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Brief Psychotherapy in the Treatment of Anorexia Nervosa
Outcome at One Year

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Thirty out-patients with severe anorexia nervosa were randomly allocated to either 12 sessions of dietary advice or 12 sessions of combined individual and family psychotherapy. At one-year follow-up both groups showed significant overall improvement, and the dietary advice group showed significant weight gain. A similar mean weight gain for the psychotherapy patients did not reach statistical significance, but this group made significant improvements in sexual and social adjustment.

The long-term outcome of anorexia nervosa (AN) has been reviewed by Hsu (1980). Although outcome at one year bears some relationship to that at four years (Morgan & Russell, 1975; Hsu *et al*, 1979), longer-term studies (Theander, 1983) confirm the view that AN is often a relapsing remitting condition over many years, and that short-term restoration of body weight may have little bearing on future psychosocial functioning. In an attempt to reduce the relapse rate, psychotherapy in various forms has been incorporated into most treatment programmes.

While impressive results have been reported for family therapy (Palazzoli, 1978; Minuchin *et al*, 1978), there is little evidence that this short-term improvement is maintained in the longer term, and there have been no reports of prospective treatment studies evaluating the effectiveness of psychotherapeutic approaches (Garfinkel & Garner, 1982). The specific methodological difficulties of randomly allocating AN patients to different psychotherapeutic treatment modalities within one centre have been described by Szmukler (1983); those general to and inherent in all psychotherapy research have been discussed frequently (Bergin & Strupp, 1972; Luborsky *et al*, 1975; Sloane *et al*, 1975; Malan, 1976; Schlesinger *et al*, 1980; Conte & Karasu, 1981; Brodaty & Andrews, 1983). The dictates of study design and therapist variables in particular may interfere with delivery of a treatment which by its nature must be intuitive, flexible, and tailor-made for the needs of the patient. Frank (1971) identified the therapeutic factors in any patient-therapist relationship, and Strupp & Hadley (1979) attempted to investigate the relative contribution of the therapist's technical skills and of non-specific interpersonal components. DiMascio *et al* (1979) discussed the problems of a control group, and concluded that a non-scheduled treatment group had both ethical and scientific advantages for acutely depressed patients over waiting-list, assessment only, low or minimum contact, or untreated control groups. A controlled psychotherapeutic treatment study for patients with bulimia nervosa has been described by Lacey (1983): a mixture of individual behaviourally orientated therapy and group therapy produced improvement, as compared with no treatment, after initial assessment.

Since AN bears a significant mortality and morbidity, difficult ethical issues must be considered in any research design, but while specialist treatment resources remain scarce and no approach has proved definitively superior, limited treatment trials are justified, although studies with untreated controls probably are not. Morgan & Russell (1975), Crisp *et al* (1977), and Hsu *et al* (1979) have identified factors associated with a worse prognosis, which must be taken into account in any controlled study and in comparing results. Since the number of treatment variables should be kept to a minimum, an out-patient study is more feasible than an in-patient one, overcoming the problems of psychotherapeutic contact with other staff and the difficulties of maintaining blind treatment allocation. This approach seems justified by the findings of the St George's Hospital series (Hsu *et al*, 1979): 71% of the subjects treated with out-patient psychotherapy had good outcomes, compared with 41% after in-patient care. However, although the authors did not attempt to distinguish between the two groups in terms of factors predictive of poor outcome, the in-patient group, who received more intensive individual and family psychotherapy, were almost certainly more chronic and severely ill patients.

The aim of the present study was to investigate the effect on weight, eating behaviour, and social and sexual adjustment of either brief individual and

family psychotherapy or dietetic advice for out-patients with AN. The clinical findings at one year follow-up are described.

Method

Subjects

Thirty female subjects who met the diagnostic criteria for primary AN were selected from consecutive referrals to one of the authors. To control for some of the factors found to affect prognosis in previous follow-up studies (Morgan & Russell, 1975; Crisp *et al*, 1977; Hsu *et al*, 1979) the subjects selected were aged 13–27, from social classes I–III (Registrar General's classification, Office of Population Censuses and Surveys, 1985), and unmarried. They all weighed less than 85% of matched population mean weight (MPMW), had amenorrhoea, and had been ill for between 6 and 72 months.

The referring agent–in most cases the subject's general practitioner–was informed that out-patient treatment in the form of either brief psychotherapy or dietetic advice would be offered, and was advised to seek additional treatment elsewhere should this be insufficient to prevent serious deterioration during the period of the study. However, if admission or further treatment were indicated at the one year follow-up appointment it would be made available within the department.

Referrals were screened initially by postal questionnaire, and those meeting the criteria for inclusion were invited, together with their families, for a two-hour assessment interview. Each subject and her family were interviewed by a psychiatrist and a dietitian, to record full clinical and demographic details, including weight, desired body weight, eating pattern, history of AN, past and current relationships with family, and psychosexual history. The clinical and family dynamic assessment took the form outlined elsewhere (Crisp, 1980): it included evaluation of the subject's personality, mental state, family dynamics, and motivation for treatment which had the goal of increasing insight, including psychological change in both the subject and family. Each subject completed a Crown-Crisp Experiential Index (CCEI) (Crown & Crisp, 1979) and scores were calculated for body weight, menstrual function, eating pattern, mental state, and sexual and social adjustment (Morgan & Russell, 1975; Hsu *et al*, 1979). The global clinical score for each subject was the mean of these six scores.

All subjects who met the criteria for inclusion in the study were willing to attend for out-patient treatment and, following assessment, were randomly allocated to treatment with either the psychotherapist or the dietician.

Psychotherapy group

Fifteen subjects were each seen for 12 sessions of one hour's duration at one to two-weekly intervals, by the same psychotherapist. The proportions of individual psychodynamic therapy and family therapy depended on clinical judgement, practicability, and the willingness of the family to be involved. The therapist was trained and experienced in these therapeutic approaches, and in the flexible integration of family and individual work as appropriate. In each case attention was focused on the role AN played in the relationship of the subject with her family and others. An attempt was made to change those aspects of relationships which tended to stifle the subject's development and maintain the anorexia, particularly over-protectiveness, conflict avoidance, enmeshment, and distancing within the family. The specific goals of treatment varied in each case, particularly depending on the age of the patient, but were broadly to encourage her development, both within and separately from her family, and to promote insight. All patients were seen by the dietitian for four 15-minute interviews during the course of treatment, during which they were weighed, their general progress (particularly regarding eating behaviour) discussed, and dietary advice given.

Dietary advice group

Fifteen subjects were seen for twelve one-hour sessions at weekly or fortnightly intervals. Five dietitians were involved; each treated the subjects she had assessed, and all were experienced in the dietary management of AN. Each session was spent discussing diet, mood, and daily behaviour patterns. The family was seen with the subject on some occasions. The goals of treatment were to restore normal eating patterns and dietary constituents, to relate eating behaviour to mood, and to increase the confidence of the subject so that she could remain in control as she gained weight. All subjects were seen by the psychotherapist for four 15-minute interviews, during which they were weighed, then general progress discussed, and advice given, particularly about family and social relationships.

At the end of treatment all 30 subjects again completed the CCEI, and their general practitioners were contacted.

Follow-up

One year after the assessment interview, all the subjects and their families were interviewed by an assessor who was blind to the treatment allocated. The clinical and demographic details recorded initially were reviewed, and the CCEI repeated. Sexual and social adjustment scores were calculated, and the mean of these, body weight, food intake, menstrual function, and mental state scores was calculated to give the global clinical score. Details were taken of treatment received elsewhere and of other life changes in the subjects or families since the last contact with the department. The assessor reviewed each subject's progress in terms of her AN, and her overall development, both social and sexual, as an individual and within the family. Whenever indicated, recommendations for further treatment were made. If the patient and her family did not accept the offer of further treatment, alternative follow-up was offered.

Results

Characteristics at initial assessment

The clinical features at presentation are summarised in Table I. There were no statistical differences between the

TABLE I
Clinical features at presentation

	Psychotherapy group (n = 15)		*Dietary advice group (n = 15)*	
Age: years				
Mean	19.55		19.57	
Range	14–25		13–27	
Social class[1]				
Groups I + II: *n*	12		13	
Group III: *n*	3		2	
Age at onset of illness: years				
Mean	17.07		17.53	
Range	12–21		12–25	
Age at onset of amenorrhea: years				
Mean	17.77[2]		17.90	
Range	13–21		12–25	
Mean duration of illness: months	29.7		24.5	
Mean duration of amenorrhea: months	27.5		20.1	
Number having had previous treatment	10		8	
Mean sexual adjustment score	5.85		6.75	
Mean social adjustment score	5.50		7.05	
Weight: kg				
Mean	41.00		39.54	
Range	29.4–53.8		33.1–43.3	
Mean height: cm	161.7		162.3	
Deviation below MPMW				
Mean	25.35%		28.16%	
Range	15–37%		16–46%	
Mean desired body weight: kg	42.7		44.2	
Mean weight at onset of dieting: kg	52.50		55.42	
	Usual	*Occasional*	*Usual*	*Occasional*
Reduced food intake	14	1	13	1
Bulimia	3	3	2	5
Vomiting	3	0	2	1
Purgative abuse	2	4	3	6
Anxiety eating with others	6	7	5	7

1. Registrar-General's classification (Office of Population Censuses and Surveys, 1985).
2. Two of this group never menstruated.

two groups on any of these variables, or on individual CCEI scales. The clinical features and CCEI profiles resembled those of other studies (Morgan & Russell, 1975; Crisp *et al*, 1978, 1980).

Treatment compliance

Fourteen of the psychotherapy group (PG) patients completed 12 sessions of psychotherapy. One subject dropped out after six sessions, by which time her weight was within 8% of her MPMW and her menstruation had resumed; her improvement was sustained at follow-up.

Eleven of the dietary advice group (DAG) patients completed treatment. One subject gained 4 kg after the assessment interview, and refused further treatment; at follow-up she had gained more weight, but still had AN. Three subjects attended for three, seven, and nine sessions respectively; two of these gained weight during the period of treatment only and then remained static until follow-up, while the third lost weight during treatment, but had gained 10 kg by follow-up without resumption of her menses. During the period of the study she sought, and obtained, intensive treatment by a hypnotherapist. Another patient in this group was treated by an acupuncturist.

Body weight

Figure 1 shows the mean change in weight, expressed as percentage deviation below MPMW, for each group after 12 sessions of treatment and at follow-up. There was no

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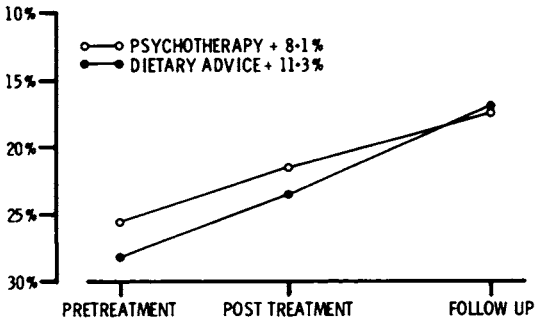

FIG. 1 Percentage deviation below matched population mean weight

statistical difference between the two groups, both of which showed a similar overall gain. This gain was significantly different ($P < 0.001$) from the presentation weight for the dietary advice group only; the PG patients made similar gains, but three showed major weight losses (mean 9.0 kg) after treatment ended, which to some extent masked major gains (mean 10.4 kg) made by eight others, and resulted in a large standard deviation (8.04 kg) in weight at follow-up. In contrast, the DAG patients, with a standard deviation of 6.07 at follow-up, had sustained their gain since treatment, resulting in a significant mean weight gain overall.

Clinical features

The clinical features at one year are shown in Table II.

There were no significant differences between the two groups on any of the individual measures, except in the social ($P < 0.005$) and sexual ($P < 0.10$) adjustment scores, which were significantly higher for the PG. The PG showed a significant improvement in social adjustment ($P < 0.001$) and in sexual adjustment scores ($P < 0.001$) between presentation and follow-up, while the DAG showed slight non-significant improvement. Both groups showed significant improvement ($P < 0.001$ for PG; $P < 0.01$ for DAG) in global scores after one year (Fig. 2).

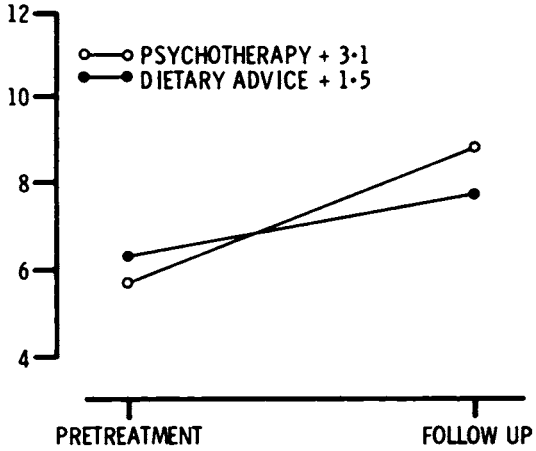

FIG. 2 Global clinical scores

TABLE II
Clinical features at one year follow-up

	Psychotherapy group (n = 15)	*Dietary advice group (n = 15)*
Weight: kg		
Mean	45.1	46.0
Range	26–56	33–57
Deviation below MPMW		
Mean	−17.4%	−16.9%
Range	−54% to +5%	−37% to +12%
Mean desired weight: kg	47.9	47.8
Menstruation		
Regular	3	3
Irregular	4	2
Absent	8	10
Mean sexual adjustment score	9.2	7.1*
Mean social adjustment score	9.2	7.9**
Mean global clinical score	8.8	7.8

*$P < 0.01$ for difference in mean change between groups
**$P < 0.005$ for difference in mean change between groups

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Changes following treatment

The two groups differed in the treatment received elsewhere during the study. None of the PG sought outside treatment, but one patient, who had made progress, deteriorated seriously as soon as treatment ended, and was admitted for 91 days to a medical ward for intravenous feeding, while another was seen as a medical out-patient for diarrhoea contracted during foreign travel. In the DAG, one patient attended an acupuncturist and another a hypnotherapist. After treatment with the dietitian ended, a further four patients attended 68 out-patients appointments for AN. Another patient in the same group, despite gaining weight with resumption of menses, was admitted to a psychiatric hospital for 126 days and attended a day hospital for 78 days; she made seven suicide attempts. Another patient was admitted for 123 days for treatment of her AN.

Nine of the PG patients visited their general practitioner for an average of two visits each after treatment ended, while nine of the DAG who did not receive other treatment made a total between them of 32 visits. Three received medication continuously and one briefly prior to follow-up, while four psychotherapy patients were prescribed medication for a short time.

During the year of the study three of the PG left home and ten acquired boyfriends, compared with one and three respectively of the DAG. The difference in respect of the boyfriends is significant ($\chi^2 = 6.65$, d.f. $= 1$, $P < 0.01$).

At follow-up, the parents of one subject in each group had separated. The assessor considered that there had been significant family realignment in the families of 12 of the PG subjects, compared with four of the DAG.

Both groups showed marked improvement at follow-up in eating behaviour. The reduction in the symptoms of food avoidance and anxiety about eating with other people was more marked in the PG, while the DAG tended to show a greater improvement in bulimia, vomiting, and purgation. The symptom of 'weight phobia' improved, and was reflected in the desired body weight, which increased by 7 kg for the PG and by 3.5 kg for the DAG (Table II).

Seven of the PG and five of the DAG had resumed menstruation at one year.

CCEI changes

There were no significant differences in CCEI scores between the two treatment groups. The DAG showed significant decreases in the somatic ($P < 0.005$), phobic ($P < 0.025$) and depression ($P < 0.05$) scales (Fig. 3), whereas the PG showed significant ($P < 0.05$) but small falls in the obsessional and depression scores (Fig. 4). One patient, who had deteriorated clinically, refused to complete her CCEI at follow-up.

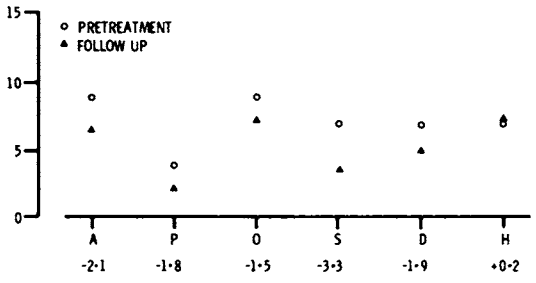

FIG. 3 Mean CCEI scores for the dietary advice group ($n = 14$). The scales are designated as follows: A = anxiety; P = phobic; O = obsessional; S = somatic; D = depressive; and H = hysteria

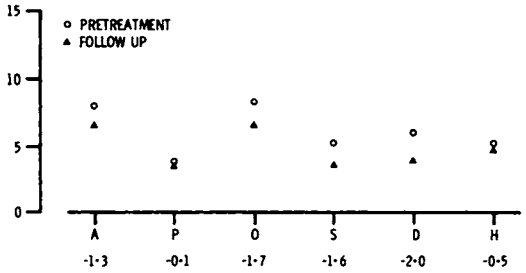

FIG. 4 Mean CCEI score for the psychotherapy group ($n = 15$)

Treatment recommendations

At follow-up, four of the PG were considered recovered and did not require further treatment; all 11 remaining patients accepted and attended the recommended further psychotherapy or infrequent follow-up appointments. All 15 of the DAG were felt to require further treatment but only ten accepted the offer, and two of these dropped out almost immediately. The independent assessor detected a greater degree of motivation to overcome anorexia on the part of the PG; he noted that some of the DAG were reluctantly co-operative in their acceptance of treatment.

Discussion

It has been suggested that it is simplistic to focus on weight gain and return of menstruation alone as indicators of improvement in AN, and that intrapsychic and interpersonal conflicts, sexual and social adjustment, and continuing development are at least as important (Bruch, 1974; Crisp, 1980; Garfinkel & Garner, 1982). This study demonstrates that significant improvement in overall functioning, as reflected in the global clinical scores, may have been achieved by two different brief interventions: dietary advice, or a mixture of individual and family therapy.

On individual measures both groups show modest improvement in weight, menstruation, eating patterns, and sexual and social adjustment after one year, but differ significantly in outcome on three measures. The DAG showed significant weight gain, whereas the PG made significant improvements in sexual and social adjustment. When the patterns of change in weight for each patient are examined more closely, the two groups show distinct differences. The DAG had a more uniform pattern during treatment of modest gains in weight, which tended to be sustained between the end of treatment and follow-up; these patients were more likely to seek alternative treatment elsewhere during the treatment period and afterwards, which may have sustained them. In contrast, the PG was characterised

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by larger weight gains during treatment, but the subjects tended either to continue to improve, or to relapse–in three cases seriously–during the period in which there was no contact with them.

The changes in CCEI scores, which on some scales reached statistical significance at follow-up, showed trends supporting these findings, and may be related to aspects of the psychotherapeutic process. The PG patients tended to have higher anxiety and depression scores after the 12 treatment sessions, whereas the other group showed a small increase in the obsessional scale; both groups showed lower mean scores overall at one year. Crisp *et al* (1979) have shown that increased anxiety and depression during treatment are associated with improved long-term prognosis, and may indicate a reduction of the denial characteristic in AN. The CCEI changes are difficult to interpret, but might reflect intrapsychic changes and emotional awareness provoked by psychotherapy, whereas dietary advice may reinforce denial, obsessional defences, and control–in some cases stabilising the course of the illness. This provides an explanation for the deterioration of some PG patients when the 12 sessions of treatment ended, and illustrates a major drawback of rigid treatment design in psychotherapy research.

The general problems of study design in psychotherapy research are present in this study. Firstly, patients subsequently allocated to 'dietary advice' nevertheless also receive, together with their families, an initial extensive diagnostic evaluation and related discussion. Crisp (1980) and Malan *et al* (1975) have emphasised the occasional important psychotherapeutic effect of such interventions. Secondly, neither treatment approach can be 'pure'; inevitably, the dietitians discussed family and other issues raised in their sessions, while the psychotherapist at times focused on eating patterns and other matters relating to diet. Treatment of the dietary advice group was additionally complicated by other treatments received simultaneously by two of the patients. A further five patients were treated later in other psychiatric departments. We can assume, therefore, that up to half of the DAG may have received some psychotherapeutic treatment prior to follow-up: all of these had gained some weight between assessment and follow-up, but none had received family therapy or intensive psychotherapy. The contribution of these other treatments needs to be considered. Finally, the independent assessor could not always remain totally blind to the treatment received.

The one-year follow-up period is too short to make any long-term predictions, particularly as the majority of the patients required further follow-up or treatment–either admission to hospital or out-patient individual and family psychotherapy. The greater persistence of the PG in pursuing treatment, both at the outset and after follow-up, is clear.

Although the follow-up period was relatively short, the study supports the findings of others that many patients, even with long-standing AN, show improvement in physical and psychological functioning after a short period of intensive treatment of one kind or another, and that admission to hospital may not be necessary. The differences between the two groups highlight the changes which occur as a result of distinct elements of treatment, which are widely accepted but generally combined in most treatment centres. Our results emphasise that attention to both eating behaviour and psychological change are important in the treatment of AN, but offer a warning about the need for long-term continuity of treatment in some cases, particularly when intrapsychic or interpersonal changes are taking place.

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