Beneficial effect of brief intensive cognitive behavioural therapy-based psychiatric aftercare for early discharged non-psychotic patients

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ABSTRACT

INTRODUCTION: In Denmark, following psychiatric emergency admission, patients with depression, anxiety or personality disorders are discharged as early as possible due to pressure on psychiatric beds. However, the receiving outpatient units frequently have waiting time. The design of a brief, cognitive-based psychiatric aftercare service and the early treatment results are presented.

MATERIAL AND METHODS: This was a descriptive study of symptom levels before and after the individual therapy part of a new aftercare programme. The initial new intensive aftercare consisted of psychiatric consultations, telephone outreach and individual cognitive behavioural therapy-based therapy twice a week, in total five times. Focus was on collaborative goal setting and next-of-kin participation. Self-ratings (WHO-5 Well-Being Scale (WHO-5); Becks Depression Inventory-II (BDI)) were obtained at the first day and at end of individual therapy.

RESULTS: The self-ratings at discharge showed a high BDI rating in the patient sample (mean = 32.0 (standard deviation (SD): 11.9, n = 105)), and much lower well-being at discharge than previously seen in a comparable Danish setting (mean WHO-5 at onset = 5.6 (SD: 4.8, n = 102)). Ratings improved by the end of the individual therapy (i.e. WHO-5 = 8.3 (SD: 5.6; n = 102); BDI = 26.1 (SD: 12.3; n = 105)).

CONCLUSION: Symptom reduction was evident in the first period after discharge, and the patients were satisfied with the contents and format of the service. However, the results are preliminary as we lack data from a comparable patient group receiving no treatment or treatment as usual.

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As the number of psychiatric beds in Denmark has been reduced, patients with depression, anxiety and personality disorders in acute need of psychiatric treatment are often admitted only briefly for observation and initial treatment. However, the outpatient mental health units and primary sector psychiatrists, where treatment usually is continued, frequently operate with a waiting time. Thus, we often see patients discharged to low intensity follow-up by a general practitioner or by the discharging physician during the waiting period until specialized psychiatric and psychotherapeutic outpatient treatment is available.

A recent study of a one-year follow-up intervention for patients with depression showed that depressed patients are frequently discharged while still symptomatic [1, 2]. Likewise, a study of well-being at discharge from Danish psychiatric hospitals showed a rather low level of well-being in non-psychotic patients at discharge (WHO-5 in the 10-13 range, depending on diagnoses) [3]. In addition, it is well-known that the risk of suicide is at its highest during the first three weeks post-discharge and that half of the post-discharge suicides (i.e. within one-month of discharge) occur before the first psychiatric follow-up consultation [4].

In essence, the most acutely ill non-psychotic patients have very limited access to relevant services during the high-risk period following psychiatric discharge.

Equally alarming is the fact that we seem to lack evidence of the optimal organisation of post-discharge service for this moderate-severely ill, non-psychotic patient group [5, 6] . Research on the design of outpatient mental health service mainly covers patients with severe mental disorders, i.e. psychoses, or the prevention of suicide after previous suicide attempts. Studies of suicide prevention often only include patients not eligible for or enrolled at another mental health service unit [7].

Evidence-supported services for this patient group are psychological treatments, including cognitive behaviour therapy (CBT), regular telephone contact and active out-reach to support treatment adherence [6, 8]. Based on these elements, we created a transitional outpatient aftercare programme, which has presently been operational for more than a year. The programme was designed according to the discussion above to fill the gap between time of discharge and time of entrance into specialized psychotherapeutic or psychiatric outpatient units. Furthermore, it was considered possible that some of the patients would improve so rapidly that they would be able return to their primary care physician or a psychologist without referral for further mental health service treatment. The aim of the new aftercare programme was: 1) To keep patients under close observa-

tion for deterioration and risk of suicide. 2) To stabilize patients and alleviate symptoms and 3) To evaluate diagnoses and motivation for further treatment in the mental health service.

When the programme was designed, the major concerns were whether it would be possible to make the referral procedures efficient and achieve a very short/no waiting time, whether it would be possible to secure attendance and thus a satisfactory observation level and, finally, whether the patients would consider only five individual psychotherapy sessions meaningful. The target group and the contents of the first part of the programme are presented, as well as symptom ratings and patient satisfaction scores.

MATERIAL AND METHODS

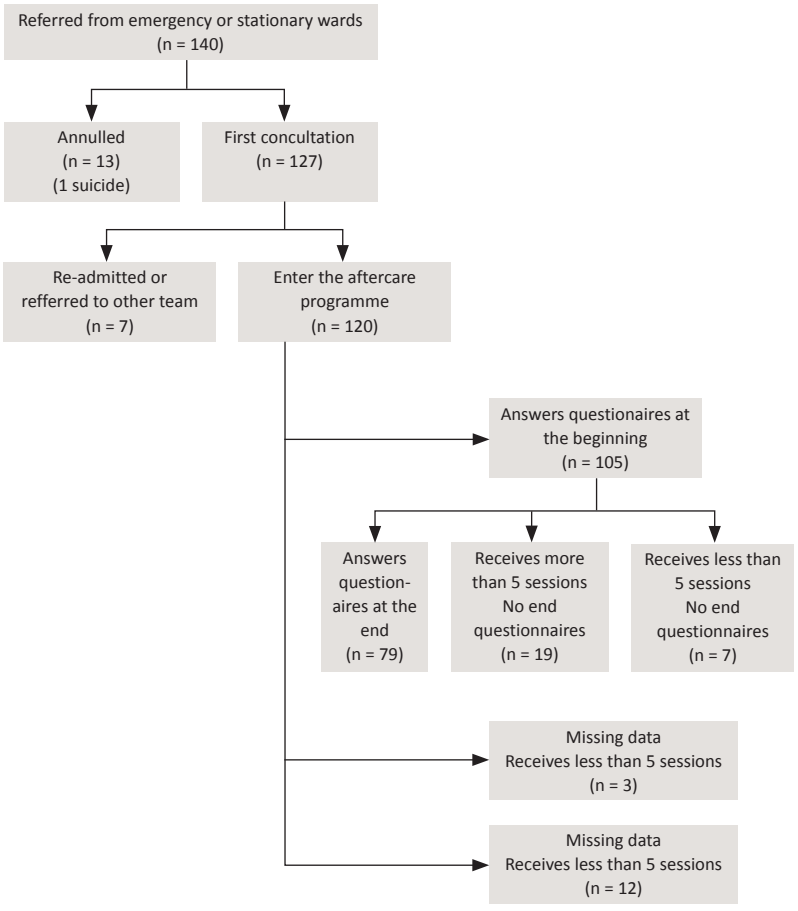
Participants

The study included 140 adult patients consecutively referred to intensive psychiatric aftercare service from 23 November 2010 to 23 September 2011. Patients were eligible for the aftercare programme if they had been hospitalized for at least one night in the psychiatric emergency ward or any stationary wards. Prior to referral, the patients were diagnostically assessed by a senior resident in psychiatry who also prescribed pharmacological treatment, if considered necessary. At this time, the patients were also physically examined and blood tests were either collected or scheduled.

Patients with severe physical illness, identified ongoing addiction problems, psychotic disorders, dementia, or other disorders with general cognitive disability and forensic patients were not eligible. Thirteen referrals were annulled due to deterioration of symptoms and continued admission (included one patient who died by suicide). Seven patients were re-admitted or directed to another team at their first appointment. A total of 120 patients entered treatment, but due to missing data in five cases, it was only possible to describe 115 patients. In all, 105 patients answered questionnaires at the beginning of treatment and 79 patients at the end of individual therapy. As such, a total of 41 patients had missing data at some point. Of these, 31 patients received more than five individual sessions and could be assumed to have completed the individual treatment. Please see flow chart in **Figure 1**.

FIGURE 1

Flow chart. Of the 140 patients referred to the aftercare programme, 110 received more than five individual sessions. Due to missing data, we can only report the symptom ratings of 105 patients at the beginning and of 79 at the end of individual therapy.



Aftercare programme

The aftercare service comprised five individual sessions (45 m) within the first three weeks after discharge and eight group sessions (2 h, including a 10-m break) within another four weeks, i.e. twice a week. A day-time telephone service was available Monday through Friday. The patients were offered consultations with a psychiatric staff specialist and a social worker and had access to gym facilities at the psychiatric centre. At first, the maximum wait allowed for first consultation was ten working days, but following a suicide during the waiting period, it was changed to be a next-working day-appointment service (after four months of enrolment).

The programme physician, a staff specialist, led the first consultation, scheduled psychiatric consultations and established the pharmacological plan. Apart from the patient and a CBT therapist (experienced psychiatric nurse or psychologist having or attending a one-year CBT training program and receiving regular CBT supervision) one next-of-kin was invited to attend the first consultation. The next-of-kin was actively engaged to help with adherence to medication, CBT tasks and other planned activities, to secure progress between sessions. This first consultation was very structured and addressed the patient's experience and understanding of events up to and after admission. During this consultation three goals for the immediate future were

defined collaboratively. To aid the patients and next-of-kin, a preset form was filled out during the consultation, recapitulating all the elements of treatment and support.

The focus of the following individual psychotherapy was prioritized according to the principles of dialectic behaviour therapy [9]. If the patient had life-threatening behaviour, the Collaborative Assessment and Management of Suicidality (CAMS) system [10, 11] was combined with CBT techniques [12]. If stability was an issue, implementation of healthier sleep, eating routines and activity patterns and reduction of invalidating social contacts and risk behaviour were achieved by use of daily activity forms, assisted by planned telephone contacts, referral to physical training and involvement of next-of-kin. If, or when, this type of behavioural activation was not a major issue, symptom reduction proceeded by conventional CBT techniques like psycho-education, skills training and cognitive re-structuring [12]. Psychiatric consultations were scheduled independently of the therapeutic session. The number and frequency of these consultations were determined in accordance with the severity level and complexity of the problems.

Questionnaires

As we expected most patients to have symptoms of depression and a low level of well-being, we used Beck's Depression Inventory-II (BDI) and WHO-Well-being Index (WHO-5).

The BDI is frequently used in conjunction with the CBT, and it correlates reasonably well with clinical evaluations and observer ratings of depression [13]. The WHO-5 has been used to screen for depression [14] and for quality of life in Danish psychiatric patients [3].

The feedback form constructed for the evaluation of user satisfaction consisted of eleven positive statements about different aspects of the aftercare service (items listed in **Table 1**).

Statistical analysis

Data analyses were performed in SPSS version 11 by SA. Repeated measures analysis of variance (rmANOVA) were used for the outcome measures on an intention-to-treat basis with the last observation carried forward.

Trial registration: Danish Data Protection Agency, The Capital Region 2007-58-0015.

RESULTS

Demographics, diagnoses and service provision

Before the adjustment of acceptable waiting time in March 2011, 29 (56%) of 49 patients had their first appointment scheduled within the accepted time range (14 days or less); after the adjustment, 76 (85%) of 91 patients had their first appointment scheduled within the accepted time range (three days or less). In the analysed sample of 115 patients, 38 (33%) were less than 30 years old (the mean age was 38 years (standard deviation (SD): 14 years, range: 18-83 years)) and 79 (69 %) were female (**Table 2**). At intake, 97 patients (84 %) received antidepressant medication. The majority of diagnoses established (according to International Classification of Diseases (ICD)-10 criteria) at the end of individual therapy fell within the category of depressive episodes, but with different severity levels and recurrence types (59 patients; 51%). The majority of patients received four to eight consultations (58 patients; 50%) and the individual sessions ended as scheduled for 87 patients (76%) (missing data in 12%). At end of the aftercare service (which included group therapy for 52 patients (45%)), approximately half of the sample was discharged to primary sector care. Four patients joined the aftercare service again following re-admission (they were included as new cases).

Participants who did not complete questionnaires at the end of the individual therapy differed significantly from those who did with regard to the number of received sessions (5.9 (SD: 2.1) versus 9.3 (SD: 3.2), p = 0.00002) and the frequency of living alone (79% versus 56%, p = 0.04 (Pearson's χ^2)). They did not differ on any other measure including scores on the BDI or the WHO-5 at the beginning of the intervention. Please see Table 2 for further information.

Suicidal behaviour and ideation

One patient died by suicide ten days after discharge, four days before the appointment, while waiting for the first consultation. No patients died while in the programme. At treatment onset, suicide attempts within

TABLE 1

User evaluation of first three weeks of the aftercare programme. The ratings of very much and partly disagree were collapsed into the "Disagree" rating and similarly the very much and partly agree were collapsed into the "Agree" rating.

	Disagree		In-between		Agree		
Item	n	%	n	%	n	%	Total, n
Information prior to the first session was explanatory	2	3	10	16	52	81	64
It was easy to get an impression of the service	6	9	4	6	57	85	67
The contents of the talks agreed with me	1	2	7	11	58	88	66
The design of the talks agreed with me	2	3	4	6	57	90	63
The telephone schedules were convenient for me	4	8	13	25	35	67	52
It was feasible to only have contact on work-days	5	8	8	13	48	79	61
Five sessions were sufficient for me	26	45	8	14	24	41	58
The psychiatric consultations covered my needs for medical advice	8	13	10	16	44	71	62
It was good that my next-of-kin was involved	4	8	17	33	31	60	52
Three weeks of intensive care were sufficient for me	20	41	8	16	21	43	49
The entire aftercare structure worked well	0	0	11	22	39	78	50

TABLE 2

Diagnoses, service use and final referrals. Diagnoses include both primary and secondary diagnoses (n = 115).

	n	%
Diagnoses		
Addiction problems	9	6.0
Psychosis spectrum[a]	4	2.6
Depression disorders	59	39.1
Anxiety disorders	10	6.6
Stress disorders[b]	36	23.8
Eating disorders	5	3.3
Personality disorders	22	14.6
Developmental disorders	6	4.0
Total[c]	151	100
Service		
Consultations < 4	12	10.4
Consultations 4-8	58	50.4
Consultations > 8	45	39.1
Telephone calls, n		
0	26	22.6
< 4	46	40.0
> 3	27	23.5
Missing data	16	1.9
End point		
Primary sector	61	53.0
MHS outpatient unit	48	41.7
MHS admission	6	5.2

MHS = regional mental health service.
a) Includes schizotypal disorder/schizophrenia prodrome and bipolar disorder.
b) Includes also dissociative and somatisation disorders.
c) 36 patients had co-morbidity.

TABLE 3

Scores on self-rating questionnaires before and after. For an explanation of the rating scales see text.

Rating scale	Mean	SD	n	F	df	p-value
WHO-5				40.311	1-101	6.2×10^{-9}
T_0	5.6	4.8	102			
$T_{1(itt)}$	8.3	5.6	102			
T_1	9.4	5.5	77			
BDI				42.019	1-104	3.1×10^{-9}
T_0	32.0	11.9	105			
$T_{1(itt)}$	26.1	12.3	105			
T_1	23.8	11.5	79			

BDI = Beck's Depression Inventory. df = degrees of freedom. F = Fisher's test value in analysis of variance. itt= intention-to-treat sample, the statistical values are derived from the intention-to-treat sample.
SD = standard deviation. T_0 = rating the day or the day before start of treatment. T_1 = rating at end of the individual psychotherapy part of the aftercare programme. WHO-5 = WHO-Well-being Index.

the past six months were recorded in 35 patients (30%), and 47 patients (43%) had been thinking about suicide occasionally or frequently during the past two weeks. Four patients (3.5%) thought about suicide constantly. Nineteen patients (16%) considered themselves to be at moderate to high risk of a suicide attempt. CAMS was used with 54 patients (47%) at the first individual therapy; and by the fifth session CAMS was still used with 14 patients (12%). At that point, three patients still had occasional or frequent suicide ideation.

Symptom ratings

The patients improved on all the general ratings from day one to end of individual therapy and the difference was significant whether analysed on an intention-to-treat basis or not (**Table 3**).

User evaluation

The majority of patients appreciated the contents of the individual psychotherapy and the structure of the service, while they were less content with the five session limit of the service (Table 1).

DISCUSSION

It is difficult to find studies of a comparable patient group and service timing among the available evidence of post-discharge services for patients with non-psychotic disorders. Two descriptive studies of post-discharge follow-up for depressive disorders showed that between 25% and one third of the populations did not see a psychiatrist within the first month after discharge. In these studies, very few patients received psychotherapy, and medication adherence was low [5, 15]. Compared with this, the present sample had much better adherence, and 90% of the sample attended more than four consultations, of which at least one consultation was with a staff specialist. Furthermore, after the adjustment in logistics, the first meeting was scheduled within three days after discharge for 85% of the patients.

Regrettably, we did not systematically register suicide attempts or other self-harm behaviour, but no suicides were observed in patients who had started treatment. It is still unclear whether an intensive, active, out-reach outpatient service is more effective than standard care or whether admission is more effective than discharge in preventing suicidal or other self-harm behaviour [6, 7].

User evaluations were generally positive, and the negative feedback specifically concerned the short duration of the service. The patients' concern with the duration of the service seems rational given the severity level of their symptoms.

In this naturalistic study, we had no comparison group and it is possible that the improvement in ratings is the result of the natural course after discharge or that improvement could have been larger if the patients had stayed in hospital. In a study of partial hospitalisation

following psychiatric admission, an intervention of 16-20 h of group therapy per week for a comparable patient group proved effective in reducing the BDI from 28.7 to 21.6 in two weeks [16]. The study had a high attrition rate and only reported data from completers. Despite the difference in service, we find that our results of a reduction from BDI 32.0 to 23.8 in three weeks constitute a comparable result.

In conclusion, the aftercare programme was organisationally feasible and the service seemed an acceptable and safe alternative to continued admission. However, we lack data from a comparable patient group receiving treatment as usual and follow-up ratings that substantiate the impact of the programme, and the results should therefore be considered preliminary. Future studies should feature a randomized controlled trial design and include a cost-effectiveness analysis.

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