Brief psychological treatment in mental care
Schäfer, B.A.

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
The limitations of brief psychological treatment in mental health care
Patient characteristics and brief treatment outcome

Abstract

Background: Although brief psychological treatment (BT) is widely practised in mental health care, it is far from clear for which patients these treatments are (in)sufficient or (in)appropriate. The aim of this study is to investigate the patients characteristics related to outcome of BT.

Methods: Prediction whether BT was (in)sufficient (in terms of the number of treatment sessions and patient rating of BT outcome), for patients allocated to BT, was based on patient characteristics assessed by both patients and clinicians before the start of BT. After analysing the different predictors separately, a multi-variate model was built to predict whether or not BT was (in)sufficient for a particular patient.

Results: The multiple logistic regression model based on patients self-ratings showed that the probability that BT is insufficient, is higher for those patients that have a less problem-focused coping style and want more structure in treatment. The model based on clinician-ratings showed that BT was more insufficient for patients with lower GAF-scores (functioning less) and with a higher number of problem areas (more than three). Both models showed that the chance that BT is insufficient is greater for older patients (≥30 years) than younger ones.

Conclusions: When clinicians doubt whether or not they should allocate a patient to BT, the number of problems areas, the competences and resources of the particular patient and the request for type of intervention of the patient should be taken into consideration.
Introduction

Since the early 1960s there has been a progressive movement towards the development of briefer psychological therapies. More recently investigators found that the median length of psychological treatment varied from three to fifteen sessions, clustering around a median of about five to eight [1, 2]. Currently brief treatment increasingly gets attention in many countries because patients ask for brief and focussed treatments while at the same time health care financiers aim at cost-effectiveness [3]. Although already widely practised, it is far from clear for which type of patient these short-term types of treatment are sufficient [4]. The last holds in particular for the moderate severe cases treated in community mental health care.

In spite of the fact that many clinicians recognise the benefits of brief treatment, they differ in their views on the essential characteristics of this type of treatment. Brief treatment encompasses a diversity of treatment durations as well as intervention models [5]. Short-term treatment, for example, can range from symptom-centred, single-session treatments on the one hand [6, 7, 4] to about 25 sessions in focal psychotherapy on the other [8, 9]. Some brief treatments are time limited, setting fixed duration parameters at the outset of treatment, while others are brief within flexible parameters [10]. Talley [11] as well as Barkham et al. [12] suggested the term "very brief psychological treatment" for treatment episodes of six to eight sessions or even fewer, reserving the term "brief psychological treatment" for treatment episodes between eight and twenty sessions.

Although a considerable amount of research has been done on the potential predictors of time-unlimited or long-term treatment outcome [13], studies of the validity of selection criteria in case of planned brief treatment are scarce [3, 4]. Because clinicians have very different approaches to brief psychological treatment, it is plausible that given this diversity there are differences in patient selection criteria as well. Interestingly, there have been few empirical studies undertaken to identify patient characteristics that are thought to bode well for the success of the different approaches in the field of brief treatment [4].

In the Netherlands "very brief psychological treatment programmes" are found to be very popular within specialized mental health care [14]. This type of BT gradually developed in Community Mental Health Centres (CMHC's) since the late eighties, mostly because of practical and budgetary reasons. Our nationwide survey showed that at the end of the nineties more than three-quarters of all 58 CMHC's provided such a standardised six-sessions treatment program [14].

CMHC-patients are referred by their general practitioners to the CMHC because they are too ill to be treated in primary care. In most CMHC's about 10 to 20% of these patients will be allocated to BT [14]. Clinicians expect that they can help these patients within six sessions or fewer. However, their selection criteria are primarily based on clinical experience and lack any empirical data to support them. Research [14] shows that for about 10% of the CMHC-patients (those with mild problems, and/or capabilities and resources) BT should be sufficient, and that there is consensus among clinicians that for about 50% of new CMHC-patients (mostly patients with severe, multiple and complicated problems) BT is really contraindicated. For the third group of patients, some
Patient characteristics and brief treatment outcome

40%, clinicians disagree whether or not BT will be sufficient enough. When CMHC’s refer more than 10% of their patients to BT, they risk that BT will not be sufficient for a part of these patients.

In our study we want to explore for which patient BT is (in)sufficient when the allocation percentage for BT is raised to some 30%. The aim of the study is to assess patient characteristics that are related to the outcome of BT. We will do this by defining BT as (in)sufficient in terms of the number of treatment sessions and patient rating of BT outcome, in a large heterogeneous sample of patients allocated to BT. To increase generalizability, a naturalistic study design was used and the study was conducted in six different CMHC’s. We included in our study only those CMHC’s that have an allocation process that will provide us with such a large and heterogeneous group of patients with whom clinicians are aiming to end treatment within six or fewer sessions.

Although treatment outcome is influenced by patient and patient-clinician interaction variables, this study focuses exclusively on patient characteristics since we want to detect basic predictors useful for clinicians who have to decide whether or not to allocate a patient to BT. The following potential predictors were assessed before the start of BT by patients themselves and their clinicians: sociodemographic characteristics, psychological complaints and symptoms, stress and support, personality and coping, request for type of intervention by the patient and suitability for treatment according to the clinician. After analysing the different predictors separately, we will build a model that predicts whether or not BT will be sufficient for a particular patient.

Materials and methods

Setting and procedure

In the Netherlands, GP’s can refer their patients with psychological or psychiatric problems to Community Mental Health Centres (CMHC’s), to out-patient departments of psychiatric or general hospitals or to an independent psychiatrist or psychotherapist [15]. All these services are under the same insurance system and in all cases patients do not have to pay. About two third (65%) of referred patients are seen in CMHC’s, a quarter (27%) in out-patient departments, 8% by psychiatrists and 3% by psychotherapists [16].

CMHC’s were established in 1982 to guarantee a diversified set of ambulatory services, from curative psychotherapy to supportive community psychiatric care, for patients of all age groups within a specific catchment area ranging from 75.000 to 250.000 inhabitants. In a CMHC a multidisciplinary group of professionals is responsible for treatment allocation. First a patient meets one clinician who does the intake interview and assessment. Second this clinician advises the multidisciplinary allocation committee about whether or not the patient should be accepted for treatment at the CMHC, and if so for what type of treatment. The committee makes the final decision.
Within most CMHC’s there is consensus that BT is really contra-indicated for new patients who have severe, multiple and complicated problems (around 50% of the CMHC-population). We did not want to assess these patients but aimed to include as many as possible patients of the remaining 50% of the CMHC-patients. For that reason the study was executed in CMHC’s that in our nationwide study had shown to allocate as much as possible patients to BT (round 30-35% of new patients) and could provide us an as large and heterogeneous as possible group of patients with whom clinicians are willing to try to end treatment within six or fewer sessions. The six CMHC’s are distributed over the Netherlands in both rural and urban areas, thus making them quite representative for all CMHC’s in the Netherlands. Patients not referred to BT were allocated to another type of treatment which is either open-ended or has a limit which is higher than six sessions (for more details about the allocation process see Schaefer et al. [17]).

Patients referred to BT were asked to participate in the study. Those who gave informed consent (IC) were asked to complete baseline questionnaires before the first BT session. Thereafter they were assessed at two, four, and eight months after the start of the BT. For this article only the baseline and eight-month follow-up data will be used. The clinician responsible for the intake interview was also asked to complete a questionnaire before the first BT session.

Patients

In total 594 of about 1950 new patients (30%) were allocated to BT. Of these 594 patients, 135 (23%) were not asked for Informed Consent (IC) for different reasons: 39 patients, mostly from ethnic groups, had problems with reading, writing or understanding the questions; 50 were too ill or too vulnerable according to the clinician who did the intake to be asked to complete the questionnaires; another 46 were missed because of logistic reasons. Of those 459 patients asked to participate 80 (17%) refused, while 379 (83%) gave IC, of which 118 (31%) did not return their baseline questionnaire. Of the 261 patients who did return the baseline questionnaire 191 (73%) also completed the eight-month follow-up questionnaire. Clinicians completed a baseline questionnaire for 245 (94%) of the 261 participating patients. From 176 of the 191 patients who completed the eight months follow-up, data could be used to assess whether or not BT was (in)sufficient. Finally some patients (see below) were removed from the analysis because of (1) missing some baseline data or (2) filling out the baseline questionnaire after the start of BT (mostly due to logistic reasons).

Two models will predict the sufficiency of BT, one based on patient self-report baseline data and one on the baseline data as assessed by clinicians. For the model based on patient ratings, data from 133 of the 176 patients could be used for analyses. For the model based on clinician ratings, data from 153 of the 176 patients could be used for analyses. Finally, for a combined model there were adequate baseline data from both the patient and the clinician for 115 of the 176 patients.

The patient characteristics of these 115 patients are described in Table 4.1.
Table 4.1  Patient characteristics  
(*n=115; patients for whom could be assessed whether or not BT was sufficient and for whom baseline patient information was available from both patient and clinician*)

<table>
<thead>
<tr>
<th>Sociodemographic variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender [%]</td>
</tr>
<tr>
<td>Age</td>
</tr>
</tbody>
</table>
| Education [%] | 14 Primary education or less  
30 Secondary education low  
30 Secondary education high  
26 Tertiary education and more |
| Living situation [%] | 21 Alone  
66 With partner (with or without child)  
4 With child without partner  
3 With parent(s)  
4 With other people  
2 Other |
| Marital status [%] | 31 Never married  
54 Married  
11 Divorced  
4 Widowed |

<table>
<thead>
<tr>
<th>Clinical variables</th>
</tr>
</thead>
</table>
| Prior help (in past 5 years) [%] | 52 No  
22 1-8 sessions  
11 9-15 sessions  
15 More than 15 sessions and/or admission as psychiatric inpatient or day patient |
| Total score on theSymptom Checklist-90 | M = 182.5, S.D. = 57.6 |
| DSM-IV, first diagnosis on Axis I [%] | 8 No disorder  
36 Adjustment disorder  
25 Mood disorder  
13 Anxiety disorder  
5 Somatoform disorder  
3 Sexual or gender identity disorder  
10 Other disorders |
| DSM-IV, Axis II [%] | 4 One or more Axis II personality disorders  
49 No disorder on Axis II, but one or more traits  
47 No Axis II disorder or traits |
| Personality problems | 4 One or more Axis II personality disorders  
49 No disorder on Axis II, but one or more traits  
47 No Axis II disorder or traits |
| Disorders or traits in clusters | 1 Cluster A (paranoid, schizoid or schizotypal personality problem)  
11 Cluster B (antisocial, borderline, histrionic or narcissistic personality problem)  
43 Cluster C (avoidant, dependent or obsessive-compulsive personality problem) |
| Global Assessment of Functioning Scale (GAF) DSM-IV | M = 63, S.D. = 8 (range 41 - 80) |

M = mean; S.D. = standard deviation  
1 Percentages of the total sample (some patients were diagnosed with more than one disorder or trait)
The mean age of the total sample was 40 years (S.D. = 11), 61% of subjects being women. The mean total score of the SCL-90 [18] (mean score = 182.5; S.D. = 57.6) lies slightly below the mean score of a patient population seen in psychiatric out-patient departments in general or academic hospitals (203.5; S.D. = 61.6) and above the mean score of patients seen by clinical psychologists in primary care (177.8; S.D. = 52.6) [19]. Considering DSM-IV (1994) diagnoses [20], 8% had no Axis I diagnosis but a V-code. Most patients had an Axis I disorders in the categories adjustment, mood or anxiety disorder. Few patients were diagnosed with personality disorders, but half of the patients had traits, mostly of Cluster C personality disorders. Considering the most important target complaint, those involving mood (30%), anxiety (26%), relational (18%), and somatoform problems (10%) were mentioned most. These findings, along with scores on the Global Assessment of Functioning Scale of the DSM-IV, led us to conclude that this group of BT-patients had mostly moderate symptoms and/or had moderate difficulties in social or occupational functioning. Some of them had serious symptoms or serious impairment in social or occupational functioning, but no one had impairments in reality testing.

**Brief treatment**

The in total 62 clinicians providing BT within the six centres had different professional backgrounds. Most of them were psychotherapists (with an university degree followed by a post-doctoral study of four years) or clinical psychologists (with at least an university degree with regard to clinical psychology), and some of them were community psychiatric nurses (nurses with an advanced professional study specialised in working within community mental health settings). All were quite experienced and were trained in brief treatment. In each centre clinicians participated in a multidisciplinary team, in which progress of the BTs was discussed. Each team also had a psychiatrist on consultation basis available, who sometimes provided BTs themselves. In most cases the same clinician provided the intake interview and the BT.

The clinician always started BT with the intention to end it within six, or fewer, sessions and they informed the patient of this time limitation at the start of BT. BT usually is ended within four or five months, but it had no strict limitation with regard to length in number of months. Most clinicians were trained to work with a clear focus and well-defined limited therapeutic goals. They are able to formulate ‘explanation hypothesis’ and goals in such an attractive way that the patient is willing and able to quickly take responsibility for the work that must be done in treatment. Therapeutic goals are often focussing on the reestablishment of a previous level of functioning. Treatment is therefore aimed at reminding the patients of their (neglected) strengths and competences as well as stimulating a solution-focused orientation (see also Berg and de Shazer [21], Walter and Peller [22], and O'Hanlon and Weiner Davis [23]). Maintaining the chosen focus and goals required clinicians to quickly distinguish essentials from side issues and to participate actively in the therapeutic process. The description of an active approach from Koss and Shiang [3] holds also for the BT-clinicians of this study; being active means ‘directing the conversation when necessary, actively explore areas of interest, offering support and guidance, formulating plans of action for the patient to follow, assigning homework, teaching problem solving, and encouraging a constructive life philosophy’ (page 672-673). Further most clinicians are trained in recognising signs that can lead to more unnecessary consumption of treatment sessions and how to act on
these signs. They learned also techniques that keep the patient active and motivated during and after BT to continue the changing process (also in difficult times) and prevent relapse. Given the heterogeneity of BT-patients, BT can consist of a great variety of interventions. Most clinicians have much treatment experience with two or more psychotherapy approaches, which enables them to be flexible and creative in choosing the right techniques for the particular patient. Although BT can be a very eclectic approach, BT is primarily 'short-term directive, cognitive/behavioural and solution focused psychotherapy'. For more information about BT see Schaefer et al. [17].

Assessing the sufficiency of BT

Whether BT was sufficient or not was determined by a combination of two criteria:

1. Number of sessions: this criterion was rated negative when BT ended in more than six sessions. The moment the follow-up was done (eight months after the start of BT), there were some patients that had not ended their BT. When these patients had consumed more than six BT-sessions, they were rated as negative on this criterion, and when these patients had fewer than six sessions, they were excluded from further analysis.

2. Treatment outcome: eight months after the start of the BT the patient was asked:
   - To rate the treatment result on a 10-point scale, ranging from 1 ('bad') to 10 ('good')
   - How much of the most important goal, he/she had decided on at the start of BT, was achieved on a 4-point scale (1='not at all', 2='slightly', 3='pretty much', and 4='entirely').

   Treatment outcome was scored negative if:
   - The patient scored < 6 on the 10-point scale or
   - The patient scored 6 on the 10-point scale but rated the most important goal as 'not at all' or 'slightly' achieved.

BT was scored as insufficient when one or both criteria (number of sessions and treatment outcome) were scored as negative.

Instruments

**Patient baseline ratings:**

*Sociodemographic checklist.* Age, gender, education, living situation and marital status (only the first three were used for analysis).

*Symptom Checklist-90 (SCL-90)* [18, 19]. The SCL-90 is a 90-item self-report symptom inventory based on respondent rating of symptom distress during the previous seven days. Items are rated from 1 ('not at all') to 5 ('very much'). For the analyses we used the totalscore.

*Prior help.* Patients were asked if they had seen a professional for their psychological or social problems over the past five years. If so, they had to rate how many sessions they in total consumed by choosing among four categories: 1. one to three sessions, 2. four to eight sessions,
3. nine to fifteen sessions, 4. more than fifteen sessions. Further patients were also asked if they had been admitted as psychiatric inpatient or day patient during the past five years.

_Survey of Recent Life Experiences (SRLE)_[24]. The SRLE is a 51-item questionnaire measuring minor environmental stressors. Items contain descriptions of six kinds of daily hassles that people may have encountered. The respondents were asked to rate the extent to which each had been part of their lives over the last month, ranging from 1 ("not at all") to 4 ("very much"). For the present study we used the totalscore.

_Social Support List Discrepancies (SSL-D)_[25]. The SSL-D assesses the amount of (dis)satisfaction with received social support. The SSL-D comprises descriptions of social support pertaining to six kinds of social support. Descriptions were evaluated as follows: 1 ("I miss this"), 2 ("I do not miss it really, but more would be better"), 3 ("exactly good in this way") and 4 ("happens too much"). For analytical purposes, items were recoded (1=3; 3,4=1), resulting in high scores indicating a lack of support. For the present study patients only completed the eight items pertaining to emotional support (when encountering problems).

_Groningen Social Behavior Questionnaire (GSBQ)_[26]. This questionnaire measures eight dimensions of social functioning. The subscale 'leisure time' (i=7) was used for this study. The respondents were asked to rate six statements about their leisure time on a 4-point scale. Lower ratings indicate more satisfaction with leisure time.

_Utrecht Coping List (UCL)_[27]. The UCL is a 47-item questionnaire assessing seven kinds of coping strategies. Subjects were asked to rate the use of a certain strategy when confronted with a problem or unpleasant situation. Items were rated from 1 ("hardly ever") to 4 ("very often"). For the present study patients only completed the questions of the scales Avoidant coping (i=8) and Problem-focused coping (i=7).

_Mastery scale_. Mastery [28, 29] as measured with this scale reflects the extent to which one feels to be in control over one's own life-chances. The respondents were asked to rate their agreement with the seven statements on a 5-point scale. Higher ratings indicate more mastery.

_Rosenberg Self-esteem scale (RSE)_[30, 31]. The RSE is used in this study as a one-dimensional index of global self-esteem. The RSE consists of ten statements, five are phrased in a positive direction and five are phrased negatively. The statements were rated on a 4-point scale. After recoding the five positive items, a high score stands for a more positive attitude toward oneself.

_Patient Request Evaluation Scale (PRES)_[32]. The PRES is an adjusted Dutch version of the Patient Request Form [33], which was used to identify patients' requests for treatment. The PRES consists of 51 items spread over 11 clusters: structure (i=4), insight (i=3), clarification (i=8), control (i=5), support (i=3), social intervention (i=5), medical (i=4), confession (i=6), advice (i=2), comfort (i=6), and ventilate one's feelings (i=5). Patients were asked to rate how applicable the items were on a 3-point scale rating from 1 ('exactly what I want') to 3 ('not at all').
Patient characteristics and brief treatment outcome

**Clinician baseline ratings:**

*Target complaints.* A standardised screening list of thirteen complaints was used on which clinicians rated the target complaints and the most important one. The number of different complaints was counted and for the five most rated complaints (mood problems, anxiety problems, somatoform problems, relational problems and working problems) we determined for each patient if this complaint was rated by the clinician as most important complaint.

*Global Assessment of Functioning (GAF).* The clinician rated the Global Assessment of Functioning Scale (GAF, Axis V from the DSM-IV [20]). The score can range from 1 ‘very bad’ to 100 ‘very good’.

*Personality traits and disorders.* The clinicians were asked to rate the items of the different Axis II disorders from the DSM-IV [20]. For this study we use only scores on the cluster B and cluster C personality problems.

*Patient characteristics and suitability for treatment.* For this study we constructed a list of patients characteristics that are often associated with suitability for psychotherapy [34, 35]. The clinicians were asked to rate all statements on a 5-point scale ranging from 1 (‘not at all’) to 5 (‘very much’). Using factor analysis we defined three subscales: (1) strengths (five items, e.g. does the patient have healthy attributes, and does the patient have some ability to bear; $\alpha=0.83$), (2) urgency (two items: does the patient suffer from the burden of the complaints, and does the patient need immediate help; $\alpha=0.62$), and (3) therapy skillfulness (seven items, e.g. is the patient willing to work actively on problems, and does the patient have some insight as to what is the problem; $\alpha=0.92$).

**Statistical analyses**

Predictors of the sufficiency of BT were assessed using logistic regression analysis. A two-step procedure based on Hosmer and Lemeshow [36] was followed to identify the predictors and build a prediction model. At the first step we checked all continuous potential predictors for linearity in the logit. If this was not the case the variable was recoded. With regard to categorical variables we checked if it was possible to merge categories based on odds ratio values. Subsequently the univariate relation between each potential predictor and treatment success was assessed ($P$-value $\leq 0.05$).

In the second step multiple logistic regression analysis was used to build a model to predict whether BT would be sufficient. Gender, age and treatment centre were entered first and kept in the model; the first two as potential confounders and the third to control for the multicenter character of our sample. To reduce the number of potential predictors, only those with a univariate $P$-value $\leq 0.25$ were entered in a stepwise procedure with backward elimination. This resulted in an intermediate prediction model. Finally we checked if interactions between variables from this intermediate model could significantly improve the model ($P$-value $\leq 0.05$) to obtain a final model. We used this procedure to build a model with patient baseline ratings as potential
predictors and a model with clinician baseline ratings. Finally, we checked whether predictors from the model based on patient ratings could improve the model based on clinician ratings ($P$-value $\leq 0.05$).

Table 4.2  Univariate logistic regression models for predicting 'sufficiency' of brief treatment (BT) based on patient baseline ratings ($n=133$: 'BT was sufficient' ($n=60$) vs. 'BT was insufficient' ($n=73$))

<table>
<thead>
<tr>
<th>Potential predictors</th>
<th>OR</th>
<th>95% CI</th>
<th>$P$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociodemographic information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Age $^1$</td>
<td>0.21</td>
<td>0.08/0.57</td>
<td>0.00</td>
</tr>
<tr>
<td>2 Gender $^1$</td>
<td>1.42</td>
<td>0.69/2.92</td>
<td>0.34</td>
</tr>
<tr>
<td>3 Education $^1$</td>
<td>1.95</td>
<td>0.96/3.94</td>
<td>0.06</td>
</tr>
<tr>
<td>Complaints and symptoms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Total score of the Symptom Checklist-90</td>
<td>1.00</td>
<td>0.99/1.00</td>
<td>0.16</td>
</tr>
<tr>
<td>5 Prior help $^1$</td>
<td>0.38</td>
<td>0.13/1.13</td>
<td>0.08</td>
</tr>
<tr>
<td>Stress and support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Daily hassles</td>
<td>1.00</td>
<td>0.98/1.02</td>
<td>0.91</td>
</tr>
<tr>
<td>7 Emotional support $^1$</td>
<td>0.37</td>
<td>0.18/0.78</td>
<td>0.01</td>
</tr>
<tr>
<td>8 Leisure time</td>
<td>0.92</td>
<td>0.84/1.01</td>
<td>0.08</td>
</tr>
<tr>
<td>Personality and coping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Avoidant coping</td>
<td>0.97</td>
<td>0.88/1.06</td>
<td>0.47</td>
</tr>
<tr>
<td>10 Problem-focused coping $^1$</td>
<td>2.94</td>
<td>1.45/5.97</td>
<td>0.00</td>
</tr>
<tr>
<td>11 Mastery</td>
<td>1.08</td>
<td>1.00/1.18</td>
<td>0.05</td>
</tr>
<tr>
<td>12 Self-esteem</td>
<td>1.06</td>
<td>0.99/1.13</td>
<td>0.12</td>
</tr>
<tr>
<td>Request for type of intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Structure</td>
<td>1.18</td>
<td>1.01/1.38</td>
<td>0.04</td>
</tr>
<tr>
<td>14 Insight $^1$</td>
<td>2.24</td>
<td>1.03/4.85</td>
<td>0.04</td>
</tr>
<tr>
<td>15 Clarification $^2$</td>
<td>-</td>
<td>-</td>
<td>0.12</td>
</tr>
<tr>
<td>16 Control</td>
<td>1.08</td>
<td>0.96/1.22</td>
<td>0.21</td>
</tr>
<tr>
<td>17 Support</td>
<td>1.12</td>
<td>0.92/1.36</td>
<td>0.27</td>
</tr>
<tr>
<td>18 Social intervention</td>
<td>1.06</td>
<td>0.94/1.21</td>
<td>0.32</td>
</tr>
<tr>
<td>19 Medical</td>
<td>1.09</td>
<td>0.91/1.29</td>
<td>0.35</td>
</tr>
<tr>
<td>20 Confession</td>
<td>1.09</td>
<td>0.90/1.32</td>
<td>0.37</td>
</tr>
<tr>
<td>21 Advice</td>
<td>1.09</td>
<td>0.85/1.41</td>
<td>0.49</td>
</tr>
<tr>
<td>22 Comfort</td>
<td>1.04</td>
<td>0.93/1.16</td>
<td>0.53</td>
</tr>
<tr>
<td>23 Ventilate one's feelings</td>
<td>1.05</td>
<td>0.91/1.21</td>
<td>0.53</td>
</tr>
</tbody>
</table>

OR = odds ratio; 95% CI = 95% confidence interval for OR (lower/upper); Bold typeface denotes $P$-value $\leq 0.25$.

$^1$ These variables are dichotomous. A score 0 is used as reference category.

- Age: $< 30$ years = 0 versus $\geq 30$ years = 1.
- Gender: male = 0 versus female = 1.
- Education: secondary education low or less = 0 versus secondary education high or more = 1.
- Prior help: fifteen sessions or fewer and no inpatient or day patient admissions = 0 versus $> 15$ sessions or inpatient or day patient admissions = 1.
- Emotional support: $\leq 1.1 = 0$ versus $\geq 1.2 = 1$.
- Problem-focused coping: $\leq 1.6 = 0$ versus $\geq 1.7 = 1$.
- Request for Insight: $\leq 7.0 = 0$ versus $\geq 8.0 = 1$.

$^2$ This variable is categorical. A low score was the reference category in this variable. The OR, 95% CI and $P$-value for the score 'middle' are respectively, 0.26, 0.07/1.00, 0.05 and for the 'high' score 0.60, 0.20/1.82, 0.37
Results

Prediction of BT sufficiency based on patient ratings

For 60 (45%) of the 133 patients, of whom self-rating baseline data could be used to build a prediction model, BT was sufficient. The check for linearity in the logit resulted in the adjustment of seven variables. Six variables were dichotomised: age (younger than 30 years versus 30 years and older), education (secondary education low or less versus secondary education high or more), prior help (15 sessions or fewer and no inpatient or day patient admissions versus more than 15 sessions or inpatient or day patient admissions), emotional support (≤ 11 versus ≥ 12), problem-focused coping (≤ 16 versus ≥ 17), and desire for insight as an intervention in treatment (≤ 7 versus ≥ 8). The variable ‘clarification as an intervention in treatment’ was classified in three groups (low, middle and high): (≤ 11, 12-15, ≥ 16).

Results of the univariate analysis are presented in Table 4.2. There are six predictors with a $P$-value ≤0.05. The probability that BT is sufficient is higher for those patients that are younger (< 30 years), are more satisfied with the emotional support they get (score ≤ 11), have a more problem-focused coping style (score ≥ 17), and are feeling more in control over their own life-chances (mastery). Regarding their request for specific characteristics of the intervention, they want less structure and less insight (score ≥ 8) compared to those for whom the BT was insufficient.

| Table 4.3 | Multiple logistic regression model to predict ‘sufficiency’ of brief treatment (BT) based on patients baseline ratings (n=133; ‘BT was sufficient’ (n=60) vs. ‘BT was insufficient’ (n=73)) |
|-----------------------------------------------|
| Predictors | OR | 95% CI | $P$-value |
|-----------------------------------------------|
| **Fixed**                                      |    |        |           |
| Age $^1$                                       | 0.24 | 0.07/ 0.82 | 0.02 |
| Gender $^1$                                     | 2.00 | 0.79/ 5.10 | 0.15 |
| **Personality and coping**                     |    |        |           |
| Problem-focused coping $^1$                    | 4.63 | 1.84/11.67 | 0.00 |
| **Request for type of intervention**           |    |        |           |
| Structure                                      | 1.25 | 1.03/ 1.51 | 0.03 |

The model after multivariate logistic regression with the 13 variables with a univariate $P$-value ≤0.25 (see Table 4.2), gender and centre (with age, gender and centre fixed in the model).

OR = odds ratio, 95% CI = 95% confidence interval for OR (lower/upper)

$^1$ These variables are dichotomous. A score 0 is used as reference category.

Age:
- < thirty years = 0 versus ≥ thirty years = 1.

Gender:
- male = 0 versus female = 1.

Problem-focused coping:
- ≤ 16 = 0 versus ≥ 17 = 1.

Twelve out of the 21 variables had an univariate $P$-value ≤0.25 and were therefore in addition to gender and age entered in the multiple logistic regression model. After fixing gender, age and centre, two of these twelve variables remained in the intermediate model after stepwise
regression with backward elimination. Patients who at baseline described a more problem-focused coping style had more chance that BT was sufficient, which also holds for those who were low on the wish to have structure as an intervention characteristic (Table 4.3). Since no interaction term had a $P$-value $\leq 0.05$, the intermediate model is also the final model ($\chi^2 = 46.22; df = 9; P = 0.00$). The Hosmer and Lemeshow Test showed a good overall model fit ($P = 0.99; df = 8; \chi^2 = 1.79$).

Prediction of BT sufficiency based on clinician ratings

Table 4.4 Univariate logistic regression models for predicting ‘sufficiency’ of brief treatment (BT) based on clinician baseline ratings ($n=153$: ‘BT was sufficient’ ($n=72$) vs. ‘BT was insufficient’ ($n=81$))

<table>
<thead>
<tr>
<th>Potential predictors</th>
<th>OR</th>
<th>95% CI</th>
<th>$P$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sociodemographic Information</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Age $^1$</td>
<td>0.27</td>
<td>0.11/0.65</td>
<td>0.00</td>
</tr>
<tr>
<td>2 Gender $^1$</td>
<td>1.76</td>
<td>0.90/3.44</td>
<td>0.10</td>
</tr>
<tr>
<td><strong>Complaints and symptoms</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Number of complaints $^1$</td>
<td>0.30</td>
<td>0.11/0.88</td>
<td>0.03</td>
</tr>
<tr>
<td>4 Somatiform problems $^2$</td>
<td>2.75</td>
<td>0.81/9.35</td>
<td>0.11</td>
</tr>
<tr>
<td>5 Mood problems $^2$</td>
<td>0.69</td>
<td>0.35/1.37</td>
<td>0.29</td>
</tr>
<tr>
<td>6 Working problems $^2$</td>
<td>1.94</td>
<td>0.45/8.42</td>
<td>0.38</td>
</tr>
<tr>
<td>7 Relational problems $^2$</td>
<td>0.96</td>
<td>0.41/2.23</td>
<td>0.92</td>
</tr>
<tr>
<td>8 Anxiety problems $^2$</td>
<td>0.97</td>
<td>0.48/1.97</td>
<td>0.93</td>
</tr>
<tr>
<td><strong>Functioning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Global Assessment of Functioning (GAF) score</td>
<td>1.08</td>
<td>1.03/1.13</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Personality problems</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 DSM-IV Axis II cluster B $^3$</td>
<td>1.71</td>
<td>0.61/4.74</td>
<td>0.31</td>
</tr>
<tr>
<td>11 DSM-IV Axis II cluster C $^3$</td>
<td>0.87</td>
<td>0.46/1.67</td>
<td>0.68</td>
</tr>
<tr>
<td><strong>Patient characteristics and suitability for treatment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Strengths</td>
<td>1.11</td>
<td>1.00/1.24</td>
<td>0.06</td>
</tr>
<tr>
<td>13 Urgency</td>
<td>0.82</td>
<td>0.65/1.04</td>
<td>0.10</td>
</tr>
<tr>
<td>14 Therapy skillfulness</td>
<td>1.02</td>
<td>0.97/1.06</td>
<td>0.52</td>
</tr>
</tbody>
</table>

OR = odds ratio, 95% CI = 95% confidence interval for OR (lower/upper). Bold typeface denotes $P$-value $\leq 0.25$.

$^1$ These variables are dichotomous. A score 0 is used as reference category. Age: $<_{\text{thirty years}}$ = 0 versus $\geq_{\text{thirty years}}$ = 1.

Gender: male = 0 versus female = 1.

Number of complaints: three or fewer = 0 versus four and more = 1.

$^2$ If the patient had this problem as most important target complaint, a 1 was scored, if not a 0 was scored. A score 0 is used as reference category.

$^3$ If the patient had a diagnosis or trait of the particular DSM-IV (Diagnostic and Statistical Manual of Mental Disorders 4th Edition, 1994) personality disorder, a 1 was scored, if not a 0 was scored. A score 0 is used as reference category.

For 72 (47%) patients, of the 153 patients of whom clinician-rated baseline data could be used to build a prediction model, the BT was sufficient. The check for linearity in the logit resulted in the adjustment of two variables. These variables were dichotomised; age (younger than 30 years versus 30 years and older) and number of complaints (3 or fewer versus 4 and more).

79
Patient characteristics and brief treatment outcome

Results of the univariate analysis are presented in Table 4.4. There are three predictors with a $P$-value $\leq 0.05$. The probability that BT is sufficient is higher for those patients that are younger (< 30 years), are functioning better (have a higher GAF score), and have three or fewer different complaints.

In addition to gender and age, five out of twelve variables had a univariate $P$-value $\leq 0.25$. After fixing gender, age and centre, two variables of these five variables remained in the intermediate model. Patients with a higher baseline score on the GAF and with a lower number of complaints had more chance that their BT was sufficient (Table 4.5). Since no interaction term had a $P$-value $\leq 0.05$, the intermediate model is also the final model ($\chi^2 = 47.07; \text{df} = 9; P = 0.00$). The Hosmer and Lemeshow Test showed a good overall model fit ($P = 0.70; \text{df} = 8; \chi^2 = 5.53$).

<table>
<thead>
<tr>
<th>Table 4.5</th>
<th>Multiple logistic regression model to predict 'sufficiency' of brief treatment (BT) based on clinician baseline ratings ($n=153$: 'BT was sufficient' ($n=72$) vs. 'BT was insufficient' ($n=81$))</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Predictors</strong></td>
<td><strong>OR</strong></td>
</tr>
<tr>
<td>Fixed</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.24</td>
</tr>
<tr>
<td>Gender</td>
<td>1.67</td>
</tr>
<tr>
<td>Complaints and symptoms</td>
<td></td>
</tr>
<tr>
<td>Number of complaints</td>
<td>0.23</td>
</tr>
<tr>
<td>Functioning</td>
<td></td>
</tr>
<tr>
<td>Global Assessment of Functioning (GAF) score</td>
<td>1.08</td>
</tr>
</tbody>
</table>

The model after multivariate logistic regression with the seven variables with a univariate $P$-value $\leq 0.25$ (see table 4.4) and centre (with age, gender and centre fixed in the model).

OR = odds ratio, 95% CI = 95% confidence interval for OR (lower/upper)

These variables are dichotomous. A score 0 is used as reference category.
- Age: $< \text{thirty years} = 0$ versus $\geq \text{thirty years} = 1$.
- Gender: male = 0 versus female = 1.
- Number of complaints: three or fewer = 0 versus four and more = 1.

Prediction of BT sufficiency based on combined patient and clinician ratings

Finally we analysed the 115 patients of which patient as well as clinician rated baseline data could be used to build a prediction model. For 52 (45%) patients, of those 115 patients, the BT was sufficient. After fixing gender, age and centre, it was possible to significantly improve the final model based on clinician ratings (Global Assessment of Functioning score and number of complaints) with the two predictors (problem-focused coping style and the wish to have structure as an intervention characteristic) from the final model based on patient ratings (likelihood ratio test: $\chi^2 = 10.44; \text{df} = 2; P = 0.01$). This combined final model ($\chi^2 = 50.64; \text{df} = 11; P = 0.00$) had a good overall model fit ($P = 0.25; \text{df} = 8; \chi^2 = 10.21$). In total, 74% of cases could be correctly classified by means of this regression model (Table 4.6).
Table 4.6  Multiple logistic regression model to predict ‘sufficiency’ of brief treatment (BT) based on baseline ratings of both patients and clinicians (n=115: ‘BT was sufficient’ (n=52) vs. ‘BT was insufficient’ (n=63))

<table>
<thead>
<tr>
<th>Predictors</th>
<th>OR</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 2</td>
<td>0.26</td>
<td>0.07/0.98</td>
<td>0.05</td>
</tr>
<tr>
<td>Gender 2</td>
<td>1.73</td>
<td>0.60/4.96</td>
<td>0.31</td>
</tr>
<tr>
<td><strong>Variables from clinician ratings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global Assessment of Functioning (GAF) score 2</td>
<td>1.08</td>
<td>1.01/1.16</td>
<td>0.03</td>
</tr>
<tr>
<td>Number of complaints 2</td>
<td>0.07</td>
<td>0.00/1.16</td>
<td>0.06</td>
</tr>
<tr>
<td><strong>Variables from patient ratings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem-focused coping 3</td>
<td>4.04</td>
<td>1.41/11.63</td>
<td>0.01</td>
</tr>
<tr>
<td>Structure as request for type of intervention</td>
<td>1.22</td>
<td>0.98/1.52</td>
<td>0.07</td>
</tr>
</tbody>
</table>

The model after multivariate logistic regression with information from both models (see Table 4.3 and 4.5)

OR = odds ratio, 95% CI = 95% confidence interval for OR (lower/upper)

1 Also centre was fixed in the model to adjust for the multicentre character of our sample
2 These variables are dichotomous. A score 0 is used as reference category.
   Age: < thirty years = 0 versus ≥ thirty years = 1.
   Gender: male = 0 versus female = 1.
   Number of complaints: three or fewer = 0 versus four and more = 1.
   Problem-focused coping: ≤ 16 = 0 versus ≥ 17 = 1.

Discussion

In this study we investigated which patients characteristics are predictive for the fact that a brief psychological treatment (BT) in Community Mental Health Centres (CMHC’s) is (in)sufficient. The BT-patients were referred to the CMHC’s by their GP’s because they were too ill to be treated in a primary care setting. In a heterogeneous sample of CMHC-patients allocated to BT, this treatment appeared to be insufficient (ended in more than six sessions or within six sessions but with a negative treatment result) for about half of them. The two most important predictors were a problem-focused coping style and a wish for structure in treatment. For patients with a less problem-focused coping strategy (turning the matter over in one’s mind, line up the problems and possible solutions, start solving the problem or unpleasant situation purposeful and with confidence) BT is less sufficient. An active approach is also proposed as a selection criterion for brief treatment by other writers [37, 38, 39]. When the clinician is able to find a clear focus and formulate distinct plans of action, patients with an active coping style are perhaps more inclined to try out these plans and carry out homework assignments. This enables them on the one hand to benefit from treatment and so they probably need fewer treatment sessions than patients who are less active in working on their problems. On the other this coping style might also help to accept that patients have to take over responsibilities over their own lives again after the limited number of six sessions.
Patient characteristics and brief treatment outcome

A wish for structure in treatment stands for the patient's wish that the professional takes over responsibility, because the patient feels overwhelmed by feelings and is not longer able to keep control over him/herself [32]. Patients who want more structure in treatment have less chance of a BT that is sufficient. Although there was a substantial correlation between a wish for structure and symptom distress (as measured by the SCL-90) (-.63, P<0.01), symptom distress was not a good independent predictor. It is therefore more likely that a wish for structure in treatment is related to perceived ability to cope with the complaints or symptoms, than the actual level of symptom distress. So probably it is not the amount of suffering from symptoms, but extent to which the patient experiences helplessness that predicts whether or not BT will be sufficient.

Of the clinician ratings before the start of BT, the Global Assessment of Functioning Scale (GAF) score and the number of target complaints were good predictors for BT sufficiency. Although patients' rating of symptom distress was not found to be a good independent predictor in the present study, the GAF-score (a composite measure that assesses current symptomatic suffering and social and occupational functioning) given by the clinician was. Patients for whom BT was insufficient had lower baseline GAF-scores (i.e. were functioning on a lower level). GAF or its predecessors [40] has also been found by others to be a good predictor of treatment success [41, 42, 43]. As Svanborg et al. [44] put it “not to surprising, since it is a general finding in medicine as well that healthy patients usually have a better prognosis than those who are unhealthy” (page 93). Patients with lower levels of functioning probably need more help to achieve a level at which they can handle the problems themselves and have therefore a lower probability that BT is sufficient for them.

Our study further shows that patients with four or more target complaints have less chance that BT is sufficient than those with three or fewer complaints. In order to keep the treatment brief, it is often necessary that the clinician and the patient agree on a central focus for treatment [3, 14]. When a patient has more than three problems it might be more difficult to find one central focus that will more or less affect all problems or it takes too much time to get satisfactory results in all different problem areas.

In both the patient and the clinician prediction model it was found that patients of 30 years or older have less chance that BT is sufficient than those who are younger than 30 years. It has generally been assumed that patterns of behaviour of older people are relatively more resistant to change. As a result older patients are often assumed to be less successful in therapy, but so far results on this age topic are inconclusive [1]. In one of our earlier studies in two of the six centres that participated in the present study, we found that patients who were 50 years or older had more chance to be referred to BT than younger patients [17]. However in this study we found that for younger patients the probability that BT will be sufficient is higher than for older patients. Whether this is due to a possible difference between the older and younger generation in evaluating treatment results or a difference in the readiness of learning new skills should be further investigated.

Although all BT-patients were found by their GP's too ill to be treated in primary care, part of these patients can successfully be helped in six, or fewer, sessions within the CMHC's. However, this study also shows that not for all patients, allocated to BT, this treatment is sufficient. In
summary we can conclude that clinicians who decide whether or not to allocate a patient to BT, should take into consideration the competences and resources of the particular patient, the number of problems areas and the request for type of intervention of the patient. The probability that BT is insufficient is higher for patients who’s lives are too much affected by their problems and who have little competences and resources (less satisfied with the emotional support they get, are feeling less in control over their own life-chances, have a less problem-focused coping style, are functioning less). Further BT for patients who have problems in more than three different problem areas will probably be insufficient. Also patients’ treatment expectations play an important role. When they are too helpless and dependent on the therapist and want too much insight (wanting to understand and search the subconsciousness, wanting to uncover problems that are believed to be rooted in youth) the chance that BT will be sufficient is low. Last but not least, BT for older patients (≥ 30 years) is more likely to be insufficient than BT for younger patients. However insufficient does not automatically mean that BT failed completely for the BT-patients of this study.

One of our criteria to rate sufficiency of BT was that it had to end in six sessions. When six sessions were not enough, patients were offered more help within the CMHC’s. When the prolongation exists of only some sessions this was often done within the BT-programme, but when the patient needs substantially more ‘extra’ sessions the patient was offered treatment within another programme. For some patients, BT might have been prolonged and ended for example in eight sessions. When a patient rated the result of such an eight-session BT as positive, the BT can be seen as successful, but for this study the BT was assessed as insufficient because of the six-session limit. We chose for this specific and rather conservative cut-off point because the results of our nation-wide survey [14] showed that about three quarters of the CMHC’s had a BT-programme in which the clinicians started the BT with the intention to end it within six sessions. When the original goal is to end BT within this limit, prolongation of many BT’s lead to too much capacity loss within the team of clinicians that provide BT.

The other criterion, the assessment of treatment outcome, which was used to decide whether or not BT was sufficient, also needs some clarification. We chose a combination of rating treatment result and goal-attainment to evaluate the effect of treatment as perceived by the patient. We did not chose, for example, the SCL-90 score as a criterion of outcome, because the items of the SCL-90 make it possible that progression is easier measured with problems of which the symptoms are good represented in the SCL-90 than problems that have symptoms that are not so well represented within this questionnaire. This can lead to over- or underestimation of treatment outcome in a, in terms of diagnoses, heterogeneous sample, which our sample is. Another reason why we did not chose the SCL-90 is that the goal of BT does not always have to be immediate symptom reduction. More specific measures, which are often used in research, are not chosen for this study because they assess specific problem areas, and our sample is too heterogeneous for them to be used properly.

Our method resulted in the finding that BT was sufficient for 83 (47%) patients and ‘insufficient’ for 93 (53%). If sufficiency was only determined on the basis of number of sessions (≤six) and goals achieved (‘pretty much’ or ‘entirely’), without considering the 10-point rating scale of treatment result, the BT was sufficient for 78 (44%) patients and insufficient for 98 (56%) patients. This
small difference can be explained by the fact that for the patients, who ended BT in six sessions or fewer, three patients gave a score five or fewer on the 10-point scale but were 'successful' on achieving their goal. Eight patients gave a score seven or more on the 10-point scale, but were 'unsuccessful' on the achievement of goals. So, although they did not achieve their treatment goal, they were happy with the treatment result, and felt that their goal was not a realistic one.

Although we think this method was an adequate operationalization of assessing whether or not BT was sufficient, we wondered whether patients for whom BT was scored as sufficient differed in symptom reduction from patients who's BT was assessed as insufficient. Using the Symptom Checklist-90 totalscore we found a greater symptom reduction eight months after the start of BT in the first group of patients compared to the later group (F = 21,811, df = 1 / 126, P-value = 0.000, corrected for baseline SCL-90 totalscore).

The naturalistic study design, along with the participation of six CMHC's rather than university centres, make the results generalizable to practice. However a naturalistic study design also poses limitations. Although we tried to include as many as possible patients in our sample, we were dependent on the clinicians of the CMHC's for their selection process for BT. It is also important to note that not all patients allocated to BT could be used in analysis. Despite these limitations, we believe that the results of this study can give clinicians in practice some first guidelines that they can use in their allocating process with regard to BT. However these guidelines need to be tested in further research. The study should be replicated with a larger sample because this makes it possible to adjustment the \( \alpha \) value, to account for large numbers of significance tests made in stepwise regression procedures, without losing sufficient power to identify predictors. Finally, it is unclear whether the patients for whom we assessed BT as insufficient would be better (or worse) off if they had started an unlimited (long-term) treatment. This is also the case for patients for whom BT was rated as sufficient. Future study in which patients are random allocated to limited brief treatment or unlimited treatment can perhaps give more definite answers. However such studies, as well as studies using a waiting-list condition, are not easy to conduct because of ethical constraints.
Acknowledgements

We like to thank the patients and clinicians of the six Community Mental Health Care Centres for their co-operation. This study was supported by a grant from the Nationaal Fonds Geestelijke Volksgezondheid.

References

Patient characteristics and brief treatment outcome


