

Difficult-to-Engage Patients: A Specific Target for Time-Limited Assertive Outreach in a Swiss Setting

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Objective: Assertive community treatment (ACT) failed to develop in Europe, and its efficacy is debated. In Lausanne, Switzerland, ACT focuses on difficult-to-engage patients and aims to facilitate linkage with outpatient care through time-limited interventions. This study aimed to evaluate the applicability and efficiency of time-limited ACT.

Methods: We retrospectively assessed social, clinical, and functional outcomes and motivation for treatment in 75 consecutively seen subjects treated between 2000 and 2002.

Results: With 70% of the interventions lasting less than 6 months, we observed significant improvement in most clinical and social problems, in collaboration, in motivation for treatment, and in social network support, despite high baseline levels of clinical and social problems. The number of hospitalizations decreased significantly.

Conclusions: Time-limited ACT is a useful treatment for difficult-to-engage patients with severe clinical and social problems, and it facilitates linkage to care. This narrower target for ACT may facilitate its implementation in Europe.

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Clinical Implications

- Time-limited ACT can facilitate linkage to care for difficult-to-engage patients.
- Intervention should focus not only on individual treatment but also on motivation enhancement and on restoring connections with social networks.
- Assertive outreach focused on difficult-to-engage patients can be implemented in a Swiss context.

Limitations

- The naturalistic setting of the study, necessary with this type of patient population, limits the validity of the data.
- This was a retrospective study lacking a control group and long-term follow-up.
- The Lausanne mental health system where this time-limited ACT was conducted could be unique, thereby limiting generalization.
- Knowledge of the motivation for treatment on the part of patients with psychotic disorders and of their ability to connect to the natural environment should be improved.

Key Words: *community mental health services, case management, assertive outreach, psychotic disorders, program evaluation, treatment compliance, community networks*

Refusal of psychiatric care is common, and up to 60% of patients fail to attend initial appointments after hospitalization (1–3). Such patients access care only during emergency situations; moreover, they progress in successive crises and are at high risk for suicide. The literature suggests that the organization of psychiatric services plays an important role in this matter (1–3). ACT was developed to address difficulties in treating patients with severe mental illness in the community (4), but its efficacy is debated, particularly in Europe (5–8). Identifying a group of patients whom we repeatedly failed to engage led us to develop a small ACT team that focuses on avoiding hospital admission and facilitating engagement (9). In this paper, we describe the patient population to whom this applies, the impact of such an intervention, and the effectiveness of time-limited ACT intervention in a Swiss setting.

Methods

Context and Intervention

In our program, we offer ACT exclusively to difficult-to-engage patients suffering from severe and persistent mental illness characterized by heavy use of psychiatric care, repeated hospitalizations, or failure to link with outpatient psychiatric care. The multidisciplinary team comprises 2.8 FTE nurses, 1 FTE social worker, and 1.8 FTE psychiatrists. The program's main characteristics are home-based interventions, a 1:10 caseload ratio, 5 weekly working days (with extendable hours as needed), individual caseloads with team backup, up to 2 contacts daily, assertive outreach and focus on engagement, and systematic contact with relatives and other caregivers.

The inclusion of time limitation, a major difference from the original ACT model, was initially motivated by several factors: 1) limited resources and the consequent need to discharge patients to allow new ones in the program, 2) a deliberate philosophy of investing in patients' personal resources and improving their motivation and capacities for engagement, and 3) the intention to create partnerships with patients' relatives and with professionals to foster the development of enduring mutual aid mechanisms (10) and to maintain natural social networks that are less stigmatizing and foster a closer relationship with the patients than does

standard psychiatric care (11). Although limited in duration, our interventions are distinct from crisis interventions such as those provided by mobile crisis teams (12,13). Our program is a gentle but assertive and intensive intervention aimed at treating and reconnecting patients with their social environment through several steps inspired by milieu interventions (10) and motivational interventions for psychosis (14). First, we establish contact with the milieu and with the identified person. Second, we build an alliance with concrete help in daily living focused on the consequences of psychiatric disorders. Third, a gentle confrontation allows discussion of diagnosis and treatment. Finally, we work to reconnect people with social networks and with usual psychiatric care or primary care.

Subjects

The patients included in this study came from a catchment area of 240 000 inhabitants, covering Lausanne and its surroundings. Inclusion criteria were age between 18 and 65 years, residence in the catchment area, and at least one of the following: a pattern of frequent admissions to a psychiatric hospital (more than 3 in the previous 12 months or more than 6 in the previous 5 years), repeated failure to attend outpatient appointments after discharge, and either poor compliance or total noncompliance with medication use (that is, repeated early discontinuation or refusal to take medication). Data gathered from 75 patients consecutively admitted in the program between January 1, 2000, and March 30, 2002, are included in the present study.

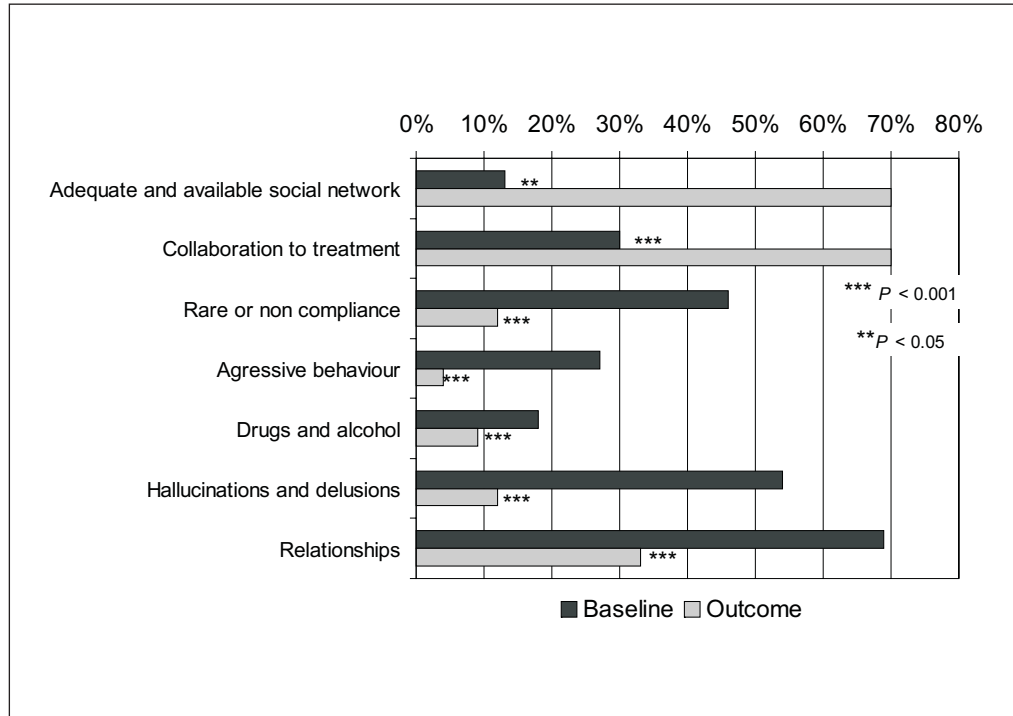
Measures

This retrospective study is based on data extracted from patients' files and completed with structured interviews by ACT team members. We collected ratings relative to the situation at baseline and at end point. Baseline data were based on the situation during the month preceding intervention, and outcome data were based on the situation over the 2 weeks before the end of the intervention or before March 30, 2003, for interventions that were ongoing at the end of the study period. We assessed clinical and social outcomes with the HoNOS, where scores of 3 or higher were considered as severe (15,16). We used MCAS scores as complementary measures of outcome (17). Comparison of CTRS scores at baseline and at end point also served as an outcome measurement (18). Using the 5 stages of change described by Prochaska and DiClemente—precontemplation, contemplation, decision, action, and maintenance—clinicians evaluated patients' motivation to address psychotic problems (19). Social network support was classified into 5 patterns: "adequate and available," "exhausted and overwhelmed," "inactive and unstable," "inadequate and incompetent," and "absent and nonexistent" (10). We assessed alcohol and drug

Abbreviations used in this article

ACT	assertive community treatment
CTRS	Crisis Triage Rating Scale
FTE	full-time equivalent
HoNOS	Health of the Nation Outcome Scales
MCAS	Multnomah Community Ability Scale

Figure 1 Frequency of severe problems at baseline and outcome



use separately with two 5-point scales ranging from abstinence to severe dependency. An ICD-10 diagnosis based on data gathered from the medical files was determined clinically by experienced clinicians.

Statistical Analyses

Statistical analyses were performed with the SPSS 11.01 Software for Windows (20). Univariate comparisons of baseline and end point measurements were evaluated with the Wilcoxon signed rank test and Pearson’s chi-square statistics on categorical variables. We used the Mann–Whitney *U* statistic to compare patients with more than and less than 6 months of ACT. We considered a *P* value of less than 0.05 (2-tailed) to be statistically significant.

Results

Sample Characteristics

A slight majority of patients were men (55%), with a mean age of 35.5 years at baseline, and 73% were white. The main ICD-10 diagnosis categories were psychosis (68%), affective disorder (21%), and personality disorder (7%). The diagnoses for the 3 remaining patients were substance abuse, anxiety disorder, and mental disorder without specified diagnosis.

Baseline and Outcome Assessment

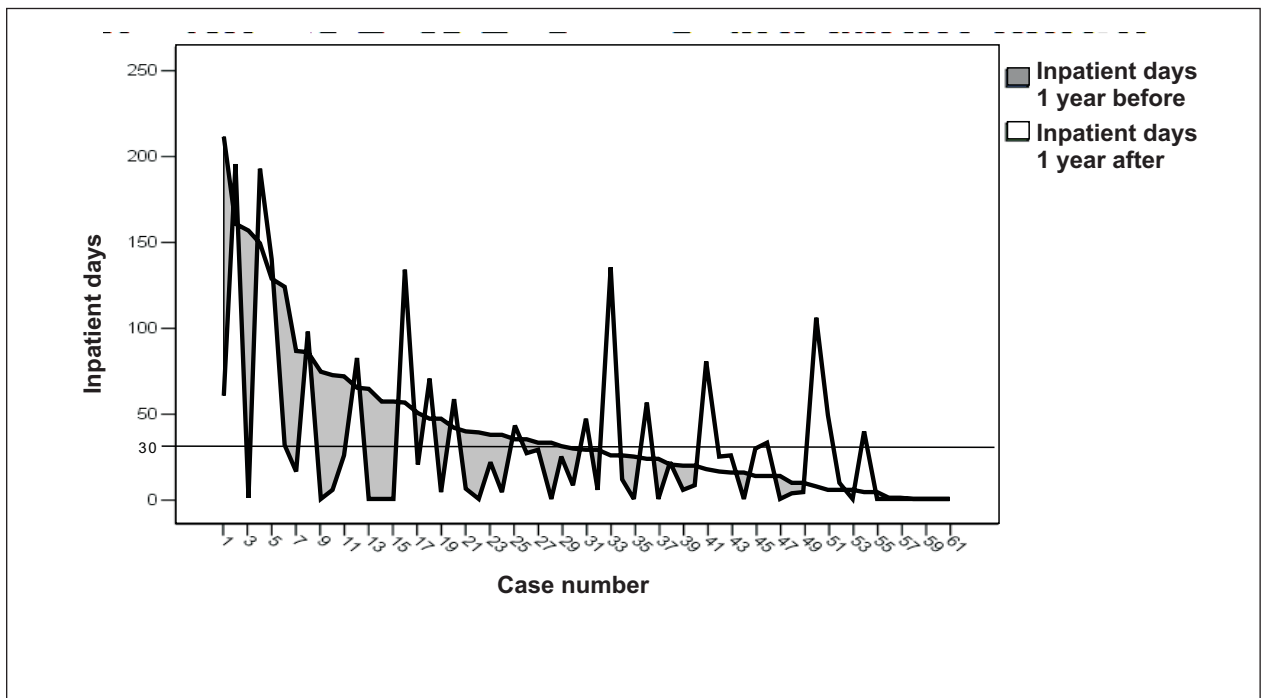
Figure 1 shows the frequency of severe problems as measured on the HoNOS and MCAS (score of 3 or more) at baseline and at the end of the intervention (outcome). At intake, 60% of the patients presented with 4 or more severe problems

simultaneously, and 85% presented with 2 or more severe problems. The most frequent problems were severe symptoms (83%), such as hallucinations and delusions (54%), and severe social problems (81%). Severe behavioural problems were identified in 45% of the patients, and severe disability was identified in 31%, mainly owing to cognitive disturbances (27%).

Nearly one-half of the patients (48%) used drugs or alcohol at intake, with severe consequences for 18% of the patients according to HoNOS. The substances most frequently used were cannabis (33%) and cocaine (12%); opiates (4%) and amphetamines (3%) were used less often. At baseline, 37% of the subjects were considered to be drug abusers (23%) or drug-dependent (14%), and 23% were considered to be alcohol abusers (19%) or alcohol-dependent (4%). Drug and alcohol abuse or dependence most often seemed temporary, since only one-third of the initial users remained in these categories at the end of the intervention.

A low level of collaboration with treatment was one of the main reasons we introduced patients to ACT. During the intervention, the proportion of patients collaborating with this mental health treatment increased from 30% to 70%. Rare compliance or nonadherence to medication use decreased from 46% to 12%. Improvement was highly significant for both (Wilcoxon signed rank test, *P* < 0.001). Motivation for treatment was low at intake, with 88% of the patients only at the stage of precontemplation or contemplation. About two-thirds of them moved to decision, action, or maintenance

Figure 2 Differences of inpatient days 1 year before and after the beginning of assertive outreach



during ACT. Social network support was severely disturbed for 87% of the patients and was most often characterized as “exhausted and overwhelmed” (47%). Support could be reactivated to reach a level of “adequate and available,” and after symptoms diminished, most patients’ social networks became adequate and available during the intervention (increasing from 13% to 70%) ($\chi^2 = 4.8$, $df 1$; $P < 0.05$). Only “inactive and unstable” networks (10%) did not seem to improve.

At the end of the intervention, or after 1 year if it was ongoing (noted as outcome in Figure 1), we observed significant improvement in every problem area (Wilcoxon signed rank tests, $P < 0.001$) except for physical illness, which was rare in the sample. Analysis of the changes in the MCAS and CTRS scores yielded similar results, with a significant decline in the scores on every dimension ($P < 0.001$) except intellectual disability. Patients also improved in their social conditions, with a decrease of 20% in the number of patients who were unable to take care of their money and an increase in the percentage who were able to live independently (from 70% to 93%).

The mean duration of hospitalization decreased (nonsignificantly) from 41 to 32 days, and the annual number of admissions decreased from 1.8 to 1.3 (Wilcoxon signed rank test, $Z = -2.7$, $P = 0.007$) for the 61 patients who were hospitalized at least once during the period from 1 year before to 1 year after the beginning of ACT. Figure 2 shows the differences in number of inpatient days before and after ACT, sorted by inpatient days the year before ACT. Spikes under the overall descending line represent a decrease in inpatient

days and spikes above it represent an increase. For example, inpatient days for Case 3 dropped from 154 to 1, but those for Case 51 rose from 5 to 48. Considering patients with more than 30 inpatient days before ACT as “high users” (above the horizontal line), we found a decrease in their mean number of inpatient days from 67 to 43 ($t = 2.4$, $df 31$; $P < 0.05$) as well as a decrease in the mean number of admissions from 2.6 to 1.7 ($t = 2.2$, $df 31$; $P < 0.05$). For patients with fewer than 31 inpatient days before ACT, the mean inpatient duration period increased nonsignificantly from 10 to 21 days.

Duration of ACT Intervention

For 70% of the patients, the duration of ACT intervention was shorter than 6 months. Among those who needed more than 6 months of ACT, 95% had more than 3 simultaneous severe problems at baseline, compared with 65% among those who needed less than 6 months of intervention ($\chi^2 = 7.2$, $df 1$; $P = 0.007$). Further, at baseline, the former group seemed to have more problems with cooperation, illness acceptance, and pharmacologic treatment compliance; they were also at an earlier stage of change, on average (Mann–Whitney U , $P < 0.005$).

Discussion

Our findings suggest that ACT can be usefully targeted toward most difficult-to-engage patients and that time limitation is possible when the system of care allows subsequent referral to less intensive services. Such interventions must be adapted from standard ACT models and tailored to the needs

of these specific patients by focusing not only on individual treatment but also on motivation enhancement and active restoration of connections with social and health care networks.

Usually, the level of care is considered proportional to the severity and number of simultaneous severe problems: hospitalization is more often required when 2 or more severe problems are simultaneously present (21). However, in our cohort, over 50% of the subjects had accumulated more than 4 simultaneous severe problems, a profile similar to or even worse than that of inpatient populations suffering from psychosis; nevertheless, they could often be treated in the community. Despite an unfavourable initial profile, most patients eventually started to collaborate with professionals, and their motivation for treatment improved. This suggests not only that ACT can be used as an alternative or at least a useful complement to hospitalization for difficult-to-treat patients with severe clinical and social problems but also that it could have a better impact on adherence to treatment in the long term.

Previous research suggested that intensive intervention within the framework of community mental health services had the potential to enhance people's social network with their relatives (22). In our sample, we also observed that patient's social network became more available and appropriate when supported by our team. Such a process may contribute to consolidating recovery by providing support through this channel once intensive community intervention is interrupted. In this type of framework, ACT doesn't necessarily imply static support and lifelong treatment but, rather, a dynamic intervention that aims to engage patients in the process of recovery and social integration.

If access to care becomes the aim of ACT intervention in a similar population of patients, using the number of hospital days as a measure of outcome should be done with caution. In our sample, some patients had few contacts with psychiatric services before the assertive outreach was implemented, although they clearly suffered from psychotic disorders. In such situations, hospital admission and therefore increased number of hospital days can initially mark the beginning of access to care and of the recovery process rather than of a deterioration in the situation. Our data reflected this paradox: inpatient days and number of admissions declined when patients were high "users" of hospitalization at baseline but increased when patients had few contacts with psychiatric care before ACT.

Although treatment lasted about 6 months on average, ACT intervention of more than 6 months was necessary for 30% of the patients. These patients had more severe social and clinical problems simultaneously at intake and tended to have more difficulties with engagement. Although engagement improved during ACT, we suspect that caregivers probably

could feel the fragility of patients' cooperation and motivation and were consequently reluctant to refer such patients to less intensive community treatment facilities. Therefore, less intensive but longer term assertive case management may be a necessary additional treatment option for this subgroup of patients.

The study's main limitations are its retrospective design, the absence of a control group, and the short duration of the follow-up period. Further studies are needed to confirm the efficacy of time-limited ACT, to evaluate the sustainability of its benefits, and to explore in more detail which components are critical when developed in the context of comprehensive psychiatric services in a given catchment area. In particular, even though engagement into treatment has been a specific focus of ACT since the beginning, our knowledge of the roles played by psychosis patients' motivational stages of change and patterns of social network connections needs to expand. Finally, the death of one patient by overdose after an episode of violence toward a case manager (despite good initial engagement in the ACT process) shows how fragile such patients can be, particularly when violence and substance abuse limit home-based interventions.

Despite these limitations, our preliminary results suggest that time-limited ACT intervention can play an important role in facilitating linkage to care for patients who are difficult to engage. This narrower focus might facilitate implementing such a program in European mental health services where standard ACT interventions have failed to develop.

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References

1. Kruse GR, Rohland BM. Factors associated with attendance at a first appointment after discharge from a psychiatric hospital. *Psychiatr Serv* 2002;53:473–6.
2. Boyer CA, McAlpine DD, Pottick KJ, Olfson M. Identifying risk factors and key strategies in linkage to outpatient psychiatric care. *Am J Psychiatry* 2000;157:1592–8.
3. Olfson M, Mechanic D, Hansell S, Boyer CA, Walkup J, Weiden PJ. Predicting medication noncompliance after hospital discharge among patients with schizophrenia. *Psychiatr Serv* 2000;51:216–22.
4. Thompson KS, Griffith EE, Leaf PJ. A historical review of the Madison model of community care. *Hosp Community Psychiatry* 1990;41:625–34.
5. Burns T, Fioritti A, Holloway F, Malm U, Rossler W. Case management and assertive community treatment in Europe. *Psychiatr Serv* 2001;52:631–6.
6. Fiander M, Burns T, McHugo GJ, Drake RE. Assertive community treatment across the Atlantic: comparison of model fidelity in the UK and USA. *Br J Psychiatry* 2003;182:248–54.
7. Audini B, Marks IM, Lawrence RE, Connolly J, Watts V. Home-based versus out-patient/in-patient care for people with serious mental illness. Phase II of a controlled study. *Br J Psychiatry* 1994;165:204–10.
8. Burns T, White I, Byford S, Fiander M, Creed F, Fahy T. Exposure to case management: relationships to patient characteristics and outcome. Report from the UK700 trial. *Br J Psychiatry* 2002;181:236–41.
9. Conus P, Bonsack C, Gommeret E, Philippoz R. Le suivi intensif dans le milieu : une expérience pilote à Lausanne. *Revue Médicale de Suisse Romande* 200;121:475–81.

10. Guay J, Chabot D, Belley C, Dulude D. Principes et stratégies d'implantation de l'approche milieu. Montreal (QC): Centre de Réadaptation Normand-Laramée—Centre Jeunesse de Laval; 2000.
11. Corin E, Lauzon G. Positive withdrawal and the quest for meaning: the reconstruction of experience among schizophrenics. *Psychiatry* 1992;55:266–78.
12. Scott RL. Evaluation of a mobile crisis program: effectiveness, efficiency, and consumer satisfaction. *Psychiatr Serv* 2000;51:1153–6.
13. Landeen J, Pawlick J, Rolfé S, Cottee I, Holmes M. Delineating the population served by a mobile crisis team: organizing diversity. *Can J Psychiatry* 2004;49(1):45–50.
14. Kemp R, Kirov G, Everitt B, Hayward P, David A. Randomised controlled trial of compliance therapy. 18-month follow-up. *Br J Psychiatry* 1998;172:413–9.
15. Lauzon S, Corbière M, Bonin JP, Bonsack C, Lesage A, Ricard N. Validation de la version française du Health of the Nation Outcome Scales (HoNOS-F). *Can J Psychiatry* 2001;46:841–6.
16. Wing JK, Curtis RH, Beevor AS. HoNOS: Health of the Nation Outcome Scales. Report on research and development. London (UK): Royal College of Psychiatrists; 1995.
17. Corbière M, Crocker AG, Lesage AD, Latimer E, Ricard N, Mercier C. Factor structure of the Multnomah Community Ability Scale. *J Nerv Ment Dis* 2002;190:399–406.
18. Bengelsdorf H, Levy LE, Emerson RL, Barile FA. A crisis triage rating scale. Brief dispositional assessment of patients at risk for hospitalization. *J Nerv Ment Dis* 1984;172:424–30.
19. Prochaska JO, DiClemente CC. Toward a comprehensive model of change. In: Miller WR, Heather N, editors. *Treating addictive behaviours: processes of change*. New York (NY): Plenum; 1986. p 3–27.
20. SPSS Inc. SPSS for Windows. Version 11.01. Chicago (IL): SPSS Inc; 2001.
21. Bonsack C, Borgeat F, Lesage A. Mesurer la sévérité des problèmes des patients et leur évolution dans un secteur psychiatrique : une étude sur le terrain du

- Health of the Nation Outcome Scales en français (HoNOS-F). *Annales Médico-Psychologiques* 2002;483–8.
22. Becker T, Leese M, McCrone P, Clarkson P, Szmukler G, Thornicroft G. Impact of community mental health services on users' social networks: PRISM Psychosis Study 7. *Br J Psychiatry* 1998;173:404–8.

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Résumé : Les patients difficiles à retenir : une cible spécifique pour un suivi intensif en temps limité dans un milieu suisse

Objectif : Le suivi intensif dans la communauté (SIC) ne s'est pas développé en Europe, et l'on débat de son efficacité. À Lausanne, en Suisse, le SIC met l'accent sur les patients difficiles à retenir et vise à favoriser la liaison avec les soins externes par des interventions en temps limité. Cette étude visait à évaluer l'applicabilité et l'efficacité du SIC en temps limité.

Méthodes : Nous avons évalué rétrospectivement les résultats sociaux, cliniques et fonctionnels ainsi que la motivation au traitement chez 75 sujets vus de façon consécutive, entre 2000 et 2002.

Résultats : Par des interventions durant moins de 6 mois à 70 %, nous avons observé une amélioration significative de la plupart des problèmes sociaux et cliniques, de la collaboration, de la motivation au traitement et du soutien du réseau social, malgré des niveaux élevés de problèmes sociaux et cliniques à la base. Le nombre d'hospitalisations a diminué significativement.

Conclusions : Le SIC en temps limité est un traitement utile pour les patients difficiles à retenir présentant de graves problèmes sociaux et cliniques, et il facilite le lien aux soins. Cette cible plus pointue pour le SIC peut en favoriser l'application en Europe.