

# Hospital and rehabilitation services

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Deinstitutionalization has left hospitals with a modified role, in which coercion and violence are a particularly common problem. Numerous studies, often based on comprehensive data sets, have investigated predictors of outcome such as rehospitalization rate, duration of stay and violent incidents. The variance explained by patient characteristics and baseline variables has been rather small, however, rendering it of little use for predicting individual cases. Clinical practice in hospitals varies – even more so in partial hospitalization programmes – and seems to depend more on the ideology and policy of the hospital and on the quality of community care services than on patient factors. How policy interventions can influence practice, however, and ultimately improve individual outcome, is still poorly understood. In the rehabilitation of schizophrenia patients, the relation of specific cognitive deficits to differential outcomes may facilitate the development of targeted interventions. However, advances in empirical research worthy of the prevailing optimism in the field are still eagerly awaited though. In vocational rehabilitation, individual placement and support in competitive employment has been shown to be a more effective alternative than conventional strategies. In general, there is a trend towards more intensive and individualized specific rehabilitation programmes. *Curr Opin*

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## Introduction

Throughout the Western industrialized world, deinstitutionalization of mental health care has led to a reduction in the number of hospital beds and to the establishment of various and often innovative outpatient and community services. This has left the hospital at the less glamorous end of the mental health care spectrum. Nevertheless, in the care of patients with severe mental illness, this still eats up the lion's share of direct treatment costs and serves an essential, albeit modified, function. In relation to the number of beds, there has been a relative increase in compulsory admissions and coercion [1•]. Despite its importance, hospital treatment appears to be somewhat under-researched, which is reflected in the paucity of controlled studies that investigate the effectiveness of specific treatment strategies in inpatient facilities. Research seems to focus more on determinants of bed use and predictors of outcome in naturalistic designs. The quality of such studies, however, depends on the comprehensiveness and accuracy of the available data sets, which show significant international variation.

## Hospital care

While most of the research pertaining to hospital care has focused on the analysis of patient characteristics to predict outcome, this work is well complemented by studies analysing on a more global level, the interdependency between the utilization of hospital and community based services.

## Bed use and duration of stay

Characteristics of patients treated in inpatient units, the proportion of compulsorily admitted patients, duration of stay, and discharge destination change over time [2,3], and may vary greatly depending on the type of hospital, funding arrangements, characteristics of community care services and hospital policy [4–7,8•]. An analysis of regional differences in Finland [9••] revealed that number of beds and admission rates, readmission rates, compulsory treatment and outpatient care are strongly interdependent. Attempts to profile frequent users of inpatient services yield consistent findings; young and predominantly male patients with a psychotic/mood disorder account for over half of multiple admissions [10,11]. In addition, number of previous admissions, severity of illness [12–14] and coexistence of a physical illness, particularly in depressed patients [15], are also predictive of duration of stay.

The Nordic comparative study [8\*] identified and followed up a group of patients who used only inpatient care over one year (i.e. 12% of a total cohort of new contacts). Overall, this group received less inpatient care than those who used both inpatient and outpatient services, suggesting that there is a group of predominantly male patients with dependencies and functional psychosis who are socially isolated, and not in contact with outpatient services. Likewise, patients who discharged themselves from inpatient care against medical advice failed to engage with services [16]. They also tended to be male with dual diagnoses, more severe psychopathology and higher rates of rehospitalization during 1-month follow up. Continuity of care, between inpatient and outpatient settings [17], and flexible, intensive community care, including 24-h emergency services, may help to target these difficult-to-engage groups and provide more effective care. More intensive outpatient care has indeed been found to be related to decreased readmission rates [9\*\*].

### Coercion and aggression

In a typical integrated health care system, the most frequent sites of assault are psychiatric inpatient wards, where half of all assaults occur [18,19]. Two issues prevail in the relevant literature: attempts to characterize patients who are violent; and staff training in and management of violence. Male patients with comorbid psychosis and substance use disorders or personality disorders are more likely to perpetrate assault [19,20]. Repetitively violent patients, who tend to be older, have a history of violence and be involuntarily detained, may account for more than two-thirds of all violent incidents [21]. Only a weak association has been found between aggression and the amount of physical space, leading Nijman and Rector [22] to conclude that 'psychological space' (e.g. privacy) may be more salient in triggering aggression.

Injuries are most common among nursing personnel [18–20], although one-third of psychiatric trainees are physically assaulted during a typical training period of 4 years [23]. It is widely agreed that training in the management of violent behaviour is often inadequate, and a more systematic approach to training is unanimously advocated [5,18–20,23,24]. The increase in coercive activities [1\*], the striking differences in the use of compulsory care across psychiatric services [25\*,26], what patients perceive as coercive [27] and the negative emotional impact of psychiatric admission on patients [28] are all factors that should be addressed in staff training. Certainly, quality of staffing is supposed to be a protective factor, and increased expenditure on staffing has been linked to less frequent assault in an inpatient unit [19]. However, there appears to be little attention paid to the development and systematic testing

of specific interventions (apart from seclusion [29]) for at-risk patients, which, combined with adequate staffing and staff training, might effect a decline in assaultive behaviour.

### Satisfaction

For at least 25 years, patients' satisfaction has been regarded as a relevant outcome criterion for evaluating psychiatric treatment, so how satisfied are patients with psychiatric hospital care? The majority of patients are explicitly satisfied, but this finding is meaningless because the mean satisfaction score on any scale is approximately two-thirds towards the positive end of the scale for whatever is being assessed, and psychiatric patients tend to express satisfaction with any treatment. It has been repeatedly reported [30\*] that acute psychiatric inpatients, younger patients, those detained involuntarily and, in particular, patients with a higher degree of depressive mood are comparatively less satisfied with treatment. For identifying dissatisfaction, it seems necessary to specifically ask about pertinent aspects of the treatment under evaluation [26,30\*]. Continuity of care, provision of information and crisis care have been identified as areas that patients are rather dissatisfied with [26,31].

Although most studies of satisfaction with services continue to assess satisfaction in one sample at a single point of time [30\*,31,32], and methodological problems such as selection through nonresponse [33] are problematic, comparative studies of satisfaction are more informative. Psychiatric patients were significantly less satisfied with treatment than were nonpsychiatric medical patients [34]. In studies that compared psychiatric services patients have been mostly, but not consistently, found to be more satisfied with community services and partial hospitalization than with hospital care [26].

### Partial hospitalization

Partial hospitalization is a vague term that is used for describing very different treatment programmes. They may be an alternative to acute inpatient care or provide specific treatment for defined groups, such as patients with obsessive–compulsive disorder [35]. Hence, characteristics of patients and severity of illness vary more in day hospitals than in inpatient units [36\*\*].

A study that compared short-term residential care and acute psychiatric hospital treatment [36\*] showed that the two facilities admitted patients with similar levels of disturbance. Both programmes led to a significant and comparable clinical improvement. Treatment costs in residential care were approximately half those of the hospital setting, however.

### Service development

Studies investigating how outcome of hospital care (e.g. duration of stay, rehospitalization rates, violent assaults) may be predicted by patient characteristics and other baseline variables yield interesting results. The amount of variance explained by such predictors is usually too small by far to be used for prediction in individual cases, however [13,37]. The variation in clinical practice seems to depend less on patient characteristics, and more on the type of hospital and its policy. Precisely what inpatient and partial hospitalization programmes provide, their ‘treatment ideology’, characteristics of the setting and the treatment components are often poorly described in research papers. Thus, interpretation of findings and development of programmes are rendered difficult.

Arising from surveys and quality management programmes, recommendations have been published on discharge policies [38,39], improving pharmacotherapy in hospitals [40], a more rigorous approach to assigning observation levels [41], and how to conduct proper physical examinations [42]. There are suggestions for specialist mother/baby units [43], a recentralization of forensic hospitals [44], and a more prominent role for liaison psychiatrists in working with general practitioners [45] and in general hospital settings [46]. Improvement and management of quality of hospital care remains an important issue, and hospitals may have to implement substantial changes in organization and policy to adapt successfully to the changing market place and to meet the demands of funders [47]. A small-scale study [48•] demonstrated that a nonsmoking policy on an acute ward was not associated with severity or improvement of psychopathological symptoms in smokers as compared with nonsmokers.

In general, however, how policy interventions may be designed and implemented for improving clinical practice and treatment outcome still appears poorly understood and under-researched. Moreover, adequate methods for assessing the association between interventions on a policy level, clinical practice and individual outcome have not yet been fully developed [49,50]. Methodologically rigorous studies, including controlled trials, which are widely regarded as the gold standard in other areas of health services research, to test the effectiveness of well defined hospital treatment programmes are widely missing. They may, for various practical and ethical reasons, be difficult to carry out, but seem desirable for improving the quality of hospital care.

### Rehabilitation services

Both theoretical contributions and more practical interventions are well represented in current psychiatric rehabilitation research, with some groups admirably

combining the two side-by-side in a single research programme.

### Cognitive rehabilitation

An area that has received much attention in recent years is cognitive impairment in schizophrenia and the corresponding rehabilitation efforts. Attempts to relate profiles of cognitive deficits to differential outcomes are ongoing. Which impairments are related to which outcomes remains elusive, however. Extensive neuropsychological assessment of schizophrenia patients at admission and regularly thereafter failed to reveal any differences between discharged and nondischarged patients on any measures, except a perceptual disorganization task [51]. Thus, although the idea of identifying individual cognitive deficits and then applying specific rehabilitation strategies accordingly seems attractive, as Bellack *et al.* [52••] pointed out, ‘Optimism has outpaced progress’. As long as there are problems in identifying relevant targets for rehabilitation, current strategies that focus on enhancing cognitive functioning may not be appropriate. Instead, it may be more beneficial to concentrate on strategies for minimizing cognitive load or compensating for, rather than attempting to repair, deficits [52••]. Given that it has not yet been shown that amelioration of deficits is essential for successful rehabilitation, this appears to be a prudent strategy.

On the other hand, cognitive–behavioural interventions are well established as an effective form of treatment for persistent auditory hallucinations. Until now, treatment has been delivered on an individual basis. In a preliminary, noncontrolled study [53•], group treatment as a less costly alternative led to significant changes in perceived power of and distress caused by voices. This underlines that pragmatic strategies that do not rely on remediating the suspected underlying deficit may be adequate progress for the time being.

### Service development

For the rehabilitation of patients with severe mental illness, special teams and programmes have been set up in many areas. Work in progress includes the training of rehabilitation teams [54,55], the use of technologies in psychiatric rehabilitation [56] and individually tailored rehabilitation programmes [57], but this work has not yet been properly evaluated. A potential drawback of such programmes is that they function largely independently of other mental health services, leading to further fragmentation of care. Rehabilitation services may benefit from employing prosumers (i.e. former consumers of services) as staff members, in posts equal to nonconsumer provider posts [58•]. This may require organizational changes in the service and a shift in the agency’s culture. This, however, may positively impact on respect towards patients and patients’ expectations of care.

A long-standing issue in vocational rehabilitation has been whether patients should be placed in competitive employment and supported there, or whether they should participate in stepwise vocational programmes. This issue was addressed in a randomized controlled trial comparing individual placement and support with traditional vocational rehabilitation [59••]. Individuals in the individual placement and support condition were assisted by an employment specialist within the community mental health team to gain competitive employment, and received unlimited ongoing support. Participants in this programme were more likely to be competitively employed than individuals receiving enhanced vocational rehabilitation, in which stepwise vocational services were delivered by rehabilitation agencies. The latter group were more likely to be in sheltered employment and seemed to get stuck in the transition from sheltered to competitive employment. Total earnings, job satisfaction and nonvocational outcomes were similar for the two groups.

Drake *et al.* [59••] pointed out that the answer to the question regarding which programme is better depends not only on the demonstrated effectiveness of interventions, but also on underlying values: 'Do we believe it is better to integrate people with mental illness into mainstream society, or do we want to maintain separate working settings and keep them segregated from society?' (p. 632). The values that will determine the future development of rehabilitation and of mental health care in general are set by political processes in society as a whole, and by the commissioners of services in particular [60]. A more intensive discussion in the literature of these values, their changes over time and their considerable differences across nations might be helpful for a better understanding of what determines rehabilitation practice and of how services might be best developed to meet future demands.

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