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

Maj M R Baggaley
MRCPsych, RAMC
Lecturer in Military Psychiatry

Royal Army Medical College, Millbank, London SW1P 4RJ

Maj D Morgan-Jones
MRCGP, RAMC

AMF(L) Troop, 16 Field Ambulance, Bulford, Salisbury, Wiltshire

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 Unpublished work in 1982 (Blunden), reviewed servicemen one year after completing therapy; 54% were fully fit and serving, 9% were under medical care but still serving,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 dis­
tribution 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 ineffi­
ciency, persistent drunkenness, recurrent
minor offences or at Court martial for more
serious crimes.
(iv) Services No Longer Required (SNLR) —
"Temperamentally Unsuitable". Soldiers dis­
charged because of incompatibility with mili­
tary life. Such individuals would be diagnosed
as suffering from minor degrees of personality
disorder in civilian practice.

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

Chi-Square, $C^2 = 97.66, d.f. = 3, p < 0.001$
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 treat­
ment 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 dis­
charged 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>
<thead>
<tr>
<th>Length of Service</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td>35.1% (13)</td>
<td>6.4% (4)</td>
</tr>
<tr>
<td>1-3 years</td>
<td>18.9% (7)</td>
<td>26.0% (65)</td>
</tr>
<tr>
<td>3-5 years</td>
<td>21.6% (8)</td>
<td>22.4% (56)</td>
</tr>
<tr>
<td>5-7 years</td>
<td>10.8% (4)</td>
<td>10.4% (26)</td>
</tr>
<tr>
<td>&gt;7 years</td>
<td>13.5% (5)</td>
<td>34.8% (87)</td>
</tr>
</tbody>
</table>

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 signifi­
cantly earlier and over 60% are discharged abnormally.
All the medical discharges were due to persistent alcohol
dependence and the majority of the disciplinary dis­
charges are likely to be caused by continuing problem
drinking. Those discharged as being temperamentally
unsuitable were often diagnosed as such whilst un­
dergoing treatment on the ATU and therefore their
subsequent discharge from the service was probably
unaffected by post-treatment drinking behaviour.
Table 3
Length of Service For Abnormal Discharge Group

<table>
<thead>
<tr>
<th>Length of Service</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td>53.6% (30)</td>
<td>20.0% (6)</td>
</tr>
<tr>
<td>1-3 years</td>
<td>32.1% (18)</td>
<td>50.0% (15)</td>
</tr>
<tr>
<td>3-5 years</td>
<td>10.7% (6)</td>
<td>20.0% (6)</td>
</tr>
<tr>
<td>5-7 years</td>
<td>1.8% (1)</td>
<td>10.0% (3)</td>
</tr>
<tr>
<td>&gt;7 years</td>
<td>1.8% (1)</td>
<td>0% (0)</td>
</tr>
</tbody>
</table>

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 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 RMO 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.

Acknowledgements
The authors wish to thank the Adjutant General's Information Centre and the various Manning & Records Departments for their help in data collection and Mrs Margaret Sims for statistical advice.

REFERENCES
Long-Term Follow up Study of Military Alcohol Treatment Programme Using Post-treatment Career as an Outcome Measure
M R Baggaley and D Morgan-Jones

*J R Army Med Corps* 1993 139: 46-48
doi: 10.1136/jramc-139-02-03

Updated information and services can be found at:
http://jramc.bmj.com/content/139/2/46.citation

*Email alerting service*
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

*Notes*

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/