two of the three cognitive domains tested. Further they concluded younger group showed improvements in the context of CRT but the older group did not. When older people did show a cognitive advantage in memory following therapy this cognitive improvement benefited social behaviour.

The impact of one specific psychosocial intervention alone on the lives of patient with schizophrenia is difficult to analyze, partly because psychosocial therapies are so broad and diverse in their scope. When outcome of all therapies (psychosocial intervention & pharmacotherapy) are clustered together, there are encouraging results. So the present is design to see the efficacy of psychosocial intervention on patients with schizophrenia .The objectives were to identify the level of severity of the symptoms, impairment of different level of functioning and to see the difference on the recovery of the schizophrenic patients by using the different modalities of treatment such as pharmacotherapy with psychosocial intervention and vice versa. The hypothesis of the study is that there will be no difference in group A (psychosocial intervention with pharmacotherapy) and group B (only on pharmacotherapy).

Methodology

Present study consisting of 20 inpatients males age range of between 20 -30,diagnosed of schizophrenic disorder and the duration of illness not more than 1 ½ were purposively selected for the study from different wards of RINPAS Ranchi.

All the subjects selected for the study were interviewed and then assessed with the help of semi-structured clinical data sheet and socio-demographic details. Brief Psychiatric Rating Scale was administered subsequently to rate the severity of clinical symptoms. However, the patients falling in severe level were excluded. The patients were screened on Brief Psychiatric Rating Scale and were assessed with Disability Assessment Scale[7] (Here in this study the concept of disability has been taken as impairment occurred by due course of schizophrenic illness). It was administered to know the severity level of disability of each subject in all the areas viz. Personal, Social, Occupational, Physical and General.

After completion of assessment sample was divided into two groups on random basis namely group A (psychosocial intervention with pharmacotherapy), which is experimental group and group B (only on pharmacotherapy) is control group. The group A was subjected to psychosocial intervention in addition to pharmacotherapy whereas the group B remained on pharmacotherapy without any specific psychosocial intervention. Both groups were kept on same drug composition and were again assessed after the completion of intervention package (after six months) by same disability assessment scale. The group selected for psychosocial intervention was subjected to

following target behaviour and therapeutic package. Intervention target focuses to motivating subject's participation in therapeutic program, to enhance their personal hygiene, organize daily routine for enhancement of interpersonal communication and to join occupational therapy unit regularly. Therapeutic package includes supportive psychotherapy, behaviour therapy, cognitive therapy and group therapy.

The whole therapeutic package was scheduled in several sessions, initially five sessions was given on regular daily basis and fifteen sessions were given on alternatively. Last ten sessions were twice in a week basis after the discharges of patient were advised to report the therapist whenever they come on follow-up. Response of psychosocial intervention was reported satisfactory on follow up. The total duration of therapy was six months. It was based on gradual manner from less difficult to more difficult way.

Statistical analysis

Data were coded, entered and analyzed manually. Fisher's exact test was used for evaluating association between gender and socio-demographic characteristics and Paired t test was used to establish the relationship between two groups. 'P' value less than 0.05 was considered statistically significant.

Results and Interpretation of Data

Socio demographic characteristics of the sample reveal no significant difference (Pe"0.05) between both groups. Majority of the patients were Hindu, married, male between the age range of 20- 25. Most of them were educated up to secondary level either with a servicemen profile, student or unemployed. Mostly belongs to urban area and nuclear families, where family history of mental illness was absent. In majority of the patient's age of onset of illness between 20-25 years and duration of illness is below one year. In most of the cases (13%) there is improvement in the progress of the illness and there is no history of past admission in majority of the cases (14%).

Table: 1. Comparative assessment of disability between group A & B of pre and post intervention

	Group A			Group B		
VariablesN=20	**Pre intervention assessment**	**Post intervention assessment**	**P value**	**Initial stage of the study**	**After the completion of the study (6 months)**	**P value**
	Mean (SD)	**Mean (SD)**		**Mean (SD)**	**Mean (SD)**	
Personal	13.7 (3.4)	5.7 (1.6)	**0.0001***	13.8 (3.8)	10.4 (2.9)	**0.0373***
Social	14.5 (4.7)	7.0 (1.8)	**0.0002***	13.9 (4.1)	12.2 (3.6)	0.3378
Occupational	11.7 (2.9)	6.4 (1.3)	**0.0001***	9.7 (2.6)	9.0 (2.4)	0.5394
Physical	5.8 (2.1)	3.5 (1.6)	**0.0130***	4.4 (2.1)		**0.0118***
General	6.6 (2.4)	3.1 (1.2)	**0.0006***	6.5 (2.9)		0.5638

* P<0.05

That, group A shows statistically significant difference in all five area of pre and post assessment whereas, group B exhibits merely in two area i.e. personal and physical.

Table: 2. Post assessment of disability between experimental and control group

Variables N=20	**Group A n=10**	**Group B n=10**	**T value (DF)**	**P value**
	Mean (SD)	**Mean (SD)**		
Personal	5.7 (1.6)	10.4 (2.9)	4.49 (18)	**0.0003***
Social	7.0 (1.8)	12.2 (3.6)	4.09 (18)	**0.0007***
Occupational	6.4 (1.3)	9.0 (2.4)	3.01 (18)	**0.0075***
Physical	3.5 (1.6)	2.3 (1.1)	1.95 (18)	0.0664
General	3.1 (1.2)	5.8 (2.4)	3.18 (18)	**0.0052***

*P<0.05

Table two envisages overall significant difference between both groups in all area except one i.e. physical area.

Discussion

Although pharmacotherapy is effective in controlling active / severe symptomatology emergent in nature and to some extent helping to improve the cognitive functions too. A variety of psychosocial treatment can be beneficial to patients in such areas as improving coping ability to decrease vulnerability to stress, preventing relapse, improving social and vocational functioning and quality of life, and coping with residual schizophrenic symptomatology.

Results show statistically significant difference ($P<0.05$) between pre and post assessment of group A. Before intervention the mean (SD) of group A in personal area was 13.7(3.4) and after therapy it was markedly reduced to 5.7(1.6). However, group B also show significant difference ($P<0.05$) between pre and post assessment**.** Whereas, it was found that before intervention group B also had similar mean (SD) 13.8 (3.8) and after six months, reduction in mean average was found 10.4 (2.9). The difference of 4.7 points in group A and B shows the definite higher level of improvement in the area of personal skills. It shows the efficacy of psychosocial intervention that who received continuous 6 months therapeutic package, shown the markedly improvement in personal skills like personal hygiene, desire to talk, inferiority complex etc when it was compared to those who did not received the therapeutic package (group B). The similar findings were reported by Frank et al (1990)[8], Herz et al. (1996)[9], Andres (2000)[10] and Malm (1982)[11]. Results further suggests the efficacy of supportive psychotherapy in enhancing the personal care, housing needs general medical care and help in solving day to day problems and positive reinforcement for healthy behavior. The importance of group approach (including the supportive therapy, cognitive therapy, psycho education and social skills training) to enchasing the personal as well as social skill has been found effective for the recovery and maintenance of schizophrenic disorder.

Similarly, as in personal area the mean (SD) of group A (pre treatment) in social area was found 14.5 (4.7) and after treatment it was reduced on only 7 (1.8), which shows the significant difference. At the same time no significant difference noticed on group B (after the assessment of the subjects).Although the mean (SD) was observed 13.9(4.1) and after six months of medication alone it was found 12.2 (3.6). Again it indicates that on comparison to group A and group B, which did not receive psychosocial intervention shows the some improvement in social functioning but improvements occur is not of that level as it is found in Group A who received the medication with adjunct of package of psychosocial interventions.

Similar finding was reported by Spencer et al. (1983)[12]. Bellack and Mueser (1993)[13] have also advocated a number of psychosocial strategies available to assist the re-integration of the patient into society. Our results are also supported by William P. Horanab et al (2009)[5].

In occupational area the results show significant difference ($P<0.05$) on pre and post assessment of group A. Before intervention the mean (SD) of group A was 11.7 (2.9) and after 6 months of intervention it was assessed 6.4 (1.3) that indicates, there is marked difference found between pre and post treatment. Whereas, no significant difference was noticed in group B. The mean (SD) was 9.7(2.6) and after six month it was still found 9.0(2.4), indicates the subjects could not develop occupational skills without proper intervention. Researches in this area indicate that there is an advantage to placing patients as rapidly as possible into competitive employment setting .The finding of the study is supported by the study of Cook (1995)[14] and Bond et al (1995)[15]. It was found in the results of various studies that the effectiveness of supported employment and nearly all have found substantial gains in work outcomes. Those who received supported employment were twice as likely to be employed as individuals in control groups. Individuals who work tend to have better self-esteem, even if work is only part time. The findings of Bellab et al. (2008)[16] also favour our findings.

In group A both physical and general area were noticed to be significant in pre and post intervention assessment wear as in group B physical area seem to be insignificant but general area it was not so. Before intervention the mean (SD) of physical and general areas of group A was noted 5.8 (2.1) and 6.6 (2.2) respectively. When compared with the results obtained after getting package of therapeutic intervention marked improvement was noticed that is 3.5 (1.6) and 3.1(1.2) respectively. Whereas, after the assessment of the subjects (group B) the mean (SD) was found 4.4 (2.1) and 6.5 (2.9) and after six month, improvement was seen but it was not very encouraging as the scores are 2.3 (1.1) and 5.8 (2.4) respectively for physical and general area.

Overall comparison between group A and B envisaged that only physical area remained statically insignificant

(Pe”0.05) .It is only because of the reason that both group took the medicinal benefit and improved there physical health condition. The remaining areas registered significantly.

At the same time it was also noted that the patients of early onset has shown better and faster recovery pattern when it was compare to later onset. Those who were having the onset prior to age 20-25 were shown better prognosis in comparison to onset was the age group of after 25.The results is also supported by findings of Marder and Wirshing (1996)[17], that those subjects whose onset of illness was less than 24 years, they improved significantly. Wykesab et al (2009)[6] also concluded that negative symptoms showed a moderating effect of age on CRT. This finding may be due to early onset schizophrenia having more severe social and interpersonal deficits than later onset schizophrenia, and that this more severe presentation may be more amenable to social skills training. This indicates that one of the predicator of the positive outcome for social skill training is early onset patient with more fundamental social, interpersonal skill deficits. Similarly the time duration of illness was also found important factor on the recovery process. The results of the study suggests that those who were having the illness since below one year shown better results on both modality of treatment when it was compared to more than one year.

Conclusion

The findings of the index study suggests that the marked difference has been found in group A and group B in all the areas e.g. personal, social, occupational, physical and general. Study also focuses the light on the relationship of the age of onset / duration of illness and level of effectiveness of the therapy. On the early onset of the illness with / and less duration was found positively correlated with quick and sustainable improvements.

Study further suggests that the potential of pharmacotherapy alone is not corresponding to attainment of normal functioning of the patients suffering from schizophrenia. The results of this study convincing that the treatment toto / target to return to the premorbid level of functioning or community rehabilitation can not be conceptualized in the absence of psychosocial measures alone or with the pharmacological treatment.

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