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Residential rehabilitation for drug users: a review of 13 months' intake to a therapeutic community

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Background. Residential rehabilitation based on 'therapeutic community' treatment for drug users is a treatment option which is attractive to GPs and others referring drug users for treatment. Whilst there is evidence that maintenance-based programmes for drug users are effective, there have been fewer attempts to evaluate the effectiveness of abstinence-based programmes which are relatively more intensive and expensive interventions.

Objective. This paper reports and evaluates the outcomes for 13 months' intake of 138 drug users to a residential community.

Methods. We carried out a retrospective cohort study using existing clinical and residential record data. The setting is a residential rehabilitation centre run by the charity Phoenix House in Sheffield, UK, offering a 1-year programme for heroin addicts including community detoxification overseen by primary care specialist doctors and residential rehabilitation. Participants were all patients who entered treatment between 1 February 1998 and 28 February 1999 inclusive. An analysis was carried out of clinical records and other records kept by clinicians and staff at the centre. Outcome measures were numbers of days of retention in treatment and reasons for departure, categorized as completed treatment, planned or unplanned departure and expulsion from the programme. For patients who underwent in-house detoxification, a further outcome measure was whether or not detoxification was complete at discharge.

Results. Heroin was the main drug of abuse in 85% of admissions. Mean length of time for which individuals had been drug dependent was 8 years (range 1.3–20.1 years). The mean length of stay was 80.2 days (range 1–394, 95% confidence interval 61.8–98.6). Thirty-four individuals (25%) completed 90 days or more. No association was found between length of stay and age, sex, route of administration, polydrug use, length of time addicted or age of first addiction. Sixty-five per cent of those who received in-house detoxification completed the detoxification period. When patients were classified as 'successes' or 'failures' by reason for departure from the programme, 94 (68.1%) were classified as failures and 18 (13.0%) as successes. Data were unavailable for 26 patients. Success was not associated with any characteristic at entry apart from being drug free as opposed to requiring detoxification (P = 0.048, chi-square = 6.06, df = 2).

Conclusion. This study shows overall low levels of programme completion and high levels of unplanned departure and eviction from the programme amongst these long-term drug users. On the other hand, the importance of abstinence for those who achieve it in residential rehabilitation should not be underestimated, nor should the possibility that long-term outcomes are influenced by the learning process involved in the intervention. It may be possible to operate better selection procedures in order to optimize outcomes.

Keywords. Addiction, detoxification, heroin, rehabilitation, substance abuse.

Introduction

Research into residential rehabilitation programmes for drug users, with or without an integral detoxification, has been fraught with difficulties. Comparability between different programmes has been hard to establish; follow-up of residents who have left the programmes is difficult

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because of the relative instability of many drug users; and selection bias affects interpretation of the results. Nevertheless, the question remains for policy makers and referrers whether or not this intensive intervention is a valid treatment option. This paper reports the results from 13 months' intake of 138 drug users to a residential community.

Context

In their review of the effectiveness of detoxification programmes,[1] Mattick and Hall make the point that detoxification, as a treatment aimed at achieving abstinence, is not especially effective. They point out that many countries adopt services based on the idea that detoxification can bring about lasting changes in drug use, despite evidence to the contrary. However, the authors do accept that even temporary abstinence followed by relapse may be of value.

The generally agreed aim of residential rehabilitation, such as that studied in this investigation, is to achieve long-term abstinence. Nonetheless, the conclusions of Mattick and Hall make it clear that a fairly low rate of 'success' can be expected if abstinence is the desired goal. Studies looking at other outcomes of residential rehabilitation, however, such as reductions in illicit drug use, improved family outcomes,[2] reductions in criminal activity and overall harm minimization, have demonstrated more positive results.[3–5] Gossop[6] makes the point that these goals may co-exist with the goal of abstinence. This study looks at short-term outcomes for residential rehabilitation with or without on-site detoxification in a residential therapeutic community setting in Sheffield, UK.

Study design

This is a records-based retrospective cohort study of all 138 drug users who were admitted to the residential therapeutic community in Sheffield, UK for drug rehabilitation with or without on-site detoxification during the 13 months beginning 1 February 1998.

Intervention

The residential programme lasts 1 year and all patients are expected to participate from the outset in the therapeutic community, which is based on a concept of lifetime abstinence and uses all the individuals in the community, staff and patients, as therapeutic tools. Urine testing is carried out on a random basis and if there is suspicion of illicit drug use, the penalty for this is expulsion from the programme. Individuals are under no compulsion to stay in the programme, and unplanned departure generally indicates a return to illicit drug use. On the other hand, planned early departure from the programme may occur because of funding difficulties or childcare problems without implying failure to maintain abstinence.

Drug users who were still opiate dependent at the time of entry were seen by one of two Primary Care Specialists in Drug Dependence and provided with a medical detoxification using only methadone mixture 1 mg per ml at starting doses not higher than 40 ml. The dose would be reduced typically by 5 mg per 1 or 2 days over an average period of 7–10 days until detoxification was complete. No additional psychoactive medication was used for these patients, and no other patients received any psychoactive medication.

Method

Records of the admissions of all the patients were obtained from the therapeutic community as well as medical records held by the doctors overseeing the detoxifications. This information was provided in MS Excel format and exported into a statistical package (SPSS v 9.0) using ODBC (Open Database Connectivity) for analysis. Data analysis was then carried out using a range of statistical tests including chi-square, *t*-tests and tests for correlation.

Outcome measures

Retention in treatment, especially for periods of 90 or more days, has been identified by a number of authors[3,5,7] as a good predictor of long-term success on a number of measures; therefore, in the absence of long-term follow-up data, the number of days in treatment was selected as the main measure of outcome. In addition, the reason for departure, categorized as completed treatment, planned or unplanned departure and expulsion from the programme, was chosen as a secondary outcome measure, with completed treatment and planned departure suggesting favourable outcomes at the point of leaving the programme. For patients who underwent in-house detoxification, a further secondary outcome measure was whether or not detoxification was complete at discharge. These outcomes were used to measure the effectiveness of the intervention in retaining patients in treatment, but also to attempt to ascertain whether any of the patient characteristics measured at entry to the programme would be found to be predictive of retention in the programme and/or successful completion.

Results

Patient profile

One hundred and thirty-eight patients were admitted to the centre between 1 February 1998 and 28 February 1999. Eighty-eight (64%) were male and 50 (36%) female. Fifty patients (36%), who were still opiate-dependent at admission, and of whom 32 were men and 18 women, received an in-house methadone detoxification. Mean age at admission was 26.7 years (range 19–42), with no significant difference between the sexes or between those who did or did not receive detoxification. The sample

was predominantly white (93%), with the remainder Asian, Afro-Caribbean or mixed race.

Drug use prior to admission

The preferred drug of abuse was overwhelmingly heroin (85%) followed by cocaine (6%) and amphetamines (4%); however, 87% of the sample regularly abused more than one drug. Of the sample, 65.9% were regular injectors. High levels of risk-taking behaviour were reported, with 86% having injected at least once, 53% having shared injecting equipment and 11% having shared equipment in the past month. Twenty-two per cent of the sample were in receipt of a methadone prescription immediately prior to admission, and these were all included in the group who received in-house detoxification.

The length of time for which individuals had been dependent upon their main drug of abuse ranged from 16 to 241 months (1.3–20.1 years) with a mean of 95.4 months (8 years).

Length of stay

The number of days for which patients stayed in treatment ranged from 1 to 394, with a mean of 80.2 (95% confidence interval 61.8–98.6) (Fig. 1). Thirty-four individuals (25%) completed 90 days or more. No association was found between length of stay and age, sex, route of administration, polydrug use, length of time addicted or age of first addiction. Sixty-five per cent of those individuals who received in-house detoxification stayed for 14 days or more and therefore successfully completed the detoxification period, but there was no significant difference in mean overall length of stay between these and the individuals who were drug-free at entry. When individuals were divided into those who stayed 90 days or more and those who did not, there similarly was no association with the factors listed above.

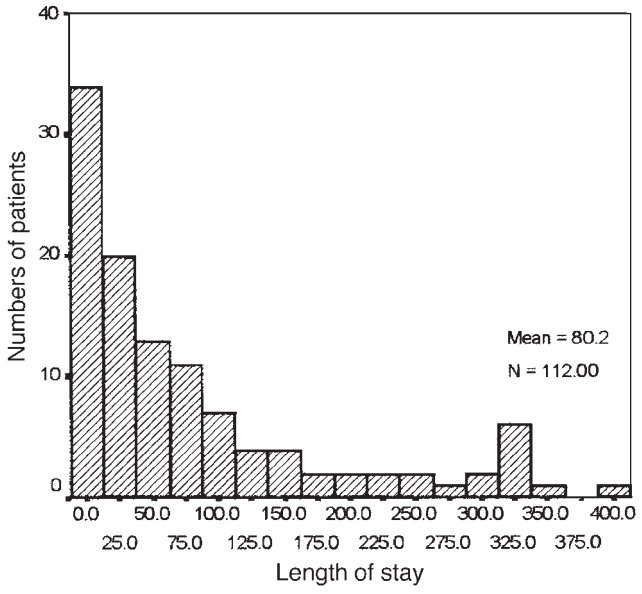

FIGURE 1 *Number of days spent by patients in treatment*

Reason for departure

For the purposes of this analysis, patients who left the programme because they had completed their treatment or as planned departures or transfers were classified as successes; those who left as unplanned departures or were evicted were classified as failures. Overall, 94 (68.1%) of the 138 entrants were classified as failures and 18 (13.0%) successes. Data were unavailable for the remaining 26 patients. Success or failure was not associated with sex, age at admission, length of time addicted, age of first addiction, mode of administration of drugs, or whether or not the patient had received a methadone prescription. However, it appeared that those who were already drug free on admission were more likely to be successes than those who required detoxification ($P = 0.048$, chi-square = 6.06, df = 2).

Discussion

An analysis of data of this sort faces two major problems: the identification of what constitutes success or failure and the difficulty in assessing the impact of one treatment episode on the future course of a patient's addiction.

This study shows overall low levels of programme completion, low levels of retention in treatment for 90 days or more, and high levels of unplanned departure and eviction from the programme. On the other hand, as noted by the NTORS study of patients entering similar programmes,[8] these patients were very markedly at the 'heavy end' of drug users, being predominantly long-term heroin injectors many of whom were polydrug abusers. Only one patient had been addicted for less than 2 years, and only five patients for less than 3 years. In the absence of long-term outcome data, it is impossible to judge whether other measures of success such as improved overall functioning and reduction of drug-related harm may have been achieved by participants in spite of failing to complete the programme. Furthermore, whilst the failure of 87.5% of programme participants to achieve the stated goal of abstinence even for the 1-year period of residential treatment would seem to raise questions about the value of the intervention, this nonetheless represents a considerable achievement for the 17 individuals (12.5%) who did remain abstinent for the duration of their treatment.

This in turn raises the question as to whether it is possible to maximize the number of individuals likely to benefit from a treatment such as this one. Our study shows that the mean age of entry to the programme was 26 years and the mean length of addiction was 8 years.

Amongst this group, no factor at entry seemed to predict abstinence. However, there were very few younger users with shorter addiction histories in the programme. This may simply represent confirmation of the view of Seivewright,[9] amongst others, that abstinence is a difficult outcome to achieve in older patients with longer histories of dependent opiate use, who may benefit more from maintenance treatment.

Whilst there is far more good evidence for measurably successful outcomes with maintenance programmes[10] than with abstinence-based programmes, nevertheless the importance of achieving abstinence cannot be underestimated in individuals who achieve success. Additionally, there may be long-term effects derived from the learning process undergone during the residential programme.

Conclusions

This report shows a low rate of achievement of abstinence among the cohort studied. This type of data, however, is unable to quantify possible future effects deriving from the learning process inherent in the intervention which may affect the course of the patient's addiction. There is, furthermore, some suggestion from this report that selection procedures for interventions such as this might be reviewed, in order to avoid recruiting a preponderance of patients who are less likely to succeed.

Acknowledgements

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