Chapter 6

Evaluation of an Intensive Treatment Program for Disrupted Patient–Staff Relationships in Psychiatry

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Published in Perspectives in Psychiatric Care, 2014, 50, 139-146
Abstract

**Purpose:** Some patients in psychiatric treatment are considered extremely difficult to treat because of the disruptive nature of their relationships with treatment staff. In this paper we describe and evaluate a specialist inpatient treatment program for these patients.

**Design and Methods:** Data were collected from medical records and daily reports of patients (N=108). Pre-test – post-test measurements were used to evaluate the treatment.

**Findings:** The main treatment method consists of the provision of safety, structure and cooperation. Treatment results show statistically significant changes from admittance to discharge.

**Practice Implications:** The collaborative and consistent manner in which nurses approach the patients is crucial for quality of care.
**Background**

Some patients undergoing psychiatric treatment are extremely difficult to treat because of their disrupted relationships with treatment staff. Most of these patients suffer from severe mental illnesses and many of them are admitted and/or treated against their will because they endanger themselves or others. Often they have multiple and complex problems and needs which cannot be met fully by staff, for example severe self-harming and suicidal behaviour, threatening or actual aggression, and disruptive psychotic behaviours.

Staff often have trouble dealing with these patients and treatment may end prematurely and on an unsatisfactory note. In such cases, the relationship between patient and staff is disrupted and their cooperation may end despite the patient’s continuing psychiatric problems and need for care. When these patients are found too complicated to treat, they may be referred to another healthcare setting or receive no treatment at all [1]. Their suffering continues and their distrust in the healthcare system increases, hampering each subsequent relationship with a healthcare provider [2]. Staff also pay a considerable price in terms of their own endurance and personal sense of well-being [3, 4]. Nurses, who have close contact with patients on the ward, are particularly vulnerable. The literature reveals a lack of effective treatment options for patients engaged in disrupted patient-staff relationships [1]. Current intervention strategies focus predominantly on setting limits and providing a clear treatment structure, and on assuming a validating attitude toward the patient [1]. However, none of these interventions have been subject to empirical investigation.

In the Netherlands, patients who are in a severely disrupted relationship with treatment staff can be referred to special Centres for Intensive Treatment (CIT). The CITs describe their target group as follows: “The untreatable patient’s interaction with his or her surroundings is so problematic that it threatens to disintegrate the system to which the patient belongs” [5]. Recently, a qualitative study examining the experiences of patients treated at one CIT was published [6]. The patients all mentioned structure, cooperation and safety as the main components of treatment. All but two (N = 12) reported that their anxiety and aggression had decreased and that their confidence had increased by the end of their treatment at the CIT. In the present article we describe the specialist treatment
program of one of the three CITs in the Netherlands. We specifically highlight the role of staff (mostly nurses) in the treatment process. We also describe the specific characteristics of patients referred to this centre. Finally, we evaluate the CIT’s treatment results.

Methods

Treatment program: Referral and admission

Patients are referred to a CIT by the mental health care centre treating them when the centre deems the patient-staff relationship to be severely disrupted. There may be several reasons for this disruption, the most common being severe aggression, severe self-harming and suicidal behaviour, persistent and disruptive psychotic behaviour, combined with discord within the treatment team. Many of these patients are admitted to the mental health centre involuntarily under a legal order. As a result, many patients resist treatment and refuse to cooperate. Seclusion and restraint are commonly used interventions for regulating disruptive behaviour, sometimes leading to long-term seclusion as the situation becomes more and more disruptive.

When patients are referred to a CIT, a number of different options are possible: admission, rejection, consultation, and referral to another centre (e.g. a forensic institution). On a yearly basis, about 75 patients are referred to the CIT. An average of 60% are admitted and 13% are rejected. In some cases, consultation is offered (the patient stays where he/she is being treated) and some patients are referred to other centres [7]. There is always a waiting list of about ten patients for admission to the CIT; the average time from referral to admission is two to three months.

Patients are admitted to a CIT on a temporary basis and return to the referring centre as soon as the treatment goals have been achieved. These goals are determined by the referring centre and the CIT together and concern (a) relieving the referring team, (b) diagnostics (c) treatment, and (d) assessment of long-term treatment options. The CIT that is the focus of this study has a closed ward, an open ward and an outpatient clinic. This study only concerns the closed ward, which treats a maximum of seventeen patients at a time. The CIT has a large multidisciplinary team, see Table 1. The nurses only work on the closed ward; the other disciplines also work on the open ward and in the outpatient
Clinic. Compared to regular psychiatric treatment settings, CITs have a larger budget, based on their specialist function. The premium per bed per day is around € 500.

Table 1: Number and full-time equivalent of multidisciplinary treatment staff

<table>
<thead>
<tr>
<th>Function</th>
<th>Number</th>
<th>Full-time equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental health nurses</td>
<td>29</td>
<td>24.6</td>
</tr>
<tr>
<td>Occupational therapists</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>Physician</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Psychologists</td>
<td>3</td>
<td>2.8</td>
</tr>
<tr>
<td>Psychotherapists</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>Social worker</td>
<td>1</td>
<td>0.6</td>
</tr>
</tbody>
</table>

The CIT setting has many facilities meant to ensure safety, see Table 2.

Table 2: (Safety) facilities at CIT

- Single patient rooms equipped with private toilet and shower
- Two large living rooms
- Fire-alarms throughout the building
- Personal alarm for staff for unsafe situations
- Staff skilled in managing aggressive and threatening situations
- Professional security team of the mental health centre which can be requested to give assistance

Treatment philosophy

The aim of the CIT treatment program is to change how things were done in the past. Almost all patients referred to a CIT are already in long-term treatment, and that has not yielded the desired result. The conventional and sometimes evidence-based treatment protocols do not work in these specific cases. Previous treatment appears to have failed mainly because of the patient’s disruptive behaviour and disrupted therapeutic relationships. It is therefore the disruption that needs to be addressed first. Once the disrupted relationship has been stabilized, more attention can be given to treating the psychiatric disorder and related psychosocial problems. Since there is no formal treatment for disruption, CIT has developed a special intervention program for these patients. The underlying treatment philosophy is based on many years of experience working with disrupted treatment situations. Patients admitted to a CIT typically appear
to have an unresolved attachment style [8]. In an unresolved attachment style, the attachment figures in the past were often violent and fearsome. Instead of being protective and caring, they caused fear [9]. As a consequence, the patient’s distrust in other people hinders constructive emotional bonding and social interaction, in which effectively controlling the distance from others and the availability of the other are crucial.

Treatment approach
The treatment provided by the CIT is based on attachment theory [10], and relationship management [11]. Patients are seen as adults, responsible for their own behaviour. They are not punished or blamed for their problem behaviour, but are asked to explore how that behaviour disrupts their relationships with other people. Elements of cognitive behavioural therapy are introduced by replacing maladaptive coping styles with more adaptive coping styles. Because of their 24-hour presence and availability, nurses play an extremely important role. How they respond to the patient’s behaviour is crucial: in their words as well as in their conduct, they must make the patients aware of the consequences of their behaviour. For instance, when a patient runs around the ward shouting and cursing, the nurses order him to stop because his behaviour is frightening other people around him. The nurse makes it clear that she is prepared to listen to the patient because it is obvious that the patient wants to communicate something. But the patient has to stop his disruptive behaviour before the nurse will take any steps toward communicating with him. The basic attitude of staff is non-vindictive; they offer the patient a clean slate every day, even after incidents. One example is when a patient has harmed herself severely. She has a deep wound in her left leg, which requires 16 stitches. She cannot explain why she needed to harm herself; she only knows she has to go on harming herself because “it is not done yet.” The nurse decides to strip the patient’s room of all possible sharp objects, to lock the patient’s bathroom and wardrobe, and to put her under close surveillance. The nurse explains to the patient why he has taken these measures, and that is mainly for safety reasons. The next morning, the nurse discusses the situation with the patient and when the urge to harm herself has diminished, the patient’s room is restored. Essential elements of the interaction are safety, structure and cooperation [6]. These three aspects
are closely interwoven: for example, safety can be attained by working together effectively; and safety is needed in turn to achieve mutual cooperation. Furthermore, providing structure facilitates both safety and working together. In practice, safety can be achieved for patients and staff by setting and maintaining limits.

**Treatment organization**

In most cases the patient has displayed disruptive behaviour for many years and it takes time for them to realize that this behaviour has to change before they can restore interpersonal relationships. Most CIT patients are admitted involuntarily and are not (at first) willing to cooperate. At the start, most of them try hard to continue their challenging behaviour and some even behave more extremely in the first stage of treatment. Consistent and unambiguous conduct is an important component throughout the whole treatment, but that is especially true for nurses in this initial period. Each patient has a personalized treatment plan, describing concrete treatment goals and how to achieve them. Safety (for the patient and the other people on the ward) is an important goal in any plan. The plan describes what constitutes safety in behavioural terms and what the patient and staff can do if their safety is threatened. These rules are enforced strictly. Patients are consistently encouraged to work together, mostly by increasing their privileges, e.g. going out without the direct supervision of nurses. Step by step, patients are made more responsible for their behaviour as treatment proceeds. The treatment is divided into three phases. Safety and structure are the central elements of treatment in the first phase, while the second phase focuses on developing opportunities for cooperation. If the patient achieves a form of cooperation, he or she moves into the third phase, where the treatment of the psychiatric disorder can begin.

One essential part of the treatment program is to guide and invest in staff. The treatment staff at a CIT must be patient and persistent: most of the patients have limited trust in treatment staff, based on negative experiences in the past. Working with patients who (often) exhibit extreme behaviour can also be very difficult, especially owing to strong feelings of counter transference. Staff frequently feel irritation, powerlessness and frustration [12, 13]. CIT staff are aware of these feelings and place considerable emphasis on preventing counter transference reactions. They do so by holding weekly discussions
not only of the patient’s behaviour and treatment progress, but also of their personal reactions to patients. They pay special attention to ambiguity: does every member of staff react the same way? If not, they explore why, try to solve the lack of consistency, and discuss the need to act consistently in the future. Uncertainty about the treatment policy is the main reason for inconsistent interactions with the patient. In addition to this weekly consultation, nursing staff attend meetings twice a month where they can talk about their personal experience of aggression and other emotionally disturbing experiences with patients. The purpose of this meeting is to prevent them from bottling up these experiences, which would increase the risk of burnout. All staff members are furthermore subject to supervision and peer review once every six weeks.

Data collection
To describe the patients who were admitted to the CIT, data were collected from both medical files and daily reports. A quasi-experimental pre-test/post-test design was used to evaluate the treatment. For this evaluation, data was collected from medical files of 108 patients treated between 2005 and 2008. We used Routine Outcome Measurement (ROM) data, as well as data collected with a self-constructed instrument, i.e. the CIT instrument.

The study was approved by METiGG, the ethical review board of the mental health centre where the study was conducted.

Measures
The following data was collected from the medical files and daily reports: demographic data, (aggression) incidents, psychiatric diagnosis at discharge, length of stay at the CIT, and the nature of follow-up treatment after discharge from the CIT.

A literature search for an instrument to measure the outcomes of specialist treatment delivered by the CIT rendered no suitable instruments. The CIT thus developed a new ten-item instrument, including the following variables: psychopathology, (auto)aggression, medication, seclusion, suicidality, participation in therapy, privileges on the ward, social contacts, work/education, and leisure (see Table 3). A five point
Likert scale was used to score these items, a score of 1 indicating severe (or very frequent) problematic behaviour and a score of 5 indicating no problematic behaviour. Every six weeks, staff determined the CIT score for a patient on the basis of their recent observations.

We also used Routine Outcome Measurement (ROM) instruments to measure patients’ symptoms and functioning, including:

- The Clinical Global Impressions Scale (CGI) [14];
- The Global Assessment of Functioning Scale (GAF) [15];
- The Health of the Nation Outcome Scale (HoNOS) [16];
- The Symptom Checklist (SCL-90) [17];
- The Dutch Mental Healthcare Thermometer of Appreciation by Clients [18], which measures the patient’s appreciation of the care he or she has received (scale 0 – 10, a higher score indicating more appreciation).

The therapist completed the CGI, GAF and HoNOS upon admission, after six months, and upon discharge. The patient completed the SCL-90 at the same times. The Mental Healthcare Thermometer was completed only upon discharge.

Table 3: CIT instrument

<table>
<thead>
<tr>
<th>Symptom</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychopathology</td>
<td>Extremely disruptive</td>
<td>Severely disruptive</td>
<td>Clearly disruptive</td>
<td>Slightly disruptive</td>
<td>Not disruptive</td>
</tr>
<tr>
<td>(Auto) aggression (safety)</td>
<td>Several times a week</td>
<td>≤ 1 x per week</td>
<td>≤ 1 x per month</td>
<td>≤ 1 x per quarter</td>
<td>Never</td>
</tr>
<tr>
<td>Use of medication (safety)</td>
<td>- Substantial and continuous abuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Compulsory medication</td>
<td>Substantial, weekly abuse</td>
<td>Monthly abuse</td>
<td>Occasional abuse</td>
<td>- Use according to prescription</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- No medication</td>
</tr>
<tr>
<td>Seclusion</td>
<td>24 hour seclusion</td>
<td>Enforced by the staff</td>
<td>Indicated by the staff</td>
<td>On own request</td>
<td>None</td>
</tr>
<tr>
<td>Suicidality</td>
<td>Very high</td>
<td>High</td>
<td>Average for the population</td>
<td>Low</td>
<td>Absent</td>
</tr>
<tr>
<td>Participation therapy (cooperation)</td>
<td>Not able to maintain a conversation</td>
<td>Able to maintain short conversations with one person</td>
<td>Therapy with minor interaction</td>
<td>More interaction and insight</td>
<td>Active cooperation with reflection</td>
</tr>
<tr>
<td>Ward</td>
<td>Closed ward, no privileges</td>
<td>Closed ward, privileges under supervision</td>
<td>Privileges with mutual agreement or open ward</td>
<td>Weekend outside the clinic</td>
<td>Regularly in own home</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------</td>
<td>---------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Social contacts</td>
<td>Extremely disturbed</td>
<td>Severely disturbed</td>
<td>Clearly disturbed</td>
<td>Slightly disturbed</td>
<td>Not disturbed</td>
</tr>
<tr>
<td>Work or education</td>
<td>Not able to work</td>
<td>Simple activities under supervision</td>
<td>Less supervision necessary ≤ two hours</td>
<td>Half a day a week</td>
<td>≥ half a day a week</td>
</tr>
<tr>
<td>Leisure</td>
<td>None</td>
<td>- Initiated by others</td>
<td>Little own initiative, boredom does not lead to action</td>
<td>Regularly uses own initiative, boredom is solved by person her/himself</td>
<td>Useful, autonomic activities</td>
</tr>
</tbody>
</table>

Data Analysis

All the data was processed using SPSS version 17 for statistical analysis. To compare pre-test and post-test scores, paired-samples T-tests were applied for normally distributed variables and Wilcoxon signed-ranks tests for non-normally distributed variables. Effect sizes were expressed in r [19].

Findings

Demographic characteristics

A total of 108 patients were treated and discharged during the study period: 53 men and 55 women. The average age of these patients was 31.5 (range 19-59); most of them (64%) were younger than 35 years. The majority of the patients were single (86%) and childless (80%). Almost half of the patients included had primary education only (47%). About 85% of the patients were admitted to the CIT involuntarily.

Diagnosis

On axis I of the DSM IV [20], 53% of the respondents were diagnosed with schizophrenia, schizoaffective disorder or another psychotic disorder. About one third of the patients (34%) were diagnosed with a substance-abuse disorder. On axis II, approximately one third of all patients suffered from a borderline personality disorder.
(30%), whereas 20% were diagnosed with a personality disorder NOS (not otherwise specified) and 14% with an antisocial personality disorder.

In many cases patients had more than one diagnosis: 34% of the respondents had two diagnoses on axis I, and 5% had three diagnoses on this axis. Two diagnoses on axis II could be observed in 5% of the cases. More than half of the patients (52%) had diagnoses on both axes. One third of the patients had a diagnosis on axis III. On axis IV, most problems were registered within the primary support group (75%). Furthermore, many problems existed within the patients’ social environment (22%) and in their housing (20%). On axis V, the average GAF score upon admission was 32.7 points (SD 11.6; range 10-60).

**Incidents**

Incidents are closely monitored on the closed CIT ward. We registered an average of 2674 incidents per year during the period 2005 – 2008. This is an average of 55 incidents per patient, and 157 incidents per bed. Almost all patients behaved aggressively in one way or another, but about half of the patients included were responsible for the high number of incidents. Most of these incidents concerned verbal aggression and physical aggression towards property. Detailed information about incidents can be found in Table 4: types of incidents per year.

<table>
<thead>
<tr>
<th>Type of aggression</th>
<th>Verbal aggression</th>
<th>Threatening with aggression</th>
<th>Physical aggression towards others</th>
<th>Physical aggression towards property</th>
<th>Deliberate self-harm</th>
<th>Suicide</th>
<th>Sexual intimidation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1166</td>
<td>190</td>
<td>280</td>
<td>681</td>
<td>343</td>
<td>1</td>
<td>22</td>
<td>2611</td>
</tr>
<tr>
<td>2006</td>
<td>1451</td>
<td>207</td>
<td>298</td>
<td>649</td>
<td>252</td>
<td>1</td>
<td>8</td>
<td>2866</td>
</tr>
<tr>
<td>2007</td>
<td>895</td>
<td>135</td>
<td>146</td>
<td>662</td>
<td>209</td>
<td>-</td>
<td>10</td>
<td>2057</td>
</tr>
<tr>
<td>2008</td>
<td>1856</td>
<td>175</td>
<td>200</td>
<td>652</td>
<td>270</td>
<td>-</td>
<td>23</td>
<td>3165</td>
</tr>
<tr>
<td>Average</td>
<td>1342</td>
<td>177</td>
<td>231</td>
<td>661</td>
<td>269</td>
<td>.5</td>
<td>16</td>
<td>2674</td>
</tr>
</tbody>
</table>
Length of treatment, treatment continuation and appreciation of patients

The average length of treatment was five months ($M = 5.4$ month, range 1 - 16). Half of the patients (54%) stayed at the CIT an average of three to four months. Female patients stayed significantly longer than male patients: females ($M = 6.4$, $SD = 3.9$) and males ($M = 4.3$, $SD = 1.9$), $t (80.8) = -3.5$, $p = .001$ (two-tailed). Twelve patients (11%) went to live at home after discharge. Almost 80% returned to the referring centre. Two persons committed suicide during treatment at the CIT and eight persons continued their treatment elsewhere, mostly in a centre other than the referring centre. At discharge, 58 patients completed the appreciation scale (the Mental Healthcare Thermometer of Appreciation by Clients). They gave a mean score of 6.7 ($SD: 1.48$; range 1-10), indicating that they were generally satisfied with their treatment at discharge.

Treatment results

Paired-samples t-tests were conducted to evaluate the treatment results for CIT score, SCL-90 and HoNOS. The results show a statistically significant difference between admission and discharge for CIT scores ($t = -5.48$, $df = 61$, $p<.001$, $r = .46$), SCL-90 ($t = 4.58$, $df = 36$, $p <.001$, $r = .61$), and HoNOS ($t = 3.16$, $df = 82$, $p = .002$, $r = .33$). The pre-test and post-test differences in CIT and HoNOS scores indicated a medium effect size, and the differences in SCL-90 scores a large effect size. Wilcoxon signed ranks tests were conducted to evaluate the results for GAF and CGI. Both scales showed a significant change in the patients’ functioning: GAF: $z = -4.97$, $p <.001$, $r = .35$ and CGI: $z = -4.75$, $p <.001$, $r = .33$; both indicated a medium effect size (Table 5).

Table 5: Pre-test/post-test measurements, Paired-samples t-test and Wilcoxon signed ranks test

<table>
<thead>
<tr>
<th></th>
<th>$N$</th>
<th>Pre-test $M$</th>
<th>$SD$</th>
<th>Post-test $M$</th>
<th>$SD$</th>
<th>Test statistic</th>
<th>$p$</th>
<th>$r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITscale</td>
<td>62</td>
<td>26.34</td>
<td>4.71</td>
<td>29.18</td>
<td>5.09</td>
<td>$t = -5.48$</td>
<td>.000</td>
<td>0.46</td>
</tr>
<tr>
<td>SCL-90</td>
<td>37</td>
<td>227.32</td>
<td>84.67</td>
<td>182.65</td>
<td>77.57</td>
<td>$t = 4.58$</td>
<td>.000</td>
<td>0.61</td>
</tr>
<tr>
<td>HoNOS</td>
<td>83</td>
<td>17.22</td>
<td>6.55</td>
<td>15.17</td>
<td>6.15</td>
<td>$t = 3.16$</td>
<td>.002</td>
<td>0.33</td>
</tr>
<tr>
<td>GAF</td>
<td>104</td>
<td>32.66</td>
<td>11.63</td>
<td>37.47</td>
<td>10.71</td>
<td>$z = -4.96$</td>
<td>.000</td>
<td>0.35</td>
</tr>
<tr>
<td>CGI</td>
<td>93</td>
<td>5.33</td>
<td>.993</td>
<td>4.73</td>
<td>1.17</td>
<td>$z = -4.75$</td>
<td>.000</td>
<td>0.33</td>
</tr>
</tbody>
</table>

Notes:
A higher score in the CIT-scale and the GAF represents improved functioning; for the other scales, higher scores represent increased symptomatology / problems
Discussion
The results of the CIT treatment are positive: the patients improved significantly and they generally appreciated their treatment. There has been no systematic investigation as to whether these results will be retained and for how long. Regular contact with referring services, however, suggest that about half of the patients who have been treated successfully retain their new behaviour for a considerable period of time. The results of this study show that CIT treatment can be beneficial in situations of severely and long-term disrupted patient–staff relationships. Creating and maintaining a constructive relationship with the patient is the main focus of treatment. Of special interest is the role of nurses and how their attitude and interventions influence the disruptive behaviour. This is in line with Dawson and MacMillan’s principles of Relationship Management [11]. They described how the relationship between patient and staff can aggravate the patient’s problems, especially for those with borderline personality disorder. Treating the patients as responsible, competent persons leads to patients who are more in control of and responsible for their own treatment [11]. The aim of treatment at the CIT is for the patient to understand the importance of the quality of the relationship and, once that is understood, to create conditions in which the patient can reclaim responsibility and control. This concerns all patients and not only those diagnosed with a borderline personality disorder. The positive change in functioning is confirmed by the patients’ awarding an appreciation score of almost 7 for their treatment. Given that almost all the patients in this study were admitted to the CIT involuntarily, this is a remarkably positive score.

Disruption in a relationship is a problem created by all the parties in that relationship. The CIT treatment program focuses on both patient and staff behaviours that contribute to the disruption. Nurses and other staff members need advanced interactive and reflective skills to be able to look at their behaviour critically and adapt their professional behaviour to every situation that they encounter in clinical practice. Based on this study, we cannot conclude that disruptive behaviour can be completely ruled out or that such behaviour will not reappear. The patients still suffer from severe mental
illnesses and they remain extremely vulnerable when they return to the centre which referred them. An effort is made to continue each patient’s treatment by inviting nurses at the referring hospital to the CIT for an eight-hour visit on the ward. This allows them not only to communicate about disruption but also to experience the CIT method for themselves.

Treatment at a CIT is more expensive than regular treatment. There are two other specialist treatment settings for the relevant target group in the Netherlands and together they assist all general mental health centres in cases of severely disrupted relationships. The expenditure for patients with severe mental disorder is high, but it leads to a better quality of care and a better quality of life for these vulnerable patients.

One limitation of this study is that we were unable to compare our findings with the scores of control patients. The target group of our study is composed of patients with extremely challenging behaviour, and it was impossible to find a natural control group. Even the other two CITs differ in several ways from the CIT where our study was carried out: one CIT focuses especially on patients with psychotic disorders and the other CIT on patients with personality disorders. Each CIT also has its own treatment philosophy and program, which makes it difficult to compare them. Furthermore, for ethical reasons patients suffering from a severe mental illness cannot be randomized to a non-treatment waiting list condition in a randomized controlled trial (RCT). Due to the absence of control patients, the results of this study should be interpreted with caution.

Some other limitations of this study should be mentioned here: the number of missing values is quite considerable on some measures. The CIT instrument was implemented at the end of 2005 and it took some time before all the team members were familiar with it. The relatively low number of SCL-90 scores was due to the fact that only some of the patients were able to complete this list upon admission. Many patients were unable to concentrate on the questions at that point, or were confused by them. Others refused to fill in the list. This may have led to selection bias, and the results concerning psychopathology should therefore be interpreted with this limitation in mind. Rater bias is another form of bias that must be considered: the therapist who rated the instruments may expect a certain outcome as a result of the therapy given.
Another limitation is the use of a non-validated measuring instrument, i.e. the CIT instrument. Despite the limitation concerning its validation status, the CIT instrument has a high score on face validity and covers the most important disruptive behaviours of our target group. To compensate for this limitation, we used other well-validated instruments commonly applied in the Netherlands to measure outcomes in psychiatry. Positive results were observed for these instruments too. Overall, despite the methodological limitations, we consider these results promising.

**Conclusion**

This study of disruptive patient behaviour demonstrates that most of the patients in question can be treated successfully and that their functioning can be improved by targeting the relationship as the primary focus of treatment. Whether and how long these results are retained is a subject for further investigation.

**Implications for Nursing Practice**

Competent and powerful nurses are needed to treat patients who suffer from a severe mental illness and who exhibit seriously disruptive behaviour. This means that nurses need to be firmly grounded in life and must be resilient in dealing with the stressful situations they encounter in their work. All nurses who work at the CIT are selected for these qualities. They are trained in special skills related to prevention and to dealing with aggressive and other problem behaviour. Their training also focuses on interactive skills, with special attention going to effective listening and communicating based on the principles of solution-focused therapy. Supervision, provided by a supervisor who is not connected to the CIT, is extremely important to the nurses: here, they can talk about their experiences with patients and about the difficulties that they encounter in their work with both fellow nurses and other colleagues. They can express their emotions, but also discuss their own role in the emergence of disruptive behaviour. It often takes a long time before these patients are able to change their behaviour, so nurses need a lot of patience and persistence in their work. On the other hand, when treatment is successful, nurses contribute significantly to the quality of life of these vulnerable patients.
References


