British Journal of Psychiatry (1990), **157**, 133–135

A Comparative Study of Family-Based and Patient-Based Behavioural Management in Obsessive–Compulsive Disorder

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Thirty obsessive–compulsive patients were randomly allocated to two treatment conditions. In group A a significant family member was trained to act as cotherapist at home, whereas in group B, only the patient was seen and given home assignments. All 30 patients received a similar treatment regime of systematic desensitisation, exposure, and response prevention. The family-based approach resulted in greater improvement in anxiety, depression, obsessive symptoms, and in social adjustment in occupational and household responsibilities. The personality pattern of the family members also appeared to influence outcome.

Recognition of the fact that the family may play an important role in maintaining an obsessive–compulsive disorder (OCD) directs attention to the strategy of involving members of the patient's family in treatment. Foa (1979), analysing the failure of behavioural methods in treating OCD, suggested that the variables responsible for maintaining the symptoms may well be found in the families of the patients. It is not unusual, for instance, to find that the families of OCD patients emphasise cleanliness and perfection to the point of tyranny (Hoover & Insel, 1984).

Although the beneficial effects of spouse involvement in the treatment of these disorders has been reported (e.g. Emmellkamp & de Lange, 1983), treatment strategies extending to other family members have been inadequately explored, especially in India. Because there are a large number of young, unmarried people in India who seek help for OCD (Akhtar *et al*, 1978; Khanna *et al*, 1986), methods that involve persons other than a spouse need to be considered. Moreover, strong and binding family ties and the widely prevelant 'joint family system' in India mean that roles and responsibilities are not strictly defined or restricted to specific people. In such a family structure, the significant other may not be the spouse or parent.

Thus a family-based treatment approach was planned with the aim of enhancing the treatment outcome in OCD. This study attempts to compare the efficacy of a family-based approach with one that is patient-based, using the same behavioural regimes.

Method

Thirty patients diagnosed as having an OCD according to DSM–III criteria (American Psychiatric Association, 1980) attending the Psychiatry Out-patient Department at the All India Institute of Medical Sciences, New Delhi, constituted the sample. They were 18–58 years. All patients were referred for behavioural therapy after pharmacotherapy alone had proved ineffective, and none had previous experience of either behavioural therapy or psychotherapy. None had a previous episode of psychosis or organic brain disorder.

The patients were randomly assigned to a family-based approach (group A) or a patient-based approach (group B).

A battery of outcome measures was employed to assess the effectiveness of the treatments. Assessment was carried out before and after treatment and at a one-month follow-up session. Follow-up was continued for six months. Anxiety was measured by the Neuroticism Questionnaire N-2 Scale (Verma, 1978). Depression was measured by the Zung Self Rating Depression Scale (Zung, 1965). The Maudsley Obsessional Compulsive Inventory (MOCI; Rachman & Hodgson, 1980) was used to assess obsessive–compulsive symptoms.

Various aspects of social life were taken into consideration: occupation, household responsibilities, family interaction, and leisure-time activities. These were rated on the Global

TABLE I
Patient characteristics

	Group A (n = *15*)	*Group B* (n = *15*)	t
Age range: years	17–50	18–56	0.87 NS
mean	33.27	35.14	0.87NS
s.d.	5.58	6.21	
Sex			
males	9	10	
females	6	5	
Marital status			
married	8	9	
single	7	6	
Duration of illness: years			
mean	3.03	3.17	
s.d.	1.57	1.46	0.25 NS
Education: years			
mean	13.06	12.84	0.32 NS
s.d.	1.92	1.88	

https://doi.org/10.1192/bjp.157.1.133 Published online by Cambridge University Press

TABLE II
Mean scores for obsessive–compulsive measures and social adjustment before and after treatment and at one-month follow-up

Measures	*Pre-treatment*			*Post-treatment*			*Follow-up*		
	Group A	*Group B*	t	*Group A*	*Group B*	t	*Group A*	*Group B*	t
Anxiety[1]									
mean	25.15	24.00	1.30	12	16		8	12	
s.d.	3.29	3.4	1.30	4.4	4.6	2.47*	1.6	2.3	5.56*
MOCI[2]									
mean	18.23	17.45		8.0	10.71		7.2	12.44	
s.d.	6.3	5.8	0.35	2.7	3.2	2.51*	2.9	4.1	4.04**
Depression[3]									
mean	52.4	55.4		40.7	48.2		37.5	47.0	
s.d.	6.7	6.3	1.26	4.8	5.7	3.91**	4.2	5.9	5.08**
Social adjustment[4]									
occupation									
mean	3.9	3.8		2.3	3.1		1.8	2.7	
s.d.	0.6	0.8	0.39	0.9	0.8	2.16**	0.6	0.7	3.75**
family									
mean	3.4	3.8		2.6	3.2		1.6	2.3	
s.d.	1.1	1.2	0.95	0.7	0.8	2.22*	1.1	0.4	4.86**
household responsibilities									
mean	3.8	3.6		2.2	2.8		1.8	2.3	
s.d.	1.3	1.2	0.44	1.0	1.1	1.56	1.0	0.9	1.06
leisure-time activities									
mean	2.4	2.7		1.9	2.1		1.6	2.00	
s.d.	0.8	0.7	1.18	0.6	0.6	1.37	0.6	0.5	2

*$P<0.05$, **$P<0.01$.
1. Neuroticism Questionnaire N-2 scale; 2. Maudsley Obsessional-Compulsive Inventory; 3. Zung Self Rating Depression Scale; 4. Global Assessment of Severity.

Assessment of Severity (GAS), a five-point scale rated by the clinician (1, normal; 2, symptoms but no interference in day-to-day life; 3, symptoms interfering in minor ways; 4, marked interference with day-to-day living but without radically changing or altogether preventing work and social activities; 5, radical change or prevention of work and social activities due to the symptoms) (Kelly *et al*, 1970).

Baseline information on the target behaviour was obtained by self-monitoring on charts.

All the patients were interviewed and a pre-treatment assessment was done using the measures mentioned above.

Treatment was carried out on an out-patient basis with a total of 24 treatment sessions (two per week) for each patient. The patients were instructed to practise the treatment procedures at home.

Treatment consisted of the following elements:

(a) self-observation and monitoring of those symptoms experienced as most distressing by the patient
(b) training in relaxation therapy (Jacobson, 1938)
(c) systematic desensitisation and exposure (in no case was exposure alone used, as clinical experience with the patients here has shown a poor acceptance of exposure methods used alone at the beginning of the treatment)
(d) response prevention – patients were made to gradually reduce the frequency of the target behaviour until they reached a desired level
(e) family involvement – in group B, no instructions were given to the family, whereas in group A, the following were added to the treatment regime:
  (i) one family member acted as cotherapist
  (ii) responsibility for home assignments was with the patient and cotherapist
  (iii) family members were instructed not to participate in rituals with the patients
  (iv) family member supervised relaxation therapy
  (v) family members participated in response prevention procedure
  (vi) family members were instructed to be supportive when the patient was depressed and to allay the patient's anxieties.

Results

The demographic data revealed no difference between group A and group B (Table I). Pre-treatment test scores measuring anxiety, depression, obsessive symptoms, and social adjustment also revealed no significant differences.

On post-treatment testing, the family-based condition was found to have resulted in greater improvement than the patient-based condition (Table II). This difference was statistically significant in the case of anxiety, obsessions, depression, and social adjustment in family interaction and occupation. In household and in leisure-time activities, the family-based condition was superior, but the difference was not statistically significant. There was no variable

https://doi.org/10.1192/bjp.157.1.133 Published online by Cambridge University Press

TABLE III
Characteristics of the family members involved in the therapy

Relationship	*Parent*	*Spouse*	*Child*
No.	7	6	2
Age: years			
mean	48.73	36.1	20
s.d.	5.38	3.74	2.27
Sex			
male	2	3	1
female	5	3	1
Education: years			
mean	10.54	12.56	13.84
s.d.	2.12	4.23	3.71

in which the patient-based condition was superior. The same trend in results was maintained throughout follow-up.

Table III shows the relationship of significant family members involved in the treatment. Because of the small sample size, personality assessment could not be undertaken. However, consistent low anxiety and high frustration tolerance were seen to have a positive effect on outcome.

Discussion

The relative efficacy of the family-based approach in this study did not appear to be due to demographic factors, duration or severity of the illness, or rater bias. Treatment led to both statistically and clinically significant improvement in group A in comparison with group B.

Out-patient management of OCD is dependent on home assignments. Anticipation of the feared stimulus and exposure of a mild degree results in subjective discomfort. The initial anxiety and agitation experienced following a response prevention interferes with practice of these techniques. It was found that at these moments the emotional support and supervision of family members were very effective. Non-anxious, firm family members were more successful than anxious and inconsistent family members. There were some cases in which family members indulged in argument and ridicule, and these patients showed little improvement.

Through the involvement of family members in therapy, reinforcement of symptoms could be terminated and interpersonal relationships improved. However, for comprehensive treatment, the family could assist in development of new skills and in resuming both social and occupational activities. Failure to resume a normal lifestyle would probably result in relapse.

Outcome also related to depression and anxiety (Foa *et al*, 1983; Emmellkamp & de Lange, 1983). When pre-treatment, post-treatment, and follow-up assessment scores were compared, family support was again found to have had a beneficial effect on the depression and anxiety scores of group A patients. Depression and anxiety can be significantly reduced by the support and appreciation of the family. The extent to which the social environment is supportive or stressful is reflected in the degree of depression or anxiety.

This method could be of help in oriental cultures where family relationships are still considered important and are supposed to have an influential effect. The number of sessions in the clinic are modest, hence the generalisability of results is affected.

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https://doi.org/10.1192/bjp.157.1.133 Published online by Cambridge University Press