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ORIGINAL PAPER

Recovering the Capacity to Live outside of a Psychiatric Hospital: Impact of a Specialized Inpatient Program

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Abstract
Deinstitutionalization in psychiatry led to a decrease in hospital beds, short hospital admissions focussed on symptoms reduction, and the development of ambulatory care. However, the needs of patients who despite symptoms reduction do not display the minimal competencies to live alone or in a sheltered accommodation, are not met in such a context. They usually go through long admissions and fail to improve. In 2016, we implemented a new inpatient program focused on fostering the development of the competencies needed to adapt to living outside the hospital; the aim of this study was to evaluate if it lead to the resolution of these situations or in contrary if it turned into a long stay unit. 116 patients admitted to the program between 2016 and 2018 were included in the study. They were psychiatric inpatients who had no home, did not find a place in a sheltered accommodation and couldn't be discharged. In the majority of cases, the situation was resolved within 180 days and the majority of patients was referred to a sheltered accommodation. Functional and symptom levels improved significantly over time. A specific focus on restoring competencies to live outside of hospital allows complex patients to improve their functional level and to find a place to live in the community within a relatively short time. While deinstitutionalization has been beneficial to the vast majority of patients, denying the specific needs of a minority of patients leads to unnecessary long and inefficient hospital admissions.

Keywords Deinstitutionalization · Housing · Severe mental illness · Social difficulties

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Introduction

Deinstitutionalization of mental health services, which in our region occurred mainly between the seventies and the eighties and continued through the nineties, changed psychiatric treatments radically. It led to a drastic decrease in hospital beds and to the progressive development of ambulatory care and support in the community. In addition, a substantial proportion of the hospital beds was replaced by sheltered accommodations specialized in long-term care for psychiatric patients. Although the overall good quality of such facilities is not in question, their positive impact on psychosocial outcome is not clearly demonstrated yet [1]. In addition, they often became narrowly specialized over time on specific patients profile, mainly on those with a good potential for rehabilitation techniques, and hence do not always address the important varieties of patients conditions, which for some of them require a rather flexible approach to care. Furthermore, behavioral disorders and substance use co-morbidities are regularly mentioned as limiting factors to access such programs [2].

Because of that, one can say that deinstitutionalization is not fully implemented yet in our region, especially for patients with severe mental illness who present the greatest need for care, since they do not find a place in such facilities outside the hospital and therefore go through very long hospital stays. In addition, in a context where pressure on beds has increased over years (reduction of 44% in beds numbers per habitant over the last 20 years) and where psychiatric hospitals are meant to focus on acute and brief treatments, the needs of these patients are not met in hospitals either. This contributes to the fact that seriously ill patients go through long and poorly beneficial stays followed by discharge despite limited improvement and in the absence of a clear plan, and hence to frequent readmissions and to a "revolving" door phenomenon [3, 4]. Patients who present with schizophrenia, substances use co-morbidity, who have precarious housing condition or who have antecedent of prior hospitalizations are particularly at risk of such an unfavorable fate [4]. This pattern of repeated hospitalizations and poorly beneficial hospital stays is actually a new form of institutionalization [4]. Indeed, the consequences for such patients are a progressive deterioration of their psychological, functional and social conditions in addition to a major loss of hope, self-esteem and sense of identity.

However, this issue of long stays or frequent readmission recently received more attention. A study, conducted in our catchment area revealed that a only a small minority of patients met this profile (4.9% of all admissions) while they used a third of our hospital beds [5]. They were mostly middle aged (45 years) with an overrepresentation of females and the majority presented either with schizophrenia, personality disorders substance use disorder, or combinations of these. Some of these patients are under measure of compulsatory treatment by the civil justice that constrain them to progress to transitional housing before achieving permanent housing. This is often perceived as decouraging and stigmatizing and is not in line with their wishes. Moreover, social difficulties and lifestyle of these patients are not compatible with the community based-cares of transitional housing. For these patient, housing first approaches appear as suitable alternatives. Developed in many coutries, they improve housing stability and contributes to reduce hospitalizations [6]. However, the development of these approaches is not yet supported by policies and remains marginal in our catchment area. Urban density and high rents are possible explanations, as is the stigma attached to mental illness.

In order to tackle the serious challenges posed by these patients who go through long hospital stays, do not receive adequate treatment, fail to improve and lack the minimal competences to adapt to sheltered accommodation, a specialized unit was implemented in

2016 at the Department of Psychiatry of the Lausanne University Hospital (CHUV). This new inpatient unit of 18 beds aims at helping these patients to acquire the specific competencies needed to adapt to living outside the hospital, a work which is impossible in usual acute units in which treatment is mainly focused on crisis resolution. The development of abilities required to live in a private housing or in sheltered accommodations are at the heart of the program. The intervention is planned over 90 days, but an extension of stay is possible if deemed beneficial. This focus on the recovery of the capacity to live either independently or in a sheltered accommodation is justified by the fact that having a home contributes to building an identity and is an important social determinant [7]. Furthermore, access to housing constitutes an important step in the recovery process and it is especially difficult for stigmatized psychiatric patients [8–10].

At the time of its implementation, the program received funding for 5 years and we needed to prove its utility. Patients accepted in the program went through a thorough baseline assessment and prospective evaluation. In this article, we report on patients' profile and the improvement we observed in various aspects of their clinical and social difficulties. The aim was to explore if this program would meet its targets regarding (1) patients profile; (2) impact on functional level; (3) success in finding accommodation for them and (4) length of stay. Indeed, the risk we identified when launching it was that it could become a place for very extensive admissions and hence a new form of asylum.

Material and Methods

The Unit has 18 beds and the clinical team is composed of 1.5 psychiatrists, 1 physiotherapist and case managers who are either nurses, nurse's assistants or educators. Although clinical case management, a reference model for the treatment of patients with severe mental illness, was so far mainly implemented in outpatient treatments [11], our model is an adaptation of this role to an inpatient unit. Indeed, we felt that patients admitted in this unit would need both inpatient treatment and community immersion and that case managers could take on both of these roles. Table 1. outlines the intervention's rationale and goals.

The case manager assess patients' psychological, functional and social conditions and coordinate care from admission to discharge in a structured and standardized process [12, 13]. Their investigation is based on specific tools such as a genogram or the "Lausanne Scale of difficulties and needs" that allows assessment of patients' needs and resources [14]. The clinical team works in close relationship with patients, family and partners involved in the outpatient treatment and in the community, in order to establish a concerted care plan and to reduce the risk of readmissions [15–17]. Care is oriented towards developing patient's abilities to live outside of the hospital, either in private housing or in a sheltered accommodation; beyond treatment of symptoms, clinicians therefore work on patients' capacity to take care of themselves, to take initiatives and to have a rhythm during the day. Past and present housing condition also receive particular attention to understand live trajectories and their contexts in order to find the most suitable living condition for patient at discharge. Advantages and risks of each alternatives (sheltered accommodations, living in the street followed by a mobile team, etc.) are systematically reviewed. Finally, to prepare discharge and because patients are at high risk for crisis, a joint crisis plan in made in concertation with each partner. This tool has been recognized as a powerful tool to support patient empowerment [18]. It describes

Table 1 Intervention's rational and goals

Domains	Goal of intervention	Example of activities
Patients'network	Identify primary, secondary and tertiary network	• Evaluation of the needs and difficulties of the close family members. • Evaluation of the quality of the therapeutic relationship with outpatient therapists
Needs and difficulties	Identify needs, difficulties and ressources	• Utilization of a structured evaluation of needs difficulties with a self-administered tool ELADEB[13], assessing 12 dimensions of difficulties and needs in daily life
Housing condition	Explore past and current housing condition and their context. Organizing a housing solution.	• Past and present housing trajectory and reasons for failure and change (For example: phases of homelessness following end of lease due to behavioral disturbances or substance abuse)
Care system	Ensure coordination of resources and their adequate utilization.	• Define the roles and limits of each care system partners • Make sure that all needs are met and that patients know how to contact these partners
Community linking	Initiate or reinforce links with community services	• Reinforce socializing activities or participation to therapeutic groups.
Crisis prevention	Prevent and anticipate crisis in collaboration with patients' network.	• To establish a joint crisis plan that identify triggers of crisis, crisis symptoms and strategies to deal with them.
Clinical	Clinical assessment	• Symptoms and functional level • Suicidal risk • Alcohol and drug use

how to recognize early signs of crisis and how to manage it [19]. The objective of this study was to evaluate the first 24 months of activity of this program.

Participants

All patients admitted to the program between June 2016 and August 2018 were included. They all were psychiatric inpatients who had no more home and were not accepted in sheltered accommodation due to the intensity of their difficulties in social relationships, behavior and lack of independence.

Procedure

Patients were evaluated at admission and discharge. Data were recorded by the clinical team, which received training for the assessment. Assessments focused on demographic factors, clinical aspects, length of stays and patients abilities to live in community.

Assessments

Demographic factors comprised gender, age, civil and professional status. Civil justice legal status (e.g compulsory admission and treatment obligation for patients at risk to seriously harm themselves or others) was also recorded. A consensus diagnosis procedure was conducted by clinicians on the basis of CIM-10 criteria. Clinical assessment was based on the Health of the Nation Outcome Scales (HoNOS) [20], the Global Assessment of Functioning (GAF) [21] and the Clinical Global Impression (CGI) [22] scales. Alcohol and drugs use during the last month

were assessed with the Case Manager Rating Scale (CMRS) [23]. Insight into illness was recorded using a three point scale (0 = no insight, 1 = partial insight and 2 = full insight). In addition, specific evaluations were carried out: antecedent of suicide, average number of hospital stays and antecedent of offense and incarceration. Housing condition at admission was recorded, as well as patients wishes regarding future housing condition at baseline.

Statistical Analysis

Because their distribution were skewed, Honos and insight scores at the beginning and at discharge were compared using the Wilcoxon Signed Rank test and length of stay between patient with or without legal treatment obligation were compared using the Mann-Whitney U test. Pre and post GAF and CGI scores were compared using paired sample t-tests. All statistical tests were two-tailed and significance was determined at the 0.05 level.

Results

We included 137 hospital stays in the analysis, which related to 116 individual patients, 22 of whom (16%) were admitted twice during the study period. The mean age at admission was 41.6 years (SD 13.0) and 51.1% of patients were females. The majority ($n = 82$; 65.1%) were single, without competitive employment ($n = 132$; 96.3%), and 35.7% ($n = 49$) of the sample was under a measure of compulsory treatment by the civil justice, 20.4% ($n = 22$) had committed offenses in the past and 10.2% ($n = 11$) has been incarcerated prior to entering the program. Main diagnoses were schizophrenia ($n = 76$; 55.5%), mood and anxiety disorders ($n = 24$; 17.6%) and personality disorders ($n = 20$; 14.6%). The average number of prior psychiatric hospitalizations per patient was 9.4 (SD 10.9) and 32.7% ($n = 35$) had made suicide attempts in the past.

Figure 1 presents HoNOS scores at admission and discharge. The Item "problems linked to living condition" was the highest score at admission followed by "problems linked to occupations and activities" and "problems to build significate social relationships". Overall, 9 items improved significantly during the stay with the greatest change in items linked to living condition and occupations.

Figure 2 presents CMRS scores at admission and discharge. More than 30% of patient had a problematic drugs use and close to 20% problematic alcohol use at admission. The alcohol score on the CMRS improved significantly over the course of the program, from 19.5% of patients with problematic use at admission to 10.8% at the time of discharge (Wilcoxon Signed Rank test, $p = .034$).

Table 2 reports GAF, CGI and insight scores at admission and discharge. GAF scores evolved from serious level of symptoms and/or functional impairment at baseline to moderate levels at discharge. CGI scores revealed that patients were markedly to moderately ill, at baseline as well as at discharge. GAF, CGI and Insight scores all improved significantly over time.

Table 3 presents the living condition at baseline and at discharge. The majority of patients were referred to an institutional housing ($N = 67$, 56.3%). Some of them were already residing in such a structures at admission, but had been dismissed and needed to find another accommodation. Most patients who were homeless were referred to sheltered accommodation.

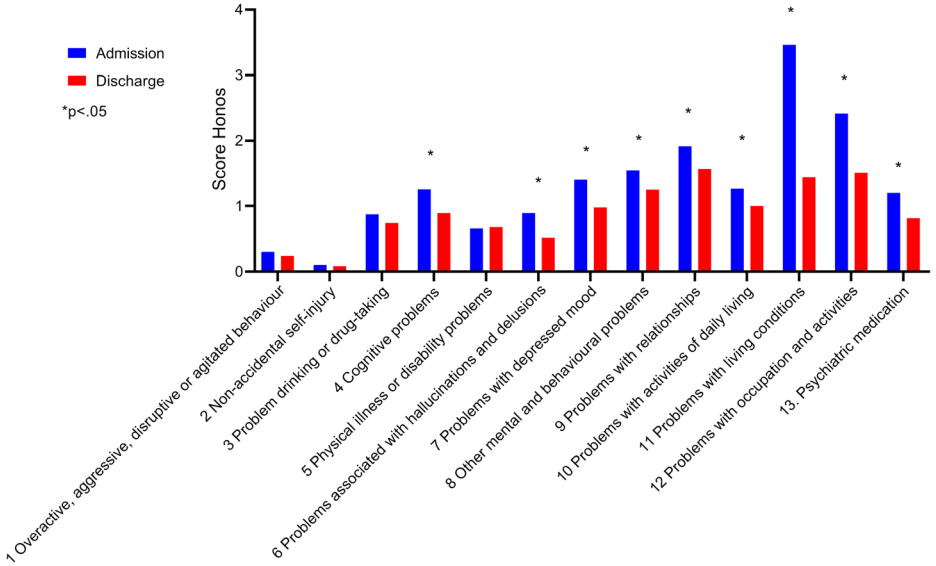

Fig. 1 Honos scores at admission and at discharge

Among patients who lived at home at admission, 37.5% ($N = 24$) could maintain independent housing, but close to 50% needed to be referred to institutional housing.

In the majority of cases, the situation could be resolved within 180 days. (Median = 98.5, Interquartile range = 113, min = 7 days, max = 417 days). Patients who were placed in hospital by the civil justice had longer stays than other patients (median 144 days vs 54 days, U = 762.5, $p < .001$). Half of the patients of this subgroup ($n = 11$, 50%) had a diagnose of mental retardation or a co-morbidity of psychosocial development disorder. The majority of this subgroup was oriented torward residential facilities ($n = 12$, 54.5%) or to private housing ($n = 7$, 31.8%). Patients referred to institutions (54.6%) had a median duration of stay of 75 days compared to 91 days for patients who returned to home. For the latter, five of them had a stay longer than 180 days. A sub group of 22 patients was hospitalized above the maximal 180 days duration of stay. The majority were females and the mean age was 43.3 years (SD = 13.5).

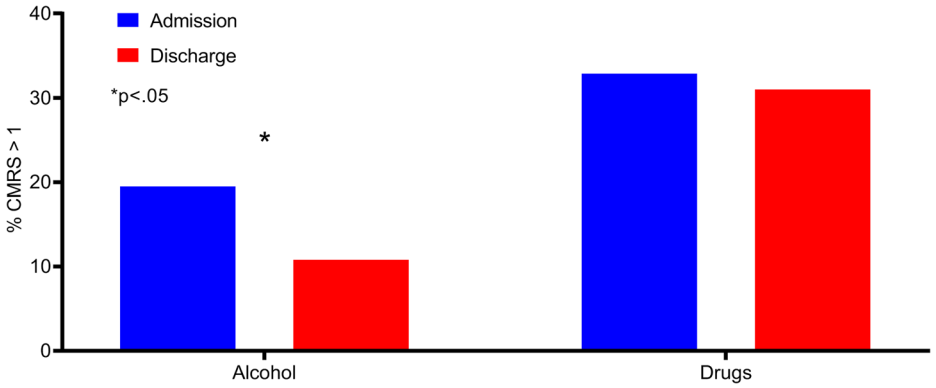

Fig. 2 CMRS scores at admission and at discharge

Table 2 GAF, CGI and insight scores at admission and discharge

Score	Admission	Discharge	Statistic and p value
Gaf, Mean (SD)	46.9 (14.2)	51.8 (14.6)	Paired T-test, t (102) = −5.077, $p < 0.001$
Clinical Global Impression (CGI), mean (SD	4.7 (0.9)	4.3 (1.1)	Paired T- test, t (102) = 5.477, p < 0.001
Insight, mean (SD)	1.13 (0.7)	1.3 (0.6)	Wilcoxon Signed Rank Test, $p = .013$

Discussion

The goal of this study was to evaluate if this new inpatient program would meet the needs of patients who do not fit the requirements of both acute inpatient units, sheltered accommodations and independent living. Our results show that over the first 2 years of its activity, it responded to a real need considering that bed occupancy was close to 100%. More than 80% of patients did only one stay over the 2 years, and an accommodation was found for 77% of them, although their situation seemed hopeless at the time of admission. Patients were middle aged and mainly single persons of both gender who had gone through an average of 9 prior admissions to hospital, 20 % abused alcohol and 30% other substances. We also found that one in five had committed offences and one in ten had spent time in prison, elements known to be associated with greater risk of becoming homeless [3, 4, 24]. Having problems in both the health and the legal area could lead to social exclusion without supports from health care and social services [24]. Despite this combination of difficulties, we observed an improvement in 9 of the 13 dimensions of the HoNOS as well as a significant improvement on the CGI, the GAF and regarding insight, while meeting the target of a maximum of 180 days in the majority of situations.

Globally, this shows that specializing some bed in the treatment of difficulties in social insertion is efficient and allows the resolution of situations that tend to become chronic when such patients are hospitalized in units geared to acute care and crisis intervention. Our experience is that avoiding to face this issue leads to a revolving door phenomenon and to a considerable risk of suicide, which is illustrated by the observation that on third of patients who entered the program had made suicide attempts in the past. Although this might sound like a return to asylum times, it is not since we showed that addressing this problem with adapted resources led to a solution in the vast majority of patients despite the complexity of their profile.

Interestingly we observed that alcohol abuse resolved in close to 50% of patients who presented with this problem at baseline. Our interpretation is that being without ones' own place and the feeling of insecurity that goes with it is a major cause of despair that encourages

Table 3 Living condition: initial and final indications (Completed stays)

Housing condition at discharge				
	Private house	Institutional housing	Acute care	Others
Housing condition at admission				
Private house ($N = 64$)	24 (37.5%)	30 (46.8%)	5 (7.8%)	5 (7.8%)
Institutional housing (N = 35)	1 (2.8%)	24 (68.5%)	6 (17.1%)	4 (11.4%)
Homelessness ($N = 17$)	0 (0%)	12 (70.5%)	2 (11.7%)	3 (17.6%).
Others (N = 3)	0 (0%)	1 (33.3%)	0 (0%)	2 (66.6%)
Total ($N = 119$)	**25 (21%)**	**67 (56.3%)**	**13 (10.9%)**	**14 (11.7%)**

patients to use alcohol and other substances. Once patients have either a home or an adapted sheltered accommodation, self-esteem can build again and need for alcohol decreases.

Conclusions

While we are convinced the movement of deinstitutionalization has driven major improvements for a vast majority of patients, we believe that it should not lead to the denial of the problems faced by a minority of patients who do not fit in the community but do not get the treatment they need in contemporary psychiatric hospitals. Investing time and energy to resolve these problems and finding the right place to live for these persons is beneficial at many levels and allows them to restore their dignity and self-esteem; in this regard, every human being counts.

Availability of Data and Material The datasets analyzed during the current study are available from the corresponding author on reasonable request.

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Compliance with Ethical Standards

Conflict of Interest The authors declare no conflict of interest in relation to the subject of the study.

Ethics Approval Local ethics committee approval and explicit consent were not required because analyses were conducted on existing routine institutional records containing anonymous data.

Code Availability Not applicable.

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