Practitioner Report

The Evolution of an Evidence-based Programme for Problem Drinking: Treatment Components

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The development and evaluation of an evidence-based treatment for problem drinking is described. In addition to a clear description of the treatment programme, emphasis is placed on the management of change within mental health settings, treatment integrity and an ongoing process of audit and evaluation. Implications for future service development are discussed. Copyright © 2001 John Wiley & Sons, Ltd.

INTRODUCTION

A number of previous publications have documented the evaluation of treatment programme effectiveness on an addiction unit (Long et al., 1995, 1998, 2000). The presentation of these data on effectiveness and cost effectiveness of programme change, and predictive outcome factors, has not been accompanied by a detailed description of the treatment programme. The published research to date has, therefore, been characteristic of much published work in the alcoholism treatment field (Nathan and Skinstad, 1987; Morley et al., 1996). Such evaluative research does not typically give details of the treatment programme itself. However, when outcome data are presented the substance of the programme requires an elaboration for the benefit of the field. The focus of this paper is therefore, to provide such information in support of previously published work. This paper describes the content of an addiction unit treatment programme through its evolution from a cognitive behavioural 5-week residential programme, to an evidence-based 2-week in- and day-patient programme. It will also look at the factors necessary to maintain integrity and vitality within such a treatment setting.

PRE-CHANGE PROGRAMME

Throughout the 1980s, the alcoholism treatments most widely available in the British Independent Healthcare sector and in North America were remarkably similar to those used several decades earlier (Cook, 1988; Fingarette, 1988; Peele, 1990). These treatments either lacked research support or were contraindicated by their research evidence (Fingarette, 1988). The treatment programme which is the subject of this article, flew against two trends of the time: the trend in the independent treatment of addiction sector towards a belief-based Minnesota model treatment, which
Evidence-based Programme for Problem Drinking

employed 12-step treatments based on the alcoholics anonymous literature (Nowinski et al., 1992), and the trend towards community-based treatments. As a cognitive behavioural treatment programme, influenced by Edwards’ (1986) work on the alcohol dependence syndrome, Marlatt’s work on relapse prevention (Marlatt and Gordon 1985), Litman et al.’s (1979) work on coping skills and Prochaska and DiClemente’s (1986) stages of change, it used a multidisciplinary team of professionally trained staff. The original programme contained some research-based sessions, such as those incorporating the use of low alcohol drinks (Long and Cohen, 1989), but emphasized residential treatment, and was a hybrid of therapeutic influences and styles. Specifically, it had a confrontational didactic style that used the ‘drinkalog’ so characteristic of AA, and gave high profile to recreational counselling, and adopting alternative lifestyles. The treatment programme had evolved in a relatively random manner, resembling a house with numerous extensions rather than a rounded coherent purpose-built facility. This state of affairs reflected the national situation that developed following the recommendations in 1962 for the establishment of alcoholism treatment units (ATU) within the NHS (Ministry of Health, 1962). Since not all Health Board Regions took up the proposal, ATU treatment facilities had been scattered throughout the country’s psychiatric hospitals (Thom, 1999).

The need for a broad-based type of service expressed by the advisory committee on alcoholism (DHSS Advisory Committee on Alcoholism, 1978), led to a series of published studies by Ettorre (1984, 1988) of treatment activities within ATUs. A survey of 30 ATUs between 1978 and 1982 (Ettorre, 1984) found that for inpatients the most likely used procedures were group psychotherapy followed by counselling, occupational therapy, and relaxation sessions. Physical exercises, social skills or assertion training or individual psychotherapy were rarely or never used in many units. A low uptake of after-care options was noted, although there were continued links with AA. Follow-up of ATUs in 1984 to 1985 found that although the average length stay had decreased over the previous 10 years, the average length of inpatient stay was 5 weeks (Ettorre, 1988).

The St Andrew’s Treatment Programme, up until 1991, included the following elements: (a) educational videos (on drinking sensibly; exercise use; stress and recreational counselling); (b) didactic lectures (on blood results; alternatives to disease models/cognitive behavioural approaches of addiction; alcohol dependence syndrome; time management; aversive imagery; low alcohol drinks; resolution and motivation); (c) individual counselling; (d) physical education/sport; (e) cognitive behavioural group therapy (e.g. handling negative emotions; problem-solving; interpersonal skills training; relapse prevention; changing lifestyle); (f) group sessions aimed at each individual’s appraisal of their drinking problem; adopting an historical perspective (a ‘drinkalog’); (g) family group (adopting the principles of Alcoholics Anonymous); (h) interactive group sessions on low alcohol drinks; (i) open-ended group follow-up sessions.

The programme also encouraged patients to attend AA sessions held on two evenings per week within the hospital grounds, and made use of carefully selected volunteers to help with certain group sessions.

Thus, at that time the St Andrew’s programme was similar to the national picture in terms of offering a programme based on a mixture of evidence-based and unproved strategies for treating alcoholics. In this sense the programme represents a partially ‘informed eclecticism’ (Miller and Hester, 1995, p. 10). The reviews of alcohol treatment outcome studies (e.g. Miller and Hester, 1986) concluded that there were a number of promising treatment approaches supported by outcome research, and that the practice at the time reflected little of this knowledge, choosing to focus on strategies for which scientific evidence was lacking. This discrepancy between evidence-based and practised treatment approaches has often been highlighted (Sobell, 1996; Long and Hollin, 1998). Indeed as Miller et al. (1995) note ‘Just two decades ago virtually anyone could claim to be an alcohol/drugs specialist and provide whatever form of counselling he or she thought appropriate. Ensuing years have seen increasing professionalisation of this field (and) a rapid expansion of new knowledge on the relative efficacy of different alcohol treatment approaches’ (p. 13).

It was in the context of a drift from practice, problems of staff retention, the fact that patients stayed for less than the recommended 5-week programme (an average of 19 out of a recommended 35 days) and increased emphasis on brief interventions such as the ‘Drinkers Check-Up’ (Miller and Sovereign, 1989), that a major review of treatment content and delivery at St Andrew’s was undertaken. This decision, prompted by the Unit Director (the second author), coincided with the development of the MATCH evaluation project in the USA (Project Match Research Group, 1997).
A MODEL FOR EFFECTIVE TREATMENT PROGRAMME DEVELOPMENT

The model adopted for effective treatment programme development is discussed in Hollin et al. (1995). It views the process of programme development within the scientist–practitioner framework (Long and Hollin, 1997), and incorporates the implementation of the six principles that Reppucci (1973) identified as necessary to overcome organizational barriers to treatment integrity: (1) a guiding philosophy that is clearly understood by all members of the treatment team; (2) organizational structure that facilitates communication and accountability; (3) involvement of all staff in decision making; (4) using all team members' skills to maximum effect; (5) maintaining community-orientation and community involvement; (6) setting reasonable time constraints in developing and tuning programmes.

As Hollin et al. (1995) point out, Reppucci’s (1973) first point suggests the need for staff training and a clear organizational structure. The second, third and fourth points are concerned with the structure in which treatment takes place, while the fifth and sixth deal with the monitoring and functioning of that structure. This model is presented below (see Figure 1).

In this model, research findings are used to shape practice and help in the formation of programme aims and philosophy: these processes influence staff training which, along with ongoing evaluation, is seen as essential to ensuring treatment integrity. An important area here is the need to go beyond manualized treatments to ensure an understanding by treatment staff of the theory that underpins the treatment programme. Lack of awareness of the principles that underline behavioural change programmes have been related to programme failure (Emerson and Emerson, 1987). The most effective programmes are those with high treatment integrity, which are carried out by trained practitioners and in which the programme planners are involved in all the operational phases of the programme (Lipsey, 1992). Research evaluation covers system (Long et al., 1995), process (Long et al., 2000), and outcome (Long et al., 1998) dimensions.

IMPLEMENTING CHANGE

A phased programme of treatment evaluation was conceived as follows: (a) follow-up of the effectiveness of the current programme; (b) external review of treatment and subsequent revision; (c) procedures to ensure treatment integrity; (d) comparative study of outcomes.

The review and evaluation of the treatment were driven by the aims of avoiding therapist bias and allegiance effects (Kendall, 1998), and to ensure external objective scrutiny (Peele, 1990). These aims were achieved by the use of independent experts to review and advise on treatment programme change and to oversee the treatment evaluation of the project. The external treatment advisor sat in on the treatment programme and interviewed staff and patients over the course of 6 working days which followed an extensive written briefing on the unit's current programme. Observations and recommendations led to the following changes detailed in Table 1.

Table 1. Recommended changes to St Andrew’s Hospital Addiction Unit treatment programme following independent review

| (1) | Include only elements of proven effectiveness with problem drinkers (cf. Holder et al., 1991) |
| (2) | Focus on skills training/practise rather than description |
| (3) | Monitor patient’s practise of skills such as relaxation |
| (4) | Discontinue physical exercise sessions, history giving in groups, and educational video/lectures |
| (5) | More comprehensive pre-treatment assessment |
| (6) | Aftercare to be structured, intensified and time-limited on an individual or group basis |
REVISED PROGRAMME

The following research-based principles guided the revised programme: (a) that inpatient admission would be used only for detoxification or for cases where issues of social instability or psychiatric comorbidity made day-patient treatment problematic (McLellan et al., 1996); (b) a brief intensive day-patient programme of 14 days duration would replace previously routine residential care; (c) there would be a continued emphasis on goal choice, i.e. patients wishing to drink in a controlled way would be supported in this (Sobell et al., 1989); (d) that a core group therapy programme would be supplemented on a matched/as needs basis by group and individual therapy on specific topics.

Staffing remained unchanged with the unit employing a full-time psychiatrist (Unit Director) supported by a part-time Consultant Psychologist and four full-time counsellors (three nurses and one occupational therapist).

ASSESSMENT

Patients referred for screening assessment (using a modified form of the Comprehensive Drinkers Profile, Miller and Marlatt, 1984) and the Severity of Alcohol Dependence Questionnaire (SADQ, Stockwell et al., 1983) are seen by the Unit Director or by counsellors with appropriate medical liaison (see Figure 2).

Patients’ relatives/significant others are also interviewed and relevant medical notes obtained. A minimal data set is gathered on each patient involved in the assessment of level of dependency using the SADQ (Stockwell et al., 1983), blood test data, and demographic, drinking and motivational information from the Comprehensive Drinkers Profile (Miller and Marlatt, 1984). Part of the comprehensive treatment package includes breath alcohol concentration, physical examination, pathological examination of blood and urine and drug screen/daily where appropriate. In addition the following are arranged if required: neuropsychological screening, special investigations (e.g. CT scan, liver biopsy) and blood test for HIV and hepatitis status, plus pre- and post- test counselling. Where possible, assessment is conducted on an outpatient basis with subsequent assignment to in-, day- or outpatient treatment. In- and day-patients enter all or selected parts of an intensive 5-day, 2-week group treatment programme that is supplemented by individual counselling, involving one to two sessions per week. The criteria employed to decide on the setting of treatment are summarized in Figures 2 and 3. The decision to admit to inpatient care is determined by the need for detoxification, social problems and comorbidity. Only two criteria are used to assess suitability for inpatient treatment, the ability to communicate in English and being over 16 years of age.

THERAPY

The potential significance of comorbidity for addiction service provision has been described by Krausz (1996, p. 2) as ‘One of the most important clinical challenges in psychiatry in the coming year’. There are no accepted models of treatment or service provision for those with alcohol problems and psychiatric comorbidity. The current service is an integrated one in which the patient is cared for by staff with specialist addiction and general acute psychiatry skills. Any inpatient admission has an

initial detoxification focus with individual and group work attendance undertaken with stabilization of mental state. The timing of the attendance at the specialist addiction unit is determined by the nature of the dual diagnosis and it is often appropriate for patients to concurrently attend sessions on both addiction and the general acute psychiatric programmes. The unit is therefore like combined services described in the American literature (e.g. Galanter et al., 1994), which are based on a more efficient and targeted reorganization of existing psychiatric structures. It thus avoids a serial treatment approach (where treatment for mental illness is followed by specialist addiction centre treatment), which is of doubtful efficacy (Raistrick et al., 1999).

Addiction unit treatment is monitored at two ward rounds per week, which serve to communicate details of individual case histories. Weekend leave is prescribed following detoxification for inpatients to augment the process of identifying high risk (relapse) situations and factors, to begin rebuilding of relationships and to attend to practical affairs of daily living. The process of treatment is informed by the care programme approach and discharge may be to further treatment on an outpatient basis, or rehabilitation. The typical length of stay in the inpatient programme is 14 days.

Inpatients see both their Consultant Psychiatrist and their keyworker for individual sessions twice per week. Self-monitoring of desire to drink, mood state and cognitions is encouraged during time away from the programme. A motivational enhancement counselling style (Miller and Rollnick, 1991) is employed throughout individual sessions. The day- and inpatient programme (attended by both day and inpatients) runs 5 days per week, 09.30–12.30 and 14.00–17.00 hours. Treatment core sessions derive from the published research on coping skills training (Litman et al., 1979; Monti et al., 1989 and relapse prevention (Marlatt and Gordon, 1985; Anis and Davis, 1989).

**Functional Analysis**

ABC (Antecedent Behaviour Consequences), analysis is used to identify cues and triggers to drinking. Ways of avoiding, reducing or scrambling drinking cues are developed and examination of the beliefs and expectations about drug use precedes the identification of alternative routes to achieving desired effects.

**Self-Reward**

Highlights the importance of rewarding difficult behaviour changes, examines types of reward and looks at positive behavioural alternatives to alcohol use.

**Changing Lifestyle**

This session examines the balance between ‘wants’ and ‘shoulds’ (Marlatt and Gordon, 1985). Ways of fulfilling lifestyle needs are examined along with the positive restructuring of time formerly spent drinking (expanding recreational pursuits) and time management.

**Relapse Prevention**

Patients define their own profile of high risk situations and individual cognitive behavioural strategies to deal with stages of the relapse process. Clients are taught to identify the kinds of seemingly irrelevant decisions that may culminate in high risk situations.
situations. A further focus is on dealing with a lapse.

**Coping Skills**

Overviews the contribution of coping skills to relapse prevention in the maintenance stage of change, with emphasis on cognitive (motivational) strategies. Central to this session is developing an awareness of attitudes and thought processes that decrease vigilance. A decisional matrix (Marlatt and Gordon, 1985) is used as a way of helping clients to organize and prioritize their reasons for change. Ways of dealing with urges or cravings to drink are examined.

**Dealing with Negative Emotional States**

Sessions focus on the link between stress/anxiety/depression and alcohol and drug use. Behavioural, cognitive and physiological ways of coping are taught.

**Progressive Muscle Relaxation**

In-and day-patients receive five training sessions per week.

**Assertiveness Training**

Skills practised within this session include saying ‘No’, handling criticism and drink refusal skills within high risk social situations. Role play/behavioural rehearsal is used throughout.

**Problem Solving**

The problem-solving model (D’Zurilla and Goldfried, 1971) is described and applied to an addiction-relevant problem, for example, rebuilding trust with a significant other.

A personalized (matched) programme involved the addition to the core therapy programme of the following: (a) behavioural marital therapy (if indicated by screening); (b) antabuse with compliance training; (c) covert sensitization (for those choosing an abstinence goal); (d) bibliotherapy and video therapy resources to be available to patients with benzodiazepine dependence, abnormal blood tests (personalized by the results of individual blood tests), sleep disturbance, those contemplating the use of low alcohol drinks, significant physical damage, time management problems and recreational needs.

**AFTERCARE**

A variety of aftercare options are explored with clients that include residential rehabilitation, attendance at Alcoholics Anonymous, individual counselling, conjoint marital therapy and telephone support.

**ENSURING TREATMENT INTEGRITY**

The importance of treatment integrity has been highlighted by a number of recent publications (Hollin, 1995). For example, meta-analysis in the forensic field, has shown that the most successful treatment programmes are those with the highest integrity (Lipsey, 1992). Most recently the findings from the Project Match Researchers (Project Match, 1997), have shown that factors such as rigid adherence to a manualized treatment programme and other treatment delivery attributes, can ensure a high level of successful outcome for problem drinkers despite different treatment types and philosophies. A number of strategies were employed in the current programme in an attempt to ensure treatment integrity (Long et al., 1995). These include:

1. Careful monitoring of the work climate to ensure that a positive treatment change for patients was not offset by a decrease in the quality of the work environment for staff (Long et al., 1995). Previous work has demonstrated the relationship between a positive work climate and treatment programmes with a formal cognitive behavioural ideology placed in a research setting (Cherliss and Krantz, 1983).

2. Ongoing staff education/training: in the 6 months before programme change, weekly staff education sessions were devoted largely to presentations and discussions of research and treatment papers (based largely on the work of W. R. Miller at the University of New Mexico), that would inform the programme revision. This included work that assessed the evidence of the effectiveness of particular treatment strategies (e.g. Miller and Hester, 1986; Institute of Medicine, 1990; Holder et al., 1991), motivational interviewing (Miller and Rollnick, 1991), matching patient to treatment (e.g. DiClemente et al., 1992; Litt et al., 1992, brief interventions (e.g. Miller and Sovereign, 1989), and treatment outcome (e.g. Moos et al., 1990; Miller et al., 1992). In addition to attendance at external workshops, current ‘in-house’ training is
conducted on a weekly basis with six staff members rotating presentations that group around the following themes: (i) ‘rehearsal’ of treatment programme sessions to ensure fidelity to the manual and to ensure performance feedback (Fleming and Sulzer-Azaroff, 1989); (ii) discussion of findings and implications of practice-based research papers; (iii) practical skills: presentations covering unit procedures, history taking and case formulation, motivational interviewing, use of relevant equipment including ‘breathalyser’, relevance and use of medication, e.g. acamprosate.

(3) Involvement of all staff in the planning and implementation of a manualized programme of group therapy. An outline manual developed by the first two authors was elaborated by unit counsellors to ensure applicability within the specific treatment context.

(4) The practise of internal audit and review of group sessions to highlight ‘drift’ from an agreed practise. All treatment sessions were ‘rehearsed’ by the staff group and peer reviewed to ensure a learning through doing/skills practise focus and an effective presentation method. Methods include ‘sitting in’ on sessions, or team evaluation of audio-or videotaped sessions. A rolling programme of peer review ensured that all staff could deliver all elements of the group therapy programme in a consistent manner.

(5) External audit by an independent ‘expert’ to confirm ongoing adherence to the prescribed treatment programme.

It is clear that the next task is to take staff training to a further stage: here the key issue is to define core competency skills such as client assessment, motivational counselling, group therapy, report writing and role-playing.

EVALUATION

At the time of the programme review in 1991, over 100 consecutive admissions with an ICD-10 diagnosis of Alcohol Dependence Syndrome, had entered the comparative outcome study (for results see Long et al., 1998). Evaluations of pre-change programmes had involved an assessment of the usefulness of low alcohol drinks as alcohol substitutes for dependent clients (Long and Cohen, 1989), and staff and patient prediction of success (Long et al., 1998). Further evaluation included measures of the ward environment as perceived by staff (Long et al., 1995), patient satisfaction, and a number of within treatment measures that included the therapeutic alliance, and broader measures of patient treatment evaluation (see Long et al., 2000).

Data gathering to assess outcome covered a 4-year period. Using a sequential study design, consecutive referrals with an ICD-10 (World Health Organisation, 1992) diagnosis of alcohol dependence syndrome were evaluated at intake and at 6- and 12-month follow-up (Long et al., 1998). One hundred and twelve patients underwent a 5-week residential programme while a subsequent 100 patients followed the revised 2-week in- and day-patient programme. Patients from before and after the programme changes were compared in order to assess the effect of changing programme delivery. Patients were classified into abstinent, non-problem drinker, drinking but improved and unimproved groups using self-report, collateral report and blood test data. Measures of drinking intensity, percentage of days abstinent, time in treatment, use of aftercare and treatment costs were also taken.

Of all patients in the evaluation study 55.6% were classified as abstinent or non-problem drinker at 1-year follow-up. There was no difference in treatment outcome between the original and the revised programmes. However, there were significant reductions in cost (33%), hours of treatment (38%) and length of stay for the revised programme. Although conclusions of the study are viewed as tentative pending a randomized controlled trial, the evidence endorsed the usefulness of the revised programme on the grounds of cost effectiveness (Long et al., 1998) and the establishment of a positive work environment (Long et al., 1995).

WHAT NEXT?

The completion of a formal evaluation of a treatment programme, and the assimilation of its findings and implications by treatment staff, must, of necessity, signal a revision of that programme and its re-evaluation in the light of experience and further treatment-related research. The findings of outcome studies that have adopted best practise in terms of therapy and evaluation, continue to leave a significant proportion of individuals unhelped. ‘Programme drift’ (Johnson, 1981) or the gradual shift over time with the aim of a programme, and the subtle incorporation of other treatment elements, is a further reason for review. The duration
Evidence-based Programme for Problem Drinking

of a treatment study typically covers a period of sufficient duration to see the production of significant further research findings, or the revision of ‘established’ findings. Research findings with practical implications that have come into more widespread usage during the period of the current study, include developments in marital therapy for alcoholic families (O’Farrell, 1995) and the use of craving suppressant medication, such as naltrexone (Altshuler et al., 1980). Of perhaps most significance has been the completion of the largest scale psychotherapy trial to date (Project Match, 1997). The finding in Project Match that treatments with very different methods and philosophies were very effective if delivered in a highly structured way to prevent sample attrition, has brought to the forefront issues of treatment integrity and the value of non-specific factors in therapy (Frank, 1973). The possible implication of this point is that in a treatment setting where technical competence in the administration of manualized treatment has been established, there needs to be a thorough and systematic attempt to maximize the effectiveness of those variables within a treatment situation that were in past decades seen as ‘superfluous’ artefacts (Kazdin, 1979). This will inevitably mean a focus on issues that relate to the therapeutic relationships or working alliance between therapist and clients in addiction settings where contact with therapists are, of necessity, brief and time limited. A further significant challenge in the real world of clinical work is the development of optimal treatments for those alcohol-dependent patients who present with comorbid disorders that adversely affect the outcome (Kranzler et al., 1996).

A number of key principles underpin the next phase of the unit’s evolution. The first of these is the ongoing systematic assessment of efficacy that includes management, teaching, purchasing and policy making. This will include the undertaking of a 5-year follow-up study of the current cohort to determine longer term patterns of recovery.

Recent work suggests that duration of aftercare may be more important than duration of time on a treatment programme (Trent, 1998), and particular types of aftercare are effective despite their mismatch with the model/philosophy of the treatment programme (Longabaugh et al., 1998). These findings make even more important a comparison of the relative efficiency of different aftercare options (e.g. AA attendance versus other).

A further focus is the continued monitoring of the staff work environment and of consumer and purchasers’ perspectives on the value of treatment. The feedback of these results for the benefit of staff and patients is likewise essential.

Finally, there must be ongoing attempts to provide an increasingly wide variety of treatment alternatives in order to decide on the minimally intrusive therapeutic intervention required to effect and maintain positive change in a patient. On a broader front, research by Finney et al. (1996) outlines the paradigm for the next generation of studies: identification of active treatment ingredients that mediate the relationship of treatment setting to outcome; and identification of the patient environments and patient types that are most likely to benefit from these active ingredients. Such a theoretically driven research agenda will have practical value in assisting treatment programmes to provide more effective treatment.

REFERENCES


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