

## Collaborative Care for Patients With Severe Personality Disorders: Analyzing the Execution Process in a Pilot Study (Part II)

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Borderline personality disorder, collaborative care, community mental health service, practice development, psychiatric nursing

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All authors declare no competing interests.

### Author Contributions

BS, BM, and BK: conception and design of the study, interpretation of the data, and revising the article critically for important intellectual content. BS: collection and analyses of data, drafting and revision of the article. PK: collection and peer review of the qualitative data, revision of the article. AK and AB: interpretation of the data and revising the article critically for important intellectual content. All authors have given final approval of this version to be published.

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**PURPOSE:** To examine the factors that influence the effective execution of a collaborative care program (CCP) for patients with severe personality disorders.

**DESIGN AND METHODS:** A multiple case study using qualitative research methods.

**FINDINGS:** Three factors were identified as influencing the execution process: (a) the context in which the CCP was executed, (b) the patient population, and (c) the individual application of the CCP by nurses.

**PRACTICE IMPLICATIONS:** The prominent position of mental health nurses in complex intervention programs such as CCPs poses new challenges for them in making these programs work. A CCP could be a useful intervention for patients with severe personality disorders because it offers the necessary structure in treatment.

Evidence-based intervention development and testing has been a research priority in mental health nursing. For the subgroup of patients with a severe personality disorder who do not (or no longer) have access to psychotherapy, we developed a collaborative care program (CCP) to improve the quality of care for these patients. Mental health nurses, who are responsible for these patients, are occasionally insufficiently equipped to deal with them owing to the absence of adequate treatment models and the lack of necessary knowledge and skills. There is an urgent need to improve the quality of care for these patients. Nurses play a prominent role within CCPs, being responsible for both the proper implementation of the CCP and the optimal organization of treatment. The CCP used in this study consists of several aligned structured interventions elaborated in a manual for professionals and patients (Stringer, Van Meijel, Koekkoek, Kerkhof, & Beekman, 2011). To the best of our knowledge, this CCP is the first designed specifically for patients with borderline personality disorder or personality disorder not otherwise specified (NOS). At this stage of intervention development and testing, insight into both the feasibility and the preliminary effects of this type of intervention is needed. We therefore combined quantitative and qualitative methods in a comparative multiple case study that examined both the outcomes and execution processes (Stake, 2006). In the accompanying research, published in this same journal (Part I), we presented the preliminary results and active ingredients of a CCP compared to care as usual (Stringer et al., 2014). In explaining the effects of a CCP using largely qualitative data, we identified three active ingredients: (a) improved goal orientation in treatment, (b) a stronger appeal to patients' self-management skills, and (c) improved skills in establishing and maintaining effective therapeutic relationships for all those involved. The present sub-study examines the process of executing the CCP in order to gain a better understanding of the factors that influence its effective execution. Making this process the subject of our study gives us the opportunity to learn how composite intervention programs could be implemented most effectively in nursing practice. The following research questions have been formulated:

- To what extent is the CCP executed in clinical practice?
- Which factors facilitate or impede execution of the program?

## Material and Methods

### Design

To achieve the objectives of this sub-study, we used only the qualitative data from our comparative multiple case study in order to understand the level of CCP execution and the factors influencing effective execution. A detailed description of the whole study protocol is published elsewhere (Stringer et al., 2011).

The research project was approved by the Medical Ethics Committee of the VU Medical Centre in Amsterdam, The Netherlands. All the participants signed for informed consent after receiving both oral and written information about the research project.

### Sample

This sub-study involved only those patients who had participated in the experimental condition. They were part of a Community Mental Health Care (CMHC) team at a large mental health organization in The Netherlands. Of this team, 16 patients aged between 18 and 65 were included. They all had a main diagnosis of borderline personality disorder or personality disorder NOS (DSM-IV-TR), with a score of 15 or higher on the Borderline Personality Disorder Severity Index (range 0–90) (Arntz et al., 2003; Giesen-Bloo, Wachters, Schouten, & Arntz, 2010). They had received psychiatric care for at least 2 years.

Ten nurses from the same CMHC team were included in the study. Participation was on a voluntary basis. Of the 10 original nurses, four changed jobs during the research period. Three new nurses began and picked up implementing the CCP where the previous nurses had left off. In the end, we were able to follow up on nine nurses.

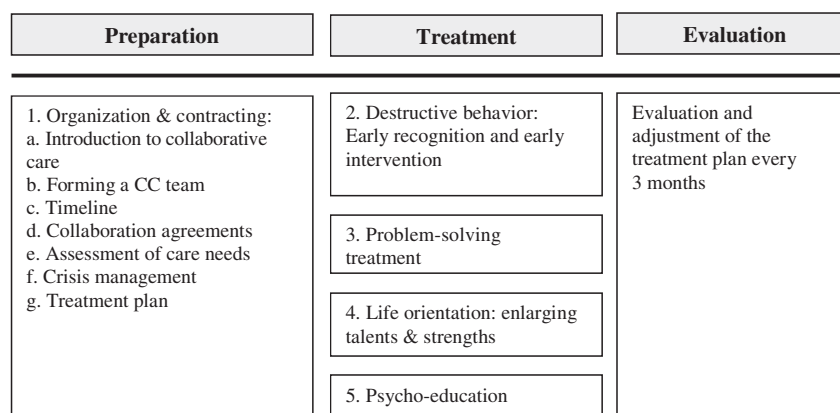
### The CCP

A detailed description of the content and aims of the CCP is provided elsewhere (Stringer et al., 2011). Briefly, the CCP consists of several components, divided into a preparation, a treatment, and an evaluation stage (Figure 1). Effective collaboration between patient, professionals, and informal caregivers is an important aim of the CCP. Within the CCP, a metaphor is used to illustrate collaboration between the patient and the nurse, that is, a “therapeutic road trip” in which the patient is the driver and the nurse the navigator (Jobes, 2006). Driver and navigator travel together, but it is the driver who has the deciding vote concerning the destination and how to get there (safely). This approach promotes both empowerment on the part of the patient and shared decision-making.

The *preparation stage* consists of seven activities (see Stringer et al., 2011) leading to the adequate organization and coordination of care, with optimal collaboration between the main partners, that is, the patients, their informal caregivers, the psychiatrists, and the nurses. This stage results in a shared treatment plan, based on care needs, options for effective crisis management, and mutual collaboration agreements.

The *treatment stage* consists of the following components:

- Early recognition of destructive behaviors (i.e., suicidal, self-harm, aggressive, or addictive behaviors) followed by



**Figure 1.** Content of the Collaborative Care Program

early interventions promoting self-management using a relapse prevention plan

- Application of problem-solving treatment (PST) to promote problem-solving skills
- Application of elements of solution-focused treatment to support a more positive life orientation
- Provision of psycho-education

In the *evaluation stage* of the CCP, all the partners involved evaluate the objectives and collaboration agreements described in the treatment plan every 3 months.

The CCP was elaborated in a workbook for patients and a separate manual for nurses. With an expert panel, consisting of several coauthors (BM, BK, BS), two clinical nurse specialists, a nurse scientist, and a lay expert, the concept versions of both the workbook and the manual were discussed and adapted. The preparation stage had prescribed activities, whereas the various components of the treatment stage could be applied flexibly, depending on priorities in terms of unmet needs, the patient's preferences, and previous experiences. The assumption was that single treatment interventions applied during the 9 months of the research period may have also produced good results. Before the actual start of the research period, the 10 nurses attended a 3-day training course on the CCP and the necessary skills. The three new nurses received individual training later, which was provided by the first author (BS). During the research period, the nurses received monthly supervision, also provided by the first author.

### Data Collection

To investigate the actual execution of the CCP, the nurses filled out process forms in which they recorded the number of contacts and their content. Available treatment plans, crisis response cards, and/or relapse prevention plans, all of which were derived from the electronic health record, provided additional information about the actual execution of the program per case.

Additionally, individual in-depth interviews with nurses and patients were carried out. There were interviews with all the participating nurses ( $n = 9$ ) 9 months after the start of the intervention; the interviews concerned one of the participating patients. There were also interviews with all these patients (except one who was lost to follow-up) 9 months after the start of the intervention ( $n = 8$ ). The interviews with the nurses were conducted by a research assistant (PK), and the interviews with the patients by the first author (BS). All the interviews were audio-taped. The interviewers used a list of topics referring to the implementation aspects of the various CCP components. The nurse or the patient was asked to answer two questions about each topic: (a) how well were these components executed and (b) what factors impeded or facilitated their execution.

The supervision sessions were audio-taped and used as qualitative data in order to identify factors that impeded or facilitated effective execution of the program.

### Analyses

In line with the multiple case study design, we first developed single case descriptions by performing a content analysis of all qualitative interviews with nurses and patients, which had been audio-taped and transcribed verbatim. These single case descriptions revealed the intervention process at individual case level and identified facilitating and impeding factors. With regard to the transcriptions of the supervision sessions, we identified recurring predominant themes referring to problems with the individual application of the CCP. We then used the aggregated qualitative data of the single case descriptions and supervision sessions to analyze these factors at group level.

Second, we assessed the actual execution of the various components of the CCP based on the process forms and these single case descriptions. We used four gradations of execution in this assessment:

++: Component was optimally executed and concrete proof was available in the form of worksheets and documents taken from the electronic health record and/or process forms. Actual execution was confirmed by statements made by the patient and nurse during the interviews

+: Component was appropriately executed and proof was available; process forms or statements made by the patient and nurse during interviews

+/-: Component was moderately executed and little proof was available; statements made by the patient or nurse during interviews

–: Component was not executed or only to a very limited extent and proof was absent or scarcely available; statements made by the patient or nurse during interviews

The sum of optimally or appropriately executed components (range 0–12) was used as a measure of adherence to treatment, divided into three levels: 0–5 poor execution; 6–8 moderate execution; 9–12 good execution. The scoring was repeated by a second rater (PK) to assess inter-rater reliability. The intra-class correlation was .96 ( $p < .000$ ), indicating a very high inter-rater reliability.

The qualitative data were analyzed using ATLAS-TI qualitative text analysis software. The credibility and dependability of the data were ensured by peer debriefing among members of the research group and member checking, meaning that the single case descriptions were presented to the interviewees for feedback (Polit & Beck, 2003).

## Results

### Initial Acceptation of the Intervention

Of the 26 eligible patients, four patients were not included because the nurse had not granted permission to approach them owing to their presumed vulnerability. Two patients did not provide informed consent. Of the 20 patients allocated to the CCP, four patients dropped out during the program, but only one of these owing to a lack of confidence in the CCP. The CCP training course that the nurses in the experimental condition had participated in before the actual start was well received, with a mean appreciation score of 4 ( $SD$  0.9; scoring range 0–5) and a mean score of 6.5 ( $SD$  1.1; scoring range 0–10) for perceived competency in applying the CCP.

### Actual Execution of CCP

As shown in Table 1, the CCP was well executed in four cases (25%), with at least 9 of the 12 CCP components being rated as optimally or appropriately executed. In another five cases (31%), the CCP was rated as being moderately executed (six or seven components optimally/appropriately executed). In seven cases (44%), the CCP was rated as poorly executed. These patients were thus insufficiently exposed to the intervention, with a minimum of only two components of the CCP being well executed.

**Table 1.** Actual Execution of the CCP

Components/Cases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>Preparation</b>																
1a. Introduction	++	+	+	+	+	+	+	+	+	+	+	+	++	+	+	+
1b. Collaborative care team	+	+	+	–	–	+	–	+/-	+	–	–	–	–	+	+	++
1c. Timeline	+	+	+	+	–	+	+	+	++	+	++	+	++	+	–	++
1d. Collaboration agreements	+	++	+	–	–	++	–	–	++	–	–	+	++	++	+	++
1e. Crisis management	+	–	+	–	–	–	–	–	++	–	+/-	–	–	–	–	++
1f. Assessment of needs	++	+/-	+	+	–	+	+	+	++	–	+/-	+	++	+	+	++
1g. Treatment plan	–	++	++	+	+	++	+	+	++	+	+	+	++	+	+	++
<b>Treatment</b>																
2. Early recognition of and intervention in destructive behavior	–	++	+/-	–	–	++	–	–	++	–	–	–	++	–	–	+/-
3. Problem-solving treatment	+/-	+	–	–	–	+	–	–	+	–	–	–	++	–	–	–
4. Life orientation	+/-	++	+/-	+/-	–	+/-	–	–	+/-	–	–	–	+	–	–	–
5. Psycho-education	–	+	–	–	–	–	–	–	+	–	–	–	–	+	–	+
<b>Evaluation</b>																
Treatment plan	–	+	–	–	–	+	–	–	–	–	–	–	+	–	+	–
Total "treatment adherence"	6	10	7	4	2	9	4	4	10	3	3	5	9	7	6	7

++ Component was optimally implemented; worksheets, documents from the electronic health record and/or process forms as proof.

++ Component was optimally implemented; worksheets, documents from the electronic health record and/or process forms as proof.

+/- Component was moderately implemented; statements in interviews with patient or nurse as proof.

– Component was not or scarcely implemented; no proof available or statements in interviews with patient and nurse as proof.

CCP, collaborative care program.

### Influencing Factors for Effective Execution of CCP

Based on the aggregated qualitative data taken from the interviews and supervision records, three factors could be identified that influenced effective execution of the CCP:

- Factors related to the context in which the CCP was executed
- Factors related to the patient population
- Factors related to the individual execution of the CCP by the nurses

The following section will elaborate these factors one by one. They are summarized in Table 2.

*Context of CCP.* During the nurses' supervision sessions, they shared their experiences working with the CCP and were given guidance on applying the various CCP components, for example, maintaining effective therapeutic relationships. This increased their basic knowledge and skills regarding the treatment of patients with severe personality disorders, in particular specific skills related to the application of the CCP. Consequently, the supervision sessions facilitated accurate execution of the CCP. In the beginning, an average of only three nurses attended the supervision sessions owing to their heavy workload. Attendance increased after the supervision sessions were made obligatory halfway through the research period. Although CCP training was well received, the time between the training course and the actual start of the CCP was lengthy due to a delay in including patients. As a result, the acquired knowledge and skills had faded and the nurses

felt less confident regarding the application of the CCP, impeding effective execution. The initial supervision sessions were therefore used as booster sessions for reviewing the key elements of the CCP.

With regard to multidisciplinary collaboration, nurses reported a need for more support from their colleagues in other disciplines, in particular to help them assess and treat chronic suicidal or self-harm behaviors. Three nurses in particular experienced high levels of work-related stress caring for their most severely ill patients. As a result, they could not make progress executing the CCP because they found it impossible to create a workable treatment climate. All their efforts went into minimizing the damage and risk, and they were unable to progress beyond the stage of crisis management.

Other issues affecting the work alliance were often put forward in supervision sessions and concerned the "therapeutic road trip." These included "How should I act if I, as the nurse, am kicked out of the car?" and "What if the patient just stops the car?" On the one hand, frequent no shows and ambivalence toward treatment raised questions about when treatment could or should be ended. On the other hand, similar questions about the added value of continuing treatment arose when patients claimed frequent contact while simultaneously expressing an extremely passive or dependent attitude. In at least five cases, effective execution was delayed because time was needed to find a suitable response to these issues. In line with the therapeutic road trip, continued execution of the CCP depended on the motivation for treatment and the shared treatment goals.

**Table 2.** Summary of Impeding and Facilitating Implementation Factors

	Impeding	Facilitating
1. Context	<ul style="list-style-type: none"> <li>• Time between training and actual start of CCP</li> <li>• Limited attendance during supervision sessions</li> <li>• Insufficient multidisciplinary background and support for CCP</li> </ul>	<ul style="list-style-type: none"> <li>• High acceptance rate of CCP project</li> <li>• Well-received CCP training</li> <li>• Eagerness to acquire knowledge and skills with regard to the specific patient population</li> <li>• Sufficient perceived competency in applying CCP in advance</li> <li>• Supervision sessions boosted generic and specific skills regarding the execution of CCP</li> </ul>
2. Specific features of patient population	<ul style="list-style-type: none"> <li>• Limited autonomy and self-management</li> <li>• Cognitive problems</li> <li>• Limited responsiveness to change leading to demoralization</li> <li>• Dependency on MHC</li> </ul>	<ul style="list-style-type: none"> <li>• Strong will to survive</li> <li>• Highly motivated to participate in CCP project</li> </ul>
3. Individualized application of CCP by nurses	<ul style="list-style-type: none"> <li>• Unaccustomed to working according to protocol</li> <li>• Uncertainty regarding the new intervention</li> <li>• Problems in adjusting the protocol to the individual patient</li> <li>• Risk of demoralization</li> <li>• Poor agenda setting</li> <li>• Reluctance to address serious problems</li> </ul>	<ul style="list-style-type: none"> <li>• CCP provided necessary structure</li> <li>• Improvement of generic skills in treatment of target population</li> <li>• "Therapeutic road trip"</li> <li>• Positive evaluation of increased collaboration with stakeholders</li> <li>• Endurance</li> <li>• Creativity</li> <li>• Eclectic workstyle</li> <li>• Higher educational level</li> </ul>

CCP, collaborative care program; MHC, mental health care.



*Specific Features of the Patient Population.* The patient population for which the CCP was developed can be described as having a strong will to survive despite long suffering. However, the patient population also had several other features which complicated effective execution.

First, presumed incapacities on the part of patients to work according to the CCP were mentioned repeatedly during the supervision sessions and interviews. Some of these incapacities were related to the “therapeutic road trip.” Questions that arose were: “Does every patient have a driver’s license?” or “Is each patient at least able to get one?” or “Is it safe for this patient to drive?” and “What if it is not safe?” The CCP relies on the patients’ autonomy and responsibility, but there were questions about how to apply the CCP when patients could not handle this autonomy or responsibility. This was particularly the case for five patients with severe cognitive problems and low IQ. In addition to the autonomy dilemmas, their severe cognitive problems also had a negative impact on concentration, memory, and understanding. This impeded the execution of the CCP because the information provided had to be repeated frequently, but the patients nonetheless did not receive that information well or complete their homework.

A second related problem was that several patients expected their nurses to solve all their problems: they “forgot how to drive” or they had no idea “where to go or how to get there.” After many years of treatment, they were rooted in the mental healthcare system and heavily dependent on it. As a result, they had unlearned the skills needed to take responsibility for their own lives and to cope with daily problems. Again, the emphasis on self-management skills in the CCP might have overtaxed some of these patients.

Third, patients were prone to feeling demoralized. Patients reported that the occurrence or burden of several core features of their borderline personality disorder diminished over time, for example, acting out, avoidance of/withdrawal from relationships, and lack of stable support. However, they considered the remaining symptoms—such as affect instability, emptiness, chronic suicidal behaviors, and severe social problems—as difficult to cope with and less responsive to change. As a consequence, they became demoralized, and this impeded effective execution in cases where patients did not expect the CCP to change anything. Moreover, during the supervision sessions, some nurses reported being infected by this demoralization themselves.

*Individualized Execution of CCP by the Nurses.* On the one hand, nurses were positive about the intervention itself and considered several components of the CCP “effective” and “helpful.” They reported that it provided necessary structure to the treatment process and that it allowed them to train relevant skills for effectively treating patients with severe personality disorders. The nurses found the “therapeutic road trip” and the greater attention paid to goal orientation espe-

cially attractive. On the other hand, the participating nurses were not accustomed to working according to protocols for composite intervention programs such as the CCP. Five of them reported uncertainty regarding the execution of the CCP, partly because of the amount of time that had elapsed between their training and the start of the CCP. This seems inconsistent with their not or scarcely consulting the manual, which was intended to provide the necessary support when executing the intervention. It seems also inconsistent with their low attendance at the initial supervision sessions. It had been emphasized during the CCP training course and repeated during the supervision sessions that the various components of the treatment stage could be applied flexibly, depending on priorities in terms of unmet needs, the patient’s preferences, and previous experiences. Although the CCP offered a goal-oriented structure, it was up to the nurses to adjust this structure to the preferences and characteristics of each individual patient. Nurses and patients could together decide whether or not to execute certain interventions. Four nurses who had an eclectic workstyle were able to switch between and adapt components of the CCP to their patient’s needs, resulting in effective execution of the CCP. However, in several other cases, the adjustment process did not work out. Nurses confronted with highly complex patients considered the adjustment process difficult or too difficult, owing to problems in the therapeutic relationship itself, cognitive problems, crisis sensitivity, or demoralization. Moreover, some nurses reported feeling that their skills were inadequate to the task of properly applying PST and psycho-education.

Another challenge was the agenda setting: nurses reported that the repeated emphasis on goals had a positive effect on their ability to manage the treatment process, quite apart from strict execution of the CCP. However, occasionally, the nurses’ agendas were overruled by the everyday worries of their patients, for example, severe life events, discontinuity due to psychotic episodes or admissions to inpatient mental healthcare services, severe social problems, and high crisis sensitivity. It appeared to be highly complicated for nurses to relate these everyday problems to components of the CCP, which explains the limited execution of the components PST and life orientation. In two instances—a psychotic and depressive episode and subsequent admission of 3 months—impeded execution of the CCP was beyond their control.

Finally, in some cases, execution was impeded because the nurses were reluctant to address the core problems elaborated in the CCP. Occasionally, nurses reported feeling hesitant to discuss chronic suicidal ideation or behaviors because they feared triggering a suicidal crisis or disturbing an “agreeable” therapeutic relationship. Three nurses reported not feeling sufficiently competent to cope with crisis: they put heavy emphasis on preventing suicide instead of trying to understand the underlying distress and to refocus the patient to work at resolving life problems. As a result of this avoidance,

the CCP was inadequately executed with respect to drafting crisis response cards and relapse prevention plans combined with providing psycho-education. Another issue was that nurses did not always address the lack of progress in treatment because they feared disturbing “agreeable” therapeutic relationships. In several cases, however, after discussing their hesitations during a supervision session, nurses raised the core problems after all and achieved a breakthrough in the treatment.

## Discussion

The aim of this pilot study was to analyze the execution of a CCP for patients with severe personality disorders and to identify impeding and facilitating factors in this process. In 56% of the treatments, the CCP was moderately to well executed, as opposed to 44% of the treatments where the CCP was poorly implemented. Execution was most successful in the preparation stage, which was also the obligatory stage. We did not expect 100% execution in all cases because nurses had the opportunity to choose whether or not to apply single treatment interventions based on unmet needs and patient preferences.

In our study, we found a high initial acceptance rate for the project, as evidenced by the high percentage of patients granting informed consent and the low dropout rate in the experimental condition. CCP training was well received by nurses and their perceived competence was sufficient. Initial reluctance to address the core problems elaborated in the CCP was occasionally resolved during the supervision sessions. At the same time, we found several impeding factors. It is possible that we overtaxed some patients by appealing to their autonomy and self-management, and we can question whether a CCP is relevant for all patients. Some patients suffer from poor identity integration and ego-strength and require a more supportive treatment than a CCP might offer (Van Manen et al., 2012). Then again, we should not be too quick to attribute unsuccessful execution of the CCP to patient characteristics only because our findings also reveal that a number of nurses were, in certain respects, insufficiently able to manage the CCP as planned. As shown, four nurses with an eclectic workstyle were capable of executing the CCP properly. Owing to their creativity and patience, they were able to adjust the elements of the CCP to the capacities and needs of the patient. However, our research also revealed that other nurses had difficulty executing the CCP properly because they were unaccustomed to working according to a protocol, had difficulty adjusting this CCP protocol to the individual patient and adequately guarding the treatment agenda, and avoided addressing the core problems of patients in our target group. Simultaneously, nurses made limited use of the support provided (supervision sessions and manual). In the case of five of the nurses, we, and perhaps they, underestimated the knowl-

edge and skills required to apply the CCP adequately. Nonetheless, it could be argued that nurses need to be able to execute composite intervention programs in order to meet the specific problems and needs of the patient population. Many of these problems and needs belong (at least partially) to the nursing intervention domain, as they are related to living with the consequences of a chronic psychiatric illness. In addition, the current organizational structure of CMHC—with only limited availability of psychiatrists and psychotherapists owing to austerity measures and the shifting of duties to the nursing profession—makes it all the more urgent for nurses to be well equipped to execute complex composite intervention programs such as our CCP, which offer a response to the often complex problems of these patients.

This research project involved a comparative multiple case pilot study as a first step toward assessing whether a CCP can be an adequate treatment model for patients with severe personality disorders, in particular patients who are currently being treated at community mental health centers. The main strength of the comparative multiple case study design is that it allows highly structured and systematic evaluation of the execution of a CCP. Our sample was of a similar size to those of other studies concerning the same patient population (Amianto et al., 2011; Koekkoek et al., 2012).

This study also has a number of limitations that should be recognized. The first is the involvement of the primary investigator (BS), who developed the manuals, supervised the supervision sessions, interviewed the patients, and was leading in all analyses. To ensure the quality of the research, however, the following precautions were taken: an independent coauthor (PK) conducted the interviews with the nurses, the same coauthor peer-reviewed all the analyses (PK), the research group peer-reviewed the findings, there was an assessment of inter-rater reliability for scoring execution, and the interviewees provided feedback on single case descriptions (member checking). Second, including nurses on voluntary basis may have led to some bias, the implication being that they felt an affinity with the target population.

## Implications for Nursing Practice

The prominent position of mental health nurses in complex and composite intervention programs such as CCPs is relatively new, posing new challenges for them in making these programs work. This has consequences for the competence levels required of mental health nurses in terms of clinical reasoning, proper use of different theoretical frameworks, methodical execution of interventions, and adequate planning and coordination of care within multidisciplinary cooperation. Although challenging, the majority of the nurses in our study were able to execute the CCP. CCPs appear to be a useful intervention which, with the indispensable efforts of nurses and greater support by clinical specialists, offer the

necessary structure in which to care for these difficult-to-treat patients. However, the effectiveness of CCPs should be further tested in a randomized controlled trial.

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