Long-Term Follow up Study of Military Alcohol Treatment Programme Using Post-treatment Career as an Outcome Measure

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SUMMARY: The long term military careers of soldiers who had completed an in-patient alcohol treatment programme in 1983 were examined. Compared to a matched control group, soldiers who had received treatment served for a significantly shorter time post-treatment. Only 40% of the treatment group were discharged from the service on normal grounds.

It is suggested that post-treatment career provides a useful outcome measure and indicates that even after extensive in-patient treatment, the results are poor.

Introduction

There are considerable doubts about the efficacy and cost efficiency of in-patient alcohol treatment (1). In-patient care has not been shown to be more effective than day or out-patient treatment (2). The Alcohol Treatment Unit (ATU) at Queen Elizabeth Military Hospital (QEMH) has provided in-patient alcohol treatment for over a decade with little examination of outcome. Unpublished work in 1982 (Blunden), reviewed servicemen one year after completing therapy; 54% were fully fit and serving, 9% were under medical care but still serving, 25% had left the service and 13% had died or been medically discharged. There are a number of difficulties in evaluating outcome following treatment for alcohol problems. Examining drinking behaviour itself involves terms such as controlled drinking and abstinence, which have varying definitions and rely considerably on self-report (3). Other, more indirect, measures can be used, such as treatment utilisation, forensic problems, occupational functioning, social adjustment and psychological status (4). All servicemen are by definition in employment and work in a structured, disciplined environment subject to regular medical review. Relapse to problem drinking after treatment is likely to affect an individual's military career leading to early discharge on medical, administrative or disciplinary grounds. Therefore, in a military population, post-treatment career might provide a useful outcome measure which is objective and also avoid problems of drop out from follow-up.

The Army ATU at QEMH uses a programme involving closed groups of 8-12 patients. Following supervised withdrawal if necessary, patients progress to a 2 week education phase. After completing this, the majority continue to a 5 week discussion phase. The programme

includes counselling, group therapy, social skills, relaxation training, education and cognitive-behavioural work. The programme is broadly similar to the ATU described recently by Shaw *et al* at Bexley Hospital (5).

Method

All male service personnel who entered the alcohol programme for the first time in 1983 were included in the study. Officers and servicewomen were excluded because the numbers in each group were too small to be statistically useful. The names of those attending the ATU were obtained using the computerised patient administration system at QEMH. There were 105 subjects who satisfied these criteria. Data was obtained from Manning & Records relating to the status of each individual as at 1 July 1990. If they were still serving, their substantive rank and medical grading was recorded. If they had left the service, details were obtained for date, substantive rank, medical grading and method of discharge.

A control group was obtained using the Royal Army Pay Corps computer at Worthy Down. (This is now known as the Adjutant General's Information Centre). Subjects were matched for rank, regiment or corps and length of service at the time of admission to the alcohol programme. The controls were selected at random from a list of all personnel who matched the criteria. Manning & Records then supplied information on the status of the control group as at 1 July 1990.

The control and study groups were compared on length of service post-treatment and method of discharge. The subjects were placed in 4 groups according to type of discharge and compared with controls using the Chi-square test. The length of service post-treatment was measured from finishing the ATU until discharge.

from the service or 1 July 90 if still serving. Those still serving had a maximum of 84 months post-treatment service (because of the cut off at 1 July 90). Therefore the length of service in months was not strictly quantitative data and a distribution free method of analysis had to be used. The length of service for the treatment and control groups was compared using the Mann-Witney U test. All analysis was carried out using Statgraphics version 5.

Results

Incomplete information was obtained for 12 of the subjects, leaving 93 in the study group. The rank distribution was as follows; Private 41, Lance-Corporal 18, Corporal 14, Sergeant 12 and Staff Sergeant 8.

The average age was 30 years 8 months and the mean length of service 10 years 8 months at time of admission.

a. Post-treatment Career: Type of Discharge

There are numerous sections of Queens Regulations detailing various categories of leaving the service. For simplicity discharges were divided into 4 groups:

- (i) *Normal*. Soldiers still serving or discharged after completing their engagement, after giving due notice or having paid for early release.
- (ii) *Medical*. Soldiers medically discharged on psychiatric grounds with a grading of S8 because of alcohol dependence.
- (iii) *Disciplinary*. Soldiers discharged due to inefficiency, persistent drunkenness, recurrent minor offences or at Court martial for more serious crimes.
- (iv) *Services No Longer Required (SNLR)* — “Temperamentally Unsuitable”. Soldiers discharged because of incompatibility with military life. Such individuals would be diagnosed as suffering from minor degrees of personality disorder in civilian practice.

Table 1
Types of Discharge For Treatment Group and Controls

Type of Discharge	Treatment Group	Control Group
Normal/Still serving	39.8% (37)	89.3% (250)
Medical	22.6% (21)	3.6% (10)
Disciplinary	28.0% (26)	6.1% (17)
SNLR	9.7% (9)	1.1% (3)

Chi-Square, C² = 97.66, d.f. = 3, p = <0.001
39.8% — percentage by column
(37) — numbers of subjects in each cell

The results were analysed using the Chi-square test. The proportion of soldiers discharged under each group differed significantly (Table 1). Only 40% of the treatment group progressed to a normal discharge compared to almost 90% of the control group. The treatment group were 6 times more likely to be medically discharged and 4 times more likely to be discharged on disciplinary grounds than the control group. Almost 10% of the treatment group were discharged as being temperamentally unsuitable.

b. Length of Service After Treatment

The length of service differed significantly between the treatment and control groups. (Mann Witney U test, two tailed, p<0.001).

The subjects were divided into two groups according to whether their careers were “normal” (still serving, finished engagement or signed off) or “abnormal” (medical, disciplinary or SNLR discharge). The length of service is tabulated for each (Table 2 & 3). The numbers in each cell were too small for formal statistical analysis. However even the treatment group who have a normal discharge seem to serve for a shorter period (Fig 1).

Table 2
Length of Service For Normal Discharge Group

Length of Service	Treatment Group	Control Group
<1 year	35.1% (13)	6.4% (4)
1-3 years	18.9% (7)	26.0% (65)
3-5 years	21.6% (8)	22.4% (56)
5-7 years	10.8% (4)	10.4% (26)
>7 years	13.5% (5)	34.8% (87)

35.1% — percentage by columns
(13) — numbers of subjects in each cell

Discussion

The results demonstrate that the career of soldiers having attended the Army ATU differs considerably from normal controls. They leave the service significantly earlier and over 60% are discharged abnormally. All the medical discharges were due to persistent alcohol dependence and the majority of the disciplinary discharges are likely to be caused by continuing problem drinking. Those discharged as being temperamentally unsuitable were often diagnosed as such whilst undergoing treatment on the ATU and therefore their subsequent discharge from the service was probably unaffected by post-treatment drinking behaviour.

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Table 3
Length of Service For Abnormal Discharge Group

Length of Service	Treatment Group	Control Group
<1 year	53.6% (30)	20.0% (6)
1-3 years	32.1% (18)	50.0% (15)
3-5 years	10.7% (6)	20.0% (6)
5-7 years	1.8% (1)	10.0% (3)
>7 years	1.8% (1)	0% (0)

53.6% — percentage by columns
(30) — numbers of subjects in each cell

If serving on and avoiding either medical or disciplinary discharge can be taken as a reasonable outcome, it is possible to claim that 40% of patients having completed the ATU have done well long term. This compares with 37% of patients abstinent or drinking in a controlled fashion, one year after completing the ATU at Bexley (4).

The majority of out-come studies carried out in civilian settings lack a control group altogether. A great advantage in this study was access to the Adjutant General's Information Centre which contains records of all servicemen. This is a valuable resource and potentially very useful to produce control groups for other medical research. It is important to highlight a weakness in this study in that the control group were not matched for having an alcohol problem. Without a control group of soldiers with alcohol problems but not treated by the ATU, it is not possible to demonstrate the impact of treatment itself on a soldier's career. There would be considerable ethical and military difficulties with such an experiment as many of the soldiers referred for treatment are physically dependent and cannot be managed in their units. Long-term follow up of untreated alcoholics indicate only 11-19% manage abstinence or controlled drinking (5). Therefore it is possible to tentatively suggest that the outcome after the ATU is double that of what it would be without treatment.

It is clear that despite prolonged and expensive treatment 60% of soldiers do badly and leave the service in an abnormal manner. Many continue to cause trouble at their units and continue to heavily utilise medical services. It could be argued that this is a waste of resources and perhaps the medical services would do better by identifying those unlikely to respond and recommend their discharge rather than admit them to the ATU. Unfortunately there is no reliable way to accurately predict treatment response prior to admission. Furthermore

Fig 1. Percentage of treatment and control group against length of service

there are ethical problems in diagnosing a medical problem and refusing to offer help. The high failure rate of treatment highlights the need for prevention and control of alcohol at unit level. This must largely be the responsibility of command supported by the RMCA and community psychiatric services. There is a place for an ATU, but the suggestion is that despite treatment the majority do badly and therefore an in-patient facility alone can never be the solution to drinking problems within the Army.

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