Psychiatric rehabilitation — does it work?  
A three year retrospective survey  
B W McCrum, G MacFlynn  

Accepted 7 June 1990.

SUMMARY  
To evaluate the effectiveness of a rehabilitation unit in returning psychiatric patients to community settings, a survey was undertaken of all patients referred to the rehabilitation unit at Holywell Hospital (Bush House) from 1985 to 1987. The location of 96 patients at the end of 1987 was recorded; 38 were living in the community and 38 had either failed to make this transition or had attempted a community placement but were back in hospital. Comparison of these two subgroups showed those living successfully in the community to be older and to have had fewer hospital admissions, although the total number of years in hospital was similar. A number of other clinical findings have been helpful in planning future services and in modifying rehabilitation programmes at this unit. The deficiencies of this quantitative evaluation process were identified and there is a need for further qualitative investigations.

INTRODUCTION  
One of the Regional Planning Guidelines for services for mentally ill people is that “effective rehabilitation programmes should be established in long-stay units”.¹ The purpose of this is to accelerate in a planned and co-ordinated fashion the reduction in the resident population of large psychiatric hospitals. This decline in numbers has taken place over many years, most notably after 1960, since when the number of patients in psychiatric hospitals in Northern Ireland has fallen from 5500 to under 4000 in 1983. A continuation of this trend in the planning cycle 1987–1992 would result in a further reduction of 10%, but the four Health and Social Services Boards in the Province are expected, through the development of new community based services and the active work of rehabilitation units, to achieve a 20% reduction in hospital residents.

One of the problems of such extrapolation is that it does not take into account the disability level of those patients who remain in long-term care. It has been shown² that trends in discharge patterns are exponential rather than linear and that there is a core figure of those needing long-term care which is constant. This point is highlighted by a comparison of mental hospital populations over the years which reveals that patients who now become long-stay are less likely to be easily rehabilitated, and place greater demands on nursing time.³ At present the

Holywell Hospital, 60 Steeple Road, Antrim BT41 2RJ, Northern Ireland.
B W McCrum, BSc, MSc, Principal Clinical Psychologist.
G MacFlynn, MB, BCh, BAO, MRCPsych, Consultant Psychiatrist.
Correspondence to Mr B McCrum, Area Clinical Psychology Service, Holywell Hospital, Antrim.

© The Ulster Medical Society, 1990.
rehabilitation units find themselves caught up between the clinical reality of a more dependent and handicapped population, and the government policy of accelerated reduction in psychiatric hospital population. In these circumstances it is essential that rehabilitation services are evaluated critically to ensure the most effective use of resources. In human terms this means that relevant programmes of rehabilitation practice are directed to appropriate individuals and that adequate systems of support and aftercare in the community are developed.

A variety of evaluation techniques have been used in other studies which can usually be classified in terms of four different perspectives — structure or input, process, output and outcome. Each approach has its respective strengths and limitations. Outcome measures at first glance appear the most objective, where the effectiveness of a service is measured by the degree to which the patient has improved as the result of intervention. Using this criterion, a simple evaluation of a rehabilitation unit is the degree to which patients are enabled to live in the community. In this study the progress of each patient referred to the rehabilitation unit at Holywell Hospital (Bush House) over the three year period 1985–1987 was examined. A profile of patients was drawn up and comparisons made between those who are presently in the community and those who remain in hospital after taking part in the rehabilitation programme.

METHODS

The case-notes of 96 patients referred to the rehabilitation unit over the three year period 1985–1987 were examined using a standardized check list. Demographic details together with psychiatric diagnosis and history were recorded. The location and type of accommodation being used by each patient at the end of 1987 was noted. The sample was split into a group who had been discharged from hospital and were living in the community, and another group who had not been successfully resettled. The latter group was made up of patients who were readmitted after discharge and remained in hospital, and those who returned to their former long-stay wards from either day-patient or in-patient status at the rehabilitation unit. These groups were compared with respect to age, sex, length and number of admissions, ward of origin and diagnosis. A third group of patients who were resident in Bush House at the time of the survey were not included in these comparisons.

RESULTS

Background information on the 96 patients referred to the rehabilitation unit from 1985–1987 is shown in Table I. There were roughly equal numbers of males and females, the majority (70%) were single, and over 60% were diagnosed as suffering from schizophrenia. At the end of 1987 these 96 individuals were located as indicated in Table II. Of these 44 patients who had been discharged, ten had gone to a social services hostel, ten to private residential accommodation, eight to live with their own family, seven each to social services residential accommodation or a new single home, and one each to a group home or a Fold Housing Association.

By the end of 1987 thirty-eight patients were living in the community after planned discharge from hospital. An identical number had been in the rehabilitation unit but had either been returned to their original wards (32) or had returned to hospital after discharge and remained there (6). The majority of the remaining patients were still either day or in-patients at the unit (18).
The Ulster Medical Journal

**TABLE I**

*Background data on patients referred to the rehabilitation unit 1985–1987 (Mean ± SD)*

| Variable                                      | Mean   | Range |
|-----------------------------------------------|--------|-------|
| Age (yr)                                      | 48.7 ± 17.0 | 23 — 87 |
| Length of present admission (yr)              | 8.3 ± 10.5 | 1 — 42 |
| Length of all admissions (yr)                 | 10.5 ± 11.7 | 1 — 49 |
| Number of previous admissions                 | 3.9 ± 4.0   | 0 — 18 |
| Age at onset of illness (yr)                  | 31.6 ± 13.3 | 15 — 72 |

**TABLE II**

*Location of 96 patients at the end of 1987*

| Outcome                                      | Number |
|----------------------------------------------|--------|
| Discharged without subsequent readmission   | 33     |
| Discharged and subsequently readmitted      | 11*    |
| Returned to long-stay wards from in-patient care at rehabilitation unit | 10 |
| Returned to wards from day-patient attendance at rehabilitation unit | 22 |
| In-patients at rehabilitation unit          | 18     |
| Left the rehabilitation unit against medical advice | 2 |
| Died whilst in unit                         | 2      |
| Total                                        | 96     |

*Five of these patients were discharged again and remained in community. Six remain in hospital including two in the rehabilitation unit.*

To investigate possible distinguishing characteristics between those who were in the community and those who had not successfully made this transition, a number of variables were compared between the first and second sub-groups (Table III). Resettled patients were significantly older and had had fewer psychiatric admissions than those non-resettled. Although the resettled patients had had fewer admissions, there was no difference between the two groups for the total amount of time spent in hospital.

**TABLE III**

*Comparisons between resettled and non-resettled groups*

| Variable                              | Resettled (Mean ± SD) | Non-resettled (Mean ± SD) | P    |
|---------------------------------------|-----------------------|---------------------------|------|
| Age                                   | 56.3 ± 16.3           | 42.1 ± 16.4               | 0.009|
| Length of present admission           | 10.3 ± 10.9           | 6.3 ± 7.3                 | 0.11 |
| Length of all admissions              | 12.7 ± 13.2           | 8.4 ± 7.5                 | 0.37 |
| Number of previous admissions         | 2.8 ± 3.1             | 5.3 ± 4.5                 | 0.008|
| Age at onset of illness               | 37.2 ± 14.3           | 28.9 ± 11.8               | 0.014|

The Mann-Whitney U test was used to assess significance.
There was no sex difference between the groups (chi² = 1.6, NS) although there is a relatively large group of 25 males who were not resettled. Those with schizophrenia were as successful as non-schizophrenic patients in community placements (chi² = 0.22, NS). No-one who had come to the rehabilitation unit directly from the intensive care wards had been successfully resettled, but no other ward of origin was identified as affecting the outcome.

DISCUSSION
During the three year period under investigation almost half the patients referred to Bush House were discharged into the community, and 38 remained there. This is an important reduction in hospital numbers given both the high proportion of seriously ill people referred to the unit and the duration of their psychiatric conditions. However, a further 32 patients referred to the unit had to be transferred back to their ward of origin. As all of these patients were originally assessed by staff at the rehabilitation unit it can be assumed that the referrals were appropriate. Therefore it is important to discover why such large numbers of patients failed to progress to any form of community accommodation after their involvement with the rehabilitation service.

The results indicate that older patients have been relocated more successfully than younger ones although they have not spent significantly longer in hospital. Older patients tend to move to residential accommodation and it might be speculated that this relative "success" is the result of transferring from one type of institutional care to another which has many similarities. Failure in the other group does not necessarily relate to problems in adjusting to a particular type of community facility, as the majority of this group (about 88%) returned to their ward of origin without having been discharged into the community. They usually returned to their original wards because of a deterioration in mental state, lack of interest in the programmes, no motivation to leave hospital or personality difficulties, which produced unrealistic expectations and/or interpersonal friction. Younger patients usually had a desire to live in the community, and it could be that rehabilitation services as currently delivered are not meeting the needs of younger people with chronic illnesses, resulting in their repeated admissions to hospital. If effective community based alternatives are to be found for these patients, then ward policies and practices may need to change and those who plan community services must ensure that sufficient support services are available to deal with the difficulties thrown up by the younger patients.

Although sex did not significantly affect the outcome between the groups there was a tendency for more males than females to fail to make the transition to community living. There was a great deal of emphasis on domestic chores, which many of the men resented and indeed may not have been relevant to them in their eventual location. It may be more realistic to provide community based accommodation for men, including appropriate domestic services, and to relocate patients directly with care staff who are known to them. The data relating to ward of origin could not be analysed because of inadequate cell numbers, but the fact that no-one who had come from the intensive care wards had been successfully relocated may have some clinical significance. In making the move from intensive care to rehabilitation the patient moves from a highly structured and intensively supervised régime to a fairly relaxed and more domestic setting, which must cause difficulty in adjusting.

Some comments are needed on the type of evaluation employed. The single criterion used was location at the end of 1987, which is based on the questionable
assumption that living in the community is synonymous with a successful rehabilitation outcome. Clearly the primary aim of psychiatric rehabilitation is not merely resettlement, and no statement about positive outcome can be justified without employing subjective or objective quality measures. Likewise, it is misleading to assign individuals to “successful” and “non-successful” groups merely on the basis of where they are living on a particular day. Such a simplistic view fails to reflect the nature of psychiatric conditions as a chronic illness where relapse and recovery, and occasional acute admissions, are to be expected. Just as such an admission does not necessarily represent failure on the part of a rehabilitation programme, neither does someone who is highly distressed by acute symptoms, but living in the community, give cause for congratulation.

It is clear that many factors interact to determine whether an individual with a psychiatric illness can be maintained in the community, is frequently readmitted to hospital or tends to remain in a ward setting for long periods. It also seems reasonable to assume that the factors which combine to enable an individual to cope in their own flat are different from those which might maintain them in residential accommodation. In order to make authoritative statements about the effectiveness of a rehabilitation service a very broad sweep of variables requires to be examined, increasing the chances of producing spurious findings. Such drawbacks spell out the need for caution when interpreting these results, but even such a rudimentary approach can point towards strengths and weaknesses in rehabilitation practice and may prove clinically useful.

The purpose of any evaluation exercise is critically to examine an intervention or service. Where deficiencies are found some working hypotheses can be generated, appropriate clinical changes made and further evaluation carried out. In addition, the results of such an exercise provide valuable information for planning purposes. Despite the reservations expressed at the outset of this discussion a number of significant findings, trends and clinically interesting issues were uncovered. Younger people and those with more admissions were less likely to be successfully placed in community settings. As stated previously most young patients wished to leave hospital and many have the practical skills to look after themselves in a flat. However, for many, previous admissions had been precipitated by lack of emotional support. Therefore, in planning services for these individuals both their needs and skills have been taken into account, and self-contained flatlets with built-in support from both the voluntary sector and the Health and Social Services Board are being provided. The relatively large numbers of males identified as not progressing to community living have very different needs from those provided by such a residential project. Their lack of motivation to engage in domestic chores has meant that two small community based facilities have been planned which will provide basic “hotel” services, although staff will still encourage and promote as much self-care as possible. These facilities will be centrally located in towns so that more extensive use can be made of community resources. In addition to these large scale projects smaller changes have been brought about within the hospital as a result of this review. Programmes have become more personalised and compatible with the anticipated lifestyle which patients will lead in the community. A new referral procedure between the intensive care wards and Bush House has been adopted which will hopefully overcome the transition difficulties experienced by patients from these wards.

© The Ulster Medical Society, 1990.
REFERENCES

1. Department of Health and Social Services (Northern Ireland). Strategic planning for the Health and Personal Social Services 1987–1992. Regional planning guidelines manual. 1986.

2. Furlong RSC. Closure of large mental hospitals — practicable or desirable? Bull Roy Coll Psychiat 1985; 9: 1130-4.

3. McCreadie RG. Clinical and social aspects of long-stay psychiatric patients. Health Bull 1980; 38: 70-5.

4. Ellis RAF. Quality assurances and care. In: Ellis RAF, ed. Professional competence and quality assurance in the caring professions. London: Croom Helm, 1988: 26-7.