UNIVERSITY OF SOUTHAMPTON

AN INVESTIGATION INTO THE IMPACT OF BRIEF MOTIVATIONAL INTERVENTION AT THE START OF AN OUTPATIENT DAY PROGRAMME FOR ALCOHOL DEPENDENCE.

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ABSTRACT

Motivational intervention, a strategy to increase motivation for change, was tested as an addition to an outpatient treatment programme for alcohol dependence. Admissions to the programme were randomly allocated to either a motivational or educational procedure. The three motivational constructs of the SOCRATES-8A Readiness to Change questionnaire (Ambivalence about change, Recognition of problems, Taking Steps to change) were used as measures of motivation for change. At one week follow-up, the motivational participants reported a significantly greater level of problem recognition than the educational group. The Recognition scores of the motivational group rose significantly, whilst the scores of the educational procedure decreased significantly. In addition, the motivational group's post-intervention scores were significantly higher on the Taking Steps scale and significantly lower on the Ambivalence scale than the educational group. However, there was no difference between the groups on measures of engagement in treatment. Further to this, no support was found for the prediction that low motivational scores on the post-intervention Recognition and Taking Steps scales would be predictive of drop-out. In contrast, a relatively high pre-intervention score on the Ambivalence scale was found to be predictive of drop-out. It is concluded that whilst the results support the efficacy of motivational intervention for decreasing self-reported levels of ambivalence about change and for increasing of problem recognition and taking steps towards change, more detailed research with a longer follow-up period is needed to determine whether this has any impact on other vectors of motivation for change, such as participation in treatment, outcome expectancy and drinking behaviour.

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1. INTRODUCTION

This piece of research was conducted during a placement in an outpatient community alcohol service for individuals with alcohol dependence problems. The aim was to develop understanding of ideas about enhancing motivation for change in individuals who experience alcohol dependence. In particular, the focus is on how motivation for change affects levels of engagement in treatment.

The literature below describes how the hypotheses for testing were developed. The ideas were developed from work that has focused mainly on studying levels of motivation in individuals seeking treatment for alcohol dependence. The literature suggests that interventions to enhance motivation may impact on the client's engagement with treatment, and hence lead to lower rates of treatment drop out and relapse after treatment.

1.1 THE PROBLEM OF ALCOHOL DEPENDENCE AND ITS TREATMENT

1.1.1 Defining alcohol dependence

Although the definition has changed over the years, one of the most widely accepted definitions of alcohol dependence is that provided by the Diagnostic and Statistical Manual, fourth edition (DSM IV American Psychiatric Association (APA), 1994). DSM IV defines substance dependence (including alcohol) as:-

" A maladaptive pattern of substance abuse, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

(1) tolerance, as defined by either of the following:

(a) a need for markedly increased amounts of the substance to achieve intoxication or desired effect

(b) markedly diminished effect with continued use of the same amount of the substance

(2) withdrawal, as manifested by either of the following:

(a) the characteristic withdrawal syndrome for the substance

(b) the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms

(3) the substance is often taken in larger amounts or over a longer period than was intended

(4) there is a persistent desire or unsuccessful efforts to cut down or control substance use

(5) a great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects

(6) important social, occupational, or recreational activities are given up or reduced because of substance abuse

(7) the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance."

1.1.2 Prevalence of alcohol dependence

Problems with alcohol are not restricted to a small section of the population. In Britain, the findings of the General Household Survey (OPCS, 1996) indicate that nearly one in ten male drinkers and one in twenty female drinkers have an alcohol problem (showing at least two physical or psychological symptoms of alcohol dependence). Further to this, results indicated that 6% of men and 2% of women (about 1.5 million adults) are drinking at levels which are dangerous to their health.

1.1.3 Therapeutic intervention for alcohol problems

Given the above figures, it is not surprising that a number of therapeutic interventions have been developed to help people with alcohol problems. People with severe alcohol dependence may need medical help (detoxification) to withdraw safely, and are most often advised to aim for a goal of abstinence. Once detoxification has been completed, a variety of psycho-social treatments are available. These vary in their approach to helping the individual understand the role that drinking has played in their difficulties. They also vary in how the individual is helped to make changes in order to prevent relapse.

Two universal problems in attempting to change alcohol dependence and other addictive behaviours are the high rate of treatment drop-out and the high rate of relapse following treatment. Clients often manage to control their addictions in the short term, but have difficulty sustaining that change. Formal investigations and clinical reports have consistently indicated high rates of drop-out in the treatment of alcohol-related problems. In an extensive review of

attrition from medical and psychiatric treatments, Baekeland and Lundwall (1975) determined that 52-75% of outpatient alcoholics dropped out by the fourth session. Further to this, no matter which philosophy is assumed or which treatment method employed, the evidence indicates that high relapse rates are the norm, not the exception (Allsop, Saunders, Phillips & Carr, 1997). It has been reported that 81% of problem drinkers resume use within one year (Gottheil, Thornton, Skodola & Alterman,1982). In addition, clinical reports indicate that relapse rates are high in the first few weeks after treatment (Stark, 1992).

The problem of drop-out and relapse has been given considerable attention. This attention has led to the development of the intervention programme known as relapse prevention training (Marlatt, 1985). This programme is designed to help clients to develop skills of anticipating and coping with situations that might precipitate a relapse either during or after treatment. However, these and other newly acquired skills may not be deployed. The client's level of motivation for change is a major factor in determining whether or not a client will attempt to use relapse prevention skills and continue to struggle to achieve treatment goals (Miller, 1983).

1.2 MOTIVATION FOR CHANGE

1.2.1 Motivation and the addictions field

Lack of motivation for change is a long-standing and widely cited difficulty in therapy for drug and alcohol addictions (Mindlin, 1959; Sterne & Pitman, 1965). Sterne and Pitman (1965) noted that: "Probably in no other condition is so much verbal concern manifested for the patient's motivation to recover as in alcoholism" (p.41). Given the importance of this issue, theoretical

conceptualisations of motivation for change are briefly discussed before considering therapeutic interventions that arise from these approaches.

1.2.2 The psychology of motivation

Motivation involves cognitive and affective components, as well as the behavioural component of actually taking action (Saunders, Wilkinson & Towers, 1996). One of the most comprehensive models that incorporates all these key factors is Janis and Mann's (1977) 'conflict theory`. Their model is based on their research into how people make decisions about whether or not to undertake a behaviour. They suggest that cognitive processes may predominate in the typical hypothetical choice problem studied in the laboratory, but strong emotions and motives exert a powerful influence on the major life choices faced in the home, workplace, and clinic. Therefore, it is proposed that when people make real life decisions, they try (however inconsistently) to weigh up the options presented to them. In weighing up the options, a person's judgement is often distorted and disturbed by their emotional state.

1.2.3 The nature of motivation for change and alcohol dependence

Motivation for change is a multifaceted construct, historically regarded as necessary before an individual will respond positively to treatment (Beckman, 1980; Dean, 1958). In therapy settings, it involves recognising a problem, searching for a way to change, and then beginning and sticking to that change strategy. Differences in how motivation for change is construed depend greatly upon the position that one takes in the debate as to whether alcohol dependence is

a disease-like state (Clancy, 1961; DiCicco, Unterberger, & Mack, 1978) or a learned behaviour (Marlatt, 1985).

1.2.4 The traditional (disease) approach to construing motivation for change

A key assumption within the traditional (disease) school of thought is that "alcoholics" as a class (and as an inherent part of their condition) possess extraordinary high levels of certain defence mechanisms. These defence mechanisms are proposed to render such individuals inaccessible by ordinary means of therapy and persuasion. This assumption appears to have arisen from psychodynamic thinking, which has viewed alcohol and other drug problems as symptomatic of a personality disorder. Following from these assumptions, this approach construes lack of motivation for change as a form of denial. Since denial is construed as characteristic of the client, it follows that motivation for change can only occur once this denial is broken down.

1.2.5 Developments in thinking about motivation for change

Over the last 30 years, there has been a gradual shift in the way in which motivation for change has been construed. This shift has been largely due to the fact that research has failed to provide findings to support the central contentions of the disease model's conceptualisation of motivation for change. Denial and other defence mechanisms have been found to be no more frequent among individuals with alcohol problems than among people in general (Donovan, Rohsenow, Schau & O'Leary, 1977; Skinner & Allen, 1983). In addition, clinicians and researchers began to note that external factors had an effect on their motivation for change. In particular, research

findings indicate that two of the key factors that may influence a client's motivation for change are therapist style and environmental characteristics (Miller, 1985).

These new findings led to an important shift in thinking about motivation for change. It was no longer appropriate to assume that a client's lack of motivation was solely due to inherent defence mechanisms. As a result, theoretical perspectives have developed to take account of these research findings.

1.2.6 Cognitive behavioural approaches to construing motivation for change

Cognitive behavioural approaches to motivation for change have sprouted from attempts to recognise both internal and external factors in an individual's motivation for change. Within cognitive behavioural paradigms, a client's reluctance to disclose self-damning information about their drinking behaviour is viewed as a psychological defence induced by cognitive conflict. From their ten year follow-up study of heroin users, Stimson and Oppenheimer (1982) suggested that many drug users are aware of the adverse consequences of their actions. They propose that rather than being in denial, many drug users are in fact involved in an internal battle between what may be described as the pleasure and pain of drug use.

Along a similar line to the above, Orford (1985) proposes that motivation for change occurs when the accumulation of costs or harm resulting from the behaviour exceeds the benefits or pleasurable outcome. It is proposed that when costs greatly outweigh benefits, the conflict

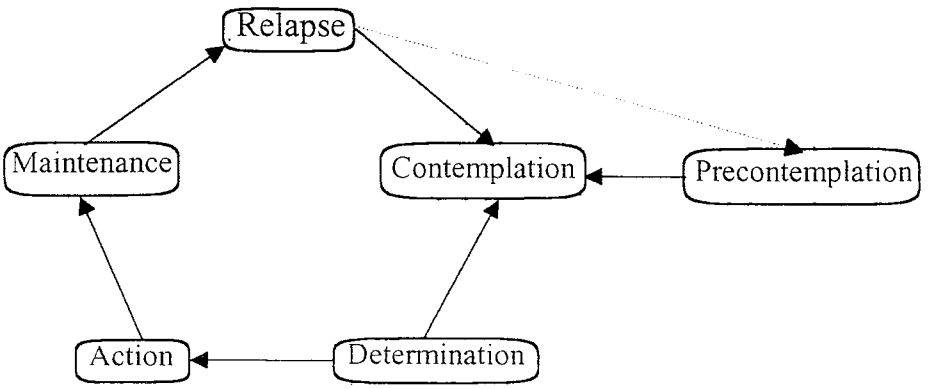
between desire to continue and other needs requires a decision to be made with regard to the behaviour.

Within traditional cognitive behavioural approaches, it is assumed that clients are motivated for change when they attend for treatment. No direct strategies are used for building motivation for change. An alternative view within the cognitive behavioural paradigm comes from Janis and Mann (1977). They construe motivation for change as a fluctuating state of balance between the perceived pros and cons of behaviour. In this view, motivational states vary along one or more continuous dimensions, and are influenced by a variety of factors in the social environment. This idea of a fluctuating state of motivation for change was further developed by Prochaska and DiClemente (1986). They produced a 'stages of motivation for change' model, which has provided great insight into the processes of motivation for change.

1.2.7 Stages of motivation for change

Within their model, Prochaska and DiClemente (1986) describe how individuals with drug dependence may be identified as being at different stages in the change process. In developing their model, they considered how change occurs outside of treatment settings. They studied people who were self-changers, accomplishing significant change (e.g., stopped smoking) without formal help. When comparing self-change to what occurs in therapy, they noticed many similarities. This finding led the authors to describe change as occurring in stages, or steps over a period of time. Their model of this process is presented in stages or cycles.

Figure1. Prochaska and DiClemente's six stages of change.



The fact that the process of change is represented in a cycle reflects the reality that, in almost any change process, it is normal for the person to go around the process several times before achieving a stable change. The model thereby recognises relapse as a normal occurrence or stage.

In the first stage *(precontemplation)*, the person is not even considering change. If told that he or she has a problem, the precontemplator may be more surprised than defensive. The person is just not considering (contemplating) that there might be a problem, or that change is possible. To place someone at this stage in this model assumes that there really is a problem, and that someone else perceives it while the person does not. Precontemplators would not ordinarily be seen in treatment settings (unless coerced), precisely because they do not perceive that they have a problem or need help.

The second stage *(contemplation)* is moved into as an awareness of the problem begins to dawn. As an individual moves into this stage, they may develop concerns and reasons to change.

However, at the same time as wanting to change, they may also see reasons to stay the same. Thus, the person is ambivalent about change.

In the third stage *(determination)* the balance tips in favour of change. Unlike contemplators, those in this stage feel that something has to change. Miller (1995a) describes the experience of this stage as similar to having a door opened for a period of time. If the person gets through to the next stage, the process of change continues. If not, the door closes and he or she is back to contemplation or (if completely convinced that change is impossible) even precontemplation.

The fourth stage *(action)* involves the process of doing something. The person chooses a strategy for change and pursues it. What is ordinarily thought of as treatment would come at this point.

If the individual is successful at making changes, they move into the fifth stage (*maintenance*). Maintenance is the most difficult stage in addictive behaviours (Marlatt, 1985). It is harder to stay sober than to stop drinking. During this stage, the person's challenge is to maintain the gains that they have made and to keep from relapsing. If the individual is unable to maintain the changes that they have made, then they move into the sixth stage *(relapse)*. In this latter stage, the individual's task is to start around the cycle again rather than becoming stuck.

The importance of this model is that it recognises that motivation for change is different at various points in the cycle. Therefore, clients need different kinds of help depending on where

they are in the cycle. It is considered the therapist's responsibility to engage effectively with people across the spectrum of change, and to tailor the counselling style to where "the client is at" (Tober, 1991, p. 37).

The 'precontemplator` needs to have his or her awareness raised. In the 'contemplation` stage, the client needs to resolve ambivalence, placing weights on the change side of the balance and lifting them from the side favouring the status quo. At the point of 'determination`, however, the key help needed is sorting out the alternative change strategies that are available and choosing the one most likely to be effective for this individual. In 'action`, the client may need support in carrying out and complying with strategies for change. In 'maintenance`, the client may need to develop new skills to maintain a sober lifestyle (relapse prevention). If a 'relapse` occurs, it is the therapist's job to help the person recover from it as quickly as possible, and to resume the process of change.

Following both the traditional and cognitive behavioural approaches to motivation for change, interventions have been designed to help people move towards recognition of their drinking problems and take action to address these problems. These motivational interventions are outlined in the next section.

1.3 MOTIVATIONAL INTERVENTIONS

A broad range of motivational interventions have been developed. There are two main groups of approaches to motivational intervention in the treatment of alcohol dependence. The first group

are the traditional confrontational approaches. These approaches are based on the traditional (disease) model's conceptualisation of lack of motivation for change being a form of denial. The second group is cognitive behavioural approaches.

1.3.1 Traditional confrontational approaches

This group of approaches advocated (particularly in the United States) for motivating people to change their drinking behaviour centre on the use of confrontational strategies. These are based on the previously mentioned key assumption that alcoholics as well as drug addicts possess extraordinary high levels of certain defence mechanisms, which render them inaccessible by ordinary means of therapy and persuasion. Following from the above, suggestions were made as to how therapists should deal with such robust defence. The process through which the recovering person must pass came to be described in terms such as "surrender", "accepting powerlessness", and "reduction of ego" (Cavaiola, 1984; Clancy, 1964; Wilson, 1977). The perceived need for "surrender" suggested the tactic of attacking defences (Miller & Rollnick, 1991). As a result, confrontational strategies were designed to attack and break down the defences of people with alcohol dependence.

A strong emphasis on ego reduction through confrontation is found in Synanon, which was founded by an alcoholic recovering through Alcoholics Anonymous (AA), and which became a popular prototype for therapeutic communities (Yalonsky, 1989). Proponents of Syanon have developed and promoted approaches that manifest the more authoritarian, aggressive, and more coercive meanings often associated with the term "confrontational" (Miller & Rollnick, 1991).

However, these examples of confrontational approaches do not arise from any coherent theoretical understanding of addictive behaviour. Instead, they appear to arisen gradually in practice, guided in part by the vague psychodynamic belief that alcoholics and others with drug problems are characterised by an "addictive personality" or unusually "strong defences" (Miller & Rollnick, 1991).

In addition to the above, research evidence indicates that there is not (and never has been) a scientific basis for the assertion that alcoholics manifest a common consistent personality pattern characterised by excessive ego defence mechanisms (Miller & Rollnick, 1991). More importantly, there is little evidence to support the efficacy of the combative intervention strategies suggested by this approach (Miller & Rollnick, 1991).

1.3.2 Cognitive behavioural approaches

Given the dearth of research evidence in support of the underlying assumptions behind the types of confrontational strategies mentioned and their efficacy, new therapeutic approaches have emerged. Many of these are based on the cognitive behavioural approaches to motivation for change, which suggest that motivation is a state of readiness or eagerness to change, which may fluctuate from one time or situation to another.

Miller and Rollnick (1991) draw on the previously mentioned research findings, which indicate that motivation for change is a state that can be influenced. In particular, research indicates that two of the key factors that can influence a client's motivation for change are therapist style and

environmental characteristics (Miller, 1983;1985). Whilst an individual's environment may be difficult to modify, therapist style is more accessible to change. As a result of this observation, Miller (1983), Miller and Rollnick (1991) and Rollnick and Miller (1995) have designed a therapeutic style to enhance motivation for change. They named this approach 'motivational interviewing`.

1.3.3 Motivational interviewing.

Motivational interviewing is client-centred counselling style, designed to elicit behaviour change by helping clients to explore and resolve ambivalence about change (Rollnick & Miller, 1995). It was designed to increase problem recognition and the probability of treatment entry, continuation, and compliance (Miller, 1983). In the language of Prochaska and DiClemente's (1986) stages of change, it was designed to move clients from a state of precontemplation or contemplation, through the ambivalence of contemplation, and on to a point of decision and commitment to change. In line with cognitive-behavioural approaches to motivation for change, this counselling style rests on the assumption that ambivalence about change results from the conflict between indulgence versus restraint (Rollnick & Miller, 1995). Therefore, this approach aims to help the individual overcome ambivalence about change and recognise their problems, so that the balance might be tipped in favour of taking steps towards change. Miller and Rollnick (1991) specified five general principles in their approach. These are:

(a) *Express empathy.* The style of empathic warmth and reflective listening is employed from the beginning and throughout the process, to convey an understanding and acceptance of the client's perspective. Paradoxically, this kind of acceptance of people as they are seems to free them to

change. This is in contrast to insistent nonacceptance, which can have the effect of keeping people as they are (Miller, 1983);

(b) *Develop discrepancy between the client's goals and current problem behaviour.* Here the therapist works with the client to help them to see and feel how their current behaviour threatens important personal goals or is inconsistent with more central personal values;

(c) *Avoid arguing and direct confrontation.* Instead of attacking the client's behaviour, the therapist uses a variety of strategies (e.g. balance sheets) to elicit the client's own perceptions of problems and concerns;

(d) *Roll with resistance rather than opposing it directly.* In this, instead of opposing the client's "denial," the therapist uses a variety of strategies to elicit the client's own momentum to shift perceptions of problems. These may include reflection, reframing, paradox, and acknowledging the client's personal responsibility and freedom of choice. In these ways, the therapist may roll with resistance, to help the client move through it and to resolve ambivalence;

(e) *Support self-efficacy for change.* This is proposed to be important because clients will not consider change unless they think it possible. Therefore, the therapist's job is to explore how clients have succeeded in the past and how to apply these same skills to the current situation (Berg & Miller, 1992).

Miller and Rollnick (1991) propose these principles of motivational interviewing, to be used as a counselling style and overall way of interacting with clients. The above principles are used to help the client to build and maintain motivation for change. In terms of Prochaska and Di

Clemente's model, it is intended to move the individual from precontemplation or contemplation to determination and action.

One of the most obvious advantages of motivational interviewing is its flexibility. Not only can it be used for any substance abuse interview (Rollnick, Kinnersley, Scott, 1993), but it appears to be relevant to any encounter in which a counsellor is talking to a client about behavioural change (e.g., in everyday medical consultations). It can be integrated into most other treatment approaches. For example, it is possible to integrate motivational interviewing with cognitive-behavioural approaches such as relapse prevention.

1.3.4 Evidence for the efficacy of motivational interviewing

Bien, Miller and Tonigan (1993) recently reviewed research into brief interventions in the addiction field. Some of the studies reviewed involved motivational interviewing. They concluded that it appears that motivational interviewing can be a relatively effective short-term treatment method, as one or two sessions can have a powerful effect on clients with drinking problems. Specific evidence for the efficacy of motivational interviewing comes from three main studies. In one study, Bien, Miller and Boroughs (1993) examined the impact of motivational interviewing as a preliminary step in outpatient treatment for severe problem drinkers. Thirty two clients were assigned (at random) either to receive or not to receive motivational interviewing. This consisted of a two-hour assessment session, followed by an interview in which the results were reviewed in keeping with the principles of motivational interviewing (Miller & Rollnick, 1991). Control participants completed the same assessment

battery, but received an attention placebo interview in place of the motivational interview. Superior drinking outcome was evident in the experimental group at three-month follow-up. However, by six months, these differences were no longer significant.

In another study, Brown and Miller (1993) used a similar design to examine the impact of motivational interviewing on participation in and outcome of residential treatment among 28 problem drinkers. In this study, control participants did not receive a placebo interview in addition to routine treatment. Results indicated that clients who received the motivational interview participated more fully in treatment (as blindly rated by therapists) and showed superior drinking outcome at three months after discharge. This was despite receiving the same 13 day residential treatment programme as control participants.

In the final study, Rollnick, Heather and Bell (1992) gave brief motivational interviewing or skill-based counselling to 174 non-help seeking excessive drinkers in a general hospital setting. Preliminary analyses indicate that among the 70% classified as less ready to change (precontemplation, contemplation and preparation stages), those who received brief motivational interviewing had superior outcome (at six month follow-up) to those who received skill-based counselling.

As Rollnick and Morgan (1995) point out, none of these studies are methodologically flawless. However, their provisional findings do suggest that this type of intervention can lead to improved

treatment outcomes, if only in the short-term. In addition, these studies demonstrate the ways in which motivational interviewing may be adapted in a variety of settings.

Many of the studies involved clinical techniques that are quite straightforward, specifiable, and teachable. In addition, these techniques are within reach of counsellors and therapists who do not specialise in addictions. Given that the demand for specialised treatment of addictive behaviour consistently outstrips the availability of specialist providers, it would seem that there is potentially a great clinical utility in the development of this kind of intervention. However, it must be remembered that even though it is clear that behaviour change can be triggered by brief intervention, the optimal counselling procedures for doing so remain to be defined (Bien, Miller & Tonigan, 1993).

Following the successful promotion of motivational interviewing in the 1980's and early 1990's, other authors have used the principles of this approach to develop further interventions. Two of the alternative approaches to using the principles of motivational interviewing are 'motivational enhancement therapy' and 'motivational intervention'.

1.3.5 Motivational Enhancement Therapy (MET)

In a similar way to motivational interviewing, the MET approach (Miller, Zweben, DiClemente & Rychtarik, 1992) is underpinned by the (previously described) five basic motivational principles described by Miller and Rollnick (1991). This particular therapy is preceded by an extensive assessment battery requiring approximately 7-8 hours. MET consists of four

individualised treatment sessions. Wherever possible, the client's spouse or another "significant other" is included in the first two of these four sessions. The first treatment session (week one) focuses on: (1) providing structured feedback from the initial assessment (regarding problems associated with drinking, level of consumption and related symptoms, decisional considerations, and future plans); and (2) building client motivation to initiate or continue change. The second session (week two) continues the motivation enhancement process, working towards consolidating commitment to change. In two follow-through sessions (at week 6 and week 12), the therapist continues to monitor and encourage progress. MET is an outpatient treatment strategy in its own right, and all therapy is completed within 90 days.

Research findings support the efficacy of this approach. For instance, project MATCH (Matching Alcoholism Treatments to Client Heterogeneity - Project MATCH research group, 1993) is the largest and most statistically powerful clinical trial of psychotherapies ever undertaken in the field of alcohol abuse. Recently, its findings were published (Project MATCH research group, 1997). The study compared the efficacy of three treatments for use with clients with alcohol dependence. The three treatments were:

a) 12-Step Facilitation Therapy. This is a treatment based on the principles of Alcoholics Anonymous (AA). Patients were encouraged to go to AA meetings at the same time as attending a therapy programme that emphasised the AA 'disease concept'. The programme involved 12 sessions for a duration of one hour each, over 12 weeks.

b) Cognitive-Behavioural Therapy. This treatment uses role play and coping skills, designed to help people recognise 'high risk' relapse situations. It involved 12 sessions of one hour each, delivered over 12 weeks.

c) MET. As previously described, this involved four carefully planned individualised treatment sessions during a period of 12 weeks.

The results indicated that all approaches resulted in noticeable reductions in alcohol consumption (an increase in abstinent days per month of 80%), with improvements sustained throughout the 12 month follow-up period. No individual treatment approach was more successful than any other (Project MATCH research group, 1997).

A particularly important aspect of this study is the relationship between intensity of treatment and outcome. The finding that four sessions of MET were as effective as 12 of CBT or TSF suggests that MET might be more cost-effective. Despite this, it is important to caution against premature conclusions, because there was no control group to measure the impact of the extensive pre-treatment assessment battery conducted before therapeutic intervention in each condition. This pre-treatment assessment in itself may have been motivational on its own, and there needs to be further research to determine its impact on treatment outcome. Whilst more research is needed, results do support its efficacy in impacting on drinking behaviour.

However, there is a practical problem with this very structured adaptation of the principles of motivational interviewing. The pre-therapy assessment may lead to practical difficulties in using this approach in outpatient settings with clients with alcohol dependence. This is because

therapy staff would have to be trained to carry out the assessments, which provide part of the feedback given to clients in MET sessions. This might not easily be achieved, given the time pressures that often occur for clinicians working in this field.

In contrast to MET, another adaptation of the principles of motivational interviewing appears to be more practical for delivery in treatment settings. This different approach is known as `motivational intervention'. It is more practical because it may be delivered by clinicians without specialist training, to unaccompanied clients in outpatient settings.

1.3.6 Motivational intervention

Saunders, Wilkinson and Allsop (1991) conceptualised the principles of motivational interviewing as a `bolt-on extra', as opposed to a counselling style in its own right. They viewed the principles as a cluster of useful strategies to use in therapeutic work, in order to augment a client's potential for change. However, Saunders et al. (1991) strongly maintain that the central philosophy of a motivational intervention is along the same lines as motivational interviewing. In particular, both approaches call for the therapist to "roll with resistance" and perceive the world from the client's perspective. Whilst the components might constitute a discrete treatment package, they may be applied in various combinations (Saunders et al., 1991). Motivational intervention lasts for two sessions - the first lasting one hour and the second (a week later) lasting between 5-10 minutes. In these sessions, the therapeutic agenda includes the following seven areas:

1. Assess the client's perception of the good things about alcohol use.

2. Facilitate the generation of the client's inventory of the less good things about the behaviour.
3. Elicit the client's current satisfaction with his or her lifestyle, that previously envisaged, and that anticipated for the future.
4. Have the client enunciate which (if any) of the elicited problems are real concerns.
5. Compare and contrast with the client the benefits and costs of continuing or resuming the behaviour (a type of cognitive review of the present or future situation). This process is aided by the use of a self-completion manual. The manual includes a one-page decision matrix, which enables the client to compare the positive and negative consequences of their behaviour and/or resuming their behaviour, and to consider the costs and benefits of stopping or staying stopped. The client is asked to complete the matrix as a homework exercise, and the matrix is discussed at the next appointment (1 week follow-up).
6. Highlight and reflect on areas of greatest concern and discrepancy, thereby generating discomfort for the client with current behaviour (an emotional review of problem behaviour and related problems).
7. Elicit and agree on future intentions regarding behaviour.

Saunders et al. (1991) propose that the strategies should be adapted in an idiosyncratic manner to meet the needs of the client. In addition, the relative simplicity of the procedure means that it takes less time and involves less staff training to carry out than some of the other approaches of motivational interviewing.

As far as the author is aware, there is only one published study that has investigated the efficacy of this approach. In this study, Saunders, Wilkinson and Phillips (1995) examined the effects of this approach with opiate users attending an outpatient methadone programme. In their study, 122 clients were randomly allocated to receive either a motivational or a placebo (educational) intervention. Clients received two discrete sessions of motivational work - the first for about an hour, and the second (one week later) for about 5-10 minutes. The brief motivational intervention and the control procedure were given in addition to what was offered by the clinic. The results of this study indicated that those who received the motivational intervention (as opposed to the educational control) complied with the programme for longer and relapsed less quickly. If, as suggested by Miller (1985), length of time in treatment is a legitimate index of motivation, then these results support the notion that this motivational intervention was effective in enhancing client motivation.

Whilst the results of this study support the efficacy of this approach, it is clear that the approach requires further research.

1.4 THE PRESENT STUDY

As far as the author is aware, the effects of motivational intervention have not been measured with clients in a day programme for treatment of alcohol dependence. In addition, many studies of other motivational techniques have focused on outcome and engagement in treatment, rather than the client's reported level of motivation. Many of these studies have methodological weaknesses, including the lack of control groups. Further to the above, it has already been

mentioned that even though it is clear that behaviour change can be triggered by brief intervention, the optimal counselling procedures for doing so remain to be defined (Bien, Miller & Tonigan, 1993). Given the above, it is very apparent that research into motivational techniques is still at an embryonic stage, and that the field of motivational techniques is ripe for research exploration.

The present study aims to address some of these issues, by investigating the impact of motivational intervention (as described by Saunders et al., 1991) on clients attending an outpatient treatment programme for alcohol dependence. More specifically, it will adapt the motivational intervention designed by Saunders et al. (1995) for opiate users, using it with clients with alcohol dependence. In addition, the present study will measure the impact of the intervention on level of motivation (in comparison to a control group), defined in terms of client's self-reported levels of motivation as well as levels of involvement and engagement in treatment.

1.4.1 Why use motivational intervention in an outpatient treatment programme?

In some ways, the 'stages of change` model might be considered a useful criterion for matching substance abusers to different forms of intervention. For instance, within such a model, motivational intervention would appear most suited to those in the 'precontemplation` and 'contemplation` stages of change. However, ambivalence about change can arise at any stage of change, including when clients are actually attending for treatment or in the maintenance stage.

People in the 'action', 'determination' and 'maintenance' stages also experience crises of confidence, in which their commitment to change wavers (Saunders & Allsop, 1989).

1.4.2 Developments in measuring self-reported levels of motivation for change.

The SOCRATES-5A is a 39-item measure of motivation for change, with item content focusing specifically on problem drinking. It was originally designed by Miller (1991) as a parallel measure of the conceptual stages of change described by Prochaska and DiClemente (1986). This original scale yields five scores: P= Precontemplation; C= Contemplation; D= Determination; A= Action; M= Maintenance. Higher scores on scales P and C are consistent with uncertainty over the need for change and ambivalence about change. Higher scores on scales D and A suggest a greater commitment to change. A higher score on the M scale indicates an individual who has accomplished initial change and who is seeking to maintain it. Scales P and D are highly negatively correlated, representing inverse reflections of a single motivational construct (Miller, 1991).

However, more recently two psychometric evaluations of the items of SOCRATES-5A (Miller & Tonigan, 1996) have taken place. Results revealed that the factor structure of SOCRATES relates more closely to three rather than five motivational constructs. The three are: Ambivalence about change, Recognition of the problem, and Taking Steps towards change. As a result, a new version of this measure was developed (SOCRATES-8A, Miller, 1995b). Miller and Tonigan (1996) suggest that the scales of SOCRATES are better understood as continuously distributed motivational processes, that underlie the stages of change.

In clinical reality, it makes little sense to rigidly define an individual as being at a certain stage of motivation for change. A more realistic picture of their motivation for change is more likely to be gained from attempting to measure continuously distributed motivational processes. Therefore, the present study will focus on the constructs of Ambivalence, Recognition and Taking Steps in the process of motivation for change.

1.4.3 Why consider changes in involvement in treatment?

Behavioural outcome is important as a measure of therapeutic outcome. However, involvement in treatment should also be seen as a critical process variable. As mentioned, several studies have focused on measuring involvement in treatment following motivational interviewing. For instance, Brown and Miller (1993) and Bien, Miller and Boroughs (1993) found that a brief intervention (consisting of assessment feedback and motivational interviewing) can increase treatment involvement (as measured by staff ratings), and can thereby improve outcome. Level of involvement may provide a more subtle behavioural measure of motivation than simple level of attendance. However, level of involvement is a term that is difficult to define and measure. In the above studies, it was measured by Likert-scale ratings. The scales were designed to measure the number of a participant's attendances at various sessions involved in the treatment programmes. The studies seemed to overlook the fact that just attending a session did not equate with being motivated to listen or participate in it.

From interviewing clinical staff in an outpatient treatment programme for alcohol dependence, it became clear that an operational definition of involvement in treatment had many aspects. These included:

a) The percentage of available sessions during each week that clients attended.

b) How much clients attended to what was being said in the treatment groups.

c) How punctual the clients were for groups.

d) How well the client identified and developed realistic and significant goals.

e) The extent to which the client manages to achieve weekly goals.

f) How motivated the clients were to stay abstinent.

g) The extent to which the clients drink during the programme.

1.4.4 Aims and Hypotheses

Following from the above, the present study was designed to investigate two main research questions:

Question 1. *Will 'motivational intervention' increase clients' engagement in subsequent treatment?*

Hypothesis one. It is hypothesised that there will be greater engagement in subsequent treatment among the motivational intervention group than among the educational intervention group. The null hypothesis is that there will be no difference in levels of engagement between the

two groups. However, if the active hypothesis is correct then it will be demonstrated in four ways:

i) Drop-out rate should be lower in the motivational intervention group than in the educational group. (For the purposes of this study, drop-out will be defined as leaving the subsequent six week programme before the end).

ii) For those who do not drop out, the overall number of days in subsequent treatment will be higher in the motivational intervention group than educational group.

iii) Of those who do drop out, the length of time (number of days) in treatment will be greater among the motivational intervention group than among the educational group.

iv) For participants who stay in the subsequent treatment, levels of involvement in that programme (blindly rated by staff) will be higher in the motivational intervention group than educational group.

Question 2. *Will clients report increased levels of motivation following motivational intervention, and will that reported level of motivation predict outcome and drop-out?*

Hypothesis two. It is hypothesised that the motivational intervention group will develop higher levels of motivation for change, as demonstrated by lower scores on the Ambivalence about change scale and higher scores on the Recognition and Taking Steps scales of the SOCRATES-8A Readiness to Change questionnaire (Miller, 1995b). The null hypothesis is that there will be no association between level of motivation and type of intervention.

Hypothesis three. In addition to the above, it is hypothesised that a high post-intervention score on the Ambivalence scale of the Readiness to Change questionnaire will be predictive of drop-out. Similarly, it is predicted that low post-intervention scores on the Recognition and Taking Steps scales of the questionnaire will be predictive of drop-out. The null hypothesis is there will be no association between drop-out rate and Ambivalence, Recognition and Taking Steps scores.

2. METHOD

2.1 DESIGN

At the beginning of a standard six-week day programme for the treatment of alcohol dependence, clients were randomly allocated to one of two groups. One group received a motivational intervention, while the other group received the control procedure of an educational intervention for the same length of time. A randomised controlled trial design was used to compare the levels of motivation, engagement in and outcome of treatment across the two groups of clients.

2.2 ETHICS

An outline of the research proposal was submitted for the scrutiny of the local Trust Ethical Committee for their approval. The committee approved this proposal before the study commenced (Appendix I).

An information sheet was given to all new clients, explaining the purpose and procedure of the research (Appendix II). This made it clear that participation in the study was purely on a voluntary basis, and that if they agreed to participate they could withdraw from the study at any time without it affecting their treatment. Those who agreed to participate were then asked to sign a consent form, and a time was arranged for them to meet with the researcher.

2.3 PARTICIPANTS

The participants in the research were clients who started the treatment programme during the study intake period (November 1996 to May 1997). On their first day at the unit, 62 of the 75

clients were approached by a member of staff, who explained the purpose of the research and asked them if they would agree to participate. All clients who were asked agreed to participate. In an attempt to keep the generalizability of the study as high as possible, exclusion criteria were kept to a minimum. Clients were only excluded if they failed or were unable to keep both of their appointments with the author, or if they were clearly unable to comprehend the contents of the intervention. One participant had to be excluded because he did not have a sufficient comprehension of the English language. A further client was excluded due to the need for time away from the programme (a result of a non-alcohol related life-threatening illness).

Sixty of a total of the 62 eligible clients attended an appointment for the next day with the author, when the first session began. 30 clients were randomly assigned to each group. However, six of the motivational group and three of the educational group clients were unable to attend the second of the two interviews due to either drop-out of the programme, sickness or newly arranged medical and social service appointments. This left a total of 24 in the motivational group and 27 in the educational group. The distribution of clients in each group will be addressed in the first section of the Results.

2.4 MEASURES

2.4.1 Severity of alcohol dependence

On admission to the treatment unit, all clients were asked to complete a severity of alcohol dependence questionnaire (SADQ - Stockwell, Hodgson, Edwards, Taylor & Rankin, 1979). For

the present study, it was important to measure whether level of dependence was evenly distributed between two groups.

The SADQ (Appendix III) was designed as a measure of the degree to which help-seeking problem drinkers experience the condition of alcohol dependence. It focuses exclusively on the most readily quantifiable elements of alcohol dependence. The SADQ is a 20-item self-completion questionnaire, in which the respondent is required to focus upon a recent month that is typical of their heavy drinking. Specifically, it focuses on physical withdrawal signs, affective withdrawal signs, withdrawal relief drinking, quantity and frequency of alcohol consumption, and the rapidity of reinstatement of withdrawal symptoms following a period of abstinence.

Research data from Stockwell, Murphy and Hodgson (1983) indicate that the scales of the SADQ have an acceptable test-retest reliability (co-efficients of between 0.77 & 0.85). Data from Stockwell et al. (1983) also established a degree of construct validation for the SADQ. In addition, concurrent validity was supported, in so far as the SADQ correlates with indices of withdrawal severity (as assessed in patients of a detoxification unit by a physician). Overall, Stockwell et al. (1983) report that their results indicate that the SADQ is a quick, reliable and valid instrument for the assessment of degree of alcohol dependence. This particular measure was used because there is evidence to support its reliability and validity, and it is the standard dependence questionnaire for admission to the unit in which the research was conducted.

2.4.2 involvement in treatment

Key workers at the treatment unit completed weekly blind ratings of the degree of clients' involvement in treatment. The ratings were gathered on Visual Analogue scales (Appendix IV). These were piloted for test-retest reliability and clinical practicability prior to the study commencing. Feedback from meetings to discuss the practicality with the unit staff and manager was directly collected by the author. This indicated that all staff and the manager agreed that monitoring was feasible and acceptable, given the staff's already busy workload. Despite this, it was not possible for staff to collect these data during the study period. This was due to unexpected levels of staff attrition due to sickness and life events. Therefore, information from clients' records was extracted to investigate issues relating to their level of involvement during treatment. Specifically, information was collected to calculate the percentage of contracted sessions for which they attended.

2.4.3 motivation for change

The SOCRATES-8A (Miller, 1995b) is a 19-item measure of motivation for change, with item content focusing specifically on problem drinking (Appendix V). As previously mentioned, SOCRATES-8A measures three constructs underlying motivation for change. These are: Ambivalence, Recognition and Taking Steps. Miller and Tonigan (1996) conclude that changes in SOCRATES-8A scores reflect the impact of an intervention on problem recognition, ambivalence, and taking steps towards change. In addition, they suggest that baseline values of SOCRATES-8A subscales may be predictive of treatment compliance. Both of these areas are related to the experimental hypotheses for the present study.

The internal consistency of each scale was calculated by using the full sample of the participants in the project MATCH study (N=1,672). Cronbach alphas were .83 for Taking Steps, .85 for Recognition, and .60 for Ambivalence. Horn, Wanberg, and Foster (1987) specified the range of .70 to .80 to be optimal for alpha, in balancing scale fidelity and breadth of measurement. According to these generally accepted criteria, the Cronbach alpha for the Ambivalence scale was relatively low. However, Miller and Tonigan (1996) suggest that this low score reflects an inherent difficulty of measuring ambivalence directly (rather than as a balance of pros and cons).

The SOCRATES scales also appear to measure three constructs with relatively little overlap. Ambivalence was unrelated to Recognition (r = .03) and Taking Steps (r = .03). Recognition and Taking Steps were positively and modestly related (r = .33). Results also indicated excellent test-retest reliability.

This measure was filled in by the client at the start of the first intervention session, at the end of the one week follow-up session, and again at the end of the six week treatment programme. On the first two occasions SOCRATES-8A was filled in with the researcher. The end of treatment measure was given to each participant by a member of staff at the treatment unit.

2.5 PROCEDURE

Each participant was randomly assigned to one of two brief interventions (motivational or educational control). These were carried out at the beginning of the general treatment

programme of the unit where the research took place. To understand the context of the brief intervention, it is necessary to describe the remainder of the treatment regime at that unit.

The treatment regime at the unit where the study took place consisted of a cognitive behavioural / educational programme for alcohol dependence. Therapeutic work was predominantly carried out in groups. Core elements of the treatment programme included:

i) Education about the nature of alcohol dependence, aimed at increasing clients' awareness of the effects that it has on their lives.

ii) Teaching clients skills in order to enable them to cope with the difficulties of having an abstinent life.

iii) Providing support and encouragement.

2.5.1 Assignment to motivational vs control intervention

Immediately before the first meeting with the researcher, participants were randomly allocated to a group. This was facilitated by a member of staff (who was blind to the purpose of the study) passing the researcher a sealed envelope which indicated which of the two interventions should be carried out with the next client.

2.5.2 Interventions

Each intervention was carried out on an individual level.

2.5.2.1 The control (educational) intervention

This intervention was intended as a placebo control rather than an active educational intervention. The intervention, of approximately one hour's duration, was undertaken on the second day of the treatment programme. Initially, the intervention involved the clients being asked to complete a quiz about various myths and facts surrounding alcohol. Their responses were then discussed in relation to the answers to the quiz. Following this, there was a presentation and discussion of information about the long and short-term physical effects of alcohol use. During the discussion, the clients were asked if they had experienced any of the physical symptoms and whether they were surprised at any of the potential physical effects of heavy alcohol use. The counselling technique of reflecting on what clients understood about the facts presented was used. At no time did the researcher reflect on the client's feelings. If feelings about alcohol use were mentioned, the researcher politely listened to them before moving onto the next item. The quiz and information used in the educational intervention was adapted from the Managing Drink Manual (Mason, 1989). The full details of content of this control intervention are presented in Appendix VI.

2.5.2.2 The motivational (experimental) intervention

The motivational intervention was based upon constructs developed by Miller (1983, 1985) for problem drinkers. However, the intervention was amended to include procedures described by Saunders et al. (1995). These were derived through clinical and research experience, and were delivered as a brief intervention of approximately one hours duration. In practical terms, this involved participants being invited to describe the positive aspects of their alcohol use, which

were then contrasted with the negative aspects of using alcohol. Participants were required to describe specific negative consequences in detail, and then to discuss how concerned they were about these. They were prompted to examine social, psychological, legal, financial, health, work and relationship issues. At no stage did the researcher attempt to persuade the participants that any of these areas presented problems.

In addition to the above, participants were asked to think of the future and to assess the impact that either returning to alcohol use or continued abstention would have on their lives. This process was aided by the use of a self-completion manual (Appendix VII). This contained a one-page decision matrix, which enabled clients to compare the positive and negative consequences of drinking alcohol. A second page asked them what they thought the main drawbacks of returning to alcohol use would be, as well as their main reasons for staying abstinent. They were asked to complete the matrix for the next appointment (one week follow-up). The intervention was very interactive, and has been described in detail by Saunders et al. (1991). The full content of the motivational intervention is presented in Appendix VIII.

2.5.2.3 Follow-up sessions

Participants in both the experimental and control group were followed-up one week after the intervention. This appointment was made with the client at the end of the first session. At the second session, a 5-10 minute review of the previous session was undertaken. This involved either discussion of the educational information or, with motivational participants, discussion of

an alcohol use matrix. Participants then completed a second SOCRATES-8A Readiness to Change questionnaire.

2.5.2.4 End of treatment follow-up

Hypothesis two is primarily concerned with change in self-reported levels of motivation for change over a one week follow-up period. However, it was decided to collect data at the end of treatment to shed light on the subsidiary issue of the longer-term impact of motivational intervention. Therefore, staff at the alcohol dependence unit asked each participant to fill in a SOCRATES-8A Readiness to Change questionnaire at the end of treatment.

2.5.2.5 Therapy check

With the permission of the participants, all motivational and educational interventions were taped. The purpose of taping the sessions was to provide the opportunity for an independent rater to check that each intervention contained target therapist components, and that the components of the interventions did not overlap. An undergraduate psychology student who was totally blind to the purposes of the study was asked to listen to 10 randomly selected tapes from each intervention group. All tapes were coded to prevent identification of participants and assignment to intervention. The student was asked to rate the tapes for the presence of intervention-specific therapist behaviours. For the purpose of rating the tapes, the student was asked to circle yes or no on a sheet containing five elements of target therapist behaviours for each intervention (Appendix IX). The results of the therapy check are shown in Table 1. The results clearly indicate that was no overlap between the rated elements of target therapist

behaviour for the motivational and educational interventions. In, addition there is clearly a high number of intervention-specific therapist target behaviours present in the sample of each intervention.

Table 1. The total number of motivational and educational elements rated to be present in each set of tapes

	Motivational intervention elements	Educational intervention elements
Motivational intervention group	45 (Max = 50)	0 (Max = 50)
Educational intervention group	0 (Max = 50)	40 (Max = 50)

Results in Table 1 indicate that the therapist successfully performed the components of each intervention, and that there was a distinct difference between the motivational and educational intervention.

2.5.2.6 Statistical Analysis of Data

Descriptive statistical analysis was performed to describe the participants. Next, statistical analysis of the data was performed to investigate the experimental hypotheses. The data relating to the experimental hypotheses were not normally distributed (Appendix XI). While a few of the scales had a distribution that approximated to normal, the remainder were clearly severely

skewed or multi-modal. Due to this general pattern of data distribution, non-parametric statistical tests were used to analyse the data (unless otherwise stated).

Hypothesis one

This is a one-tailed hypothesis, which predicts that there will be greater engagement in subsequent treatment among the motivational group than the educational control group.

i) A Chi-Square test was used to determine whether the drop-out rate was lower in the motivational intervention group than in the educational group.

ii) A Mann-Whitney test was used to test whether for those who do not drop out, the number of days in subsequent treatment was higher in the motivational intervention group than the educational group.

iii) A Mann-Whitney test was used to examine whether for those who drop out, the length of time (number of days in treatment) was greater among the motivational intervention group than among the educational group.

iv) A Mann-Whitney test was used to examine whether for those who do not drop out, levels of involvement in that programme were higher in the motivational intervention group than the educational group.

Hypothesis two

This is a one-tailed hypothesis, which predicts that the motivational intervention group would develop higher levels of motivation for change, as demonstrated by lower post-intervention

scores on the Ambivalence scale and higher post-intervention scores on the Recognition and Taking Steps scales of the SOCRATES-8A Readiness to Change questionnaire (Miller, 1995b).

Related Wilcoxon tests were used for each group to examine whether there were any significant differences between pre- and post-intervention scores on the Ambivalence, Recognition and Taking Steps scales of the Readiness to Change questionnaire.

Hypothesis Three

This is a one-tailed hypothesis, which predicts that a high post-intervention score on the Ambivalence scales of the Readiness to Change questionnaire will be predictive of drop-out from the subsequent treatment programme. Similarly, it is predicted that low post-intervention scores on the Recognition and Taking Steps scales of this questionnaire would be predictive of drop-out.

Mann-Whitney tests were used to examine motivational scores of those who dropped out and those who stayed in treatment.

3 .RESULTS

This was a randomised control trial of two interventions for an alcohol dependent group. The impacts of two treatment groups (motivational intervention and educational intervention) were compared across time.

3.1 PARTICIPANT CHARACTERISTICS

The motivational intervention group consisted of 16 men and eight women, while the educational group consisted of 21 men and six women. The relatively high number of men in both groups is in line with prevalence statistics, which indicate that alcohol dependence is up to five times more common in males than females (American Psychiatric Association, 1994).

The motivational intervention group had a mean age of 38 (SD = 10.6; range = 23-56). The educational group had a mean age of 41 (SD = 8.5; range = 24-59). Because age was normally distributed, a t-test was used to compare the groups' ages. This showed that there was no significant difference between the groups ($t = 1.25$; $p = 0.217$).

Due to an administrative error at the unit where the study took place, the measure of severity of alcohol dependence (the SADQ) had been administered to only some of the participants in the study. Therefore, a total of 37 SADQ scores were available, 18 from the motivational group and 19 from the educational group. The motivational group had a mean SADQ score of 31.0 (SD = 9.53; range = 12-44). The educational group had a mean SADQ score of 27.5 (SD = 11.5; range = 14-51). Differences between the groups' SADQ scores were analysed using a Mann Whitney

test. This indicated that there was no significant difference between the groups' levels of dependence (U = 134.5; p = 0.26).

Pre-intervention SOCRATES scores were examined to determine whether the groups had comparable pre-intervention levels of motivation. Mean pre-intervention SOCRATES scores are shown in Table 2. As the data were not normally distributed, Mann-Whitney U tests were used for analysis. These revealed that there were no significant differences between the pre-intervention Recognition, Ambivalence and Taking Steps scores of the two groups (see Table 2), suggesting that the randomisation was effective.

Table 2 Pre-intervention SOCRATES scores of the participants in the motivational and educational groups.

	Motivational Intervention	Educational Intervention	Mann-Whitney test
Ambivalence (SD)	11.29 (3.26)	12.14 (2.95)	U = 279.5 NS
Recognition (SD)	31.04 (4.34)	30.26 (4.25)	U = 276.5 NS
Taking Steps (SD)	36.08 (3.43)	34.41 (3.91)	U = 241.5 NS

3.2 EXPERIMENTAL HYPOTHESES

3.2.1 Hypothesis one. It was hypothesised that there would be greater engagement in subsequent treatment among the motivational intervention group than the educational group. If this hypotheses was correct, then it should be demonstrated in four ways:

i) The drop-out rate should be lower in the motivational intervention group than in the educational group. (For the purposes of this study, drop-out was defined as leaving the subsequent six week treatment programme before the end).

In the motivational intervention group, nine out of the 24 participants dropped out of treatment, while ten out of the 27 participants in the educational group dropped out. A Chi-Squared test (corrected for continuity) was used to determine whether there was an association between group membership and rate of drop-out. This analysis indicated that the proportion of participants from each group who dropped out was not significantly different ($X^2 = 0.001$, df = 1, p = 1). Thus, the results do not support the experimental prediction that a smaller proportion of the motivational intervention group would drop out in comparison to the educational group.

ii) For those who do not drop out, the overall number of days in subsequent treatment will be higher in the motivational intervention group than the educational group.

The data for the number of days in treatment were not normally distributed. Therefore, a Mann Whitney U test was used to examine whether the number of treatment days was higher in the motivational intervention group than the educational group. The motivational intervention group (n = 15) had been in treatment for a mean of 28 days (SD = 1.5; range = 24-30), while the educational group (n = 17) had been in treatment for a mean of 26 days (SD = 3.21; range = 19-30). There was no significant difference between groups in the number of days in treatment (U = 91.5 ; p = 0.08).

iii) Of those who do drop out, the length of time (number of days) in treatment will be greater among the motivational intervention group than among the educational group

As the data for number of days in treatment were not normally distributed, a Mann Whitney U test was used to compare the number of days in treatment for those who dropped out of the motivational intervention group (n = 9) against the number of days in treatment for those who dropped out of the educational group (n =10). The motivational intervention group drop-outs had attended for a mean of 17.2 days (SD = 6.62.; range = 7-25), while the educational group drop-outs had been in treatment for a mean of 19.7 days (SD = 5.75; range = 7-25). The data revealed no significant difference between the number of days in treatment for people who dropped out of the educational group in comparison to the number of days of those who dropped out of the motivational treatment group (U = 36; p = 0.45).

iv) For participants who stay in subsequent treatment, levels of involvement in that programme will be higher in the motivational group than the educational group. (For the purpose of this study, levels of involvement were defined as the proportion of sessions that participants actually attended from those that they contracted to attend).

As the data were not normally distributed (due to their being percentages), a Mann Whitney U Test was used to compare the involvement levels of those who stayed in treatment across the two groups. The motivational intervention group were in treatment for a mean of 98.38 percent of their contracted sessions (SD = 2.54; range = 93.1-100), while the educational group were in treatment for a mean of 96.67 percent of their contracted sessions (SD = 5.2; range = 82.6- 100).

There was no significant difference between the percentage of contracted sessions that were attended ($U = 108.5$; $p = 0.2$).

3.2.2. Hypothesis two. It was hypothesised that the motivational intervention group would develop higher levels of motivation for change, as demonstrated by lower post-intervention scores on the Ambivalence scale and higher post-intervention scores on the Recognition and Taking Steps scales of the SOCRATES-8A Readiness to Change questionnaire (Miller, 1995b). Table 3 shows the mean SOCRATES scores of the two groups pre- and post-intervention, and the results of Wilcoxon tests used to compare these scores. There were no significant differences between pre- and post-intervention scores on the Ambivalence scale for either the motivational intervention or the educational group. Nor were there any significant differences on the Taking Steps scale. However, the groups showed different patterns on the Recognition scale. The scores for the motivational intervention group rose significantly, while the educational group's scores fell significantly.

Table 3 Pre- and post-intervention levels of motivation for change across the two groups.

SOCRATES scale	GROUP	Pre intervention	Post intervention	Wilcoxon Z p
Ambivalence scores	Motivational Intervention (SD)	11.29 (3.26)	10.62 (3.71)	Z = 0.74 NS
	Educational Intervention (SD)	12.14 (2.95)	12.40 (2.73)	Z = 0.68 NS
Recognition scores	Motivational Intervention (SD)	31.04 (4.33)	32.12 (4.55)	Z = -1.75 **p< 0.04**
	Educational Intervention (SD)	30.26 (4.24)	28.92 (4.85)	Z = -2.19 **p< 0.03**
Taking Steps scores	Motivational Intervention (SD)	36.08 (3.43)	36.75 (3.56)	Z = 1.11 NS
	Educational Intervention (SD)	34.41 (3.91)	34.96 (3.24)	Z = -0.35 NS

To summarise, the results partially support Hypothesis two. The motivational group's level of problem recognition regarding their drinking increased significantly, in contrast to the educational group's recognition, which fell.

3.2.3 Hypothesis three. It was hypothesised that a high post-intervention score on the Ambivalence scales of the Readiness to Change questionnaire would be predictive of drop-out from the subsequent treatment programme. Similarly, it was predicted that low post-intervention scores on the Recognition and Taking Steps scales of the questionnaire would be predictive of drop-out.

Table 4 shows the mean post-intervention SOCRATES scores of the group who stayed in the six-week treatment programme and the group who dropped out. As the data were not normally distributed, Mann Whitney U-tests were used to examine motivational scores of those who did (n = 19) and did not (n = 32) drop out.

Table 4. Post-intervention SOCRATES scores of those who dropped out and those who stayed in the subsequent treatment programme.

SOCRATES scale	Dropped out	Stayed in treatment	Mann Whitney U p.
Ambivalence (SD)	11. 73 (2.30)	11.46 (3.83)	U = 289 NS
Recognition (SD)	30.57 (4.65)	30.34 (5.17)	U = 301 NS
Taking Steps (SD)	35.73 (2.72)	35.84 (3.90)	U = 280.5 NS

Analysis revealed that there were no significant differences in the scores on the Recognition, Ambivalence or Taking Steps scales between the group of participants who did drop out and the group of participants who did not. Thus, the results do not support the hypothesis that post-intervention scores on the Recognition, Ambivalence and Taking Steps scales could be used to predict drop-out.

3.2.4 Supplementary Analysis

3.2.4.1 Differences between post-intervention and end of treatment scores on SOCRATES scales.

Observation of the data indicated that there were differences between the motivational and educational groups' motivation for change scores on the post-intervention and end of treatment measures. Table 5 shows the mean scores on the SOCRATES scales for each group at pre-intervention, post-intervention and at the end of treatment. As the data were not normally distributed, a set of Mann Whitney tests were used to compare the motivational scores of the two groups at the three time points (pre-intervention, post-intervention, end of treatment).

Table 5. Mean SOCRATES scores at pre-intervention, post-intervention and at end of treatment.

SOCRATES score	Stage	Motivational Group	Educational Group	Mann-Whitney U p
Ambivalence scores	pre-intervention	11.29 (N=24) (SD = 3.26)	12.14 (N=27) (SD = 2.95)	U = 279.5 NS
	post-intervention	10.62 (N=24) (SD = 3.71)	12.40 (N=27) (SD = 2.73)	U = 233 **p< 0.05**
	end of programme	9.33 (N=12) (SD = 3.57)	9.69 (N=13) (SD = 3.75)	U = 67 NS
Recognition scores	pre-intervention	31.04 (N=24) (SD = 4.33)	30.26 (N=27) (SD = 4.24)	U = 276.5 NS
	post-intervention	32.12 (N=24) (SD = 4.55)	28.92 (N=27) (SD = 4.85)	U = 171 **p< 0.002**
	end of programme	31.25 (N=12) (SD = 6.95)	29.38 (N=13) (SD = 4.95)	U = 45.6 **p< 0.04**
Taking Steps	pre-intervention	36.08 (N=24) (SD=3.43)	34.41 (N=27) (SD = 3.91)	U = 241.5 NS
	post-intervention	36.75 (N=24) (SD = 3.56)	34.96 (N=27) (SD = 3.24)	U = 218 **p< 0.03**
	end of programme	37.6 (N=12) (SD = 2.67)	37.0 (N=13) (SD = 3.48)	U = 74 NS

There were significant differences between the motivational and the educational groups' post-intervention scores on all of the SOCRATES scales. The motivational group's scores were significantly lower than those of the educational group on the Ambivalence scale. In contrast,

the scores of the motivational group were significantly higher than those of the educational group on the Recognition and Taking Steps scales. Thus, the motivational group's post-intervention scores indicated that they were less ambivalent than the educational group about whether or not they had drinking problems. In addition, the motivational group's scores indicated that they more fully recognised the extent of their problems and were taking more steps to change their drinking behaviour than the educational group.

At the end of the six week programme, data were available from only 25 of the 32 participants who completed treatment. This was because sickness and low staffing levels had led to 7 participants not being given the SOCRATES-8A Readiness to Change questionnaires at the end of treatment. Of the 25 who had completed the Readiness to Change questionnaire, there were 12 from the motivational intervention group and 13 from the educational group. Table 5 shows that there were no significant differences between the group's end of treatment scores on either the Ambivalence or Taking Steps scale. However, there was a significant difference between the groups' scores on the end of programme Recognition scale. The scores for the motivational group were significantly higher than those of the educational group. Thus, the motivational group demonstrated a greater level of problem recognition at the end of treatment than the educational group.

3.2.4.2 Changes across time for the population as a whole.

In addition to the above, the data in Table 5 indicates that there was a difference between the pre-intervention and end of treatment SOCRATES scores for the population as a whole.

Wilcoxon tests were used to compare pre-intervention and end of treatment SOCRATES scores. Table 6 shows the results of the analyses.

Table 6. Mean SOCRATES scores at pre-intervention and end of treatment for the population of participants as a whole.

SOCRATES scale	pre-intervention mean (N = 25)	end of treatment mean (N = 25)	Wilcoxon Z p
Ambivalence score (SD)	11.74 (3.10)	9.52 (3.59)	Z = 2.08 **p< 0.02**
Recognition score (SD)	30.62 (4.26)	30.28 (5.94)	Z = 0.12 NS
Taking Steps score (SD)	35.19 (3.75)	37.32 (3.07)	Z = 2.22 **p< 0.02**

As seen in Table 6, the end of treatment Ambivalence scores of those who stay in treatment are significantly lower than for the population as a whole at the start of treatment. There appeared to be two possible reasons for this change. The first was that the participants became less ambivalent about change as they progressed through the treatment programme. The other was that those who were more ambivalent about change dropped out of treatment, leaving the less ambivalent participants in the programme. To test for evidence of this second possibility, a Mann-Whitney test was used to compare the pre-intervention Ambivalence scores of those who dropped out and those who stayed in treatment.

The mean pre-intervention Ambivalence score was 10.84 (SD = 2.67; range = 4-15), for those who dropped out of treatment (N =19), in comparison to 12.28 (SD = 3.25; range = 4-17) for those who stayed in treatment (N = 32). Analysis revealed that the pre-intervention Ambivalence scores of those who dropped out of treatment were significantly higher than those who stayed in treatment ($U = 203$; $p < 0.03$). Thus, this result supports the notion that the overall decrease in end of treatment Ambivalence scores was at least partially related to the fact that a group with higher Ambivalence scores dropped out of subsequent treatment. This result also indicates that a higher pre-intervention score on the Ambivalence scale was predictive of drop-out during the subsequent treatment programme, even though there was no such relationship between post-intervention and end of treatment scores (see section 3.2.3).

The results shown in Table 6 also indicate that the Taking Steps scores of those who stayed in treatment were significantly higher at the start of treatment than for the population as a whole. It was important to determine whether this increase might have been a result of individuals with lower pre-intervention Taking Steps scores dropping out of treatment. To test this possibility, a Mann-Whitney test was used to compare the pre-intervention Taking Steps scores of those who dropped out versus those who stayed in treatment. The mean pre-intervention Taking Steps score was 36.15 (SD = 3.64; range = 28-40) for those who dropped out of treatment (N =19), in comparison to 34.62 (SD = 3.76; range = 25-40) for those who stayed in treatment (N = 32). The analysis revealed that there was no significant difference between the pre-intervention Taking Steps scores of those who dropped out of treatment and those who stayed in treatment ($U = 235$; $p = 0.17$).

4. DISCUSSION

4.1 MAIN FINDINGS OF THIS STUDY:

4.1.1 Hypothesis one

The first hypothesis was that there would be greater engagement in subsequent treatment among the motivational group than among the educational intervention group. No significant differences between the groups were found in drop-out rate, overall number of days in treatment, or the percentage of contracted sessions for which clients attended. For those who stayed in subsequent treatment, the number of days in the programme was slightly higher (but not significantly so) in the motivational group than in the educational group. The absence of a significant difference between the groups' levels of engagement indicates that the results of this study do not support the experimental prediction. Therefore, the null hypothesis (that there is no difference in levels of engagement between the two groups) cannot be rejected.

4.1.2 Hypothesis two

The second hypothesis was that the motivational group would develop higher levels of motivation for change, as demonstrated by a lower score on the Ambivalence scale and higher scores on the Recognition and Taking Steps scales of the SOCRATES-8A Readiness to Change questionnaire (Miller, 1995b). There were no significant differences between the pre- and post-intervention scores on the Ambivalence or Taking Steps scale for either the motivational intervention or the educational group. However, the hypothesis was partially supported, as the groups showed different patterns on the Recognition scale. The scores for the motivational intervention group rose significantly, while the educational group's scores fell significantly. In

addition, analysis of the end of treatment measures indicated that the recognition scores of the motivational intervention group remained significantly higher than those of the educational group. Therefore, the null hypothesis (that there was no association between level of motivation and type of intervention) may be partially rejected.

4.1.3 Hypothesis three

It was hypothesised that a high post-intervention score on the Ambivalence scale of the Readiness to Change questionnaire would be predictive of drop-out. Similarly it was predicted that low post-intervention scores on the Recognition and Taking Steps scales of the questionnaire would be predictive of drop-out. The results do not support this hypothesis, as there were no significant differences in the post-intervention scores on any of these scales between those who did and did not drop out. Therefore, the null hypothesis (that post-intervention scores on the SOCRATES scales are not predictive of drop-out) cannot be rejected.

4.1.4 Supplementary Analysis

4.1.4.1 Differences between post-intervention and end of treatment scores on SOCRATES scales.

Further analysis of the post-intervention data indicated that there were significant differences between the scores of the motivational group and those of the educational group on all SOCRATES scales. The motivational group had significantly higher scores on the Recognition and Taking Steps scales than the educational group. In contrast, the motivational group had significantly lower scores than the educational group on the Ambivalence scale. These findings

indicate that the motivational intervention had a significant impact on increasing post-intervention levels of motivation for change. More specifically, motivational intervention impacted by decreasing ambivalence about change and increasing recognition of drinking related problems and steps taken to change drinking behaviour. In addition, the end of treatment Recognition scores for the motivational group remained significantly higher than those for the educational group. This latter result demonstrated that a higher level of problem recognition in the motivational group was still present at the end of the six week treatment programme.

4.1.4.2 Changes across time for the population as a whole.

There was very little difference between the pre-intervention and end of treatment Recognition scores for the population as a whole. In contrast, the end of treatment Ambivalence scores decreased and the Taking Steps end of treatment scores increased (in comparison to pre-intervention measures). Statistical evidence indicated that the decrease in Ambivalence scores was at least partly due to the attrition of individuals with relatively high Ambivalence scores. Thus, a relatively high pre-intervention Ambivalence score is predictive of drop-out. In contrast, low pre-intervention scores of the Taking Steps scale were not predictive of drop-out. It can be concluded that the results indicate that the end of treatment increase in Taking Steps scores was more likely to be a result of treatment, rather than being due to the attrition of participants with low Taking Steps scores.

4.1.5 Summary of significant findings

Overall, the results indicate that the motivational intervention impacted specifically, by increasing the participants' recognition of their problems with drinking. In contrast, the group who received an educational control procedure showed a reliable decrease in the recognition of their drinking problems. Despite the contrast in level of problem recognition between the two groups, there were no significant differences in engagement in treatment between the motivational and educational group. In addition, there was no significant difference in the post-intervention motivational scores of those who did drop out and those who stayed in treatment. However, supplementary analysis revealed that relatively higher pre-intervention Ambivalence scores were predictive of drop-out.

Further, supplementary analysis revealed additional information about the impact of motivational intervention and properties of the SOCRATES scales. Previously, repeated measure analysis of pre-intervention and post-intervention scores had only revealed a significant increase in Recognition scores for the motivational group and a decrease for the educational group. However, further analysis using group comparison showed significant post-intervention differences between the motivational and educational group across all scales of SOCRATES. The scores of the motivational group were significantly lower than those of the educational group on the Ambivalence scale, and significantly higher on the Recognition and Taking Steps scales.

Therefore, there is evidence partially to support the notion that motivational intervention increases motivation for change by lowering ambivalence about change, increasing problem

recognition and increasing the reported steps to change drinking behaviour. Further to this, the motivational group's end of treatment Recognition scores were also significantly higher than those of the educational group. This indicates that problem recognition in the motivational group was still higher than that of the educational group at the end of treatment. This latter finding partially supports the notion that the impact of motivational intervention on increasing motivation for change lasts for the duration of treatment.

4.2 THE PSYCHOLOGY OF THE INDIVIDUAL -WHAT HAS BEEN LEARNT FROM THIS STUDY, AND HOW DOES THIS RELATE TO WHAT IS ALREADY KNOWN ?

4.2.3 Level of motivation of people entering the outpatient programme.

The pre-intervention results of the SOCRATES-8A measure have provided interesting information about some of the motivational characteristics of individuals entering this six week outpatient treatment programme. Miller (1995b) has provided interpretative ranges of the SOCRATES-8A scales for clients entering treatment (based on a sample of 1,726 adult men and women presenting for treatment of alcohol problems through project MATCH - see Appendix X). According to these ranges, the participants in the present study had low Ambivalence scores (30th percentile), a low medium level of Recognition (40th percentile) and a high medium level of Taking Steps (60th percentile). In line with this relatively low level of ambivalence and the relatively high level of taking steps towards change, only 37.2 percent of the participants dropped out of treatment. This is less than the generally accepted norm in outpatient settings of 52-75 % (Baekeland & Lundwall, 1975).

4.2.4 Level of motivation at the end of treatment and drop-out

Results show that for participants who did not drop out, mean end of treatment ambivalence score dropped from a pre-intervention level (at the start of treatment) of 12.28 to 9.52. Results indicate that this decrease may be attributable to the attrition of participants with relatively high levels of ambivalence. This finding adds support to the contention that a relatively high level of ambivalence about change may lead to a decrease in treatment compliance (Miller 1983; Rollnick & Miller, 1995). This finding is also in line with the proposal that ambivalence about change can arise in at any point of change, rather than just in those who are not taking many steps towards change (Saunders & Allsop, 1989). If ambivalence (as measured by SOCRATES-8A) can predict treatment drop-out, then there are clearly implications of these findings. These are discussed later (see section 4.5).

In addition, the mean end of treatment measure of taking steps increased from the pre-intervention level (at the start of treatment) of 35.25 to 37.32. Statistical analysis indicates that this was not because those with lower Taking Steps scores dropped out. One potential reason for this change is that participants increased their efforts in taking steps towards change as they went through the treatment programme. However, proposed reasons for this increase are only speculative.

4.2.5 The impact of motivational intervention on levels of motivation for change

The results suggest that motivational intervention was successful in maintaining and increasing problem recognition in individuals in an outpatient treatment programme for alcohol dependence. This indicates that the techniques used within the motivational intervention were sufficiently targeted at increasing problem awareness, without being so confrontational that clients felt the need to defend themselves by denying the extent of their difficulties. Many of the techniques involved in the motivational intervention approach may be construed as specifically designed to increase both cognitive (naming specific problems) and emotional (how they feel about how drinking has led to them not achieving some of their goals) aspects of problem recognition.

Further to the above, supplementary analysis indicates that the motivational intervention was successful in decreasing ambivalence about change and in increasing steps taken towards change. These additional results suggest that the techniques involved in the motivational intervention were useful in helping the individual to resolve ambivalence about change, recognise their problems related to drinking, and develop and maintain their steps towards change. The exact process by which these changes came about are unknown, but there are some distinct possibilities. One of these is mentioned below.

In line with cognitive behavioural approaches to motivation for change, it is proposed that motivational intervention increased problem recognition as it increased the individuals' awareness of the problems and of the emotional discomfort caused by their continued use of alcohol. As their problem recognition and emotional discomfort about their drinking behaviour

increased, these began to outweigh the discomfort of not continuing their drinking behaviour. Through this process, their ambivalence about change became less as their ambivalence about not changing their drinking behaviour increased. As ambivalence about change reduced, they became more willing to work towards taking steps to change their behaviour and maintain changes.

4.2.6 Level of motivation and engagement in treatment

The lower level of ambivalence, increase in recognition and significantly higher level of taking steps towards change in the motivational group did not lead to a significant increase in engagement. The latter kind of change might have been predicted, given Orford's (1985) contention that once the costs of a behaviour greatly outweigh the benefits, the conflict between desire to continue and other needs requires a decision to be made with regard to the behaviour. In addition, it has been suggested that those with lower levels of Ambivalence and higher Recognition and Taking Steps scores may comply with treatment for longer (Miller & Tonigan, 1996). The present research study generally failed to support these previous predictions. There was, however, a nearly significantly higher number of days in treatment (for those who stayed in the programme) in the motivational group than the educational group. This result suggests that significantly different scores on the SOCRATES scales of the motivational group may in some way be related to engagement in treatment. Despite this latter observation, in this present study, an increase in problem recognition and a higher post-intervention score on the Taking Steps scale of SOCRATES did not lead to a significant increase in engagement in treatment.

Before the findings of the present study can be explored more fully, it is necessary to discuss any methodological issues that may have affected the results.

4.3 CRITICAL DISCUSSION:

4.3.1 Limitation of measures used

SOCRATES-8A

Within the present study, clients' self-reported levels of motivation for change were measured using the SOCRATES-8A. This measure only assesses three of the constructs that underlie motivation for change, and does not provide a comprehensive assessment of all possible motivational vectors (Miller & Tonigan, 1996). SOCRATES-8A focuses on sampling the person's recognition of drinking problems, ambivalence or uncertainty about drinking, and taking steps to change. Other motivational factors of potential importance are not directly addressed in SOCRATES. These include self-efficacy, outcome expectancies, specific pros and cons of change, and social support for drinking and abstinence. Therefore, any conclusions from the present study must be confined to the constructs that are measured by SOCRATES-8A. It would be unfounded to make general, sweeping conclusions about the impact of the motivational intervention on motivation in its entirety.

Further to the above mentioned limitations of SOCRATES, some participants' scores were at the maximum for the Recognition and Taking Steps scales. The ceiling effects found on these scales limit the sensitivity of this measure to potential increases on these constructs. They therefore limit the interpretation of these results.

Measures of engagement

In the present study, only very raw measures of engagement in treatment were used. As there did not appear to be a more subtle pre-designed measure of variables of participation, one was developed for this study. However, due to insufficient quantities of data, it was not possible to use this measure for the present study. This latter issue is briefly discussed later (section 4.4).

4.3.2 Limitations of the present study

The present study is just the beginning of investigating the impact of this kind of motivational intervention on individuals with alcohol problems. Any conclusions must be tentative until more extensive randomised controlled trials have taken place.

One major limitation of the present study was that there was no control for the impact of meeting with a therapist. However, it is unlikely that a placebo meeting with a therapist for a total of one hour and ten minutes would have an impact during a six week treatment programme. Another limitation of the present study is that it did not measure background variables, such as the social setting and resources of the individual participants. These variables may impact on outcome for individuals in treatment for alcohol dependence. Research indicates that poorer and less supportive resources are associated with higher rates of drop out from treatment (Baekeland & Lundwall, 1975). The random allocation would have been expected to distribute the level of resources evenly between the two groups. However, the absence of such demographic data for this population means that the results of this study cannot be described in relation to the social setting of its participants.

4.3.3 Possible reasons why there were no observed differences in levels of engagement between the two groups

The motivational intervention is ineffective at increasing engagement in treatment

It is possible that the reason for the lack of difference in the levels of engagement between the motivational and educational groups is simply due to the fact that this motivational intervention is not effective in bringing about behaviour change. However, to reach such a blunt conclusion would be premature. There was a nearly significantly greater number of days in treatment (for those who did not drop-out of the programme) in the motivational group than in the educational group. In addition, the potential long-term behavioural effects that may have followed the impact of motivational intervention on the SOCRATES scales (e.g., effects on drinking behaviour or relapse following the treatment programme) are not known as there is no follow-up data from the present study. Therefore, other potential reasons for the lack of measured impact are discussed.

Insufficient differences between interventions

Given the results of the therapy check, it is unlikely that a lack of distinction between the motivational and educational interventions would explain why there was no difference in the level of engagement between the two groups. Another potential reason for lack of difference between levels of engagement was the presence, in the educational control group, of sufficient motivational elements to induce change (Bien, Miller & Tonigan, 1993). For the purposes of replication, the present study used an educational control, focusing of physical effects of using

alcohol. Whilst all clients reported that they were aware of most of the information that I presented to them, it is possible that the presentation increased their motivation. This may have happened as a function of increasing the immediate salience of the harmful effects of alcohol on the body. Unfortunately, discussion of this point is speculative. An additional no-contact control group would have provided evidence on which to base such discussion. However, all the eligible, available clients within the time span of the research were allocated to either the intervention or the control group to provide sufficient numbers for statistical analyses. A future study with a longer time span could potentially address this issue.

Effects of group differences being diluted during the treatment programme

Another possible reason for the lack of difference in behaviour between the two groups is related to the fact that participants were already attending an outpatient treatment programme. This treatment programme contained educational and motivational elements. It is possible that these elements diluted the experimental difference between the groups, leading to equal levels of behaviour change.

Suitability of the population and setting for the present study

It is questionable whether the population in the present study was optimal to test the impact of this motivational intervention on behavioural change. Some research indicates that the optimal responder levels of dependence for brief motivational interventions (of three or fewer sessions) are mild to moderate levels of alcohol dependence (Bien, Miller & Tonigan, 1993). In the present study, the mean level of dependence (as measured by the SADQ) was just within the

severe range for the motivational group and just below the severe range for the educational group. Therefore, potential effects of motivational intervention on levels of engagement could potentially have been counteracted by these levels of dependence. However, whilst the idea of an optimal responder level of dependence to brief motivational intervention may be appealing, there is no direct data to support this assertion (Bien, Miller & Tonigan, 1993).

In addition to the above, a question arises about the appropriateness of this setting to show behavioural change. The only other study using this type of motivational intervention (Saunders et al., 1995), was conducted within a treatment programme for individuals' opiate dependence. The participants were being maintained on methadone as part of the programme. Thus, unlike the participants in the present study, they were not attempting to maintain a goal of total drug abstinence. It is therefore possible that the participants in the present study could be construed as more motivated, as they had actually stopped the substance misuse. If they were more motivated then it may be that there was less room for the motivational intervention to have a significant behavioural impact on drop-out or engagement. Evidence for this latter point comes from the fact that some individuals reached ceiling for scores on the Recognition and Taking Steps scales.

Could motivational assessment alone increase motivation?

Although test-retest replicability of SOCRATES-8A was high, there is a significant increase in the mean Recognition scores at the second administration (Miller & Tonigan, 1996). These authors suggest that a plausible explanation for this effect is a reaction to first testing, in that assessment alone may raise problem awareness and alter drinking behaviour (Bien, Miller &

Tonigan, 1993). However, if this were the case in the present study, then the Recognition scores of both groups would be expected to have risen significantly. This was clearly not the case, as the scores of the educational group actually fell.

The impact of unmeasured vectors of motivation

It has been acknowledged that one of the limitations of this study was that it has focused on level of motivation as measured by the three constructs of SOCRATES-8A. The SOCRATES measure does not directly assess other motivational vectors of potential importance. As mentioned, these include self-efficacy, outcome expectancies, specific pros and cons of change, and social support for drinking and abstinence. The levels of these vectors in the study population are unknown. It is proposed that the unmeasured impact of these other motivational vectors may have contributed to diluting any potential impact of the motivational intervention on engagement in treatment. For instance, in the case of outcome expectancy of abstinence from drug use, an individual may cognitively and emotionally acknowledge the overwhelming costs of their drinking, but still ultimately value their drinking lifestyle more highly than alternatives (i.e., have a low outcome expectancy of abstinence). Research evidence from the Saunders et al. (1995) study supports this proposal. In that study, relatively low levels of self-efficacy and outcome expectancy of abstinence (Solomon & Annis, 1989) were each predictive of less time before drop-out from treatment. In addition, the motivational intervention in the Saunders et al. study did not lead to significantly higher post-intervention levels of outcome expectancy. There was, however, a significantly higher level of outcome expectancy at the three month follow-up in their motivational group than in their control group.

The implication for the present study is that other motivational factors (than those measured by SOCRATES-8A) may exert a powerful effect on engagement in treatment. These additional factors may be influenced by motivational intervention, but perhaps not within the limited time span (six weeks) of the present study. Therefore, it may have been over-optimistic to predict a greater level of engagement in treatment in the motivational intervention group across such a relatively short time span. Unfortunately, discussion of this issue is only speculative, as the relevant data are not available in this present study. Clinical implications of this issue are discussed later.

Summary

Overall, the methodological limitations (including the lack of a follow-up period, the lack of a non-intervention control group and the limited measurement of motivational vectors) as well a lack of comparable studies in different treatment settings and populations, prevent informed conclusions being reached about the impact of motivational intervention on engagement in treatment.

4.4 RESEARCH IMPLICATIONS

Alcohol services

Following from the above, there is a clear need for more research to determine the efficacy of this type of motivational intervention in different treatment settings. For instance, issues raised in the Discussion (section 4.3.3) suggested that this motivational intervention might have a

greater impact on individuals who are considering a goal of abstinence. This possibility needs to be investigated with research into motivational intervention with this client group. In addition, more research is needed to determine whether there are interactional effects of constructs of motivation for change and behaviour of individuals in treatment settings for alcohol problems.

Further to the above, more informative studies are needed to identify the active ingredients of effective brief motivational interventions. Where self-help materials are provided, for example, is it the content or the mere provision of materials that impacts on change, and to what extent do participants use and understand these resources (Bien, Miller & Tonigan, 1993)? Research also needs to be conducted to determine if there are optimal responder characteristics (including optimal levels of alcohol dependence) for behaviour change following motivational intervention.

Non-specialist services

The motivational intervention used in the present study does not require specialist medical assessments as part of the intervention. Thus, unlike many adaptations of motivational interviewing, this type of intervention is not limited to specialist alcohol services with the resources for medical assessment. Therefore, there is need for research to begin to investigate the efficacy of non-specialist healthcare workers using this motivational intervention with clients with alcohol problems.

The field of addictions

It would be premature to generalise these findings to other addictive behaviours. However, the problem of lack of motivation for change is universal in the field of addictions. More specifically, high levels of ambivalence about change, low levels of problem recognition and difficulty in taking steps towards change are common problems. Furthermore, once clients have managed to change their addictive behaviours, they often relapse. Therefore, there needs to be more research across the addictions field, investigating the impact of appropriately adapted motivational interventions in helping the client with motivation for change and to maintain changes made.

General psychotherapeutic settings

Motivational difficulties are also experienced throughout psychotherapy services. Therefore, future research also needs to be directed towards investigating the efficacy of the components of motivational interventions in more general psychotherapeutic settings. For instance, it would be interesting to investigate the impact on treatment of using a balance sheet of positives and negatives of current behaviour patterns to explore a client's ambivalence about change.

Need for better measures

There is clearly a need for further studies to measure more vectors of motivation and to incorporate a greater range of levels of motivation. In addition, there is a need for research to establish more subtle measures of engagement in treatment, as simply attending can not be assumed to equate with participating.

4.5 CLINICAL AND SERVICE IMPLICATIONS

Increasing problem recognition

As was previously mentioned, Jannis and Mann's (1977) 'conflict theory' clearly states that when making decisions in real-life situations, cognitive processes do not predominate. Instead of weighing up the options, a person's judgement is often distorted and disturbed by their emotional state. If their emotional state can be tipped in favour of recognition of a problem, then this has great potential to increase their decision to change and motivate the person to continue the change process. However, in the present study, an increase in recognition did not lead to a significant increase in engagement in treatment. Therefore, until more studies have addressed this issue, the case can not be made for the clinical utility of motivational intervention in the study setting.

In addition to the above, it is important to acknowledge that there are motivational vectors in an individual's living context that may influence engagement in treatment but which are not always directly accessible to therapeutic intervention (Orford, 1985). This is not to suggest that clinicians should give up attempting to help individuals who are experiencing difficulty with motivation for change. Instead, it is suggested that it may be useful more fully to explore and acknowledge these sources of ambivalence and reluctance about change when working with clients. Greater exploration of these issues (including outcome expectancies) may provide the client and the clinician with more insight into the presence of potential 'snags' in the process of change.

Ambivalence as a predictor of drop-out

As previously mentioned, the finding that a relatively high score on the Ambivalence scale of SOCRATES-8A is predictive of drop-out has some potentially important clinical implications. Firstly, this study indicates the potential utility of screening for ambivalence about change before treatment entry or at the start of treatment programmes. Clients who are found to have relatively high levels of ambivalence could be offered alternative or additional interventions. Instead of a treatment programme, clients might be assigned to specific motivational interventions to decrease ambivalence and build motivation for change. Alternatively, if clients are already in a treatment programme, specific interventions may be added to their individual programme to address their ambivalence. Thus, in line with Saunders and Allsop (1989), the results indicate that ambivalence about change should be acknowledged and addressed in therapy, whatever stage of change the person is at.

The need for the continued development of brief motivational interventions

The sheer prevalence of problem drinking far surpasses the maximum imaginable capacity of specialist services. In addition, the vast majority of people with alcohol problems never seek specialist treatment, though they are frequently in contact with other health and social services (Bien, Miller & Tonigan, 1993). The implication is clear. There is a need for research to find motivational interventions which such non-specialist services may use to trigger significant behaviour change in the individual (whether this is seeking specialist treatment, or merely decreasing the problem drinking of their own accord). If research identifies more promising techniques, it will be important for individuals who come into contact with such clients to have

specific training to increase their comfort, confidence, and competence in brief motivational counselling (Rollnick & Bell, 1991).

Therefore, given the evidence that therapist skills substantially affect the efficacy of interventions for alcohol problems (Miller & Taylor, 1980), training and research design should directly address the style and characteristics of those delivering interventions (Bien, Miller & Tonigan, 1993). In addition, if future research indicates that there are optimal responder characteristics for brief motivational intervention, then it will be possible for service providers to make more informed choices about which clients are most likely to benefit from brief motivational interventions.

4.6 CONCLUSION

Overall, the results of this study indicate that motivational intervention was not successful in significantly increasing engagement in treatment for clients attending an outpatient treatment programme for alcohol dependence. However, motivational intervention was successful in increasing some of the underlying processes (as measured by SOCRATES-8A) involved in motivation for change. In addition, the results of the present study indicate that the SOCRATES-8A construct of level of ambivalence about change is a useful predictor of treatment drop-out, and should be addressed in therapeutic work. Reasons for the lack of a significant difference in the levels of engagement between the motivational group and the educational control have been discussed. It is concluded that better controlled studies (across a range of settings and populations, measuring more vectors of motivation, and over a longer

period of time) are needed to determine whether motivational intervention impacts on engagement in treatment, and on drinking behaviour following treatment.

REFERENCES

Allsop, S., Saunders, B. Phillips, M. & Carr, A. (1997). A trial of relapse prevention with severely dependent male problem drinkers. Addiction, 92, 61-74.

American Psychiatric Association (1994). Diagnostic and statistical manual of mental disorders. (4th ed.), Washington, D.C: American Psychiatric Association.

Baekeland , F. & Lundwall, L. (1975). Dropping out of treatment: a critical review. Psychological Bulletin, 82, 738-783.

Beckman, L.J. (1980). An attributional analysis of Alcoholics Anonymous. Journal of Studies on Alcohol, 41, 714-726.

Berg, I.K. & Miller, S.D. (1992). Working with the problem drinker: A solution-focused approach. New York: W.W. Norton.

Bien, T.H., Miller, W. & Boroughs, J. (1993). Motivational interviewing with alcohol outpatients. Behavioural Psychotherapy, 21, 347-356.

Bien T.H., Miller, W.R. & Tonigan, J.S. (1993). Brief interventions for alcohol problems: a review. Addiction, 88, 315-336.

Brown, J. & Miller, W.R. (1993). Impact of motivational interviewing on participation and outcome in residential alcoholism treatment. Psychology of Addictive Behaviours, 7, 211-218.

Cavaiola, A.A. (1984). Resistance issues in the treatment of the DWI offender. Alcoholism Treatment Quarterly, 1, 87-100.

Clancy, J. (1961). Procrastination: A defense against sobriety. Quarterly Journal of Studies on Alcohol, 22, 269-276.

Clancy, J. J. (1964). Motivation conflicts of the alcohol addict. Quarterly Journal of Studies on Alcohol, 25, 511-520.

Dean, S.I. (1958). Treatment of the reluctant client. American Psychologist, 13, 627-630.

DiCicco, L., Unterberger, H. & Mack, J.E. (1978). Confronting denial: An alcoholism intervention strategy. Psychiatric Annals, 8, 596-606.

Donovan, D. M., Rohsenow, D.J., Schau, E.J. & O'Leary, M.R. (1977). Defensive style in alcoholics and nonalcoholics. Journal of Studies on Alcohol, 38, 465-470.

Gottheil, E., Thornton, C., Skodola, T. & Alterman, A. (1982). Follow-up of abstinent and non-abstinent alcoholics. American Journal of Psychiatry, 139, 560-565.

Horn, J. L., Wanberg, K. W., & Foster, F.M. (1987). Guide to the Alcohol Use Inventory (AUI). Minneapolis, MN: National Computer Systems.

Janis, I. & Mann, L. (1977). Decision making: A psychological analysis of conflict, choice and commitment. New York: Collier Macmillan.

Marlatt, G.A. (1985). Relapse Prevention: Theoretical Rationale and Overview of the Model. In G.A. Marlatt & J.A. Gordon (Eds.), Relapse Prevention: Maintenance Strategies in the Treatment of Addictive Behaviours. London: Guilford Press. pp3-67.

Mason, P. (1989). Managing Drink: A Training Package. Birmingham: Aquarius.

Miller, W.R. (1983). Motivational Interviewing with problem drinkers. Behavioural Psychotherapy, 1, 147-172.

Miller, W.R. (1985). Motivation for treatment: A review with special emphasis on alcoholism. Psychological Bulletin, 98, 84-107.

Miller, W.R. (1991). The Stages of Change and Treatment Eagerness Scale (SOCRATES) -5A. Unpublished Measure. Research Division / Centre on Alcoholism, Substance Abuse and Addictions. The University of New Mexico.

Miller, W.R. (1995a). Increasing Motivation for Change. In R.K. Hester & W.R. Miller (Eds.) Handbook of Alcoholism Treatment Approaches: Effective Alternatives. pp.89-104. London: Allyn and Bacon.

Miller, W.R. (1995b, Personal communication). The Stages of Change and Treatment Eagerness Scale (SOCRATES) -8A. Unpublished Measure. Research Division / Centre on Alcoholism, Substance Abuse and Addictions. The University of New Mexico.

Miller, W.R. & Rollnick, S. (1991). Motivational Interviewing: Preparing People to Change Addictive Behaviour. London: Guilford Press.

Miller, W.R. & Taylor, C.A. (1980). Relative effectiveness of bibliotherapy, individual and group self-control training in the treatment of problem drinkers. Addictive Behaviours, 5 13-24.

Miller, W.R. & Tonigan, J.S. (1996). Assessing Drinkers' Motivation for Change: The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES). Psychology of Addictive Behaviours, 10, 81-89.

Miller, W.R., Zweben, A., Di Clemente, C. & Rychtarik, R.G. (1992). Motivational Enhancement Therapy manual: a clinical guide for therapists treating individuals with alcohol abuse and depedence. (Volume 2, Project MATCH Monograph Series). Rockville, MD: National Institute on Alcohol Abuse and Alcoholism.

Mindlin, D. (1959). The characteristics of alcoholics as related to prediction of therapeutic outcome. Quarterly Journal of Studies on Alcohol, 29, 604-619.

OPCS (1996). Living in Britain: Results from the 1994 General Household Survey. London: HMSO.

Orford, J. (1985). Excessive appetites: A psychological view of addiction. Chichester, England: Wiley.

Prochaska, J.O. & DiClemente, C.C. (1986). Towards a comprehensive model of change. In W.R. Miller & N. Heather (Eds.), Treating addictive behaviours: Processes of change. pp. 3-27. New York: Plenum Press.

Project MATCH Research Group. (1993). Project MATCH: Rationale and Methods for a Multisite Clinical Trial Matching Patients to Alcoholism Treatment. Alcoholism: Clinical and Experimental Research 17, 1130-1145.

Project MATCH Research Group. (1997). Matching Alcoholism Treatments to Client Heterogeneity: Project MATCH Posttreatment Drinking Outcomes. Journal of Studies on Alcohol No.1., 1-29.

Rollnick, S. & Bell, A. (1991). Brief motivational interviewing for use by the non-specialist. In W.R. Miller & S. Rollnick (Eds.) Motivational Interviewing: Preparing People to Change Addictive Behaviour, pp 203-212. London: Guilford Press.

Rollnick, S., Heather, N. & Bell, A. (1992). Negotiating behaviour change in medical settings: The development of brief motivational interviewing. Journal of Mental Health, 1, 25-37.

Rollnick, S., Kinnersley, P. & Scott, N. (1993). Methods of helping patients with behaviour change. British Medical Journal, 307, 188-190.

Rollnick, S. & Miller, W.R. (1995). What is Motivational Interviewing ? Behavioural and Cognitive Psychotherapy, 23, 325-334.

Rollnick, S. & Morgan, M. (1995). Motivational Interviewing: Increasing Readiness for Change. In A.M. Washton (Ed), Psychotherapy and Substance Abuse: A Practitioner's Handbook. pp.179-191. London: Guilford Press.

Saunders, W. & Allsop, S. (1989). Relapse: A critique. In M.Gossop (Ed), Relapse and addictive behaviour pp. 249-277. London: Routledge.

Saunders, B., Wilkinson, C. & Allsop, S. (1991). Motivational Intervention with Heroin Users Attending a Methadone Clinic. In W.R. Miller & S. Rollnick (Eds.) Motivational Interviewing: Preparing People to Change Addictive Behaviour, pp. 279-292. London: Guilford Press.

Saunders, B., Wilkinson, C. & Phillips, M. (1995). The impact of brief motivational intervention with opiate users attending a methadone programme. Addiction, 90, 415-424.

Saunders, B., Wilkinson, C. & Towers, T. (1996). Motivation and Addictive Behaviours: Theorectical Perspectives. In F. Rotgers, D.S. Keller & J. Morgenstern (Eds.), Treating Substance Abuse: Theory and Technique, pp.241-266. London: Guilford Press.

Skinner, H.A. & Allen, H.A. (1983). Differential assessment of alcoholism. Journal of Studies on Alcohol, 44, 852-862.

Solomon, K.E. & Annis, H.M. (1989). Development of a scale to measure outcome expectancy in alcoholics. Cognitive Therapy and Research, 13, 409-421.

Stark, M.J. (1992). Dropping out of substance abuse treatment: A clinically orientated review. Clinical Psychology Review, Vol. 12, 93-116.

Sterne, M. & Pittman, D. (1965). The concept of motivation: A source of institutional and professional blockage in the treatment of alcoholics. Quarterly Journal of Studies on Alcohol, 16, 41-57.

Stimpson, G. & Oppenheimer, E. (1982). Heroin addiction: Treatment and control in Britain. London : Tavistock.

Stockwell, T., Hodgson, R. Edwards, G. Taylor, C. & Rankin, H. (1979). The Development of a Questionnaire to Measure Severity of Alcohol Dependence. British Journal of Addiction, 74, 79-87.

Stockwell, T. Murphy, D. & Hodgson, R. (1983). The Severity of Alcohol Dependence Questionnaire: Its Use, Reliability and Validity. British Journal of Addiction 78, 145-155

Tober, G. (1991). Helping with pre-contemplator. In R.Davidson, S, Rollnick & I. McEwan (Eds.), Counselling problem drinkers. London: Tavistock/Routledge.

Wilson, W.H. (1977). Sobriety: Conversion and beyond. Maryland State Medical Journal, 26, 85-91.

Yablonsky, L. (1989). The therapeutic community: A successful approach for treating substance abusers. New York: Gardner Press.

APPENDIX I

24 September 1996

Samantha Dench
Trainee Clinical Psychologist

Dear Miss Dench

An Investigation into the Impact of a Brief Motivational Intervention at the Start of an Out-Patient Treatment Programme for Alcohol Dependance

I am writing to advise you that the Trust's Research and Ethical Committee approved your research proposal at its meeting on 11th September 1996 subject to formal signature by Dr

The Committee would be very interested in the results of this research when available.

Yours sincerely

Secretary to the
Research and Ethical Committee

APPENDIX II

Research Project

Information sheet for Unit clients

The reason for research

At the Unit we aim to base our programme of treatment on the results of scientific research to ensure that the treatment we provide is effective. Before we make any new aspect of treatment a routine part of the programme, we like to first test it out on a sample of clients.

The Project

We are currently trying out brief assessment procedures and we would like you to help us by taking part.

How can you take part ?

If you agree to participate you will first be interviewed by the researcher, who will allocate one of two assessment procedures.

Whichever assessment you have will involve an initial 1-hour session. Then, the following week, the researcher will see you again for 5-10 minutes when you will be given feedback and the opportunity to discuss the initial assessment. What you do with the information, if anything is entirely up to you and you will be left to continue with your treatment at the unit.

If you take part in the project you will be asked to fill in the assessment questionnaire at the end of the programme.

Could taking part effect your treatment?

No! All the information you give will be treated in the strictest confidence. No doctors or Unit staff will see it. Whether or not you take part in the project <u>will not affect your treatment</u> at the Unit. If you do take part, <u>you may still withdraw from the project at any time without it affecting your treatment.</u>

APPENDIX III (i)

S.A.D.Q.

NAME. . . . . .
AGE . . . . . .
SEX . . . . . .

First of all, we would like you to recall a recent month when you were drinking heavily in a way which, for you, was fairly typical of a heavy drinking period. Please fill in the month and year.

MONTH . . . . . YEAR . . . . . .

We would like to know more about your drinking during this time and during other periods when your drinking was similar. We want to know how often you experienced certain feelings. Please reply to each statement by putting a circle round ALMOST NEVER or SOMETIMES or OFTEN or NEARLY ALWAYS after each question.

First we want to know about physical symptoms that you have experienced first thing in the morning during these typical periods of heavy drinking.

PLEASE ANSWER EVERY QUESTION

1. During a heavy drinking period, I wake up feeling sweaty.
   ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

2. During a heavy drinking period, my hands shake first thing in the morning.
   ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

3. During a heavy drinking period, my whole body shakes violently first thing in the morning.
   ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

4. During a heavy drinking period, I wake up absolutely drenched in sweat.
   ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

The following statements refer to moods and states of mind you may have experienced first thing in the morning during these periods of heavy drinking

5. When I'm drinking heavily, I dread waking up in the morning.
   ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

APPENDIX III (ii)

6. During a heavy drinking period, I am frightened of meeting people first thing in the morning.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

7. During a heavy drinking period, I feel at edge and despair when I awake.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

8. During a heavy drinking period, I feel frightened when I awake.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

The following statements also refer to the recent period when your drinking was heavy, and to periods like it.

9. During a heavy drinking period, I like to have a morning drink.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

10. During a heavy drinking period, I always gulp my first few morning drinks down as quickly as possible.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

11. During a heavy drinking period, I drink in the morning to get rid of the shakes.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

12. During a heavy drinking period, I have a very strong craving for a drink when I awake.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

Again the following statements refer to the recent period of heavy drinking and the periods like it.

13. During a heavy drinking period, I drink more than a quarter of a bottle of spirits per day (4 doubles or 1 bottle of wine or 4 pints of beer).
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

14. During a heavy drinking period, I drink more than half a bottle of spirits per day (or two bottles of wine or 8 pints of beer).
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

15. During a heavy drinking period, I drink more than one bottle of spirits per day (or 4 bottles of wine or 15 pints of beer).
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

16. During a heavy drinking period, I drink more than two bottles of spirits per day (or 8 bottles of wine or 30 pints of beer).
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

APPENDIX III (iii)

IMAGINE THE FOLLOWING SITUATION:
(1) You have been COMPLETELY off drink for a FEW WEEKS
(2) You then drink VERY HEAVILY for TWO DAYS

HOW WOULD YOU FEEL THE MORNING AFTER THOSE TWO DAYS OF HEAVY DRINKING?

17. I would start to sweat.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

18. My hands would shake.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

19. My body would shake.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

20. I would be craving a drink.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

APPENDIX IV (i)

CLIENT RATING SCALE

CLIENT'S NAME: ..... DATE: .....

Please rate your perception of the client over the last week on each scale by placing a cross at the appropriate place along the line.

Scale 1: To measure staff perception of the extent to which the client attended to what was going on in the groups.

Attended closely to what was being said and going on	——————————|——————————	Paid no attention to what was being said or going on

Scale 2: To measure staff perception of the extent to which the client actively participated in the groups.

passive/quiet	——————————|——————————	volunteering and disclosing information

Scale 3: To measure staff perception of the extent to which the client made appropriate use of self-disclosure in the groups.

self-disclosure of very important key issues	——————————|——————————	self-disclosure of superficial trivial issues

Scale 4: To measure staff perception of the extent to which the client came to planned sessions.

missed all planned sessions	——————————|——————————	came to all planned sessions

Scale 5: To measure staff perception of how punctual the client was for groups and the planned sessions, (eg, 1:1, social sessions etc).

always punctual	——————————|——————————	always late

Scale 6: To measure staff perception of the extent to which the client integrated with others in the unit - both formally and informally.

did not integrate at all	——————————|——————————	integrated very well

Scale 7: To measure staff perception of how well the client identifies and develops realistic and significant goals.

identifies significant and realistic weekly goals — failing to develop significant and achievable goals

Scale 8: To measure staff perception of the extent to which the client manages to achieve their weekly goals.

never achieves goals — always achieve their goals

Scale 9: To measure staff perception of the extent to which the client drinks during the programme.

drinks heavily during programme — does not drink at all during programme

Scale 10: To measure staff perception as to how motivated the client is to stay abstinent.

highly motivated — not motivated at all

APPENDIX V

CASAA Research Division*
8/95

Personal Drinking Questionnaire
(SOCRATES 8A)

INSTRUCTIONS: Please read the following statements carefully. Each one describes a way that you might (or might not) feel *about your drinking.* For each statement, circle one number from 1 to 5, to indicate how much you agree or disagree with it *right now.* Please circle one and only one number for every statement.

	NO! Strongly Disagree	No Disagree	? Undecided or Unsure	Yes Agree	YES! Strongly Agree
1. I really want to make changes in my drinking.	1	2	3	4	5
2. Sometimes I wonder if I am an alcoholic.	1	2	3	4	5
3. If I don't change my drinking soon, my problems are going to get worse.	1	2	3	4	5
4. I have already started making some changes in my drinking.	1	2	3	4	5
5. I was drinking too much at one time, but I've managed to change my drinking.	1	2	3	4	5
6. Sometimes I wonder if my drinking is hurting other people.	1	2	3	4	5
7. I am a problem drinker.	1	2	3	4	5
8. I'm not just thinking about changing my drinking, I'm already doing something about it.	1	2	3	4	5
9. I have already changed my drinking, and I am looking for ways to keep from slipping back to my old pattern.	1	2	3	4	5
10. I have serious problems with drinking.	1	2	3	4	5

	NO! Strongly Disagree	No Disagree	? Undecided or Unsure	Yes Agree	YES! Strongly Agree
11. Sometimes I wonder if I am in control of my drinking.	1	2	3	4	5
12. My drinking is causing a lot of harm.	1	2	3	4	5
13. I am actively doing things now to cut down or stop drinking.	1	2	3	4	5
14. I want help to keep from going back to the drinking problems that I had before.	1	2	3	4	5
15. I know that I have a drinking problem.	1	2	3	4	5
16. There are times when I wonder if I drink too much.	1	2	3	4	5
17. I am an alcoholic.	1	2	3	4	5
18. I am working hard to change my drinking.	1	2	3	4	5
19. I have made some changes in my drinking, and I want some help to keep from going back to the way I used to drink.	1	2	3	4	5

SOCRATES Scoring Form - 19-Item Versions 8.0

Transfer the client's answers from questionnaire (see note below):

Recognition	Ambivalence	Taking Steps
1 _____	2 _____	
3 _____		4 _____
		5 _____
	6 _____	
7 _____		8 _____
		9 _____
10 _____	11 _____	
12 _____		13 _____
		14 _____
15 _____	16 _____	
17 _____		18 _____
		19 _____
TOTALS Re_____	Am_____	Ts_____
Possible Range: 7-35	4-20	8-40

APPENDIX VI (i)

EDUCATIONAL INTERVENTION

SESSION 1

Contents

1. Myths and facts quiz

a) Participant asked to complete "Myths and Facts" sheet.

b).Participant's answers discussed in relation to the answer sheet.

c) Participant asked if they are surprised at how any of the answers differ from theirs.

2. Verbal presentation of the short-term physical effects of alcohol on the body.

3. Verbal presentation of the long-term physical effects of alcohol on the body.

4. Arrange next session for one week later.

APPENDIX VI (ii)

MYTHS AND FACTS

1 Alcohol is:

A A stimulant drug

B A depressant drug

C A non-toxic beverage

D Not a drug

E Don't know

2 Beer can make you drunk because of:

A The hops

B The gas

C The alcohol

D The yeast

E Don't know

3 One pint of ordinary beer contains about the same amount of alcohol as:

A One glass of wine

B One double whisky

C Two pints of cider

D One small glass of sherry

E One single Bacardi

F Don't know

4 Put the following drinks in order of their strength:

A $\frac{1}{2}$ pint Strongbow cider

B 1 large (440ml) can of ordinary lager

C 1 pub measure of gin

D 1 large (440ml) can of Carlsberg Special Brew

E 1 standard glass of wine

5 If a bottle of spirits is marked 70° proof, then it contains about:

A 70% alcohol

B 55% alcohol

C 40% alcohol

D 35% alcohol

E Don't know

6 Which of these drinks would make you feel 'merry' more quickly?

A A vodka and lime

B A sweet sherry

C ½ pint of bitter

D A dry martini

E A glass of champagne

7 The legal limit for drinking and driving in the UK is:

A 40 mg% (milligrammes of alcohol per 100 millilitres of blood)

B 60 mg%

C 80 mg%

D 150 mg%

E Don't know

8 Is there a safe limit for drinking and driving?
If so, what is a safe limit?

9 If 2 brothers, one a regular drinker and the other an occasional drinker, went out together and drank 4 pints each of ordinary bitter over 2 hours; then were both breathalysed on the way home, which of the following would be true?

A The occasional drinker would fail the breathalyser, the regular one would not.

B The regular drinker would fail the breathalyser, the occasional one would not.

C They would both fail.

D Neither would fail.

E Don't know.

10 Which of these people may be at risk through their drinking?

A Jenny (43) drinks 2 glasses of wine every day with her evening meal and one gin and tonic on Sunday lunchtimes. She never drinks outside the home.

B Mike (35) only drinks at weekends. He drinks 7 pints of bitter on both Friday and Saturday nights and 4 pints of bitter on both Saturday and Sunday lunch-times. He prides himself on not drinking during the week, and never touching spirits.

C Carol(18) always drinks a half-pint of lager at lunch-time during the week, and one pint on Fridays. She goes out on Friday and Saturday nights and has 5 halves of lager and 2 gin and tonics each night. She also meets her sister for a drink on Wednesday night and drinks 3 halves of lager.

D Tariq(17) drinks 2 pints of lager every night in his local pub.

E Alice (73) has one large brandy every night, to 'warm her up' and 2 sherries with a friend on Tuesdays.

11 Alcohol travels in the body by:

A The bloodstream

B The nervous system

C The urine

D The digestive juices

E Don't know

12 Alcohol is broken down by:

A The liver

B The kidneys

C The stomach

D The intestines

E Don't know

13 Alcohol begins to affect the brain:

A The moment it is swallowed

B Within 5 minutes of being swallowed

C After 20 minutes

D Only after several drinks are taken

E Don't know

14 After drinking one pint of ordinary beer, how long will it take before the alcohol in it is completely burned up by the body:

A About half an hour

B 2 - 3 hours

C 10 - 12 hours

D It depends on how regular a drinker you are

E Don't know

15 Which of the following statements are true?

A Alcohol makes you less sensitive to pain

B Alcohol warms you up

C Alcohol affects your sense of balance

D Guinness is good for you

16 Which of these is an effective way of sobering up?

A A cup of strong coffee

B Fresh air or a cold bath

C Making yourself sick

D 'Hair of the dog'

E None of these

ANSWERS TO MYTHS AND FACTS

1 B Alcohol is a DEPRESSANT drug. It slows down the activity of the brain.

This often surprises people, who think that alcohol must be a stimulant, because it seems to increase sociability, and may make the drinker noisy, over-active and even aggressive.

The reason for this is that alcohol first depresses the part of the brain which controls our behaviour and our inhibitions. Alcohol seems to be stimulating us, when in fact we are simply becoming less inhibited.

If alcohol levels in the blood continued to increase, the drinker would become less active, moving towards unconsciousness, coma and result finally in death.

2 C The alcohol.

3 B One pint of ordinary beer contains the same amount of alcohol as one double whisky*. The simplest way of remembering equivalent strengths of drinks is by using the 'unit' system.

½ pint standard strength beer or cider	=	one standard glass of table wine	=	one pub measure* of spirits	=	small glass of fortified wine

They are all commonly referred to as 'one unit of alcohol'.
(* *This applies to England and Wales. In Scotland and N Ireland, pub measures are slightly larger.)*

4 D	1 large (440ml) can of Carlsberg Special Brew	4	units
A	½ pint of Strongbow cider	1½	units
B	1 large (440ml) can of ordinary lager	1½	units
E	1 standard glass of wine	1	unit
C	1 pub measure of gin	1	unit

5 C A bottle of spirits marked 70° proof contains 40% alcohol.

The English proof system dates back to the days when strength was assessed by seeing how much was required to ignite gunpowder. Another way of describing strength is by giving the original specific gravity.

Both are being increasingly replaced by the continental scale of % alcohol by volume. 40% alcohol by volume means that 40% of the product is pure alcohol.

6 E A glass of champagne. The fizziness causes it to be absorbed more quickly by the stomach.

7 C The legal limit for drinking and driving in the UK is 80 mg of alcohol per 100 ml of blood (BAC), or 35 microgrammes per 100 ml of breath (Br AC).

8 There is no safe limit for drinking and driving.

The risk of having an accident increases once there is any alcohol in the driver's body. Even just below the legal limit, a driver may be up to 5 times more likely to have an accident, than if s/he had not had a drink.

9 C They would both fail.

The occasional drinker may have felt more merry than his brother, but the amount of alcohol in their blood, would have been the same. They had both drunk 8 units, and after 2 hours their bodies would only have broken down 2 units, leaving them over the legal limit of approximately 5 units for men (3 units for women).

10 They all may be at risk.

The recommended weekly safe limits are 14 units for women and 21 for men, with one or two alcohol-free days a week. Women drinking between 15 and 21 units (Jenny), men drinking between 22 and 35 units (Tariq), are advised to try to cut down. Women drinking over 21 units a week (Carol), men drinking over 35 units a week (Mike), are risking serious damage to their health, and should cut down immediately.

Although old age, in itself, is not a reason to give up alcohol, elderly people (Alice), may be at risk at much lower levels due to changes in the fat/water content of their bodies, and might also be taking drugs which interact with alcohol.

Young people are more vulnerable - because of their size, and because their bodies will not yet have developed a tolerance to alcohol and they will therefore be more at risk of accidents due to drunkenness.

Apart from risking their health, people can encounter problems related to their drinking due to the cultural or religious beliefs of those around them. The strictest adherents of all the major religions tend to have strong views about alcohol, either prohibiting its use or having firm expectations about the way it is used. Cultural attitudes often reflect these beliefs. Islam and some Protestant Christian sects are examples.

If any of these drinkers comes from a family or culture where alcohol is frowned upon, then a level of drinking that is 'safe' in health terms might still cause them major problems.

11 A Alcohol travels in the bloodstream.

12 A Alcohol is broken down by the liver.

13 B Alcohol begins to affect the brain within 5 minutes of being swallowed.

14 B 2 - 3 hours.

The liver can process approximately one unit of alcohol each hour. It starts processing the alcohol around 20 minutes after the first drink is taken. Therefore, to process one pint of beer, the liver would take 2 hours and 20 minutes.

This is true for regular drinkers as well as occasional drinkers.

15 A and C are true.

Alcohol acts as an anaesthetic, and therefore makes you less sensitive to pain.

Alcohol depresses the part of the brain dealing with balance.

B and D are false.

Alcohol increases heat loss from the body. That 'warm glow' you feel is the heat leaving your body by way of the skin as the peripheral circulation is increased. Giving anyone alcohol 'to warm them up' is therefore a very dangerous thing to do. In elderly people, this would increase the risk of hypothermia.

'Guinness is good for you' is an example of an effective advertising message, which has not been permitted in Britain since the late 1960s. In fact, you would probably need to drink at least 35 pints of Guinness a day to get the amount of iron that nutritionists recommend.

16 None of these. Only the passage of time will effect the 'sobering up' process. The liver can process approximately one unit of alcohol each hour. It starts processing alcohol 20 minutes after the first drink has been taken.

The stimulant effect of caffeine actually increases the rate at which any drug is absorbed so any alcohol in the stomach will reach the bloodstream even faster than it otherwise would. It would take huge quantities of coffee to counteract the depressant effect of alcohol on someone who is already drunk.

Making yourself sick will empty the stomach so prevent you getting any drunker, but will not sober you up.

APPENDIX VI (iv)

2. Short-term physical effects of alcohol on the body

Most of the alcohol you drink is rapidly absorbed into the bloodstream. Nearly all the alcohol has to be burnt up by the liver and the rest is disposed of either in sweat or urine. The concentration of alcohol in the body depends on how much you drink, whether your stomach is empty or not, your height, weight, age and sex. If you're smaller or lighter than average, or young and if you're not used to drinking, you're more easily affected by alcohol.

As was previously mentioned, alcohol is a depressant and it depresses certain brain functions. As you may be aware, these include its affects on judgement, self-control and co-ordination. However, on average it takes one hour for the body to get rid of one unit of alcohol, so these short term affects wear off if there is a sufficient break from drinking alcohol.

3. Long-term effects

The effects of many excessive episodes of drinking may begin to take their toll on the body. More long-term effects on the body include:-

A. POTENTIAL DAMAGE TO THE DIGESTIVE SYSTEM

THROAT-OESOPHAGUS

There is an increased risk of cancer. This is probably due to the impurities in some alcoholic drinks. Heavy alcohol users have a 40-fold greater chance of developing cancers of the upper digestive tract.

STOMACH

The corrosive effect of alcohol on the stomach can damage the stomach lining. This condition is called GASTRITIS. This is when the stomach lining becomes inflamed.

Symptoms include: nausea and vomiting.

These may clear up quickly, especially if alcohol is avoided.

PANCREAS

This may also become inflamed due to the corrosive effects of alcohol.

Symptoms include: sudden severe upper abdominal pain and vomiting.

APPENDIX VI (v)

Some reports indicate that this condition may lead to death in between 10-40 per cent of sufferers. Treatment for this condition is often massive pain relief and abstinence from alcohol.

INTESTINE

Again this may become inflamed causing increased incidence of diarrhoea and decreased absorption of vitamins that the body needs.

LIVER

A condition known as cirrhosis may occur after many episodes of heavy drinking. In this the cells of the liver are scarred and some are destroyed.

Symptoms associated with condition include: feeling of illness, lack of appetite, loss of weight, vomiting of blood, lower back pain and an enlarged liver.

The destruction and scarring of liver cells is irreversible, the only solution is to stop drinking. It is believed that if a person stops drinking, a third of the liver will be sufficient enough to met the day to day needs of living.

MALNUTRITION

A condition known as malnutrition may occur when a person may does not get all the nutrients that they need.

This may happen through drinking alcohol for a number of reasons.

i) Because someone may no longer feel like eating e.g. missing breakfast because of feeling sick from drinking the night before.

ii) Not having enough money to buy enough food as most of available money is spent on alcohol.

Malnutrition may cause many types of disorder. For example deficiency in one or more of the B vitamins may cause:-

Korsakoff's disease. In this condition there is severe loss of memory due to the brain not getting the vitamins that it needs.

These conditions can be helped by stopping drinking, returning to a good diet and taking vitamin supplements. However, brain damage is often permanent.

APPENDIX VI (vi)

PROBLEMS WITH BLOOD SUGAR LEVELS

Heavy drinking can cause blood sugar levels to lower, in a similar way to diabetes.

This condition is called hypoglycaemia and symptoms include sweating, rapid pulse, poor co-ordination, and coma.

In addition there is risk of :

B. POTENTIAL DAMAGE TO CARDIO-RESPIRATORY SYSTEM

Alcohol may lead to high blood pressure in the short and long term.
Lack of vitamin B can cause congestive heart failure.

In addition there is a higher incidence of lung cancer, T B, bronchitis in people who abuse alcohol and smoke. Also alcohol is linked with inability to fight infection due to malnutrition and vitamin deficiency.

C. POTENTIAL DAMAGE TO ENDOCRINE SYSTEM

Long heavy drinking may have effects on the reproductive functioning in men and women. Long, heavy drinking may depress testicular production and secretion of testosterone leading to sexual problems in men.

The main effect in women is the failure to ovulate or menstruate.

D. POSSIBLE SKELETAL/ MUSCLE DISEASE

MUSCLES: Heavy continued drinking can lead to the degeneration of muscles.

Symptoms include: weakness of limbs, often the thighs and upper arms. Sudden muscular pain.

The degeneration is often reversible if drinking is stopped.

GOUT: may also occur. This is when joints swell up painfully, especially of fingers and toes. Heavy drinking may heighten symptoms.

BONES: heavy drinking can cause some degeneration of bones , causing greater risk of fractures

APPENDIX VI (vii)

E. DAMAGE TO NERVOUS SYSTEM

Alcohol causes malfunctions of the nervous system which may become irreversible, muscle inco-ordination, shakiness and tremor. Alcohol acts as an anaesthetic and a person may cause themselves severe harm without feeling pain until the level of alcohol in the body falls, eg burns, fractures.

F. THE BRAIN

Blackouts or complete memory loss.

Headaches-usually due to effects on blood pressure.

Continued excessive drinking can cause coma and, eventually, death.

G. BRAIN DAMAGE AND PSYCHIATRIC DISORDERS

Deficiency of vitamin B1 from heavy drinking can cause damage to certain parts of the brain.

With short term heavy drinking symptoms include: partial paralysis of eye muscles, double vision, slowness, inability to concentrate, disturbance of balance.

More long term effects include: Korsakoff's psychosis leaving the person with impaired recent memory, inability to learn new information-filling memory gaps with fictional ideas.

Prognosis: Large doses of thiamine may help decrease symptoms if recognised early.

Dementia may also occur early as large quantities of alcohol may cause brain damage which is irreversible.

Symptoms include: gradual / slight decline in I.Q, judgement, concentration. Emotional instability and forgetfulness.

4. Arrange next session

That completes today's session. I'd like to meet with you in a weeks time for 5-10 minutes to discuss the information that we have discussed.

APPENDIX VI (viii)

EDUCATIONAL INTERVENTION

SESSION 2

1. Explain that the purpose of the session is to discuss the information from the session one week ago.

2. Ask the client whether they remember the quiz and ask them whether they remember being surprised at any of the answers to the quiz?

2. Ask the whether they remember any of the information presented about potential physical effects of alcohol on the body and whether they thought that they had learnt any new information that they were not already aware of.

3. Ask client to fill in the assessment questionnaire. Tell them that the assessment is now complete and as mentioned in the information sheet they will be asked to fill in the assessment form at the end of the programme

4.Thank client for participating.

Appendix VII(i)

SELF-COMPLETION MANUAL

Appendix VII (ii)

BALANCE SHEET

Look at each of the nine areas of your life listed below. For each one, ask yourself what have been the effects of drinking on your life in that area.

	POSITIVE	NEGATIVE
PHYSICAL HEALTH		
PSYCHOLOGICAL		
FORENSIC		
FINANCIAL		
SOCIAL		
FAMILY/ RELATIONSHIPS		
EMPLOYMENT		
HOME/ HOBBIES		
LIFE GOALS/ AMBITIONS		

The drawbacks of returning to alcohol use would be:

The main reasons I have for staying stopped are:

APPENDIX VIII (i)

MOTIVATIONAL INTERVENTION

Motivational intervention as described by Saunders, Wilkinson and Allsop, (1993), is a cluster of useful strategies to use in therapeutic work to augment a client's potential for change. Whist the components do constitute a discrete treatment package, they may be applied in various combinations.

Motivational intervention lasts for two sessions, the first for one hour and the second a week later for between 5-10 minutes. In these the therapeutic agenda includes the following seven areas:

SESSION 1

1. Assess the client's perception of the good things about alcohol use.
   Using the motivational interviewing principle of expressing empathy to respond to the client in an accepting manner.
   Specific techniques will include:-
   asking open ended questions
   listening reflectively
   affirming and supporting clients perspective

2. Facilitate the generation of the client's inventory of the less good things about the behaviour.

   Use the motivational principle of developing a discrepancy to start looking at the costs of the present course of behaviour

3. Elicit the client's current satisfaction with her or his lifestyle, that previously envisaged and that anticipated for the future.

   If the client has difficulties generating problem areas, the researcher is to prompt them to examine legal, financial, health, work and family issues. In accordance with the motivational principle of avoiding argumentation and rolling with resistance, at no stage should the researcher attempt to persuade clients that any of these areas present problems.

4. Have the client enunciate which, if any, of the elicited problems are real concerns of the client.

   Strategies involved may include:-
   Using Questions to evoke Self-Motivational Statements
   e.g What makes you think that this is a problem?

5. Compare and contrast with the client the benefits and costs of continuing the behaviour (a type of cognitive review of current situation).

   Specific strategies involved include:-

clarifying ambivalence

This process is aided by the use of a self-completion manual which includes a one-page decision matrix which enables clients to compare the positive and negative consequences of their alcohol use and the costs and benefits of stopping. They are requested to complete the matrix as a homework exercise and discuss the matrix at the next appointment (1 week follow-up). This Follow-Through Contact is useful to provide greater reinforcement of self motivational statements.

6. Highlight and reflect on areas of greatest concern and discrepancy, thereby generating discomfort for the client with current behaviour (an emotional review of alcohol use and related problems).

7. Elicit and clarify future intentions regarding behaviour.
   Here the principle of supporting self efficacy is supported, whereby the client is responsible for choosing and carrying out personal change.

   Strategies involved may include:-
   Using Questions to evoke more Self-Motivational Statements

It is important to note that the various areas of work are not rigidly demarcated.

APPENDIX VIII (iii)

MOTIVATIONAL INTERVENTION

SESSION 2

This Follow-Through Contact is useful to provide greater reinforcement of self motivational statements.

1. Look at the balance sheet with the client and highlight and reflect on areas of greatest concern and discrepancy, thereby generating discomfort for the client with current behaviour (an emotional review of alcohol use and related problems).

2. Turn to the back page of the booklet and ask client to write down and talk through:

a) What they perceive as drawbacks of returning to alcohol use would be:

b) The main reasons they have for staying stopped

3. Ask the client their future plans regarding drinking and what will help them to achieve these plans

Elicit and clarify future intentions regarding behaviour.
Here the principle of supporting self efficacy is supported, whereby the client is responsible for choosing and carrying out personal change.

Strategies involved may include:-
Using Questions to evoke more Self-Motivational Statements

4. Ask the client to fill in the assessment questionnaire. Tell them that the assessment is now complete and as mentioned in the information sheet they will be asked to fill in the assessment form again at the end of treatment.

5.Thank client for participating.

APPENDIX IX

RATING SHEET TAPE NO. _____

Please rate whether or not you hear the following activities taking place by circling either Yes or No.

1. DIRECTLY GIVING INFORMATION ABOUT PHYSICAL SHORT-TERM EFFECTS OF USING ALCOHOL Yes No

2. ASKING ABOUT THE THINGS THAT THE PERSON FINDS USE FUL/GOOD ABOUT THEIR DRINKING. Yes No

3. DIRECTLY GIVING INFORMATION ABOUT THE PHYSICAL LONG-TERM EFFECTS OF DRINKING ALCOHOL Yes No

4. ASKING ABOUT THE THINGS THAT THE PERSON FINDS NOT SO GOOD ABOUT THEIR DRINKING Yes No

5. ASKING ABOUT THE CLIENTS SATISFACTION WITH THEIR LIFESTYLE WHILST DRINKING Yes No

6. SPECIFICALLY ASKING THE CLIENT WHETHER THEY HAVE HAD ANY OF THE PHYSICAL PROBLEMS ASS0CIATED WITH ALCOHOL USE. Yes No

7. REFLECTING BACK TO THE CLIENT HOW THEY ARE FEELING ABOUT THEIR DRINKING Yes No

8. ASKING THE CLIENT WHETHER THEY ARE SURPRISED AT ANY OF THE INFORMATION Yes No

9. ASKING THE CLIENT ABOUT WHICH AREAS REALLY CONCERN THEM ABOUT THEIR DRINKING Yes No

10. SPEAKING FOR LONG PERIODS (MORE THAN 5 MINS) WITHOUT INTERACTING WITH THE CLIENT. Yes No

APPENDIX X

SOCRATES Profile Sheet (19-Item Version 8A)

INSTRUCTIONS: From the SOCRATES Scoring Form (19-Item Version) transfer the total scale scores into the empty boxes at the bottom of the Profile Sheet. Then for each scale, CIRCLE the same value above it to determine the decile range.

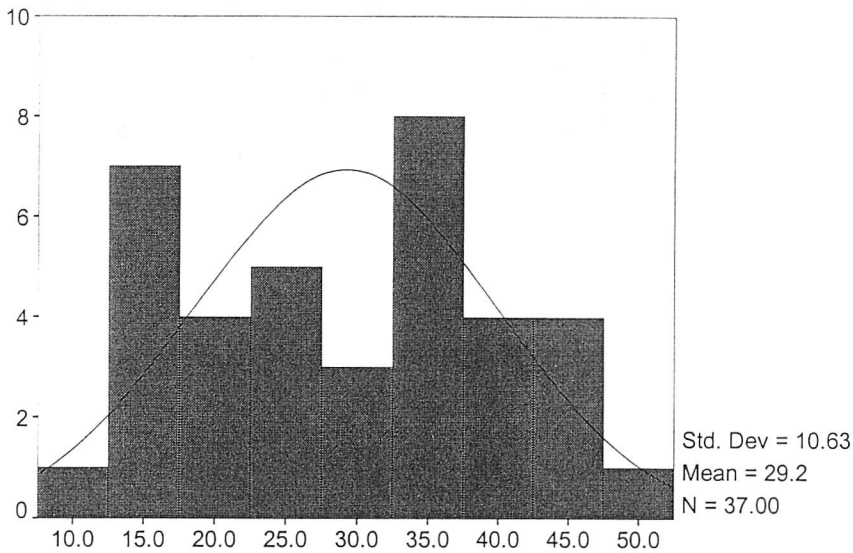
DECILE SCORES	Recognition	Ambivalence	Taking Steps
90 Very High		19-20	39-40
80		18	37-38
70 High	35	17	36
60	34	16	34-35
50 Medium	32-33	15	33
40	31	14	31-32
30 Low	29-30	12-13	30
20	27-28	9-11	26-29
10 Very Low	7-26	4-8	8 - 25
RAW SCORES (from Scoring Sheet)	Re=	Am=	Ts=

These interpretive ranges are based on a sample of 1,726 adult men and women presenting for treatment of alcohol problems through Project MATCH. Note that individual scores are therefore being ranked as low, medium, or high *relative to people already presenting for alcohol treatment.*

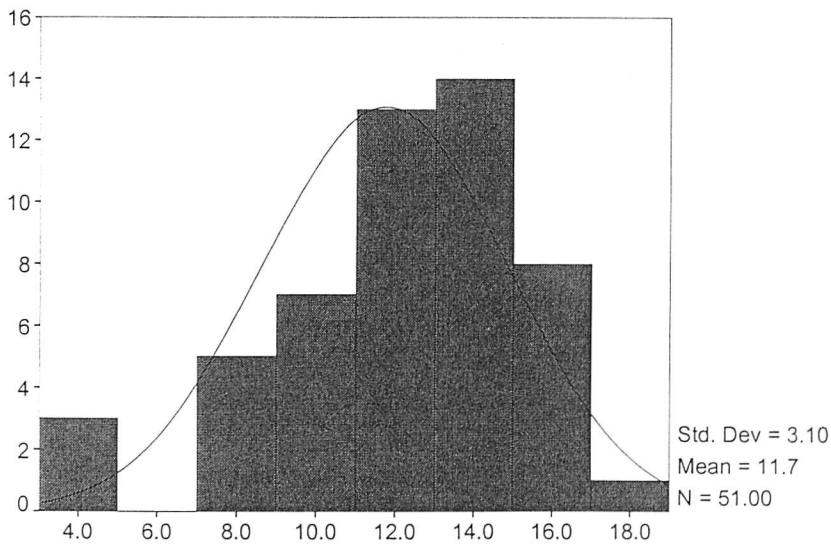
APPENDIX XI

Histograms showing distribution of data for dependent variables
(normal distribution overlaid)

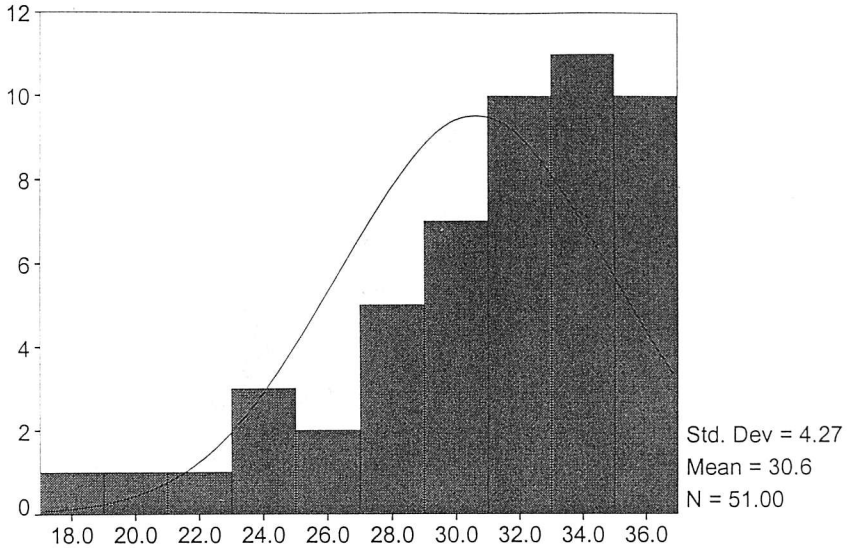
Distribution of scores on SADQ scale
(upon entry to unit)



Distribution of scores on Ambivalence scale
(pre-intervention)

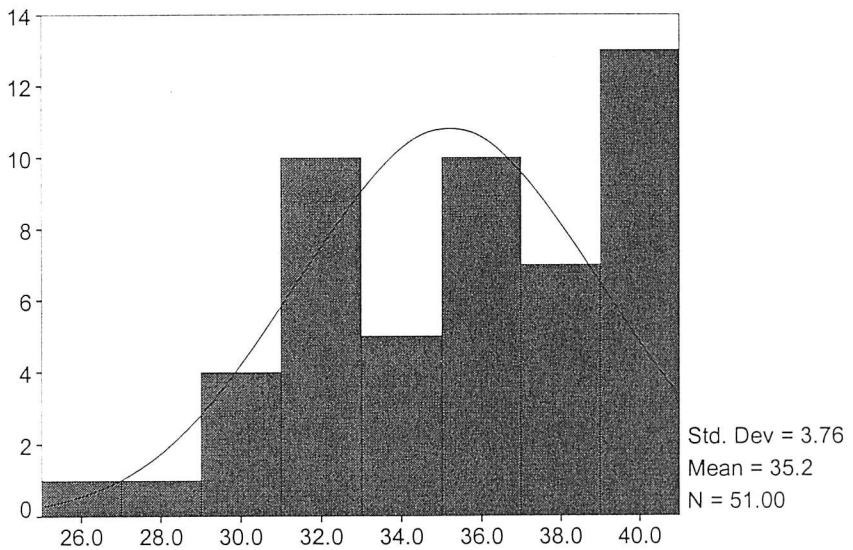


Distribution of scores on Recognition scale (pre-intervention)



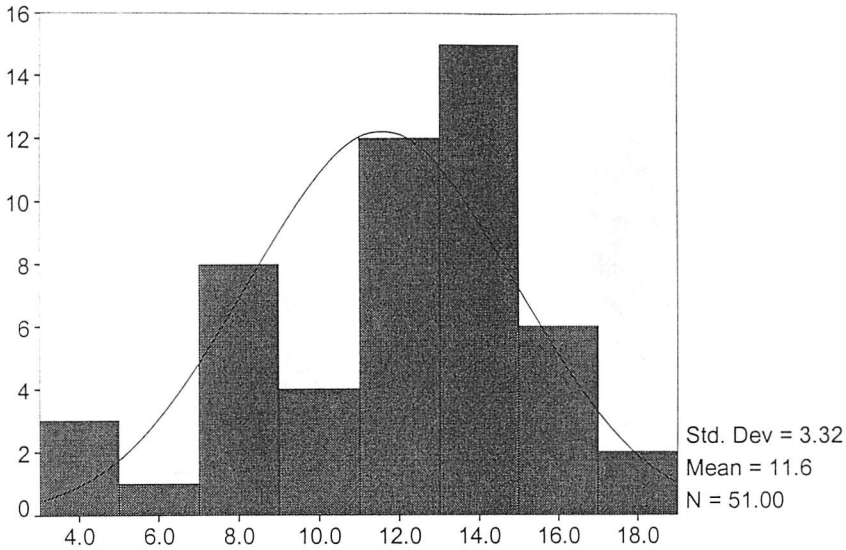
recogntion pre

Distribution of scores on Taking Steps scale (pre-intervention)



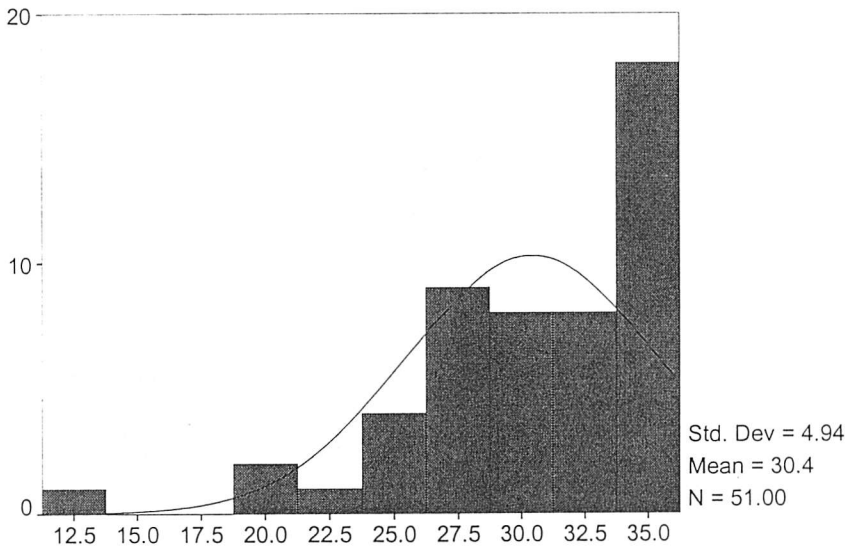
taking steps pre

Distribution of scores on Ambivalence scale (post-intervention)



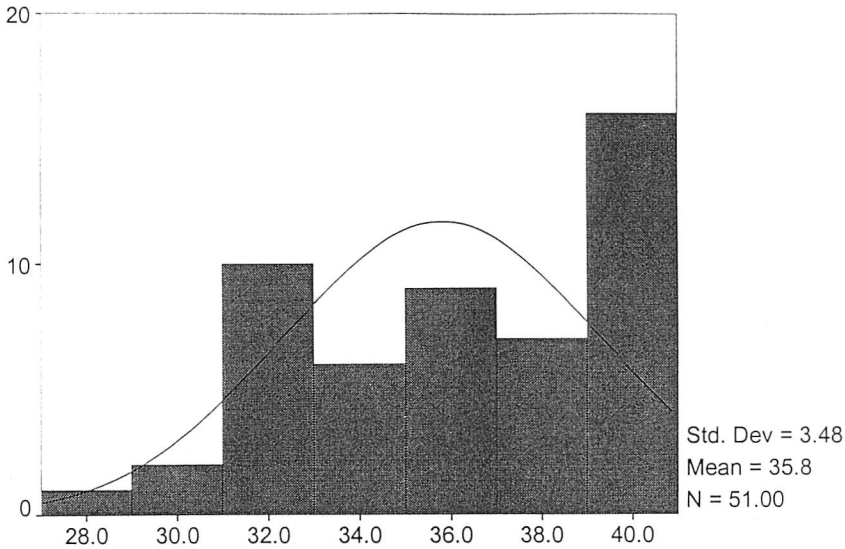
Ambivalence post

Distribution of scores on Recognition scale (post-intervention)



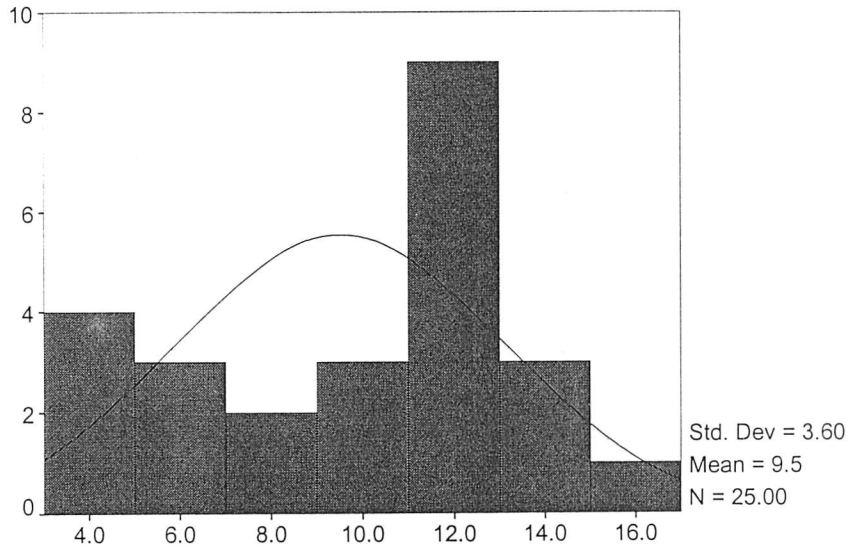
recogntion post

Distribution of scores on Taking Steps scale (post-intervention)



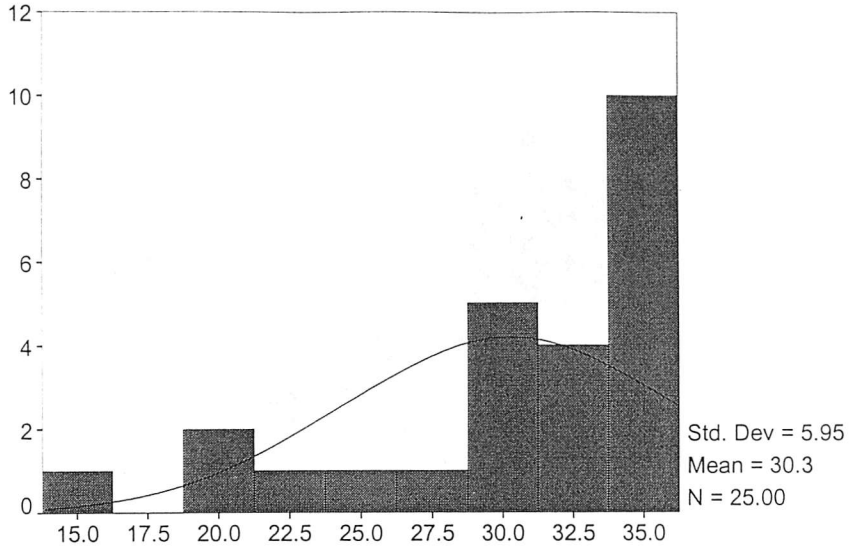
Taking steps post

Distribution of scores on Ambivalence scale (end of treatment)



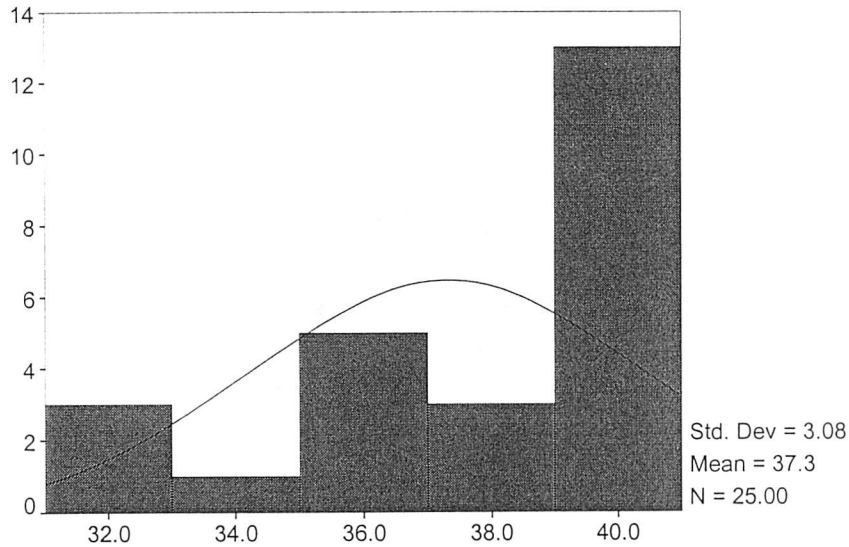
AMB3

Distribution of scores on Recognition scale (end of treatment)



REC3

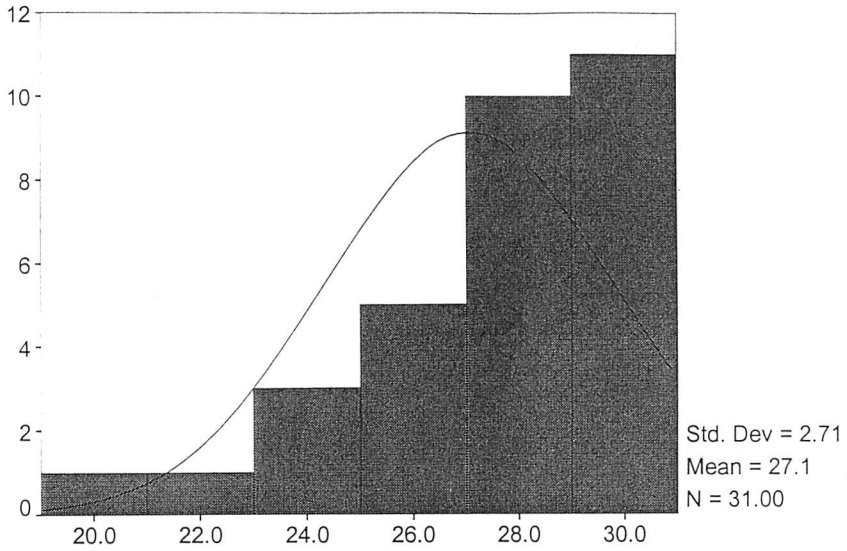
Distribution of scores on Taking Steps scale (end of treatment)



TAKS3

Distribution of number of days in treatment

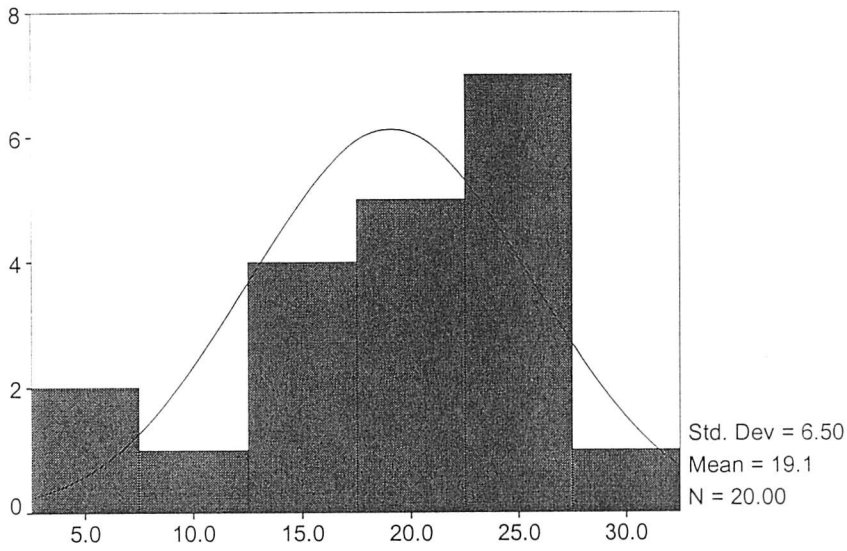
(for those who did not drop out)



ACTNODY

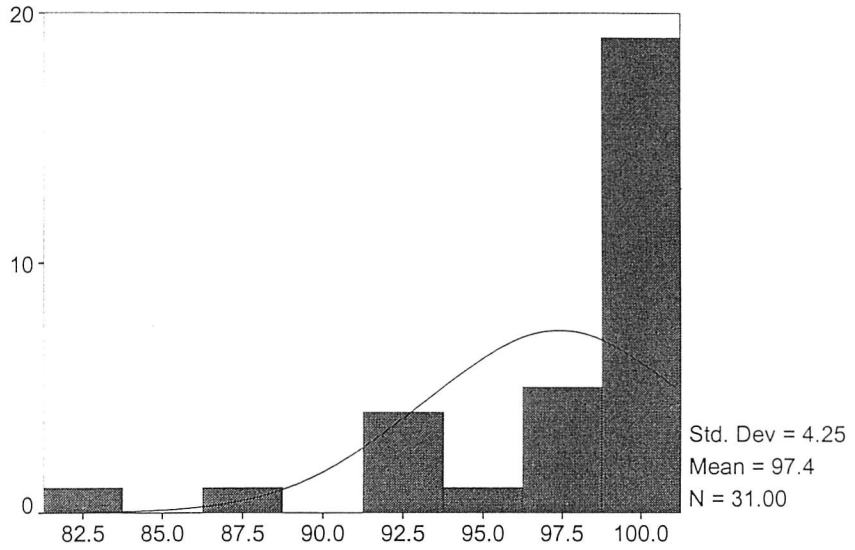
Distribution of number of days in treatment

(for those who dropped out)



number of days in programme

Distribution of level of involvement scores (percentages)



percentage of sessions attended