

## Online supplement DS1

## Randomisation

A short- and long-term group were gradually built simultaneously in each site. Stratified randomisation by gender was carried out by having four pieces of paper (two were marked 'short-term therapy' and two 'long-term therapy') in one envelope for men and in another for women, plus eight pieces of paper (four short-term therapy and four long-term therapy) in a third envelope. The first four men and first four women were randomised by drawing from the first and second envelope respectively, and the remaining were drawn from the third envelope, regardless of gender.

## Therapy

When interacting with each other, the group members' individual patterns (adaptive as well as dysfunctional) will be activated and appear as multiple transferences and resistances (or functional coping behaviour) in the group. The aim of the therapy is to become aware of intrapsychic conflicts and dysfunctional interpersonal patterns, and to increase the understanding of self, others and interpersonal relationships.

## Results

Participants who did not start therapy

Nineteen patients did not start therapy, and we have information from 13 of these (68%) about why they did not start therapy: 4 chose alternative treatments while waiting for the group to start, 6 distrusted their therapist or doubted the possibility of getting help in a group format and 3 had external reasons, mostly change of job, which made participation difficult. There were no differences regarding positive expectations about treatment when these patients were compared with those who started therapy ( $t=0.57$ ,  $d.f.=164$ ,  $P=0.57$ , 95% CI  $-0.89$  to  $1.60$ ).

Premature terminations

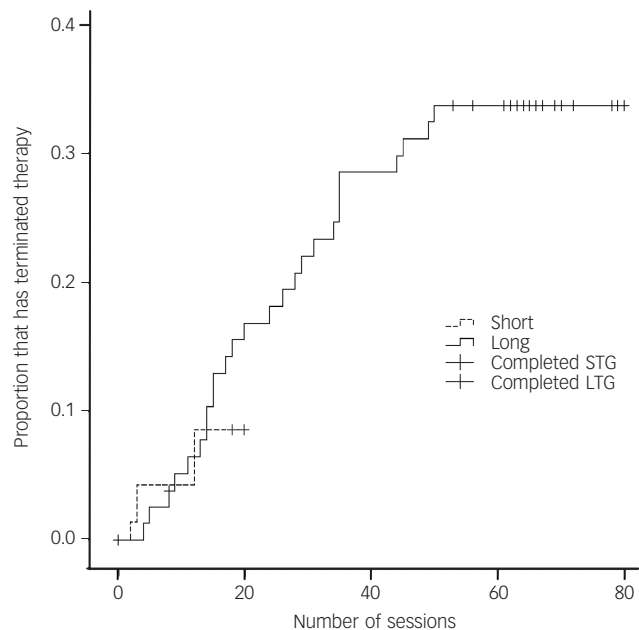
Figure DS1 shows a Kaplan–Meier diagram (survival analysis) of terminations in the short- and long-term groups. The numbers of premature terminations were similar in both groups during the first 6 months of therapy. After 6 months there were a number of premature terminations in the long-term therapy group. We have information about why 26 of 32 individuals (81%) discontinued therapy prematurely: 10 thought the group was not helpful or felt they deteriorated, 8 were dissatisfied with the group or the therapist for different reasons, 4 got the help they needed and 4 had external reasons (usually a change of job).

Pre–post (intragroup) change and intergroup comparisons (at 6 months and end-point)

**Pre–post change.** For the Global Severity Index (Symptom Checklist 90 – Revised) the mean intragroup change was 0.16 (s.d. = 0.44) ( $t=3.17$ ,  $d.f.=75$ ,  $P=0.002$ , 95% CI 0.06–0.26) *v.* 0.30 (s.d. = 0.60),  $t=4.7$ ,  $d.f.=87$ ,  $P<0.0005$ , 95% CI 0.18–0.43) in the short- and long-term groups respectively.

Corresponding intragroup change on the Inventory of Interpersonal Problems – Circumplex (IIP-C) was 0.35 (s.d. = 0.54) ( $t=5.60$ ,  $d.f.=75$ ,  $P<0.0005$ , 95% CI 0.22–0.47) *v.* 0.31 (s.d. = 0.54) ( $t=5.3$ ,  $d.f.=87$ ,  $P<0.0005$ , 95% CI 0.19–0.42) in the short- and long-term groups respectively.

Mean intragroup change on the Global Assessment of Functioning – Symptoms (GAF-S) was 7.3 (s.d. = 11.0) ( $t=5.8$ ,



**Fig. DS1** KaplanMeier diagram of premature terminations<sup>a</sup> in short-term (STG) and long-term groups (LTG).

a. Premature terminations are those taking place before at least two-thirds of the therapy has been completed ( $\leq 13$  sessions in STG and  $\leq 53$  sessions in LTG).

$d.f.=76$ ,  $P<0.0005$ , 95% CI 4.8–9.8) in the short-term group *v.* 9.6 (s.d. = 12.4) ( $t=7.3$ ,  $d.f.=89$ ,  $P<0.0005$ , 95% CI 7.0–12.1) in the long-term group. The corresponding figures for the Global Assessment of Functioning – Function (GAF-F) were 7.5 (s.d. = 11.2) ( $t=5.9$ ,  $d.f.=76$ ,  $P<0.0005$ , 95% CI 5.0–10.1) *v.* 8.8 (s.d. = 12.5) ( $t=6.7$ ,  $d.f.=89$ ,  $P<0.0005$ , 95% CI 6.2–11.5).

**Intergroup comparisons.** Mean intergroup difference in SCL-90-R scores between the two groups at 6 months was  $-0.19$  in favour of short-term therapy ( $t=-2.02$ ,  $d.f.=162$ ,  $P=0.045$ , 95% CI  $-0.37$  to  $-0.004$ ). The corresponding difference for the IIP-C was  $-0.14$  ( $t=-1.73$ ,  $d.f.=162$ ,  $P=0.085$ , 95% CI  $-0.31$  to  $0.20$ ) in favour of short-term therapy.

**End-point comparisons.** There were non-significant end-point (36 months) differences for all outcome variables. Mean difference for the GSI was  $-0.01$  ( $t=-0.10$ ,  $d.f.=162$ ,  $P=0.92$ , 95% CI  $-0.19$  to  $0.17$ ). For the IIP-C it was  $-0.05$  ( $t=-0.54$ ,  $d.f.=162$ ,  $P=0.59$ , 95% CI  $-0.24$  to  $0.14$ ).

For GAF-S the difference was  $-2.18$  in favour of long-term therapy ( $t=-1.14$ ,  $d.f.=165$ ,  $P=0.26$ , 95% CI  $-6.0$  to  $1.6$ ), and for GAF-F it was  $-0.37$  ( $t=-0.18$ ,  $d.f.=165$ ,  $P=0.86$ , 95% CI  $-4.39$  to  $3.66$ ).

Deterioration

Deterioration is defined as a reliable change (i.e. there is a 95% probability of a true change, based on the null hypothesis) in the negative direction (pre–post), measured for every patient for each outcome measure.<sup>33,34</sup> For the SCL-90-R, 11 patients changed negatively in the short-term group and 8 in the long-term group (19 out of 167, 11.4%). When the IIP-C was used, there were 3 in the short-term group and 6 in the long-term group

who deteriorated (9 out of 167, 5.4%). Using the GAF-S we found 1 person deteriorated in the short-term group and 2 in the long-term group (3 out of 167, 2%). For GAF-F we found 4 people in the short-term group and 3 in the long-term group (7 out of 167, 4.2%). Averaged across all four outcome measures, 5.8% had changed in a negative direction during the study period.

### **Additional treatment**

Additional treatment consisted of hospital admissions to mental health institutions, use of services from a general practitioner, psychiatric nurse, physiotherapist, specialist in psychiatry/psychology or social agencies and use of psychoactive drugs.

### **Additional analyses in the project**

The moderator and mediator analyses will be presented in subsequent publications. Four papers have previously been published on group process issues, describing differences in

development of the therapeutic alliance, group coherence and group climate in short- and long-term dynamic group therapy. One paper studies the degree of overlap between the three measures mentioned below.

- (a) Moderator analyses (are there associations between the quality of object relationship, personality pathology, personality disorder yes/no, severity of initial disturbance and differential outcomes in the short- and long-term therapy groups?).
- (b) Mediator analyses (are changes in attributional style, self-understanding of interpersonal problems and degree of group introjection during therapy mechanisms behind differential improvement in the short- and long-term therapy groups?).
- (c) Process variables (therapeutic alliance, cohesion, group climate). How to study interrelationships between measures? How is potential change over time related to outcome?