A Portfolio of Study, Practice and Research

Submitted for the Doctorate of Psychology (PsychD) in Clinical Psychology;
University of Surrey

Including:
Changes In Motivation Over Time
In An Acute Inpatient Treatment Service
For Substance Misuse
And Their Relationship
To Withdrawal Symptoms
And Attrition Rates.

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1999
ACKNOWLEDGEMENTS

I would like to express my gratitude to each member of the Course Team of the Psych.D in Clinical Psychology for their considerable help in compiling this portfolio. I am especially grateful to Mary John, as Clinical Tutor and Paul Davis, as Research Supervisor for their unfailing assistance and support.

I would like to thank each of my clinical supervisors for the benefit of their considerable experience:
Siobhan Woollet
Marianella Storey
Andrew Adlem
Caroline Hogg
Linda Hammond
Paul Davis
Frances Goodhart.

I would like to thank the following for their assistance with my research:
• Firstly, the 60 participants of the Major Research Project, without whose patience and cooperation the research would not have been possible.
• The medical and nursing staff of the ward on which the research was based for their assistance and for permission to use their patients
• The participants of the second year research and especially to Sian Thomas, for allowing me to approach her pupils.
• Chris Fife-Schaw and Clare Davies, whose statistical advice throughout the course of my research has been invaluable
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ACADEMIC DOSSIER
"Describe The Issues In Working With Someone With Long Term Mental Health Problems And Discuss Which Psychological Approaches May Be Useful In Helping Them".

Year 1
March 1997
Describe The Issues In Working With Someone With Long Term Mental Health Problems And Discuss Which Psychological Approaches May Be Useful In Helping Them.

Working with people with long term mental health problems has not traditionally been an area with large psychological input. However, since the advent of community care policies, and the growing emphasis on rehabilitation, there has been increasing interest and development in how psychology can be applied to help this group of people. This essay will take a psychological perspective to describe the issues in working with people with long term mental health problems in order to discuss the psychological approaches which seem promising in the current state of knowledge.

Although there is a great variation in the diagnoses of people with enduring mental health problems, from depression to personality disorder, the primary focus of this essay will be those diagnosed with schizophrenia. Both services and literature on chronic mental health problems also focus on people with schizophrenia and it is the diagnosis given to more people with long term mental health problems than any other. The majority of issues and psychological approaches relevant to schizophrenia are relevant to other enduring mental health problems.

Working with people with long term mental health problems differs from other areas of mental health in that, almost by definition, professionals have limited success in "curing" or removing problems and must additionally focus on helping people to adapt to and cope with their problems. Helping people to live with their problems is rather less glamorous than curing them. Perkins and Dilks (1992) suggest that the training of mental health professionals concentrates on removing problems, thus making us feel deskilled when confronted with people who need long term help in coping with their problems. This may contribute to a lack of interest in working in an area in which problem removal is not the primary goal. Shepherd (1995) likens this to working with the elderly or people with learning disabilities, areas which traditionally find it difficult to attract staff.
Chronic conditions are rarely stable in the effect they have on people. This is particularly true of schizophrenia, with its course characterised by relapses and remissions. Services must therefore be sensitive to the constantly changing needs of their clients. Perkins and Dilks (1992) highlight the danger of offering a fixed level of input which then ceases when the person appears “better”. Instead, we must be aware that even at times when the person appears well, contact with mental health services may both protect a person against stressors which could effect their mental state, and allow services to respond more quickly to any deterioration. Even on a day to day or hour by hour basis there can be large fluctuations in a person's mental state, for example presence or absence of hallucinations or diurnal variations in mood. These can make a vast difference to the individual's affect, behaviour, functional abilities and interpersonal skills. It can be very difficult to work with such fluctuations, requiring sensitivity to detect them and flexibility to work with them.

Chronic mental health problems perhaps more than others, have the potential to affect the whole range of emotion, cognition, behaviour and social/interpersonal functioning. Disturbances in each of these areas of functioning carries with it its own issues, which are described in turn below.

Many mental health problems will bring subtle changes to cognitive functioning but some long term problems, particularly schizophrenia, will produce marked impairments. Hemsley (1987) argues that the person is unable to filter out irrelevant information from consciousness, leading to a disorganised and unstructured mental world. This must make it difficult for the individual to make sense of their environment, to understand what is said to them and expected of them and to formulate plans for reacting to this. Any therapeutic intervention must somehow take account of the presence, severity and fluctuating nature of such difficulties, without patronising or infantilising the individual.

Professionals working with this client group can particularly struggle with their “lack of insight” into their problems. Insight is a complex and often controversial concept when
applied to problems where even the professionals can disagree passionately about aetiology and, sometimes, treatment itself. Perhaps it is simpler to follow Perkins and Dilks (1992) who talk about individuals having different conceptualisations of their problems. Where these conceptualisations differ from those of the health professionals regarding the cause, best treatment for, or even the presence of problems, there is likely to be conflict regarding the best way to deal with problems and help may not be willingly, if at all, accepted.

This is perhaps a particularly difficult example of the general dilemma of how to treat people’s delusions, (or beliefs that others do not share). The traditional view has been to ignore or challenge them to avoid collusion (e.g. Watts, Powell and Austin, 1973). However, this risks denying the person’s experience of reality and preventing the formation of a good working relationship (Perkins and Dilks, 1992). The dilemma is therefore how to empathise with the often frightening experiences of the patient without colluding with their false beliefs.

It is not clear whether disturbances of emotion are among the primary symptoms of schizophrenia. However, there can be no doubt that the emotional impact of the symptoms and of the whole experience of schizophrenia (or of any long term mental health problem) is great. More so than in acute conditions, sufferers may experience distressing psychotic symptoms, a poor prognosis and exclusion from mainstream society. (See Drayton, (1995) for a thorough description of factors leading to emotional distress in schizophrenia.) The prevalence of depression in schizophrenia is predictably high, (Johnson, 1981) although estimates vary depending on the criteria used. McGorry et al (1991) investigated post traumatic stress disorder in people recovering from psychotic episodes and found a prevalence of 35-46%. Appello et al (1993) argue that the emotional distress evident in people with schizophrenia should be conceptualised as a normal grief reaction to the significant losses they suffer. An implication of these findings is that in addition to assessment and treatment of the primary disorder, individuals should also be assessed and treated appropriately for depression, grief reactions and/or post-traumatic stress disorder, if the emotional impact of suffering an enduring mental health problem is not to disable them further.
People with enduring mental health problems may exhibit unusual, unpredictable and socially inappropriate behaviours. It can be very difficult for professionals to know how to react to these - whether to ignore the behaviour or explain its inappropriateness and risk focusing too much on it, and for behaviours of a more challenging nature, how to set boundaries on what is unacceptable without making the individual feel punished or jeopardising the relationship. Physical violence from people with mental health problems is a risk often overplayed by the media, but professionals working with people who may live in a frightening inner world and be faced with countless frustrations need to be aware of risk and of how to maintain their safety.

The disturbances in cognition, emotion and behaviour described above and their fluctuating nature all contribute to difficulties in forming and maintaining healthy interpersonal relationships. This obviously makes any kind of therapeutic work more taxing, and progress can be slowed down when professionals need to work hard to keep the individual engaged and maintaining the relationship, alongside working on other issues. Such difficulties also put great strain on relationships on families who do not know how to deal with their relation’s changed behaviour. This is particularly an issue when a person’s family are their main carers.

Long term mental health problems often make it difficult for people to perform valued social roles. Social roles are usually defined either in terms of relationships or vocational status. As discussed above, interpersonal relationships are often problematic, and employment is increasingly becoming unobtainable for people with mental health problems. Perkins and Dilks (1992) point out that, for those who did not have opportunity to develop roles and an identity as an adult before their mental health problems began, the problems of defining identity are even more acute. In such circumstances, the identity as a psychiatric patient or “sick role” becomes more desirable than the alternative: ex-psychiatric patient, making the benefit of “getting well” somewhat ambiguous.
Having described the issues involved in working with people with long term mental health problems, it now seems appropriate to discuss which psychological approaches may be helpful to them. Of course, psychology is one of many disciplines involved in working with this client group and collaborative multi-disciplinary team working is seen as essential (e.g. Conning, 1991 and Shepherd, 1995). Although it is beyond the scope of this essay to discuss the work of other professions, it is worth noting that a psychological approach is not the same as what a psychologist does. Psychological approaches therefore can and perhaps should be used by all professionals to varying degrees as part of their routine work. Psychologists are involved in teaching and advising others on the use of psychological approaches and techniques, and in researching, evaluating and promoting their use, as well as carrying them out themselves.

The approaches which will be discussed are counselling, psychodynamic, psycho-educational, systemic, behavioural and cognitive. This is unlikely to be an exhaustive list of the psychological approaches which can be applied to people with enduring mental health problems, but should at least give a flavour of the ways psychology can be used to help this client group.

The counselling approach is perhaps not strictly psychological, but is so fundamental to all psychological interventions, particularly with such a socially disabled client group, that I felt its inclusion here was necessary. Particularly important are accurate empathy, reflecting back the clients' emotions, and unconditional positive regard, (see Chadwick, 1995). These skills are essential to building a good therapeutic relationship and, without this, little can be achieved to help the client. It can also be important to use similar techniques to engage staff and the family of the client as morale can be low working and living with such a disabled client group. Counselling approaches may also alleviate some of the person's secondary emotional problems - depression and grief issues, although some of these difficulties may need a more sophisticated conceptualisation.
Psychodynamic approaches may also be helpful for the emotional and interpersonal difficulties of people with enduring mental health problems. However, it is not an approach widely used with this client group and there is some suggestion, (e.g. Chadwick, 1995) that psychodynamic approaches may be counter-therapeutic for individuals who have recently suffered psychotic episodes, perhaps due to its associative nature in people who are struggling for mental structure. Controlled trials have failed to demonstrate the effectiveness of psychodynamic psychotherapy in the treatment of psychosis (Kingdon et al., 1994). This is hardly solid evidence against the helpfulness of psychodynamic therapy with people with long term mental health problems, but some of the approaches discussed below do appear to be more promising.

There is a growing interest in the use of psycho-educational approaches to inform patients and their families about their illness, its course, causes and treatment. It is well established that such interventions for people with schizophrenia can improve people’s knowledge about their illness (e.g. Goldman and Quinn, 1988 and Smith, Birchwood and Haddrell, 1992) and there are some reports that they can improve medication compliance, (e.g. Brown et al., 1987) although these are not always replicated, perhaps partially due to ceiling effects. So, how far is this approach actually helpful to clients? Perhaps the real benefit lies in areas in which change is harder to measure. Shepherd (1995) argues that sharing the information we have about mental health problems is a vital way of empowering service users and encouraging them to be open about and come to terms with their experiences. Clients have a basic right to information regarding their disorder in form that they can understand and relate to, and any benefits regarding treatment compliance, though valuable are of a secondary nature.

Cognitive approaches have a wide range of applications to people with long term mental health problems. Cognitive therapy is widely used for depression and post-traumatic stress disorder, although there is a lack of research into its use for these disorders as secondary to long term mental health problems. Goldstein and Kern (1994) suggest that there is sufficient evidence to use cognitive rehabilitation techniques for people with schizophrenia, although to review this evidence is beyond
the scope of this essay. Cognitive therapy can also be used to help ameliorate delusions and hallucinations. Therapists encourage clients to use cognitive techniques either to reduce the strength of beliefs, or where insight is lacking (or the beliefs serve a protective function) to reduce the distress that they cause. However, therapists explicitly recognise the reality of the individual's experience, and the emotional impact this may have. Such approaches appear to have had qualified success, both with drug refractory delusions (Garety et al., 1994) and with positive symptoms in acute psychosis (Drury et al., 1996).

The behavioural approach encompasses a massive range of techniques. The present discussion will be limited to a few examples of those which have had a large impact on people with long term mental health problems. Perhaps the most widely known behavioural technique used with this client group is the token economy, (inspired by Ayllon and Azrin, 1968) in which patients are rewarded for “good behaviour” by some kind of material goods to reinforce the desired behaviour. Use of the classic token economy, although effective, (e.g. Paul and Lentz, 1977) has declined greatly. This is due to the increasing emphasis on individualised programmes; the realisation that the “active ingredient” was the social reinforcement given; rather than the material token; and the decrease in hospital based care.

Social skills training had also been popular, perhaps partially because of its positive focus on building on what a person can do, rather than what they can’t or shouldn’t. It has been demonstrated to improve social functioning (Liberman, 1990), although gains can be small for the therapeutic time spent, particularly for clients with significant positive symptoms.

Research showing that individuals in families high in “expressed emotion” (EE), (comprising Hostility, Criticism and Over-involvement scales) are more likely to suffer schizophrenic relapses than those in families low in EE, has led to the development of behavioural family therapy interventions designed to lower the level of EE (e.g. Falloon et al., 1984 and Smith and Birchwood, 1990). The programmes aim to reduce environmental stress and family conflict using problem solving and communication
training procedures together with education about schizophrenia. Such interventions have resulted in relapse rates after nine months being reduced from an expected fifty-per cent to thirteen per cent (Leff and Vaughn, 1976). Johnstone (1992) points out that these figures do not take the high refusal rates into account, and that even those who do not relapse may not be “well” by most of our standards. Despite these limitations, the outcomes of such family interventions are extremely impressive. It is interesting that such positive results are shown from a behavioural intervention which explicitly includes a strong psycho-educational element.

Several emerging primarily cognitive and/or behavioural procedures explicitly integrate rapport building/counselling techniques and psycho-educational elements into the intervention. These include coping strategy enhancement (Tarrier, 1992) and early intervention procedures (Birchwood et al., 1992), each of which will be discussed briefly. Coping strategy enhancement (CSE) is based on behavioural analysis of psychotic symptoms and involves training and practice in specified cognitive and behavioural coping methods. Preliminary results suggest that use of CSE can result in a reduction of positive symptoms (Tarrier, 1992), but evaluation is still at an early stage. Early intervention strategies involve developing relapse profiles for individuals and targeting pharmacological and psychological interventions at the earliest sign of relapse. Again, evaluations of efficacy are in their early stages, but appear to be promising.

In conclusion, a broad range of psychological approaches have been applied to working with people with long term mental health problems, both to ameliorate and to help them cope with their symptoms. Both counselling and psycho-educational approaches are vital to this client group, to engage them, to empower them and to aid their adjustment to severely disabling problems. Cognitive and behavioural approaches have both been used in a variety of ways with marked success in reducing primary symptoms, although the development of such techniques and their evaluation appears to be in its infancy. Possibly most exciting of all, are the interventions emerging that integrate a broad spectrum of psychological approaches. Although there is as yet little.
outcome data for these, an integrated psychological treatment for long-term mental health problems is a goal worth pursuing.
References


ADULT MENTAL HEALTH ESSAY

"Discuss the Efficacy of Cognitive Behavioural Treatments for Bulimia"

Year 1
May 1997
Discuss the Efficacy of Cognitive Behavioural Treatments for Bulimia

Bulimia was only formally recognised as a distinct psychiatric disorder by the American Psychiatric Association in 1980 with the publication of DSM-III (American Psychiatric Association, 1980). Since this time, estimates of its prevalence in the community have far overtaken those of anorexia. Estimates vary greatly, but a recent review, using DSM-IV criteria suggests that while anorexia is relatively rare, with an incidence of approximately 2-3 per 10,000 females between 15 and 45 years, the incidence of bulimia is 200-500 per 10,000 of the same population (Devaud, Michaud and Narring, 1995).

The symptoms of bulimia are distressing, for the client, for those close to her, and for her therapist. Behaviourally, the client is trapped in a cycle of bingeing in which she feels she has lost control of her eating and purging, such as laxative and diuretic use and excessive exercise. Cognitively, she idealises a body shape she cannot achieve and emotionally, depressed mood and self disgust are common. To meet DSM-IV criteria, bingeing and purging occur at least twice weekly for at least three months. Early reports disagreed over whether bulimia was responsive to treatment; White and Boskind-White (1981) reported good results from a brief experiential therapy, whereas Russell (1979) described the disorder as intractable.

It is not surprising that the recent identification of a disorder with such high prevalence and such distressing symptoms and a controversy about its responsiveness to treatment has spawned such a huge body of research investigating both aetiology and treatment. This research has come at a time when cognitive behavioural treatments are being demonstrated as effective for other psychological/psychiatric disorders, most notably depression and anxiety (e.g. Blackburn et al., 1981; Beck, 1988). It follows that a large proportion of the research into the psychological treatment of bulimia focused on the evaluation of cognitive and/or behavioural therapies. Since the early 1980’s this research has become increasingly sophisticated, initially focusing simply on whether bulimia sufferers improve after cognitive behavioural therapy (CBT) and progressing to
studies comparing it to other treatments, and comparing different elements in a CBT approach.

This essay will use this research to discuss three main questions. First, does CBT help patients with bulimia? Secondly, if so, does it help them more than other available interventions? Thirdly, which elements of the CBT approach seem to be the most useful, and which are less useful, or even redundant? The essay will then briefly discuss ways in which future research could refine our understanding of the effectiveness of cognitive behavioural treatments for bulimia.

This essay will use the term CBT in a broad sense to encompass any intervention whose main elements focus on altering cognitions and behaviour. This would include, for example, a treatment consisting of exposure and response prevention with cognitive restructuring, although it is very different from the typical CBT for bulimia developed by Fairburn. It is useful to include a brief description of Fairburn’s procedure for individual outpatient treatment here as it was the first to be described and forms the model for the majority of CBT for bulimia. For a full cognitive behavioural treatment manual see Fairburn and Cooper (1989).

"The treatment is semi-structured, problem-oriented, and primarily concerned with the present and future rather than the past. It is an active process with responsibility for change residing with the patient. The therapist provides information, advice, support and encouragement. Three stages in the treatment may be distinguished, with each containing several different elements designed to deal with relatively specific areas of difficulty. In the first, the cognitive view of bulimia nervosa is outlined, and behavioural techniques are used to help the patients regain control over eating. The emphasis of the second stage is on the examination and modification of problematic thoughts and attitudes. In addition, behavioural procedures are used both to erode any tendency to diet and to modify concerns about shape and weight. In the final stage, the focus is on the maintenance of change."

Fairburn and Cooper, 1989
The study by Lee and Rush (1986) is among several comparing CBT to a waiting list control. The treatment was a group, initially emphasising relaxation training, and then moving on to identifying and altering negative thoughts. Immediately post-treatment, ten of the fourteen subjects in the treatment group had decreased their binge eating by at least 50%, and vomiting declined from an average of 13 to 4.2 times per week. In the waiting list control group, three of the fourteen subjects had decreased their bingeing by at least 50%, and there was no change in average vomiting frequency.

Although other CBT trials are getting larger reductions in frequency of bingeing and vomiting, (e.g. Fairburn et al. 1986) the lack of improvement of the waiting list control appears to be typical (e.g. Leitenberg et al., 1988; Lacey, 1983). Mitchell et al. (1990) found CBT superior to placebo medication; there have of course been no comparisons with a placebo psychotherapy. It is important to note that improvements are not limited to the behavioural symptoms of bingeing and purging, but that attitudes to shape and weight, dietary restraint and general psychopathology such as depression and self esteem also tend to show marked improvement, (e.g. Cooper and Steere, 1995).

Fairburn et al. (1991) found that although there is a slight tendency to relapse, treatment gains are maintained well over a one year closed follow-up period. This is a vital finding, as if treatment gains are not maintained, the intervention is ultimately of little use to the patient. It is also necessary to gather data over longer follow-up periods to see whether a majority of patients will relapse over several years or remain symptom free.

It is now clear that CBT can be useful to those with bulimia. However, this in itself is not a justification for its clinical use. We must also ask whether it is more effective, than other available treatments. The two antidepressant medications, desipramine and imipramine, whose use in bulimia has been the most extensively researched, (Fairburn, Agras and Wilson, 1992), have been compared with CBT in controlled trials (Mitchell et al., 1990; Agras et al., 1992). In both studies, CBT was found to be superior to medication immediately post-treatment. The superiority of CBT over antidepressant medications was consistent in both studies.
medication is further emphasised by reports of poor maintenance of treatment gains with antidepressants (Pyle et al., 1990; Walsh et al., 1990).

There have been surprisingly few comparisons of CBT with other psychological therapies for bulimia. Kirkley et al. (1985) found group CBT superior to group supportive psychotherapy immediately post-treatment, although the difference had disappeared at four month follow-up. A study using formats of both treatments found similar results at post-treatment, but the superiority of CBT was maintained at six month follow-up. Fairburn et al. (1986) compared CBT to a brief focal psychotherapy and found it significantly more effective both at post-treatment and at twelve month follow-up. A later study by Fairburn et al. (1991) compared CBT to interpersonal psychotherapy (IPT), a treatment originally developed for depression which focuses on patients' social relationships with no attention to eating habits or shape or weight (Klerman et al., 1984). Immediately post-treatment, CBT was more effective than IPT, but this difference had disappeared by four month follow-up and remained absent up to a year. Preliminary evidence suggests that IPT actually overtakes CBT at later follow-ups. This is remarkable considering it does not in any way directly address the specific psychopathology of bulimia. It also draws attention to the importance of gathering follow up data. Some caution, however, should be exercised in interpreting these results until they can be replicated.

The majority of studies do seem to favour CBT over other approaches, but these differences are often slight, and it seems plausible that further research into interpersonal psychotherapy could lead to IPT replacing CBT as treatment of choice. It is important to note that the advantage of CBT over other credible treatments was usually small and may perhaps be less significant than the effect of other factors such as using either client or therapist's preferred treatment type. Although CBT would probably currently be the first intervention to recommend for the clinical treatment of bulimia, it is vital that research continues to develop and evaluate alternatives, as the research described above demonstrates that other approaches must contain highly effective elements which are neither cognitively nor behaviourally based.
It is also vital to research into which elements are the “active ingredients” within CBT, and thus produce a more refined treatment, either more effective, or less time-consuming for the same treatment gain. Several attempts have already been made to dismantle the cognitive behavioural approach. This essay will now discuss comparisons of standard CBT with three variants: behavioural elements only, cognitive elements only, and the addition of exposure and response prevention.

Freeman et al. (1988) compared full CBT to a purely behavioural therapy and found no difference in effectiveness. However, cognitive variables were not satisfactorily measured, and there was no evidence as to whether improvements were maintained. In contrast, Fairburn et al. (1991) compared full CBT with a behavioural treatment, and found the full CBT significantly more effective in modifying both cognitive and behavioural aspects of the disorder, both immediately post-treatment and at follow-up.

Cooper and Steere (1995) compared CBT without explicit exposure instructions with a behavioural therapy emphasising exposure and response prevention (i.e. the clients were asked to eat and prevented from purging. They found that clinical gains from the two treatments were initially comparable, but that improvements after the behavioural therapy were poorly maintained. Taken together, these studies strongly imply that the cognitive element of CBT is vital if clinical gains are to be maintained. It would also appear that initial treatment gains from full CBT are at least as great as those from a purely behavioural therapy, but further research would be necessary to draw firm conclusions on this. However, the clinical justification for such research is not clear, as unmaintained treatment gains are of questionable value.

There appears to be less research comparing full CBT to purely cognitive interventions. Only one study has contrasted the use of cognitive restructuring techniques alone and with the addition of an exposure and response prevention element (Wilson et al., 1986). The combined condition was significantly superior; however, several factors limit the study’s interpretation. Most important is the lack of a follow up comparison between the two conditions; without information regarding the maintenance of change, the findings are of extremely limited value. Further limitations are the small-sample size.
(a total of seventeen subjects) and the limited use of cognitive assessment measures. It is also worth noting that the combined treatment was not typical and lacked some of the features of Fairburn's (1985) procedure, for example, stimulus control techniques. To clarify what contribution behavioural elements make to cognitive behavioural treatments, a comparison between full CBT and cognitive restructuring with sufficient subjects and assessment measures and a follow-up of at least one year should be conducted.

An issue of particular controversy in the treatment of bulimia has been the addition of exposure and response prevention techniques to a standard CBT programme. These techniques involve patients being requested to bring “feared foods” with them to the therapy session, and to eat them up until the point at which they would usually induce vomiting (exposure). They are then encouraged by the therapist to refrain from vomiting (response prevention) and learn to cope with the ensuing anxiety. There have been three major studies which aim to shed light on this question. The first is that of Wilson et al. (1986) described above, in which it was found that the condition including exposure and response prevention led to a better short and medium term outcome for subjects. Although this study is cited as providing evidence that the addition of exposure and response prevention (ERP) to a cognitive behavioural package (CBT) is beneficial (e.g. Leitenberg and Rosen, 1989), the CBT was in fact cognitive restructuring, without the usual behavioural techniques, and is therefore, as implied above, more relevant to the question of whether the use of behavioural techniques adds to a cognitive treatment used alone.

Agras et al. (1989) compared a full cognitive behavioural treatment with and without the addition of ERP. They found that participants given CBT with the addition of ERP, actually fared worse than those given CBT only. From this, Agras et al. argue that ERP should not be routinely added to standard CBT. Leitenberg and Rosen (1989), however, argue that the lack of effect of ERP was due to the short session lengths (of one hour compared to ninety minutes or two hours in the studies of Wilson et al. and Leitenberg et al. (1988). Leitenberg et al. found the addition of ERP to a standard CBT programme improved the outcome of their participants.
There are several possible reasons for the conflicting findings of these two studies. As mentioned above, Agras et al. used shorter sessions, which may not have been suited to an ERP treatment. Perhaps more importantly, the studies were actually addressing slightly different questions. Agras et al. used the same session length for both conditions, but Leitenberg et al. compared identical CBT treatments with and without the addition of ERP; overall session lengths were therefore different between the two conditions. Thus, Leitenberg asks whether the addition of ERP is beneficial and Agras, in contrast, asks whether it is beneficial to replace some of the standard CBT with ERP. The question asked by Agras appears more clinically relevant as it asks what is most useful in an allotted time, and the majority of therapy is limited by time. Another possible source of the difference is the greater behavioural content in Agras’s standard CBT than in Leitenberg’s. Thus, it could be that Agras’s standard CBT had reached a ceiling level of exposure and participants did not benefit from the further increase from the ERP, but that Leitenberg’s subjects had not received this level of exposure and so did benefit from the increase provided by the ERP. To distinguish between these explanations for the conflicting findings, further studies must be conducted in which only one independent variable is manipulated at a time. The above studies provide no evidence for the utility of incorporating exposure and response prevention strategies into standard CBT, and thus Agras’s conclusion that this should not be done routinely appears justified.

There is still much research to be done to isolate the “active ingredients” of cognitive behavioural therapy. So far, it has been shown that adding a cognitive element to behavioural therapy is beneficial, but there is far less evidence concerning the addition of behavioural elements to cognitive treatments. Future research should concentrate on carefully controlled studies, so that differential effects can be confidently attributed to the hypothesised variables.

It seems unlikely that any one treatment package will be optimal for all patients. This is a major limitation of the research presented so far, as there has been no attempt to relate outcome of an intervention to subject characteristics. (It is important to note that...
subjects in the research described have been almost exclusively female.) Even within
the same therapeutic model, patients may differ in their responsiveness to group or
individual formats, and the wide range in severity of disorder suggests that patients will
vary greatly with respect to the intensity of treatments required.

There are some reports that patients with less severe disorders do respond well to brief
interventions. Olmsted et al. (1991) found that five psychoeducational group sessions
based on cognitive behavioural principles resulted in symptom reduction of over 50%,
having the strongest effect on participants with less severe symptoms. Treasure et al.
(1996) found that 20% of subjects needed no further intervention after receiving a
cognitive behavioural treatment manual. Both Olmsted and Treasure recommend a
“stepped care” approach to treatment, in which patients would begin with the least
intensive forms of treatment, and, if they did not respond sufficiently to a stage, they
would progress, stepwise, through more intensive treatments. One potential
disadvantage of such a system, is the detrimental effect that failure in the initial stages
could have on expectations of success and motivation.

To return to the original questions, the research presented provides strong evidence
that CBT is of at least medium term benefit to patients with bulimia. It is superior to
antidepressant medication, particularly at follow up. CBT is also usually found to be
slightly superior to other forms of psychotherapy, although an interesting exception to
this is interpersonal psychotherapy, which contains none of CBT’s focus on diet and
body image. CBT is still currently the treatment of choice for bulimia, partly due to the
preliminary nature of the research into IPT for eating disorders, and in part because of
the paucity of clinicians trained to apply it. Research attempting to dismantle the CBT
approach to find the most effective components is in its early stages, but there is some
evidence that cognitive elements are important. Future research should concentrate on
assessing over longer follow up periods, on further dismantling the active ingredients of
the cognitive behavioural approach and on relationships between subject characteristics
and intervention outcome, with the aim of tailoring interventions to individuals from a
sound empirical basis.
References


CHILD ESSAY

"Consider the Utility of the Diagnostic Classification of Attention Deficit Disorder"

Year 2
January 1998
Consider the Utility of the Diagnostic Classification of Attention Deficit Disorder

Attention deficit disorders are characterised by a behavioural triad of attentional difficulties, hyperactivity and impulsiveness. As with other psychiatric disorders, emotional, cognitive, interpersonal and educational/occupational functioning can all be compromised. Such problems appear to affect more children than any other psychiatric disorder. Estimates of prevalence vary greatly, but well controlled epidemiological studies in the USA and Canada have found rates of between 2 and 10% using DSM-III criteria (Costello, 1989; Szatmari, Offord and Boyle, 1989). Prevalence is generally found to be substantially lower in the UK, between 0.5 and 1% of the child population (Taylor, Sandberg, Thorley and Giles, 1991) probably due to the more stringent criteria of the ICD classification system. This essay will outline the history of the concept of attention deficit disorders (ADD) and discuss the reliability and validity of such a diagnostic classification. It will then discuss how such reliability and validity can contribute to the utility of the diagnosis, and outline other aspects or consequences of diagnosis which can be either beneficial or harmful.

History of the Concept of Attention Deficit Disorder

Attentional problems in children first attracted clinical interest in 1902 when Frederick Still (1902) identified a group of such children and suggested that their problems were biological in origin. Both the distinctiveness of this categorisation and its biological basis received further support in 1937 when Bradley made the paradoxical discovery that amphetamines could reduce hyperactivity and behavioural problems in such children. This led to the diagnostic category of Minimal Brain Dysfunction. However, the lack of evidence for any neurological damage in the majority of children to whom this label was applied led to dissatisfaction with it, and the adoption of the term hyperactive. This had the advantage of describing directly observable behaviour, but moved away from aetiology. With the advent of DSM-III in 1980, the label again changed, this time to attention deficit disorder, to reflect Douglas' (1972) suggestion that affected children had particular difficulties in tasks involving sustained attention. DSM-IV uses the now dominant term attention deficit hyperactivity disorder (ADHD)
and distinguishes between predominantly inattentive, predominantly hyperactive, and mixed forms. WHO's International Classification of Diseases (ICD-10) still uses the term hyperkinetic disorder. These criteria are more stringent, requiring the presence of both inattention and hyperactivity and have traditionally identified many fewer cases than traditional DSM criteria. Whilst DSM criteria have been heavily criticised in the past for overidentifying children with ADHD, the new DSM-IV criteria are seen as a move towards the greater stringency of the ICD system (McBurnett, Lahey and Pfiiffer, 1993). To clarify terminology, this essay will use the term attention deficit disorder (or ADD) to refer to the concept in general, but where a specific diagnosis is referred to it will be stated explicitly, e.g. ADHD by DSM-IV criteria or hyperkinetic disorder according to ICD-10.

Psychiatric Classification

Psychiatric classification is always a controversial issue, with some proponents arguing that such classification is a prerequisite for useful treatment, and others claiming that diagnosis is at best useless, at worst, damaging (see Quay, 1986; Davison and Neale, 1994). Between these two extremes, however, most practising clinicians would agree with the more moderate position that diagnosis has both costs and benefits, but can be useful, provided that there is some evidence for the reliability and validity of the individual classification (Quay, 1986). To consider the question of the utility of a diagnosis of ADD it is first necessary to consider the evidence regarding the reliability and validity of ADD (i.e. whether or not the diagnosis is true) in both diagnostic systems, DSM and ICD.

Before a classification category/diagnosis can be seen as reliable and valid, it must be operationally defined. Diagnostic criteria in successive revisions of both DSM and ICD systems have become more detailed and more concrete. For example, in DSM-IV a requirement that symptoms occur to a degree that is maladaptive and inconsistent with developmental level is added to the DSM-III criterion that they must have persisted for
at least six months. This should lead to higher inter-rater reliability, and greater validity.

Reliability of ADD

Quay (1986) reviews several studies that used varying methodologies to assess the reliability of the diagnosis of ADD (DSM-III). He reports that most studies demonstrated satisfactory reliability for the major category of Attention Deficit Disorder and its subtype with hyperactivity though there is less evidence regarding the reliability of the subtype without hyperactivity. The same authors cite a study by Gould, Shaffer and Rutter (1984) which examined the reliability of the ICD-9 diagnosis of hyperkinesis. Here, using a standard case history approach, Gould and colleagues report an acceptable level of inter-rater reliability (kappa 0.66). It may be that these reliabilities could be increased by comparing data gathered from clinical interviews, in which the diagnostician is able to be interactive and responsive to any gaps in the available information. On the other hand, such a procedure could result in an overestimate of reliability as those taking part in the research study are likely to be given specific training, and may be particularly meticulous in their diagnostic formulation. Data regarding the reliability of the diagnoses derived from equivalent, or interview procedures for ICD-10 and DSM-IV is obviously needed, though given their more rigorous operational diagnostic criteria, reliability estimates are likely to be improved. Reliability is of course a prerequisite for validity to be established. Three types of validity will be discussed with respect to ADD, aetiological, construct and predictive.

Aetiological Validity of ADD

Perhaps the most straightforward way of establishing the validity of a posited disorder as a cohesive syndrome is by establishing a common aetiology or set of aetiologies at either a biological or psychological level.
**Biological Bases:**

The paradoxical effect of stimulant medication in reducing the overactivity and increasing the concentration of hyperactive children was initially cited as evidence of a distinctive biological basis for ADD. However, the discovery that all children show such an effect has invalidated this claim (Davison and Neale, 1994) and served as a reminder of the dangers of using treatment effectiveness as evidence of aetiology.

Another early posited aetiology was “Minimal Brain Dysfunction” asserting that those with ADD had low levels of brain damage (Clements, 1966). While children with ADD do show more neurological evidence of brain damage than normal controls (e.g. Ounstead, 1955) it is only evident in a minority of children with the disorder, and according to Taylor (1980) is no more common in children with ADD than those with conduct disorder without ADD. Furthermore, as Taylor (1980) points out, whilst children with neurological disorders or brain injuries do demonstrate increased hyperactivity (Rutter et al, 1970) they also demonstrate an increased incidence of both underactivity and unduly persistent attention. Thus evidence does not suggest that brain damage in general acts as a specific cause or predisposition to ADD, but rather acts to increase non-specific vulnerability to disorder. However, it is still possible that some as yet unidentified type of brain damage may lead to a specific vulnerability to ADD.

Another possible candidate for a biological aetiology is the decreased metabolic activity found by PET and MRI scans and EEGs in the frontal lobes and caudate nucleus, particularly in the right hemisphere (e.g. Riccio, Hynd, Cohen and Gonzalez, 1993; Zametkin, Nordahl, Gross, et al., 1990). Consistent with these findings, poorly regulated levels of catecholamines, noradrenalin and dopamine, which are active in these areas of the brain, have been implicated in ADD (Rapport, 1995). However, none of these findings are conclusive; all are contended (Van der Meere, 1996), and it seems unlikely that a common and distinctive neurological abnormality will be found as a necessary and sufficient cause of ADD. It is also important to note that both abnormalities in blood metabolism and levels of neurotransmitters may be reflections or
results of disorder, rather than its cause; this can only be determined by tracing their development either to a genetic or environmental root.

**Psychological Bases**

There have also been attempts to explain ADD with a common aetiology at the psychological level. Early research attempted to implicate dysfunction in what Broadbent (1958) has described as an attentional filter. Douglas (1972) did demonstrate that hyperactive children performed poorly on neuropsychological tests of attention, but this did not directly implicate a primary attentional deficit as claimed, but only confirmed behavioural observations that these children did not attend well. In fact, a recent review of studies of experimental tasks in controlled settings, Van der Meere (1996), found little evidence that children with ADHD have deficits in any specific aspects of attention including: orientation to or information uptake from stimuli; focusing attention in visual and auditory modalities; or in distractibility. Such findings suggest that ADHD is not underpinned by a cognitive deficit in attentional mechanisms (British Psychological Society, 1997).

More recently, inhibitory deficits have been posited, as a potential cause of the impulsiveness which is part of the core behavioural triad of ADD. Evidence to support this includes studies showing that children with ADD respond more quickly than controls and thus make more than average errors on a task requiring them to select a target from a field of distracters (Pennnington and Ozonoff, 1996). However, inhibitory deficits are not the only processes that could lead to impaired performance on such tasks: more recent studies have shown that this finding may be an artefact of subjects' motivation to respond more quickly in order to reduce the session length, rather than because they are unable to inhibit incorrect responses (Sonuga-Barke, Houlberg, and Hall, 1994). Sonuga-Barke and colleagues have developed these ideas further and suggest that these children have difficulties coping with delay and that their pattern of performance reflects attempts to minimise delay. Thus it seems that the aetiology of ADD cannot be accounted for by a simple deficit in cognitive mechanisms of either attention or inhibition.
Current research is investigating several psychological processes, deficits in which may be implicated in ADD. These include a reduced ability to regulate and organise behaviour, (Barkley, Grodzinsky, and DuPaul, 1992) which would be consistent with decreased frontal lobe activity, and a greater need for environmental stimulation and change, consistent with demonstrated difficulties in coping with delay. However, neither of these possibilities is consistent with all of the empirical evidence cited above: hence research does not appear close to finding a unifying aetiology or set of aetiologies underlying ADD. Thus, at a psychological, as well as a biological level, there is no evidence that a single aetiology can account for the heterogeneity of ADD, although a set of aetiologies may still emerge.

**Genetic Factors**

There is some evidence for a significant genetic component in ADD. A well designed twin study, (which controlled for the expectation that monozygotic twins will act more similarly than dizygotic twins) estimated that genetic effects can account for approximately half the variance in measures of hyperactivity and inattentiveness (Goodman and Stevenson, 1989). However, two recent reviews of this topic have reached conflicting conclusions (Hinshaw, 1994; Pennington and Ozonoff, 1996). The question therefore remains controversial.

**Environmental Factors**

There have also been several environmental factors which may be implicated in the aetiology of ADD. Three factors have received particular attention: dietary intake, brain damage resulting from environmental insults and the parenting received by children with ADD.

**Dietary Factors**

Feingold (1975) linked ADD to an intolerance to certain foodstuffs, including salicylates, aspirin like substances found in many natural foodstuffs, including some fruits, and some artificial additives. The Feingold Diet recommends the exclusion of foods containing these ingredients. Unfortunately, as highlighted by Taylor (1994) such
a diet eliminates many of the delicacies of childhood and can appear punitive and isolate them for their peers. Whilst many parents report such diets as beneficial, there is evidence that the small effect of such a diet demonstrated in group studies is due to a placebo effect (Weiss, 1980). However, a few parents do report a strong effect of such a diet and it may be that these children are showing a genuine idiosyncratic effect (Taylor, 1994).

**Head Injury**

Many head injured children show poor concentration and distractibility (British Psychological Society, 1996) leading to suggestions that brain injury may be a causal factor in some cases of ADD. Such a suggestion is consistent with the particular vulnerability of the frontal lobes to head injury and the evidence cited above that executive functioning may be implicated in ADD. However, whilst there is evidence that some hyperactive children have sustained head injuries, there is no evidence that head injury could account for a large proportion of cases and little evidence of a causal relationship. It may be that impulsive, overactive children are more likely to sustain injuries. Other posited organic environmental causes or contributing factors for ADD include the after effects of infections such as encephalitis and meningitis (British Psychological Society, 1996) and lead poisoning (Yule, Lansdown, Millar, and Urbanowicz, 1981). However, it is unlikely that such factors would contribute to more than a small minority of cases.

**Parent-Child Interaction**

A particular controversy regarding the aetiology of ADD is the extent to which the parent-child interactions in the families of ADD children have a causal role in the development of ADD. Authors including Sandberg (1996) and Taylor (1991) suggest that a number of environmental and family factors may well have an aetiological role in the development of ADD. Such factors may include overall social disadvantage, parental depression and inconsistent parenting styles, with particular respect to emotional feedback. However, it is always difficult to draw firm conclusions regarding claims of the pathogenic role of parental factors, primarily due to uncertainty regarding the direction of causality in the relationship. Does the inappropriate/inconsistent parent
cause or encourage the development of disorder in the child, or does the “difficult” child place extra stress on the parents, thus leading to less consistent/appropriate parenting behaviour? However, for ADD, there is also the issue of comorbidity with conduct disorder. Given the strong evidence for the role of parenting in the development of conduct disorder (Patterson, 1986) and the high comorbidity of conduct disorder and ADD, (Sabatino and Vance, 1994) any empirical association between conduct disorder and ADD may be spurious.

In summary, many possible aetiologies have been suggested at both biological and psychological levels with both genetic and environmental origins. Perhaps the most promising at present is the converging evidence for executive/frontal lobe dysfunction whether through brain damage, psychosocial and/or genetic causes. However, it still appears unlikely that this, or any other single aetiology will account for the heterogeneity of the current findings. It is possible therefore that further evidence will make it more appropriate to talk about attention deficit disorder as a group of disorders, rather than as a unitary concept.

Construct Validity

Construct validity is made up of convergent and discriminant validity, which are respectively, the extent to which factors which are expected to correlate with the construct do so and the extent to which those factors which are not expected to, do not.

There has been much evidence that the discriminant validity between ADD and other constructs is lacking. For example, Weinberg and Brumback (1992) argue that the reported cases of ADD can be better accounted for by learning disability, depression, primary disorder of vigilance and combinations thereof. They illustrate their argument with case examples of children labelled as having ADD, and then in each case discuss how those individuals’ symptoms can be better accounted for by combinations of the above disorders, particularly depression. The authors claim well specified neurobiological causes for each of these disorders and explain comorbidity and
concurrent diagnoses as a consequence of interactions between affected brain centres. However, they do not address the possibility that the direction of causation might be from ADD to depression, rather than vice versa. Neither do they present any evidence other than case report data from their own clinics. Whilst it is useful to highlight a possible link between ADD and depression, there is certainly no more evidence for Weinberg and Brumback's alternative classification than for ADD.

A more concerning lack of divergent validity is demonstrated in its high rate of comorbidity with other disorders, particularly conduct disorder. Sabatino and Vance (1994) found that at least 50% of children diagnosed with ADD referred to a multidisciplinary medical setting, had a co-morbid conduct disorder. It is not surprising therefore that some have questioned whether ADD and conduct disorder can really be seen as two distinct disorders. Studies comparing these two diagnostic categories have often failed to find characteristics that distinguish the two groups from one another (e.g. Paternite et al., 1995). Halperin (1993) suggests that this may be due to the high comorbidity rather than an intrinsic lack of distinction between the two constructs. He compared a group of boys with “pure” ADD (i.e. with no other co-morbid diagnoses) with anxious patients, conduct and oppositional disordered patients and normal controls and found that this group were significantly more impulsive and inattentive than all groups of controls, as measured by the Continuous Performance Test (Halperin, Sharma, Greenblatt and Schwartz, 1991) thus providing evidence for the divergent validity of ADD. It is important to note that this study used DSM-III criteria, and thus would ideally be repeated with a group of children diagnosed using DSM-IV. However, as ADHD criteria have become significantly more exclusive in DSM-IV, it seems likely that using these criteria would increase rather than decrease the differentiation between ADHD and other psychiatric disorders.

Convergent Validity

So far this essay has discussed only the clinically derived qualitative categorical classification systems of DSM and ICD. However, some of the most powerful evidence for a classification of ADD comes from outside such systems. Multivariate statistical
approaches have been used to derive alternative psychiatric classification systems, by isolating clusters of behaviours that are interrelated, and thus form a coherent behavioural dimension. According to an analysis based on 61 studies described by Quay (1986) three dimensions tend to emerge; he labels these as undersocialised aggressive conduct disorder, socialised conduct disorder, and attention deficit disorder. The dimension of attention deficit disorder was characterised by problems in attention and concentration, impulsivity, lack of perseverance, clumsiness and passivity, but not motor overactivity or restlessness, both of which were associated with Undersocialised Aggressive Conduct Disorder. This appears to be consistent with Halperin's (1993) finding that “pure” ADD differed from controls with respect to impulsivity and inattentiveness, rather than hyperactivity. However, such factor analytic techniques are not without their own biases. Only behaviours which are included in the analysis can contribute to the dimensions produced, and the methods and/or rates used to assess each individual for the behaviours may create biases (Quay, 1986).

In summary, despite a high comorbidity with conduct disorder, there appears to be some construct validity for ADD, although containing only inattention and impulsivity from the traditional behavioural triad (which also includes hyperactivity).

Predictive Validity

The predictive validity of a classification system is the extent to which it has implications for prognosis and for treatment/management. The prognosis of ADD is certainly not uniform. A majority do seem to outgrow their problem and function well as adults. However, others continue to demonstrate attentional deficits and hyperactivity well into adulthood with a poor psychosocial prognosis (Hellgren et al., 1994). These individuals tend to have had early onset of ADD, extreme overactivity and marked conduct problems with high criticism from parents. Other moderating variables for outcome that have been proposed include the presence of comorbid conduct disorder (BPS, 1996) and anxiety (Raine, Venables and Williams, 1995) perhaps through decreasing the probability of anti-social behaviour. Thus a diagnosis of ADD does not mark an individual’s path for life, but varies from a relatively good
outcome to continuing problems throughout adulthood. There is also emerging empirical evidence of some preventable risk factors for poor outcome.

Opinion is divided regarding whether a diagnosis of ADD has useful implications for management. Obviously, it can lead to the consideration of stimulant medication such as methylphenidate (Ritalin) as an option for treatment, which has a strongly beneficial effect on some children (e.g. Hinshaw, 1994). However, such an effect is not observed for all children, and for others, the side effects such as reduced appetite, anxiety, headaches, can outweigh the benefits. Such short term effects can be balanced by prescribing medication on an empirical basis, initially for a trial period with careful monitoring of both desirable and undesirable effects; with the decision of whether to continue prescribing made on this basis.

Examination of longer term effects has focused on whether medication has benefits such as aiding later adjustment (Weiss et al., 1975) and academic development (Pelham, 1983). Alternatively, researchers have assessed the presence or absence of harmful effects, such as the development of tolerance to the medication, or a decline in cognitive performance. However, results are not conclusive, and where effects have been found, methodological drawbacks in the research leads to difficulties accepting conclusions. We must conclude therefore that there is an absence of satisfactory evidence either for or against any long term effects of medication.

A diagnosis of ADD should lead to consideration of cognitive and behavioural management techniques. However, such techniques should always be implemented on the basis of a full formulation, and to an experienced cognitive behavioural therapist, would be equally indicated by a description of the behavioural difficulties experienced by these children.

Overall, there is some qualified, though far from conclusive, evidence for the reliability and validity of ADD. However, reliability and validity are not dichotomous, all or nothing concepts. Whilst the current formulation of ADD has some validity, it is far from perfect, more research and redefinition must happen with the aim of increasing.
the knowledge of what unifies those who suffer from ADD, and what distinguishes them from those who do not. The British Psychological Society (1996) reflects the views of the majority of the professionals who support the concept of ADD by describing it as an “evolving concept.....with many theoretical, empirical and practical questions yet to be answered”.

Relationship of Reliability and Validity to Utility

How do these constructs relate to its utility? Clearly a diagnosis can only be useful to the extent that it is reliable. It would be a nonsense for a diagnosis to be considered useful if it was only applicable at certain times by certain people. However, as validity is a more complex concept, its relationship to utility is also more complex.

Predictive validity is extremely useful. First, as a means of clarifying the prognosis of individuals diagnosed, and allowing sufferer and family to prepare for likely outcomes. A diagnosis of ADD may reassure parents that their children are not experiencing continuing mental deterioration and may suggest some of the difficulties with which the sufferer may contend as they develop (such as conduct difficulties). However, the diagnosis is not able to distinguish between those who will have continuing difficulties into adulthood from those who will not. The second use of predictive validity is that it enables a response to treatment to be predicted and thus directs choice of treatment. Again, a diagnosis of ADD appears to fulfil this to some extent, in that it suggests the use of stimulant medication and cognitive behavioural strategies, but these are both used on an empirical basis, requiring more than just diagnosis to guide their use. It is also possible that this apparent validity may be more harmful than useful in the long term if it were to be found that stimulant medication has long term negative side effects.

Aetiological validity can be useful in increasing the general level of understanding of the mechanisms of a disorder; and, consequent on this, improving the ability to predict prognosis, and to develop strategies for both treatment and prevention. Whilst there are some promising leads into the aetiology of ADD, such as frontal lobe functioning, it
does not appear likely that a single aetiology will be able to account for the heterogeneity observed in ADD. Current knowledge is certainly not at a stage which informs prognosis, response to treatment or attempts at prevention.

The utility of construct validity lies in its ability to assert that a diagnosis represents a cohesive syndrome, distinct and distinguishable from other syndromes. Without such validity, it is not possible to be clear which concept is being discussed, researched or treated. Thus, any findings regarding that concept become impossible to interpret, and it becomes difficult to increase the body of knowledge regarding the concept. ADD does have some construct validity, derived from factor analytic studies, yet the exact components of the syndrome or group of syndromes is not clear. Thus it is likely that ADD is still used to refer to different constructs, particularly when defined by differing diagnostic criteria (ICD and DSM). This is an obvious limitation to the utility of a diagnosis of ADD.

Effects of Classification and Labelling

However, the utility of a diagnosis is not solely dependent on its reliability and validity. Whilst it follows that a diagnosis must be valid to be useful, other considerations are also important. There are two main ways in which diagnosis can be considered harmful. First, it can be argued that all classification leads to loss of information (e.g. Davison and Neale, 1994). One of the assumptions of this argument would be that clinical decisions would be made with regard to diagnosis only, rather than a full formulation based on environmental, contextual and familial factors. This, however, is a danger of how diagnoses may be used, rather than of a classification system per se. Where diagnosis is used to guide clinical decision making rather than dictate it, it should be useful.

The second potential risk of diagnosis is in labelling. Many psychiatric labels are stigmatising in the extreme, such as "schizophrenic" and "learning disabled". This is less likely to be so for children with ADD, as the alternatives such as being labelled lazy, naughty and/or stupid. The label removes the blame from the child. In fact, this
can mean that such labelling is in itself beneficial. However, it can also remove responsibility for the behaviour from both child and family, leading to unnecessarily low expectations, fatalistic attitudes and less willingness to attempt to modify either the behaviour itself or any aspects of the environment which may encourage it. Thus the effects of labelling are mixed.

The particular labels used, attention deficit hyperactivity disorder, and hyperkinetic disorder, may themselves be misleading, leading to a false impression of the core characteristics of the disorder. ADD is typically characterised by a core behavioural triad of inattention, impulsivity and hyperactivity. Hyperactivity has undue prominence in the diagnostic labels, at the particular expense of impulsivity. This is especially inappropriate and misleading given the doubts raised by factor analytic studies discussed earlier, regarding whether or not hyperactivity is itself a core part of the syndrome. Thus, the specific labels used may serve to mislead and confuse the general population and professionals as to the true nature of the disorder. Denckla (1992) suggests “disorders of mental and emotional control/self regulation as a better term, to reflect the heterogeneity of the disorder(s). However, changes in terminology are themselves confusing, and it is unlikely that this term will change in the near future.

Conclusions

Attention deficit disorder, when operationally defined by existing classification systems (ICD and DSM) has adequate reliability to ensure that when these criteria are adhered to, lack of agreement does not compromise the validity of diagnosis. Current knowledge of the aetiology or aetiologies of ADD makes little, if any contribution to its treatment or prevention. There has been mixed evidence regarding construct validity, and whilst there is some evidence from factor analytic studies that ADD does represent a distinct syndrome, it is limited by its high comorbidity with conduct disorder and uncertainty over which features make up the core syndrome or syndromes of ADD. Further empirical data to address this issue is needed to enable firm conclusions regarding which features are central to ADD, and which are secondary. This may lead to ADD being seen as a set of related (or even unrelated) disorders,
rather than a unitary disorder. ADD does have some predictive validity, in that the diagnosis gives some indication of prognosis, and suggests certain treatments. These still need to be evaluated on an individual empirical basis, and further research into predictors of response to treatment would add utility to the diagnosis. Whilst the label ADD can remove responsibility for the child’s behaviour, it is less stigmatising than many other diagnoses, and may be more useful than the alternative labels of laziness or naughtiness. Overall, a diagnosis of ADD is likely to be useful to many individuals. However, continuing research to improve reliability and validity may lead to changes in the conceptualisation of the construct, which should increase utility.
References


LEARNING DISABILITIES ESSAY

"Concern Has Been Raised Regarding a Relationship Between Two Clients of the Same Sex, But of Differing Levels of Ability Living in a Staffed Home. What Are the Areas that Need to Be Considered When Reflecting on this Relationship, With Specific Reference to Consent and Policy Issues?"

Year 1
November 1997
Concern Has Been Raised Regarding a Relationship Between Two Clients of the Same Sex, But of Differing Levels of Ability Living in a Staffed Home. What Are the Areas that Need to Be Considered When Reflecting on this Relationship, With Specific Reference to Consent and Policy Issues?

Society's attitudes to the sexuality and relationships of people with developmental disabilities have been undergoing an important shift in the last few decades. Three cultural developments in Western society have contributed to this change. The first is the increasing acceptance and application of the principle of normalisation (Wolfensberger, 1972), coupled with the 1971 United Nations Declaration of Human Rights stating that "the mentally retarded person has the same basic rights as other citizens of the same country and the same age." This must include the rights to express one's own sexuality and the right not to be sexually abused or exploited by others. The second development, deinstitutionalisation, has followed in part from this increasing emphasis on leading a normal life. Brantlinger (1988, cited in Booth and Booth, 1992) argues that the institutions were built specifically for the purpose of preventing reproduction, as part of the eugenics movement. Whilst not entirely successful in this aim, such segregation did decrease the opportunity for sexual contact. Thus, the move back to community care, and the resultant decrease in the level of supervision provided would lead to increased opportunities for individuals with developmental disabilities to express their sexuality. The third development is the increased openness in the population at large about and acceptance of a wider variety of expressions of sexuality (as opposed to the monogamous marital relationship being the only acceptable outlet for sexuality). The principles of normalisation and equal rights dictate that individuals with developmental disabilities must be given the same sexual rights as other sections of society, and the move to community living can provide greater opportunity to exercise such rights.

Such rights and opportunities also bring responsibilities, both for individuals themselves and for the professionals and carers involved in their lives. Sexuality and relationships are complex areas, which can involve a level of risk for non-disabled individuals, with both their emotional and physical well-being. This issue of risk is particularly
problematic for services for people with developmental disabilities, due to their historically protective function; somehow services must find a balance between protecting individuals from harm and empowering them to exercise their rights as sexual adults. The example of the relationship of two clients of the same sex and differing levels of ability is just one of a myriad of situations which could confront staff and professionals in any learning disability service. This essay will use this scenario to illustrate the complexity of the issue of consent, and to discuss the importance of adopting sexuality guidelines, and the areas which would need to be included in them.

The law requires three criteria to be satisfied in order to recognise that any individual has consented to participate in sexual activity. The first is a knowledge of the nature of the activity and its physical, psychological and ethical consequences. The second is the intelligence to rationally process the benefits and risks, including an awareness of societal attitudes and morals. The third is voluntariness, that any decisions made are free from unreasonable coercion.

In a residential setting in which it is thought that two clients may be engaging in sexual activity, staff, with the aid of relevant professionals, must be able to determine whether these criteria are met. However, the criteria are not dichotomous, necessitating decisions about how much knowledge and intelligence, and perhaps even voluntariness, is sufficient to pass each criterion, (Parker and Abramson, 1995) and there is a lack of operationalised criteria for assessing the ability to provide informed consent to sexual activity (Abramson, Parker & Weisberg, 1988). The element of intelligence is particularly difficult to assess, and the extent to which even non-developmentally disabled individuals would pass this criterion are debatable.

The above criteria for recognising consent also fail to account for possible variations in the ability to consent depending on the exact situation. For example, a lack of understanding of pregnancy as a possible consequence of sexual intercourse, would not be a barrier to consenting to homosexual or non-penetrative sex. What level of knowledge and intelligence must be shown for an individual to kiss another? Do individuals engaging in homosexual behaviour need to understand the extent of the
prejudice they might be exposed to? These are all issues which staff and professionals must decide for themselves, in conjunction with any policies within their organisation, without help from the law. Several authors (e.g. Booth and Booth, 1992; Stavis-1991) argue that the law must be clarified and updated to aid such decisions.

Even where a definition of what constitutes consent can be agreed, it is not a straightforward matter to assess whether it is present. Firstly, staff need to have some knowledge of what sexual behaviours are, or are likely to occur, both within and outside the residential setting. Obtaining such information may require a level of intrusion which many people would find unacceptable. Staff must also know about the individual's knowledge and intelligence regarding sexuality and their willingness to engage in the behaviour. Such assessment becomes more difficult the poorer a client's verbal skills are. Ames and Samowitz (1995) suggest that consent could be assessed without need for verbal expression, by "communicating through responsible interpersonal behaviour". This would be assessed according to six criteria: voluntariness, avoidance of harm (e.g. practising "safe sex") avoidance of exploitation, avoidance of abuse, ability to stop an interactive behaviour when desired and appropriateness of time and place. This has the advantage of lessening the extent to which an assessment may be influenced by the client's perception of the standards and expectations of the assessor. For example, a client may state verbally that (s)he does not want to have sex because it is rude, because (s)he thinks that is the expected/desired response. Actual behaviour is less likely to be so biased. (Where such expectations have been internalised to the extent that behaviour is changed, then consent would truly have been withheld.) However, the disadvantage of this approach is that to some extent assessment must be post-hoc; in order to observe behaviour to make the assessment, individuals may already have been exposed to abusive sexual experiences. While such an approach is valuable progress, it seems unlikely to eliminate all areas of uncertainty regarding ability and wish to consent, and situations will arise in which staff must make the decision of whether to risk exposing an individual to abuse or restricting their sexual rights and freedom, a rather unpalatable choice.
So, to reflect on the given scenario, professionals must be able to determine whether both individuals show the required level (whatever this may be) of knowledge, intelligence and voluntariness for all or some part of the sexual behaviour they engage in, as sensitively as possible. They can do this by assessing both the individual’s verbal behaviour, subject to biases produced by perceived expectations and/or limited verbal ability, and by such non-verbal behaviour that can be observed sensitively without exposing the individual to risk. Given the differing levels of ability of the two clients, the true wishes of the less able partner may be particularly difficult to determine, as there may be a significant power differential, increasing the possibility of abuse or exploitation.

Consent is just one of many issues which would need to be addressed in any sexuality policy. However, before considering these other areas, it is worth discussing the importance of agencies adopting policy guidelines on sexuality. (See Booth and Booth, 1992 and Craft, 1994 for a full discussion.) Adoption of a policy statement should lead to an environment in which sex can be discussed more openly by both staff and clients—and foster a proactive, rather than crisis management approach to sexuality. Such a policy also gives explicit acknowledgement that the service regards its clients as sexual beings and encourages the respect and valuing of individuals and their relationships. Responsibilities and routes for guidance and support are clarified for staff, thus clearly defining the boundaries of acceptable behaviour so that staff feel secure in their actions. A clear policy should also ensure a consistent approach so that clients are not at the mercy of differing values of individual staff. Increased accountability of the service and a clear framework for audit and evaluation should also result. For all of the above reasons, an organisation with a clear policy on sexuality should be better equipped to deal with the scenario in question in a positive, open and consistent manner.

Any policy must make clear how, and by whom decisions are made. Booth and Booth (1992) point out the conflict between full and thorough consultation with professionals and family (often through a case conference) and the consequences for an individual’s dignity from being so discussed. They cite a policy example in which the methods used
to teach masturbation were to be discussed with the individual, his/her parents and up to four professionals. Such a policy does not take into account the feelings of the individuals. Despite such difficulties, it is generally agreed that clients’ families should have an involvement in the decision making process (e.g. Ames, Hepper, Kaeser and Pendler, 1988 and Heyman and Huckle, 1995). Heyman and Huckle also make the point that cautious parents should not be dismissed as overprotective, and the rational basis for their concerns should be accepted (Brown, 1987) particularly given the high prevalence of sexual abuse of people with learning disabilities (Turk and Brown, 1993) and the potentially stressful contingencies, such as pregnancy or relationship breakdown, which can arise from a sexual relationship. A situation in which the relationship of two clients of the same sex, but differing levels of ability is causing concern, it should be discussed, only by those who can contribute to the decision making process, and those for whom it may be potentially be a source of distress i.e. the individuals’ close family. However, this should be done sensitively, and not necessarily in a group format. Any decision should be relayed only to those who need to know, and related documentation should be confidential to the same group of people.

It is argued that sex education must play a vital role in the lives of individuals with learning disabilities (e.g. Craft, 1994). It must be tailored to the individual’s ability to communicate and understand, but aimed at giving each individual the maximum that they are able to understand. Within these constraints, it must be broad based, covering not just physical aspects of sexuality, but emotional, social and ethical. It is important that the positive nature of sexuality and the message that sex should be enjoyable for both parties must be conveyed, particularly as some women with developmental disabilities see sex as “dirty” and “rude” and/or inherently painful for women (Heyman and Huckle, 1995). Another vital aspect is the education about safe sex with regard to sexually transmitted diseases, and to pregnancy and parenting issues. These may need to be revisited each time the individual starts a new relationship, or even on a continuing basis. Such education can affect an individual’s ability to consent, and thus should always be given before it is decided that an individual does not have the
knowledge or intelligence to consent. In fact, education in any area should be considered before restricting an individual's sexual activity due to their current inability to consent. It is also vital that clients are given education regarding consent issues and appropriate interpersonal behaviour themselves, to protect them both from abuse, and from engaging in sexually abusive behaviour towards others. As with other areas of service provision, it must be clear whose responsibility it is to provide sex education. It is covered within the National Curriculum, but many adults will need such education after the age of nineteen, particularly given the patchy history of such education. There is some disagreement about which professionals are best placed to provide it; however, comfort with one's own sexuality and an open approach to the topic are probably more important than professional background. Another issue is whether educators should be of the same gender, generation, sexual orientation, race, and/or religion as the client. Whilst this may be helpful for some clients, each case should be considered individually, as the characteristics which allow two people to work well together are more complex than the socio-cultural groups to which they belong (Malhotra and Mellan, 1996).

It is sometimes argued (often by parents) that sex education can cause more problems than it solves, for example by creating a desire for a sexual relationship (e.g. Heyman and Huckle, 1995). However, such a view is based on the assumption that adults would not discover sexuality without education. As Ann Craft states “sexuality is not an optional extra” (Craft, 1994) and refusal to recognise it does not smother it.

The two individuals in the question should be assessed according to objective criteria, which should relate directly to their individual situation, and any gaps in their understanding addressed, including how to protect themselves against sexually transmitted diseases, whether they are male or female. Pregnancy and parenting are less likely to be urgent issues for a homosexual relationship, although this should not be assumed. In fact it may be important to ensure that the couple are aware that such a relationship will not lead to conception. It may also be appropriate to prepare such a couple for any prejudice from the wider community, and to educate other service users and staff about the unacceptability of demonstrating any such prejudice. It is also
important to be sensitive to any worries or feelings of guilt the client may have about
t heir sexual preferences and to reassure them regarding these. If it is not certain
whether one or both parties are able to consent a decision should not be made until
they have been given all possible help to meet the criteria upon which they are being
assessed. It may be most appropriate that the educator is homosexual or bisexual and
of the same gender as the clients, but this is just one of several factors which should
influence the choice.

As mentioned above, some of the issues raised by a homosexual relationship are
different from those raised by a heterosexual relationship. Most notably, heterosexual
acts do not raise the thorny issues of pregnancy and parenting, one of the primary
reasons why sex involving people with learning disabilities has been so feared.
However, prejudice against homosexuality itself is still widespread, placing
homosexuals with developmental disabilities into a position of “double jeopardy” by
belonging to two disadvantaged minority groups. Acceptance of homosexuality as a
valid choice may be particularly problematic when a person’s culture, or religion, or
even that of a service providing organisation, cannot accept the validity of such a
choice. Such a situation would require an extremely sensitive approach, and emphasises
the need for all provider organisations to adhere either to a single policy, or to ensure
that all are mutually compatible. In fact, to some extent, homosexual relationships are
not recommended by the widely accepted philosophy of normalisation, as, in our
society, homosexuality is not a valued social role. This is part of a wider problem for
the principle of normalisation, that it values conforming to cultural norms to the
detriment of the individual’s free choice. (See Brown, 1994 for a full critique of the
application of normalisation to the sexuality of people with developmental disabilities).
Some people with developmental disabilities illustrate this philosophical conflict by
demonstrating a preference for homosexual sexual activity, but expressing a desire for
the valued social roles of marriage and children.

All of the issues discussed in this essay must be considered when deciding whether and
how to intervene in a particular situation. It is important to stress that such
interventions can and should be aimed to facilitate as well as to restrict sexual
behaviour and relationships, thereby taking a proactive and positive approach to sexuality. One way of demonstrating commitment to such an approach would be to involve sexuality on the agenda for clients’ regular Individual Programme Planning Reviews to ensure that the service regularly reviews the clients’ needs relating to sexuality and the extent to which they are being met. When interventions to restrict or eliminate behaviour are deemed to be necessary (and this should only be so after a thorough and individualised assessment) they should be based on a functional analysis and, where possible, aim to replace the target behaviour with a more appropriate behaviour serving the same function. Where this is not possible, the least punitive method available should be used. (See Mitchell, 1994 for more practical details on intervention).

This essay is not complete without a discussion of the issue of values, as the issues so far discussed have been addressed from an implicit value base. It is often assumed that, as professionals working with people with developmental disabilities, or any other client group, we should not impose our value system onto them. Yet the present author would argue that it is not possible to work in sexuality without reference to a system of values. Sexuality is to some extent socially constructed (e.g. Brown, 1994; Weeks, 1989; Rowbotham, 1973) and is thus influenced by the attitudes and behaviour demonstrated in each individual’s environment. Our services are rooted in a secular, rights based view of morality, with the assumption that sexual fulfilment is gained from a couple’s mutual pleasure, in private (and perhaps preferably in a loving and committed relationship). Implicit in this is a rejection of sexual activity for the purpose of material gain or social status. These values dictate our sexual education programmes and our reactions to the sexual behaviour of our clients. This value system teaches that homosexuality is a valid choice because it can lead to mutual sexual pleasure, and impinges on no-one else’s rights. Adherence to a value system espoused by some religious organisations in which the purpose of sex was procreation, not pleasure, would not see homosexuality as an equally valid choice. In our value system, prostitution and sex for the purpose of gaining social status are, at the very least, not encouraged. However, a value system which accepted sex as “currency” would see.
such behaviour as as acceptable as sex between a heterosexual married couple, trying to conceive.

What we teach and do not teach our clients, and what behaviour we intervene in and do not intervene in, is inevitably based on our value system, and it influences the choices and even the sexual identity of our clients. For example, a client who is taught that homosexuality is a valid choice may be more likely to identify him/herself as homosexual, and to engage in homosexual activity. Such a perspective challenges the notion that we do not impose our own values (or those of the service for which we work) onto our client group. Explicit acknowledgement of the set of values on which our work is based should allow more honest practice, particularly when working with clients, families and organisations whose values differ from our own. It does not solve the huge ethical dilemmas posed by such situations, but it may give us greater understanding of, and more open discourse with staff, families and services whose values relating to sexuality are different from our own. It also allows open examination of how we deal with clients who engage in truly consensual sexual behaviour which challenges our value system, and to examine closely how we justify decisions regarding intervention, or lack of it.

This essay has posed more questions than it has suggested solutions. The scenario of concerns regarding a relationship between two clients of the same sex, but of differing levels of ability has been used to illustrate several key areas which must be considered when reflecting on the sexuality and relationships of people with developmental disabilities. It is clear that the consent of both individuals to sexual activity must be assessed by the legal criteria of knowledge, intelligence and voluntariness, using their verbal and non-verbal behaviour. However, it is unclear to what degree these criteria must be present and how this assessment can take place without an intrusion of privacy, particularly when one or both clients have poor communication skills. Continuing education regarding sexuality and relationships is highlighted as vital in teaching individuals what they must know to be deemed able to consent, how to demonstrate a lack of consent, and how to recognise when others are withholding consent. Particularly important topics for sex education are “safe sex” and norms and
expectations such as that sexual activity should be enjoyed by both partners and that it should happen in private. It is not always clear, however, who should provide sex education, and how families should be persuaded that it is appropriate. Because the relationship in question is homosexual, it does not immediately raise issues of pregnancy and parenting; however, the likely acceptance of or resistance to such a relationship from the couple's social environment must be addressed. The use of both restrictive and facilitative interventions must be considered, and where it is considered necessary to restrict certain behaviours, every effort should be made to do so by teaching more appropriate behaviours which serve the same function for the individual.

The issues described above are best considered with the aid of clear policy guidelines, which explicitly state the values of the service. These guidelines should encourage a proactive, positive and consistent approach to sexuality with clear structures of responsibility and communication. Whilst services are unlikely to get it right every time when such complex and conflicting issues are involved, combining the implementation of such guidelines with an individualised approach, based on thorough assessment and consideration of each individual's needs, should lead to optimal service provision.


OLDER ADULT ESSAY

“What Specific Factors Need To Be Considered In Assessing and Treating Depression In Older People? In What Ways Do Therapeutic Approaches Need To Be Adapted To Meet The Needs Of This Client Group? Discuss Evidence On The Emotional Impact Of Such Work On The Therapists.”

Year 2
June 1998
What Specific Factors Need To Be Considered In Assessing and Treating Depression In Older People? In What Ways Do Therapeutic Approaches Need To Be Adapted To Meet The Needs Of This Client Group? Discuss Evidence On The Emotional Impact Of Such Work On The Therapists?

This essay will begin by outlining the reasons for the growing importance of psychological assessment and treatment for depression in older people. The first question will be answered by examining the specific characteristics of older people which may impact on the process and content of assessment and therapy, concentrating on issues of cognitive changes, physical health and sensory impairments, losses experienced and their cultural context. The essay will then proceed to discussing the adaptations that need to be made to therapeutic approaches as a result of these factors. Finally, the emotional impact on the therapist of working with depressed older clients will be examined.

The Importance of Addressing Depression in Older People

Depression is sometimes considered to be an inevitable consequence of old age (see Woods, 1992) because of the increasing likelihood of physical dependence, poverty, bereavement, sensory loss, social isolation and the loss of valued social roles. However, despite these, most research findings demonstrate that clinical depression is in fact no more prevalent in those over 65 years, than in younger adults. A review of epidemiological studies by Cappeliez (1993) estimates that 5-8% of adults over 65 years may meet DSM III-R criteria for major depression or dysthmic disorder. Cappeliez does not give a comparable aggregated figure for adults under 65, but almost all studies (e.g. Regier, Boyd, Burke et al., 1988) find that depression is actually less prevalent in older than in younger adults. This finding is not universal, however (e.g. Kovess, Murphy and Tousignant, 1987). There are also suggestions (e.g. D'Arcy, 1987) that whilst diagnosable depressive disorders are less prevalent, diffuse psychological distress is more common, perhaps explaining the origin of the popular
myth that depression in older adults is usual. This inconsistency in the research findings, together with methodological difficulties in comparing prevalence across age groups which arise from the uncertainty regarding differences in the presentation and diagnosis of affective disorders for older adults (which will be discussed further later) suggest that findings that depression is actually less prevalent in older adults should be interpreted with caution.

Whilst there is no evidence to suggest that depressive disorders are more prevalent amongst older than younger adults, 5-8% of adults over 64 is still a large population. Given the much documented continuing increases in the UK population over 65, (e.g. Woods and Britton, 1985) if the percentage prevalence of depression remains stable, the absolute numbers of older adults with depressive disorders should increase due to sheer demographics. Despite such predictions, there is still little research into psychological approaches to helping depressed older people relative to the evidence accumulated from those under 65 (a problem exacerbated by the tendency for the majority of research studies to exclude over 65s from their patient samples) and difficulties recruiting and retaining clinical psychologists in this specialty (Woods and Britton, 1996). Such a lack of interest in the psychological problems of the elderly, whilst having many causes, can be traced back to Freud’s opinion (cited in Grant and Casey, 1995) that people over 50 do not have sufficient “flexibility in mental processes” to change and respond to psychotherapy. Such ageism is still prevalent in our society, leading to a lack of attention to older people’s mental health and to services to provide for it. For example, according to Woods and Britton (1985) the British Psychoanalytic Society refused to accept patients of over 40 years until 1985.

Thus, clinical depression in older adults, whilst probably no more common than in younger adults, is a large and increasing problem, which continues to be underresearched and underresourced. When evaluating the effects of depression in adults of working age, it is usual to consider the economic effects of decreased productivity. Whilst only a small minority of adults over 65 are in paid employment, the important roles they play as informal carers and voluntary workers should not be overlooked. Although it is more difficult to quantify, particularly in economic terms, the effects of
the difficulties of such individuals, for society, are substantial. For these reasons, and more important still, because of the obvious human distress caused by depression, to both sufferers and their families, it is vital to ensure that their depression is treated optimally.

Factors To Be Considered In Assessment And Treatment

Whilst neither depression nor its treatment in older adults is conceptualised as fundamentally different from that of younger adults, there are some characteristics more common in older people which can impact on both the process and content of therapy.

Cognitive Characteristics

It is particularly difficult to make general statements regarding the cognitive characteristics as the variation in our cognitive abilities increases with age, both within the individual and between individuals (Cohen, 1996). However, given this qualification, it is possible to outline some general tendencies which may affect therapy. There is strong evidence that memory declines with age, but this decline does not appear to be uniform across different capacities.

Age differences in primary memory, tapped by passive tasks such as digit or letter spans tend to be small or insignificant (e.g. Salthouse and Babcock, 1971) whereas some of the most substantial age related deficits appear to be in working memory (or central executive) tasks. Impairments in working memory tend to have a major effect on many everyday cognitive tasks, including understanding written and spoken language and prospective memory, all of which can be fundamental to the therapeutic process.

Cohen (1996) reviews the literature on age associated deficits in long term memory (LTM) using Tulving’s (1985) classification of LTM into episodic, semantic and
procedural memory, and concludes that there is a gradient of impairment from episodic (most impaired) through to semantic (least impaired). However, this author’s interpretation of the empirical evidence presented in Cohen is that for all types of LTM, new learning is impaired, but old learning is relatively spared. For example, Craik and Jennings (1992) reviewed evidence of age related changes in free recall, list learning and memory for stories, and found consistent differences, and Charness (1987) found that older people took longer to learn the Tower of Hanoi problem. In contrast, a review by Salthouse (1988) concluded that most vocabulary tests do not show an age related deficit.

There is also evidence that explicit memory is affected by the ageing process much more than implicit memory. For example, Howard and Howard, (1982) tested implicit and explicit learning of a serial pattern by whether old and young subjects could respectively repeat and describe it. They found no difference in explicit learning, but poorer explicit learning in the older clients. However, there is not yet a consensus as to whether implicit learning deteriorates to some degree with old age (Cohen, 1996).

Memory is only one aspect of cognitive functioning. It has been found that almost all cognitive functioning slows with age, leading to the general slowing hypothesis (Myerson, Ferraro and Hale, 1992). However, Rabbitt (1996) points out that all cognitive processes involve a trade off between speed and accuracy, and that the empirical findings of slower information processing may be merely the result of individuals titrating their performance to their habitual (chosen) level of accuracy. However, even if Rabbitt is correct, and the fundamental change is not in speed, the very fact that individuals are able to alter their cognitive performance to maintain accuracy, means that, in effect, processing speed is reduced.

To summarise, both new learning, particularly explicit retrieval strategies and information processing speed can be significantly impaired in normal ageing. The therapeutic process, especially, but not exclusively in cognitive behavioural therapy, relies on learning new information - whether theory and techniques, or insights about oneself. The above changes are all part of the normal ageing process. Unfortunately, a
sizeable minority of elderly people also suffer from the abnormal, global and progressive cognitive changes including memory, language and reasoning, which are part of a dementing process. Obviously, these give rise to increasing difficulties in therapy, but such disorders also lead to an increase in the prevalence of depression to approximately 20% (Reifler, Larson and Hanley, 1982).

**Physical Health**

Poor health and chronic illness are undoubtedly major contributing factors to depression in older people. Not only is depression more common in physically ill elders (e.g. McNeill and Harsany, 1989), it also has a much poorer prognosis, particularly where physical conditions are chronic (Burville, Stampfier and Hall, 1986). The converse, that physical illness has a poorer prognosis with comorbid depression is also true (Koenig, Shelp and Veeraindar et al. (1989) in Katona (1994). There is no reason to believe that old and young people are different in this respect; it is probable that the complex interaction between depression and physical health is more prominent in older people only because poor health is more common in older people.

Older people also experience the physical symptoms of depression as more physical (Ruegg, Zissok and Swerdloe, 1988) and think of depression as a less psychological and emotional problem than do younger adults (Hasin and Link, 1988). Therefore symptoms of depression may be mistaken for those of physical ailments, or even of hypochondria when no physical cause is found. Thus, people suffering from ailments with common symptoms, such as the slowed physical movements and lack of facial expression of Parkinson’s Disease, may be falsely diagnosed as depressed.

Physical ill health may also affect the therapeutic process more directly; by affecting concentration, particularly in painful conditions, or those for which large amounts of certain medications are taken. More specifically, sensory (hearing and visual) impairments can impact greatly on communication.
**Losses and Stressors**

Losses are likely to be more prominent in the older person’s history. These include bereavements, the losses of independence, of financial status, and of social roles at retirement and when children leave home. However, it has been reported that socio demographic factors may have less importance in depression for older people (George, Landerman and Blazer, 1987). Or it may just be that different factors are important, for example, Phifer and Murrell (1986) found that “stressful events” were more important than life events and Livingston, Hawkins and Graham et al., (1990) found that urban dwelling is associated with higher levels of depression than rural dwelling in older people. Adaptation to chronic stressors may therefore be a crucial theme.

**Cultural Context**

Older individuals have grown up in a different cultural climate than younger people, leading to differences in values, standards and typical life events. Whilst the exact nature of such differences is a cohort effect, and continually changing, the increasing pace of change in our society suggests that the level of difference in the cultural experience between older and younger generations should increase. Current generations of older people tend to communicate their emotions less, either because they have not been socialised to introspect on their own thoughts and feelings as have younger adults and/or because they may think of reporting negative emotions, particularly to a stranger who may be young enough to be their grandchild, as less socially desirable. Some topics, for example, sexuality may be particularly difficult to discuss. They may also be more susceptible to feeling that they should be able to cope without help and to see accepting services as a stigmatising sign of failure. There may also be a marked wish not to be a burden on limited services and expression of the idea that younger people, especially children should be a priority. This may also have the effect of limiting the numbers of clients who present for help. This is likely to be a cultural, cohort effect rather than a true age related factor; however, at present it represents a true difference between older and younger adults which is likely to remain important to service provision for many years to come. This cohort effect may also
depressed elders. However, whilst the existing literature does suggest some ways in which some work may be particularly difficult for the therapist, there are also suggestions of counterbalancing emotional benefits. The current level of research does not allow the relative prominence of these to be evaluated.
References


Knight, B. (1986). *Psychotherapy with Older Adults.* Beverly Hills, CA: Sage


CLINICAL DOSSIER
CORE PLACEMENT 1:
ADULT MENTAL HEALTH

Supervisor: Ms. Siobhan Woollett

Location: Department of Clinical Psychology, Kingston and District Community NHS Trust

Dates: 04.10.96 - 28.02.97
Summary of Clinical Experience

Core Placement 1: Adult Mental Health

During my adult mental health placement, I gained experience in working with clients presenting with a range of clinical problems. These included anxiety, depression, schizophrenia, somatisation and OCD. I developed assessment, formulation and therapeutic skills within a cognitive behavioural framework and gained exposure to systemic models as part of a family therapy team. I developed skills in psychometric assessment using the WAIS, NART, BADS and self report measures. I contributed to the psychoeducational group for patients with schizophrenia. In addition, I also planned and conducted a teaching session to nursing staff. I worked in a variety of settings, including a CMHT, G.P. surgery and rehabilitation unit, and attended professional and clinical meetings in each of these services.
Summary Of Adult Mental Health Case Report: The Cognitive Behavioural Assessment And Treatment Of A Woman Suffering From Severe Anxiety And Depression During Gradual Withdrawal Of Diazepam.

This case report describes the assessment, formulation and treatment of a 52 year old woman, referred to the CMHT by her G.P. for severe anxiety and depression during benzodiazepine withdrawal.

She scored 48 and 39 respectively on the Beck Depression and Anxiety Inventories, indicative of severe anxiety and depression. She was extremely agitated during assessment sessions and reported significant appetite loss, difficulty sleeping, nausea and vomiting, an inability to perform basic chores, and fear that she was going mad. Predisposing factors to her current difficulties appeared to be the critical style of parenting she received from her mother and her long term use of anxiolytic medication (rather than psychological strategies) to cope with her feelings. The immediate precipitant to her current difficulties was her gradual withdrawal from diazepam, following a series of stressful life events, including the deaths of her father and a close friend, her sister’s breast cancer and her daughter’s miscarriage. Her avoidance of any activity or responsibility and her negative automatic thoughts regarding her lack of coping abilities and self worth served to maintain these difficulties.

The intervention involved several components. First, the client was educate as to the nature of the benzodiazepine withdrawal syndrome, and the cognitive behavioural model of depression. Behaviourally, she was encouraged to increase her levels of activity and responsibility. She was also helped to identify and challenge her negative automatic thoughts and dysfunctional assumptions.

The client improved rapidly and by session eight was no longer experiencing symptoms of anxiety or depression. Her Beck Anxiety and Depression Inventory scores were 2 and 2, indicating an absence of clinical anxiety and depression. The final three sessions were spent devising a relapse prevention plan to enable her to continue her withdrawal from diazepam.
KINGSTON & DISTRICT COMMUNITY NHS TRUST

CONTRACT FOR ADULT MENTAL HEALTH PLACEMENT 4.10.96 - 28.2.97

Clinical Psychologist in Training: Christy Wellings
Supervisor: Siobhan Woollett

Placement Aims

1. To gain an overview of the Adult Clinical Psychology Service including primary care, mental health and rehabilitation, and how this fits into the wider sphere.
2. To gain experience of working with a range of clients within the psychology service.
3. To develop understanding of the roles of a clinical psychologist within the Trust, e.g. Primary Care, Mental Health and Rehab.
4. To develop competency in formal and informal assessment skills.
5. To develop competency to provide psychological therapy to clients.
6. To develop skills in effective interaction with other members of the Trust.

Objectives of the Placement

1. Client contact
   a) To work with 8 clients from a broad age range and at least one from a different cultural background.
   b) To work with clients with a range of difficulties including anxiety, depression, OCD, sexual/marital problems, eating disorders, schizophrenia, somatic problems, loss/bereavement. (Some areas would not be compulsory in the first placement, e.g. sexual abuse and substance misuse.)
   c) To have some experience of clients with acute and long term needs.

2. Assessment skills
   a) To develop appropriate interviewing skills and informal assessment skills.
   b) To use standardized assessments and rating scales, e.g. WAIS-R, NART, WMS, BDI, BAI, Fear Inventory, Rehab. Scale.
3. **Therapeutic skills**
   
a) To develop and use CBT.

b) To learn and use relaxation skills

c) To gain some knowledge of forms of psychological intervention, e.g. counselling, systemic and psychodynamic models.

d) To observe a group being run and discuss different types of groups.

4. **Settings/contacts/meetings with other professionals**
   
a) To work in a CMHT and GP surgery setting.

b) To gain some experience of a Rehab setting.

c) To attend some Rehab reviews.

d) To attend some acute psychiatric ward reviews.

e) To attend CMHT allocation and team meetings when appropriate.

f) To visit a day service and therapeutic workshop setting.

g) To observe the Family Therapy Team regularly, using Milan Systemic Model

h) To attend Adult Psychology meetings and seminars and department meetings.

5. **Teaching**
   
To teach staff in a Rehab setting how to use the Rehab Scale.

Supervision: 2 hours per week - Wed. a.m.

Study: ½ day per week.

Signatures: 

[Signature: Christy Wellings]

Christy Wellings

[Signature: Siobhan Woollett]

Siobhan Woollett
CORE PLACEMENT 2:

PEOPLE WITH

LEARNING DISABILITIES

Supervisors: Ms. Marianella Storey

and Mr. Andrew Adlem

Location: Twickenham Community Team For

People With Learning Disabilities

Dates: 12.03.97 - 29.08.97
Summary of Clinical Experience

Core Placement 2: People with Learning Disabilities

During my PLD placement, I worked with individuals with mild, moderate and severe learning disabilities in a range of settings, incorporating day services, staffed group homes and the community. Presenting problems included challenging behaviour, issues of sexuality and depression. In addition, I conducted intellectual assessments of learning disability and behavioural analogue assessments. Working within a primarily behavioural model, I developed skills in behavioural observation, functional analysis, formulation, and devising therapeutic interventions and behavioural programmes. A substantial component of my work in this placement involved indirect client work, such as liaison and co-work with carers and staff and jointly running several training sessions for residential staff. This placement provided particular opportunity for working jointly with colleagues from other disciplines and observing their roles. Both multidisciplinary team and psychology specialty meetings were attended weekly, enabling me to develop my understanding of organisational and professional issues. I also presented academic and clinical topics to these meetings on several occasions.
Summary of Learning Disabilities Case Report:
Assessment and Formulation of a Client with Challenging Behaviour

This case report describes the stages in assessment and formulation of a 34 year old, severely learning disabled and non-verbal client, who was referred by her residential key worker, because of her screaming.

Initial assessment methods used were a review of her file, an interview with her key worker, behaviour observation charts completed by staff, and observations by the author with narrative recording. These methods revealed a history of intermittent positive reinforcement for screaming, and changes in her accommodation and day service provision, which may have been experienced as stressful in itself and had led to a decrease in her levels of activity and stimulation.

It was therefore hypothesised, according to Carr’s model of motivation for challenging behaviour, that the screaming was intended to increase the client’s level of social interaction and/or activity.

This hypothesis was tested using an analogue assessment methodology, in which the client’s level of activity and social interaction were systematically varied, and her level of screaming (and other relevant behaviour) was observed and recorded using a partial interval time sampling procedure. This assessment led to confirmation of the hypothesis that screaming increased when social interaction and other activity was lacking, thus confirming the original hypothesis.

Suggested intervention strategies included ecological manipulation to increase the client’s level of activity and social interaction, positive programming to enhance her communication skills, and direct treatment in the form of differential reinforcement of other behaviours.

The ethical and methodological issues involved in the assessment were discussed.
CLINICAL PSYCHOLOGY
SERVICE FOR ADULTS WITH
LEARNING DIFFICULTIES

PLACEMENT CONTRACT

SUPERVISOR'S NAME AND ADDRESS: MARIANELLA STORY.
TWICKENHAM COMMUNITY TEAM FOR PEOPLE WITH LEARNING
DIFFICULTIES, TEDDINGTON CENTRE, 18 QUEENS ROAD, TEDDINGTON,
MIDDLESEX, TW11 0LR.

TRAINEE'S NAME: CHRISTY WELLINGS.

PLACEMENT: PEOPLE WITH LEARNING DIFFICULTIES PLACEMENT.
TRAINEE TO BE BASED WITH THE COMMUNITY TEAM FOR PEOPLE WITH
LEARNING DIFFICULTIES (C.T.P.L.D.)

DATES OF PLACEMENT: FROM 12.03.97 UNTIL 29.08.97. TRAINEE AT
PLACEMENT WEDNESDAYS, THURSDAYS AND FRIDAYS.

SUPERVISION: 1 1/2 - 2 HOURS PER WEEK. SUPERVISION/SUPPORT TO BE
CARRIED OUT BY THE HEAD OF THE SPECIALTY WHILE SUPERVISOR IS
ON ANNUAL LEAVE AND/OR OFF SICK. SUPERVISION TO BE DONE BY
THE TEAM CLINICAL PSYCHOLOGIST SHOULD THE CLIENT FALL INTO A
DIFFERENT CATCHMENT AREA OF THE TWICKENHAM TEAM.

STUDY TIME: ONE DAY (FRIDAYS) EVERY TWO WEEKS.

AIM OF THE PLACEMENT

The overall aim of the placement is to provide the opportunity for Christy Wellings to
learn and enhance her knowledge and clinical skills with people with learning
difficulties as well as to have a comprehensive experience with this client group.

The placement will also offer the opportunity to understand and work within the
multidisciplinary approach used by the Community Team, the philosophy behind the
team work (Social Role Valorisation and the Five Accomplishments) and the
functioning of the Joint Service for People with Learning Difficulties.

The Trainee will also be attached to the Clinical Psychology Service (PLD) and the
Clinical Psychology and Counselling Department.

OBJECTIVES OF THE PLACEMENT

1. Clinical Work
1.1 Experience with the range of formal tests and check lists used for the assessment of
cognitive functioning and learning disabilities. In particular, familiarity with the
following equipment:

   WAIS-R
   Leiter
   HALO
   Scale for Assessing Coping Skills
   Vineland

1.2 Experience with formal and other (interviewing - observation) methods used for
the assessment of behavioural problems in people with learning disabilities. For
example:

   Functional Analysis
   Behavioural Interventions

1.3 Experience with different therapeutic models if appropriate for a client. For
example:

   Cognitive-behavioural
   Counselling

1.4 Experience of work with clients of different age range:

   Adolescence
   Young Adult
   Middle Age
   Older Adult

1.5 Experience of work with clients of different level of abilities:

   Mild
   Moderate
   Severe
   Profound

1.6 Experience of assessing clients from different cultural and/or ethnic background.

1.7 Experience of work in the following areas:

   Sexuality issues, including relationships, sex education and sexual abuse
   Challenging needs
   Anger management
   Loss and bereavement
   Depression
   Interpersonal skills, including assertiveness
1.8 Experience of working and/or observing in different settings:

- Residential homes
- Client homes
- Day Centres
- Team base

1.9 Experience of work with:

- the client
- the parent or relative
- staff team caring for the client

1.10 Experience of working with other professionals in client work. For instance:

- Occupational Therapist
- Psychiatrist
- Speech and Language Therapist
- Community Nurse
- Care Manager
- Dietitian

1.11 Experience in planning and setting up group work either with clients or carers.

1.12 Experience in planning and participating in In-Service-Training for staff teams caring clients.

2. Organisational Work

2.1 Attending the team meetings, including clinical, business and working parties as appropriate.
2.2 Attending and participating in the psychology PLD meetings, including business and developmental meetings.

2.3 Attending the monthly meetings of the Clinical Psychology and Counselling Department.

2.4 Attending meetings with the supervisor which involve some service development within the Joint Division.

Christy Wellings
Psychologist in Clinical Training

Marianella Story
 Supervisor
CORE PLACEMENT 3:
CHILDREN, ADOLESCENTS
AND FAMILIES

Supervisors: Dr. Caroline Hogg and
Ms. Linda Hammond

Location: Child and Family Mental Health Service,
Tunbridge Wells

Dates: 01.10.97 - 03.04.98
Summary of Clinical Experience

Core Placement 3: Children, Adolescents and Families

During this placement, I worked with children, and adolescents of all ages, and their parents, with presenting problems including ADHD, difficulties with peer relationships, encopresis and bullying. Whilst I worked primarily within behavioural and cognitive behavioural frameworks, I was able to gain direct experiences of other approaches, particularly play therapy and non-directive approaches. I gained considerable experience of different assessment tools, including a wide range of formal psychometric tests, projective tests and other measures including the Bene-Anthony family relations test. I also had the opportunity to observe and then to co-facilitate a parenting skills group. This placement provided a particular opportunity to observe and participate in the development of an extremely new multi-disciplinary team.
Summary of Child Case Report: A Neuropsychological Assessment

This case report describes the neuropsychological assessment and formulation of a fifteen year old girl, referred for assessment by her CPN, who was concerned that she presented as rather “vague” during cognitive therapy for anxiety.

The client had a difficult birth, although no resultant problems were identified. Her parents were middle-class and well educated. Her mother was concerned that she had long term difficulties in “coping with life”. Her teachers reported that her anxiety was hindering her academic performance, that she produced very little work and often did not appear to “know what was going on” during lessons.

The client was assessed using:
- Weschler Intelligence Scale For Children - III
- Weschler Objective Reading Dimensions
- memory subtests from the British Ability Scales II
- Warrington Recognition Memory Test
- Visual Object and Space Perception Test

The client’s verbal functioning was in the Low Average range with her Performance functioning significantly lower, in the Exceptionally Low range. Whilst her profile of WISC subtest scores showed extreme scatter, neither their examination, nor further testing revealed a consistent pattern to her difficulties.

Following consideration of alternative explanations, it was concluded that generally low intellectual ability, and having unrealistically high expectations, was the most parsimonious explanation of the client’s difficulties.

This formulation was communicated to the client and her mother, and to the school. Both her mother and her teachers were encouraged to reduce the academic expectations on her, and to encourage her strengths. The school was strongly encouraged to give the client individual academic and pastoral assistance.
Placement Contract

Trainee: Christy Wellings
Supervisor: Caroline Hogg

Child placement from 1st October 1997 to 3rd April 1998.

Based in the Psychology Service, Sevenoaks Hospital, Sevenoaks and the Child and Family Mental Health Service, Tunbridge Wells.

Induction Period

During the first three weeks of the placement the following will take place:

Meet all members of the Child and Family Mental Health Service.

Become acquainted with all administrative procedures of the CAFMHS and read policy documents and other induction material.

Observe supervisor carrying out assessments and some treatment sessions.

Carry out assessment sessions with one or two new cases.

Select additional suitable referrals and sent out initial appointments.

Visits to: Child and Family Mental Health Service, Chilston Family Centre.
Nursery observation, Health Visitor clinic, Sevenoaks Social Services, (Caroline Hogg to arrange).
School Medical Officers, Paediatric clinic, Valence School, Educational Psychology, Ravensdale, Speech and Language Therapists.

Become acquainted with test materials and carry out some general reading.

Weekly Timetable

1 One session or it’s equivalent per week will be spent on reading/study.

2 Approximately three sessions per week will be spent on clinical work.

Main components of the placement

1 Supervision

This will take place from 9.30 - 11.30 on Thursday morning.

Informal supervision can be given at other times, as required, also with other members of the child psychology service.

Observation of cases will also take place during a few family therapy sessions, where possible.
Clinical Work

Clinical experience to be gained across all age groups - pre-school, school age and adolescence and from a range of referral agents, eg GP's, social workers, school health.

Experience of the following assessment techniques - intellectual assessment (WPPSI, WISC-R, BAS), academic achievement, measures of social and emotional state.

Cases taken on will attempt to sample the wide range of problems referred such as single habit disorders, learning difficulties, behaviour problems, emotional difficulties, neuropsychological assessments, problems following abuse. To become familiar with local child protection procedures and other relevant child legislation.

One report of clinical activity will be completed by the end of the placement.

Therapeutic approaches: experience in family therapy, cognitive behaviour therapy, some experience of psychotherapy as applied to children and group work.

Organisations

An understanding of the way the child psychology service fits into the Directorate and Trust, and relationships with commissioners of services.

Teaching

Towards the end of the placement there may be teaching opportunities.

Research

Possibly to undertake a small scale research project.
CORE PLACEMENT 4:
OLDER ADULTS

Supervisor: Dr. Shahin Amaee

Location: Psychology Department,
Bournewood NHS Trust

Dates: 23.04.98 - 02.10.98
Summary of Clinical Experience

Core Placement 4: Older Adults

During my older adult placement, I gained experience working with a range of presenting problems including dementia, depression, anxiety and carer strain. This experience was obtained in a range of settings including inpatient, day hospital, residential and clients' own homes. I developed my neuropsychological assessment skills, particularly with respect to distinguishing dementia from depression and normal age-related cognitive changes. I provided substantial input to a psychogeriatric assessment ward, including attending and contributing to ward rounds, teaching sessions to nursing staff on the role of psychology and behavioural approaches in working with older people. These experiences enabled me to develop my understanding of the special issues and difficulties faced by older people, and to tailor cognitive behavioural and other treatment approaches to meet their needs.
Summary of Older Adult Case Report:
Cognitive Behavioural Therapy with a Depressed Older Adult.

This case report describes the assessment, formulation and treatment of an 83 year old female inpatient with depression.

Her scores on the Beck Inventories were indicative of severe anxiety, depression and suicidal ideation. During clinical interviews she reported feeling extremely hopeless about her future, lacking motivation for any activity, anhedonia and anxiety with panic attacks. Staff reported that her behaviour on the ward was extremely attention seeking and difficult to cope with. The client had been sent to England as a child by her mother, following the death of her father, where she lived with an extremely critical psychiatrist godmother in a psychiatric institution. She appeared to compensate for her continuing lack of close family relationships by becoming extremely involved in campaigning work, with which she was very successful. Immediately following her retirement, she became involved in a close relationship with a man; the end of this relationship, in combination with her increasing physical dependence triggered the intentional overdose that precipitated the admission to the ward. Her depression appeared to be maintained by her negative automatic thoughts, her lack of activity and her social withdrawal. She also appeared to hold dysfunctional assumptions that she had to achieve to be worthwhile, and that she was a difficult person who could not be tolerated for long.

Motivational interviewing techniques were used to clarify and strengthen her motivation to conquer her depression. She was then encouraged to absorb herself in activities, both to distract herself from her negative mood and thoughts, and to increase her sense of mastery. Cognitive strategies were used to help the client to identify and challenge her negative automatic thoughts and dysfunctional assumptions.

Once significant improvement in her symptoms of depression (confirmed by readministration of the Beck Inventories) and discharge to a residential home had been achieved, the client was assisted in devising a relapse prevention plan.
Older Adults Placement Contract

Dates of Placement: 23rd April to 2nd October 1998

Trainee: Christy Wellings

Supervisor: Shahin Amaee

Based in the Psychology Department, Abraham Cowley Unit, Bournewood NHS Trust.

Aims

1. To gain an understanding of the variety of services provided for older adults.

2. To extend skills in direct and indirect work with older adults, both those with functional and organic problems.

3. To extend skills in psychometric assessment and interpretation.

4. To improve skills in group work and teaching.

5. To gain some experience with clients between 65 and 85 years of age, including both men and women and some level of clinical contact with at least one client from a different cultural or ethnic background.

6. To gain an awareness of the issues relevant to older people, for example, prejudice and dependency and to be aware of the personal impact of working with this client group.

7. To increase creativity and flexibility in therapeutic work, and to gain further experience with more than one model of therapy.

Objectives

1. To gain direct clinical experience with the following issues:
   a) depression in old age
   b) cognitive change with age
   c) dementia
   d) difficulties in adjustment and adaption to dependency and/or disability
   e) mortality
   f) strokes
   g) challenging behaviour

2. To carry out assessments using a variety of tools for those with cognitive deficits.
3. To visit the memory group

4. To carry out a piece of work with a carer.

5. To carry out work in a wide range of settings including:
   a) assessment wards
   b) continuing care wards
   c) day hospitals
   d) residential/nursing homes
   e) clients’ homes

6. To carry out a piece of teaching

7. To give a presentation to the department

**Timetable**

Supervision will take place between 10.15 and 11.45 on Fridays

One session each week will be spent on private study.

Christy Wellings  
Pschologist in Clinical Training

Dr. Shahin Amaee  
Chartered Clinical Psychologist
SPECIALIST PLACEMENT 1:  
ADDICTIONS

Supervisor: Dr. Paul Davis

Location: National Addiction Inpatient Treatment Unit,  
Springfield Hospital, Pathfinder NHS Trust

Dates: 14.10.98 - 02.04.98
Summary of Clinical Experience

Specialist Placement 1: Addiction

A substantial part of my clinical work on this placement consisted of facilitating therapeutic groups in the inpatient unit. I facilitated and co-facilitated relapse prevention groups on both acute and recovery wards and ran both CBT and anger management groups on the recovery ward. Group sizes varied from four to approximately fifteen, and participants varied greatly in their level of engagement in the programme. These groups enabled me to experience therapeutic contact with an extremely diverse range of patients, many of whom had significant mental health problems in addition to their substance use. Individual assessment and therapy addressed both relapse prevention and longer term cognitive interventions with patients with personality disorder, such as schema focused therapy. This placement gave me valuable experience of working in a specialist inpatient setting, with the opportunity to learn from skilled staff and regular academic meetings. I also spent some time visiting community services.
Summary of Specialist Addiction Case Report:
Cognitive Behavioural Therapy and Management of a Client with Borderline Personality Disorder and Complex Needs

This case report describes the psychological assessment, formulation and treatment, within an inpatient substance abuse unit, of a thirty year old, polydrug misuser, with complex needs, including borderline personality disorder, self harm and anorexia nervosa.

Initial assessment and intervention focused on the management of the client’s eating disorder, to enable staff to monitor her weight, with minimal distress to the client without conflict with ward staff.

The client’s personal history involved neglect from her mother and father, who were anorexic and alcoholic, and sexual abuse from her brother. She began using solvents aged eleven, and had progressed to injecting heroin by age eighteen. The current admission to the inpatient unit was her ninth.

The Schema Questionnaire was used to elicit the client’s maladaptive schemas (Young, 1994). These included “emotional deprivation” and social isolation”. Clinical interviews explored the origins of and the client’s evidence for these schemas. Her difficulties appeared to be maintained by her dichotomous thinking style and her cognitive, behavioural and affective avoidance.

After initial engagement difficulties, the intervention focused on increasing the client’s awareness of her schemas and thinking styles and their influence on her difficulties, using the theories of Beck, Linehan and Young. Particular attention was devoted to her attempts to avoid experiencing negative emotions using a model of graded exposure. No formal outcome measures were administered as measurable changes in maladaptive schemas were not expected, in the relatively short term therapy for a client with such chronic difficulties. However, for this client, her successful engagement in a therapeutic relationship can be seen as a significant achievement.
Addictions Placement Contract

Date of placement: 14/10/98 - 2/4/99

Trainee: Christy Wellings

Supervisor: Dr Paul Davis

Location: National Addiction Inpatient Treatment and Regional Services

Aims:

• to consolidate and develop competencies in CBT, especially with regard to working with severe and complex adult mental health disorders, personality disorders and people with dual diagnosis

• to gain further experience and competencies in CBT approaches to group work

• to gain experience of working in a highly specialized inpatient unit
• to apply motivated interviewing and relapse prevention models to both individual and group work

• to consolidate and develop understanding of models of addiction and how they can be applied to a broad range of client groups

• to gain experience working with substance users, both in inpatient and community settings

• to undertake some training and consultancy work to further awareness and understanding of organizational issues, particularly those relevant to the addictions specialty and inpatient work

Goals and learning objectives:

• to attend Psychology Department meetings - to gain an understanding of the structure and function of Pathfinder Psychology Services and to maintain awareness of current issues for psychologists

• to take on at least 3 long term therapy cases - to consolidate and develop CBT competencies, to gain experience working with substance users and to develop an understanding and application of models of working with addiction

• to facilitate at least 2 of the 3 Cognitive Behaviour Therapy groups on the inpatient unit and to understand the role of the groups and therapies used on the unit - to consolidate and develop competencies in CBT approaches to group work, to gain a
broad experience of substance users as a client group and to apply motivational interviewing and relapse prevention models

- to conduct at least 1 neuropsychological assessment - to develop skills in psychometric assessment and interpretation and to develop an understanding of the effects of substance abuse and withdrawal on cognitive functioning

- to work indirectly with at least one patient - to develop competencies in working with nursing staff and an understanding of organizational issues

- to give 1 “skills training” seminar to ward staff - to develop presentation and teaching skills

- to visit a community drug team and see at a rehabilitation service at least one client in the community - to gain experience and understanding of the diverse range of settings in which services and provided for substance users

- to attend the “in depth study” and ward rounds and to advise on psychology at these meetings - to gain understanding of the range of clients treated in the unit, to develop experience of multidisciplinary working and to develop skills in a consultancy role

Christy Wellings                                      Paul Davis
RESEARCH

DOSSIER
WHAT IS THE EVIDENCE THAT INTERVENTIONS TO PREVENT EATING DISORDERS ARE EFFECTIVE?

Year 1
August 1997
What is the Evidence that Interventions to Prevent Eating Disorders are Effective?

Rationale

Eating disorders can be severely disabling and chronic conditions. Cardinal symptoms are behavioural (starving, bingeing and purging), cognitive (distorted body image) and affective (low self-esteem and depressed mood). Many sufferers also experience physical, interpersonal, occupational and financial effects. Both anorexia nervosa and bulimia can be life threatening; long term mortality rates for anorexia have been estimated to be as high as 20%, higher than that of any other psychiatric disorder. Only about 40% of eating disordered clients make a full recovery and 10 to 20% remain severely disturbed (Herzog, Keller & Lavori, 1988). (The prognosis is thought to be better for bulimics than anorexics.) However, even those who recover psychologically may suffer irreversible physical consequences. Probably the most common of these is the dental erosion caused by frequent vomiting. More seriously, recovered anorexics may suffer from osteoporosis and reduced fertility, and bulimia may contribute to various obstetric complications (Mitchell, Seim, Glotter, Soil & Pyle, 1991). There are also disturbing reports that mothers who have had eating disorders may somehow transmit their eating and body image problems to their daughters.

Estimates of the prevalence of eating disorders vary but a review by Fairburn and Beglin (1990) suggests that the true figure is about 1-2% of adolescent and young adult females. However, it has been established that the incidence is increasing (Devaud, Michaud & Narring, 1995) so 1-2% may increasingly underestimate the current prevalence. Estimates have been as high as 9% in high school girls (Gross & Rosen, 1988) and it is possible that even this is an underestimate as all figures rely on individuals reporting behaviours they may be deeply ashamed of and reluctant to acknowledge as a problem. There is also evidence for far higher prevalence of sub-clinical disturbances. For example, Hendren,
Barber and Sigafoos (1986) found that over 18% of a school population demonstrated at least one symptom of an eating disorder. Bridget Dolan (personal communication) claims that up to 50% of women have at some point vomited in order to lose weight. Eating disorders do occur in males and in older women, albeit far less frequently, and it is generally thought that the problem is increasingly common in these groups also.

The above describes pernicious, often chronic, and relatively common disorders. The potentially vast benefit of successful primary prevention interventions to reduce the incidence and/or severity is obvious. It has been suggested that eating disorders may be particularly amenable to primary prevention strategies due to the nature of the identified risk factors for developing an eating disorder. First, the demographic characteristics of female sex and adolescent to young adult age make it feasible to target a specific population for intervention, and one to which there is easy access through the school system. Secondly, as pointed out by Peter Slade (1995) most primary prevention strategies work by modifying identified risk factors. There has been extensive research into risk factors for eating disorders (see Striegel-Moore, Silverstein & Rodin, 1986 for a review). Several of these would appear to be promising targets for intervention, for example negative body image and dietary restraint.

These factors led to many professionals and researchers drawing attention to the importance of research into primary prevention programmes (e.g. American College of Physicians, 1986; Crisp, 1979; Shisslak, Crago, Neal and Swain, 1987). From this followed the development of numerous programmes, some of which were evaluated and published. However, these studies do not appear to be well known; they are rarely cited in each others' articles, or in the more recent articles advocating more research into prevention strategies. For example, Peter Slade (1995), in an article reviewing prospects for prevention of eating disorders, writes "as far as the writer is aware there are as yet no published accounts of the efficacy of prevention programmes in this area." (One important exception to this is Catherine Shisslak, (Shisslak, Crago, Estes & Gray, 1996) who cites
several of the papers included in this review.) It is important that such research programmes do not occur in isolation, so that replication is avoided, so that both mistakes and successes are learnt from, and so that a unified body of empirical findings can be built. The function of a review is thus to draw together and evaluate existing research to encourage the optimal use of its findings, both for future research and for clinical practice.

**Objectives of the Review**

1) To ascertain, inasmuch as the current research allows, whether primary prevention programmes for eating disorders are beneficial, to what extent, and to whom, The following hypotheses will be tested:
   a) interventions reduce the incidence and/or severity of eating disorders
   b) interventions reduce the level of sub-clinical features of eating disorders

2) To evaluate the research methodologies which have been used to study the efficacy of primary prevention programmes for eating disorders, and to suggest how these could be improved.

This review will briefly discuss the theoretical and empirical background to such studies. The method of finding, and selecting studies to include in the review will be stated explicitly, so as to make clear the limitations on its comprehensiveness. Each study included will be briefly described and evaluated. Common themes will then be discussed and related back to theory and previous empirical findings and implications for research and practice will be suggested.
Theoretical and Empirical Background

The aetiologies of eating disorders are not fully understood. However, there is overwhelming evidence to suggest that the aetiologies of anorexia nervosa and bulimia are similar. Much recent research acknowledges the complexity of their aetiologies and concentrates on identifying risk factors at cultural, social, psychological and biological levels (see Striegel-Moore, Silverstein and Rodin, 1986). These risk factors have implications for prevention. As mentioned earlier, the high prevalence for female adolescents and young women suggests a target group at high enough risk that a successful prevention intervention for them might be economically viable. Risk factors which have received particular research interest, such as body image dissatisfaction and dietary restraint, may be amenable to intervention. Polivy and Herman (1985) conclude that dieting usually predates, and may contribute to the development of eating disorders, suggesting that this may be a particularly important variable for prevention programmes to attend to. It may also be possible to modify risk factors such as low self-esteem, lack of family communication, perfectionism, the cultural ideal of thinness and lack of knowledge regarding eating disorders and healthy weight regulation. However, without successful modification of these factors, there can be little direct evidence that such modification would reduce the incidence and/or severity of eating disorders.

There is much published literature calling for primary prevention programmes for eating disorders, but far less suggesting how to go about it. Two models which have been discussed are presented below.

The Health Belief Model (see Becker, 1974) can be applied to the prevention of eating disorders (Grodner, 1991). It was developed by psychologists to explain why people did not take up behaviours which might prevent ill health, and to determine the conditions under which behaviour change is most likely to occur. Its application to bulimia is slightly different as it refers to preventing the adoption of unhealthy behaviours, rather than to
encouraging the adoption of healthy, preventative behaviours. The model relates the individual's perceptions of his/her susceptibility to and seriousness of the disorder to perceived benefits and barriers to adopting the target behaviour. Perceived susceptibility and seriousness can be modified by factors such as knowledge of the disorder and its risk factors, and by the salience and personal relevance of the way such information is presented. Grodner thus suggests that effective prevention programmes must increase perceived susceptibility by exploring risk factors and their relevance to the target group, and increase perceived seriousness by salient presentation of the negative aspects of eating disorders. This should then affect the balance between the benefits and barriers to the behaviour and reduce the probability of eating disordered behaviours developing. A particular advantage of this model is that it explicitly recognises that some eating disordered behaviours have benefits or adaptive functions for the sufferer, and may thus lead to a more credible approach.

Shisslak takes a developmental approach to eating disorder prevention, (Shisslak, Crago, Estes and Gray, 1996). She emphasises the importance of intervention at all ages from teaching parents about feeding issues, through school programmes in adolescence, to educating health professionals working with older adults on the signs and symptoms of eating disorders in their client group. She suggests focusing on the particular challenges of each developmental stage, such as increasing independence in adolescence and adapting to loss in older adults, and implementing preventative strategies to aid them through their developmental tasks. Such an approach would be extremely comprehensive and, if successful, could be expected to impact not just on eating disorders, but on many psychological and emotional difficulties. However, the resource implications and cultural shift necessary to implement such a programme would be vast.

Given the paucity of research into prevention of eating disorders, it seems advisable to learn from research into other areas of prevention work. Several authors have compared eating disorders to substance abuse. Timmerman, Wells and Chen (1990) and Jonas and
Gold (1986) point out the frequent co-existence of eating disorders with alcohol and drug use respectively. This is not surprising when one considers the similarities. Eating disorders can be conceptualised as an addiction (to dietary restraint), developed as a coping mechanism often for the pressures of adolescence. Both involve pressure to conform to an image and issues of impulse control (e.g. Watts and Ellis, 1992). Killen (1996) cites the review of Hansen (1992) which identified four basic prevention models used for substance abuse: (i) information giving and values identification, (ii) affective education (including decision making, stress management and self-esteem building strategies), (iii) social influence resistance and (iv) comprehensive approaches. Information-values clarification and affective education programmes have had rather mixed results with 42% and 30% respectively of studies achieving positive results and 25% and 30% respectively having negative outcomes. Social influence resistance appeared to be the most effective single strategy with 63% of interventions having a positive outcome and only 11% with a negative effect. However, more comprehensive programmes which included aspects of all three were the most successful with 72% achieving positive results, and no negative outcomes. Killen goes on to describe the development of his own intervention based on a comprehensive approach, described later, (Killen, Taylor, Hammer, Litt, Wilson, Rich, Hayward, Simmonds, Kraemer and Varady, 1993).

Inclusion Criteria For Studies

The criteria by which studies are included in or excluded from a review powerfully determine the exact question the review asks. Because this area of research is in its infancy, these criteria are designed to include the broadest set of empirical research which may bear on the hypotheses. Inclusion criteria are grouped into 4 sections: participants, intervention, outcome measures and methodology.
Participants: those not already diagnosed as having or having had an eating disorder, though studies will not be excluded if they do not screen for this or if they have a minority of subjects who do not meet this criterion.

Intervention: must be aimed at direct primary prevention of eating disorders. For the purposes of this review, primary prevention is used to include interventions with those who have been identified as at risk or having sub-clinical features of an eating disorder. Interventions which aim to impact on sub-clinical features of eating disorders will be included. Primary prevention of eating disorders or reduction of sub-clinical features of eating disorders must be a stated aim of the study. "Eating disorders" refers primarily to anorexia nervosa and bulimia. While some programmes may also be relevant to binge eating and other eating disorders, the review will not include studies aimed at reducing obesity by for example purely nutritional education methods that would not be expected to impact on anorexia or bulimia.

Methodology: evaluation of an intervention using either a control group or baseline measurement.

Outcome Measures: no article will be excluded on the basis of outcome measures it used or did not use. However, clinical measures, particularly longitudinal measures on diagnosis will be given more weight than knowledge based measures.

N. B. Only English language articles will be reviewed.
**Method**

Articles were found by:

1. Developing a strategy for searching computerised databases to elicit studies fitting the above criteria. This was done by combining a strategy designed to elicit articles relating to eating disorders, and a strategy designed to elicit articles relating to prevention. See Appendix 1.

2. The search was conducted on:

   - EMBASE 1987 - 04/1997
   - PSYCHLIT 1974 - 03/1997

3. Reference lists of key papers and papers to be included in the review were scanned.

4. Where possible, abstracts of possibly relevant papers were checked against the inclusion criteria.

Papers which might meet inclusion criteria were obtained (subject to limited resources).

Obtained papers were then assessed against the inclusion criteria.

Data were extracted from the articles according to the categories in Table 1 of the results. No statistical data synthesis was performed due to the wide variation in methodology and outcome measures used between studies.
Results

Eight studies which fitted the inclusion criteria for the review were obtained. However, one of these (Moriarty, Shore & Maxim, 1990) was excluded as the paper did not contain sufficient detail of the intervention and methodology, to allow the evidence provided by the study to be evaluated.

No non-English language papers were identified and excluded due to language. Due to resource limitations, it was not possible to obtain every paper which may have met the inclusion criteria. However, such unobtained papers were thought to be relatively unlikely to meet inclusion criteria.

For each study, a brief commentary on the method, results and factors influencing their interpretation is given below. See also Table 1 for summary characteristics.

Huon 1994

Evaluates the effect of two group discussions, on developing a positive body image, and on giving up dieting. Participants were undergraduates starting a psychology course who had responded to a questionnaire admitting preoccupation with weight and continual dieting. Participants who discussed strategies for change showed a more positive body image after intervention according to the Positive and Negative Affect Scale (PANAS). There were no significant changes in the group who discussed barriers to change, or in either group, in feelings about their eating habits, although there was a clear, though non-significant trend towards more positive and less negative affect on all measures after intervention. 5 of the 24 subjects reported that they were less likely to diet, but there were no changes in the discrepancies between actual and ideal body weights. Effects were
maintained at one month follow-up, although it is not clear whether there was any
tendency to attenuation of the effects.

Whilst the positive results of such a restricted intervention are encouraging, there are
several factors which limit their interpretation. The lack of a control group leaves open the
possibility that the observed changes were not the result of the intervention; perhaps body
image improves spontaneously when beginning to study psychology! The short follow-up,
though promising, makes it difficult to draw any conclusions about long term gains,
particularly any effect the improved body image may have on development of eating
disorders. It is also important to note that participants were selected for their negative
body image and dieting habits, and findings should not be extrapolated beyond such a
population. Finally, it would have been interesting to investigate the effect of discussing
both strategies for and barriers to change, particularly given the correspondence of this
approach to the concept of barriers and benefits to change incorporated in the Health
Belief Model.

Killen Taylor Hammer Litt Wilson Rich Hayward Simmonds Kraemer and Varady 1993

Evaluates a comprehensive eighteen lesson programme for 931 6th-8th grade pupils,
incorporating three principal components (i) education on harmful effects of unhealthy
weight regulation (ii) promotion of healthy weight control and (iii) social influence
resistance training. Participants showed increased knowledge, relative to controls,
maintained for at least seven months, but there was no effect on dietary restraint, eating
disorder symptoms or Body Mass Index. Killen et al. classified subjects as high or low risk
on the basis of their baseline scores and did find a small intervention effect on Body Mass
Index.

These results are extremely disappointing, particularly given the comprehensiveness of the
programme and the methodological strengths of the study. Killen et al. suggest future
interventions should be targeted only at high risk groups. It is possible that using control
groups in the same schools and grades as the experimental group resulted in the
communication and thus contamination of the intervention, particularly as Killen et al. did
not find the expected increase over time in weight concerns and dysfunctional eating
attitudes. However, it still seems unlikely that the intervention would have had an equal
impact on both experimental and control groups if this impact was significant.

Moreno and Thelen 1994

Four home economics classes were shown a short video-tape, followed by a 30 minute
class discussion. Eight home economics classes in two other schools served as a control.
Compared to the controls, the experimental group had greater knowledge of the physical
effects of bingeing and purging, improved attitudes towards dieting and weight control and
less intention to diet. This effect was maintained over a one month follow-up.

The authors' choice to devise their own questionnaire to measure attitudes toward dieting
and weight control, and their lack of knowledge of existing measures is disappointing. The
lack of evidence regarding the measure's reliability and validity, and potential vulnerability
to confirmatory biases in respondents, severely compromises the strength of their
conclusions. It would also have been useful to separately evaluate knowledge and
attitudes, given that the latter are known to be more difficult to modify. It is also
questionable how accurately the measures were filled out. Seven pupils were excluded
from the analysis as it was believed they had not filled out their questionnaires "properly",
although no further details were given, and approximately half of the potential subjects
were excluded due to incomplete data. This is suggestive of generally low motivation for
accuracy in the subjects, which would lower reliability, and could also increase their
susceptibility to demand characteristics of the study. Thus, although the results of the
study appear promising, the evidence for an effect of intervention is weak.
Paxton 1993

The Body Image and Eating Behaviour Intervention Programme consisted of five 90 minute classes to schoolgirls in Year 9, involving presentation of written and verbal information and research and discussion activities. Topics were media images of women, determinants of body size, healthy and unhealthy weight control methods and emotional eating. Participants were 107 girls from two schools, with 29 girls from a third school acting as a control. There was no effect of the intervention on any of the measured variables. These were body image attitudes, eating and dieting behaviour, weight control methods used and self esteem.

The post-test was given four weeks after the final class of the intervention, so it is possible that there were short-term effects of the programme which were not maintained. However, even if this were the case, the value of such a transitory effect would be extremely limited. Paxton suggests that such interventions may need to be longer term and a more intrinsic part of the curriculum, and perhaps aimed at younger girls to make a real impact.

Polivy and Herman 1992

"Undiet" was a ten week programme intended to raise women's consciousness as to the costs of dieting and to provide alternatives to strenuous weight loss efforts. Sessions involved information giving, experiential exercises and discussions in groups of 5-7 participants. Subjects were mostly overweight women who had called the National Eating Disorders Information Centre for help with dieting; their average age was 41 years. Relative to a baseline assessment, depression, restrained eating, eating pathology and self-esteem had all improved at post-test. Two of the three groups were followed up after 6 months and the effects were maintained for the 8 of a possible 12 subjects who completed the assessment.
This study is slightly weakened by its lack of a control group: the authors do however cite evidence that subjects do not change significantly over such a short time without intervention (Cileska, 1990). This argument would have been strengthened had they presented evidence that their subjects and Cileska's could be considered as samples of the same population. It cannot be assumed that the third of subjects who did not complete follow-up measures also maintained their benefits; however, maintenance of intervention effects at 6 months for at least two-thirds of subjects is still a promising result. Overall, this study does provide some evidence that in a selected group, sub-clinical eating pathology and depression and low self-esteem can be modified by a short group intervention. It would be interesting to see if these results could be replicated with different, perhaps younger or less disturbed subjects under controlled conditions and perhaps also including measures of body image.

Robinson Bacon and O'Reilly 1993

Forty women completed a programme consisting of between two and five individual sessions and eight to twelve group sessions designed to decrease 'fat phobia'. Sessions focused on reducing blame for fatness, broadening standards of attractiveness, minimising the perceived disability associated with fatness, and encouraging assertiveness regarding discrimination. Information was presented and subjects participated in group discussions and experiential exercises in groups of 5-12 women. All participants reported negative feelings about their body shape prior to the intervention, causing them subjective distress and restricting their activities. The Fat Phobia scale, designed to assess stereotypes and negative opinions of fat people was given to all subjects pre and post intervention. Following the intervention, there was a significant decrease in fat phobia, with 60% of subjects demonstrating a reduction, and none increasing.

The authors themselves note the important limitations in the study's methodology. The lack of a control group or data on the test-retest reliability of the outcome measure mean
that changes cannot confidently be attributed to the intervention. Even if the measured change was real, there is no evidence that it would be maintained over time. The relationship between the outcome measure used here and the clinical and sub-clinical measures of interest to this review is also not clear, although that cannot be considered a limitation of the study itself. Robinson et al. also point out that the intervention may have affected only the social desirability of 'Fat phobia' thus decreasing subjects' willingness to report it, rather than the variable itself. The study does not therefore provide convincing evidence that the intervention was effective in its stated aims.

Shisslak Crago and Neal 1990

Evaluates the effect of educating staff and high-school students on eating disorders and providing a consultation and referral service. Students received eight presentations and participated in group discussions on aspects of eating disorders including: demographic information, symptoms, medical complications, risk factors, family and psychological characteristics and treatment. Staff received four presentations covering similar issues, in addition to advice regarding how to identify and approach students who might be suffering from an eating disorder. The 43 students who attended the lessons and completed a knowledge based questionnaire measure, were significantly, though not vastly, more knowledgeable than 110 controls with 69% and 50% correct responses, respectively.

As a pilot study, this is encouraging. The authors comment that the intervention was positively received, and that they encountered no major problems in working within a school setting. However, this study does not constitute evidence that eating disorders can be prevented or that sub-clinical symptoms can be modified, only that knowledge can be increased.
Discussion

None of the reviewed studies evaluated the changes in subjects' diagnosis of eating disorders. Three studies did measure changes in the Eating Disorders Inventory, a measure reasonably correlated with diagnosis of an eating disorder; one of these (Polivy and Herman, 1992) demonstrated improvement on the EDI following intervention. This last study provides preliminary evidence that sub-clinical aspects of eating disorders can be modified, although to provide conclusive evidence the study should be replicated under controlled conditions. As the mean age of participants in this study was over 40 years old and the modal age of onset of eating disorders is in adolescence (Boskind-Lodahl & White, 1978), no conclusions can be drawn from this regarding any possible preventative effects on eating disorders. Thus, there is no evidence to support the first hypothesis, i.e. that interventions reduce the prevalence and/or severity of eating disorders.

Three other studies reported positive effects of intervention on eating and body image related attitudes and/or behaviour. Unfortunately, two of these are methodologically weak and do not provide convincing evidence that their effects were real (Moreno and Thelen, 1994: Robinson, Bacon and O'Reilly, 1993). The Huon study does provide some evidence that a very short intervention can improve the body image of young women concerned about their shape. This and Polivy and Herman's study provide preliminary support for the second hypothesis that interventions reduce the level of sub-clinical features of eating disorders, though such conclusions must be extremely tentative until confirmed by controlled comparisons.

It must be acknowledged that whilst the interventions did not always result in the hoped for benefits, none of the studies reported any deleterious outcomes of the intervention. This is an important point as fears that such interventions could teach girls "how to do bulimia" have been expressed (e.g. Garner, 1985).
Both studies (Killen et al., 1993; Shisslak et al., 1990) which set out to measure knowledge gains after intervention demonstrated convincing, though not vast, gains in knowledge, relative to a control group. Thus, as would be expected, it seems clear that interventions can achieve increases in knowledge regarding eating disorders and methods of weight regulation.

Two methodologically strong studies (Killen et al, 1993; Paxton, 1993) failed to demonstrate an impact on body dissatisfaction, unhealthy weight regulation and self-esteem. Whilst such results are disappointing, it is important to distinguish lack of evidence of effectiveness from evidence of lack of effectiveness. Both authors used a variety of relatively sensitive measures with good methodology, and neither noted a non-significant trend towards improvement, so it does seem unlikely that the interventions had a clinically significant, but undetected effect. However, as Killen suggests, such interventions may have more success when targeting a higher risk group. In support of this, each of the studies included in the review which did demonstrate a positive outcome, used participants selected for high levels of body dissatisfaction. Other possibilities are that the interventions evaluated would have been more successful either in small groups (both were in classes) or with a more experiential, discursive emphasis (both studies were predominantly educational in approach). More research is needed to shed light on these questions.

Use of the Health Belief Model may provide a useful framework for the design of future interventions aimed at reducing current or potential eating and body image difficulties. Whilst none of the studies reviewed here used this model explicitly, it is clear that the majority did intend to increase the perceived barriers, and decrease the perceived benefits of eating disordered attitudes and behaviours. Education regarding prevalence and risk factors, as given in several of the reviewed studies, would serve to increase the perceived sensitivity, particularly if made more salient by presentation from sufferers themselves, and by relating eating disordered attitudes and behaviours to those of participants. Perceived
severity would be increased by presentations of the symptoms, medical complications and the distress experienced by sufferers and their families, again perhaps by sufferers, to give the message immediacy and personal relevance. Barriers could be increased and benefits decreased through giving information on the relative ineffectiveness of unhealthy weight regulation, and possible strategies for healthy weight regulation, for learning to accept their own bodies more and for resisting cultural pressures to be thin. All of these strategies are used in some of the reviewed studies, but no single study incorporates them all. It will be interesting to see if such an intervention could achieve more positive results.

Much can be learnt for future research from the varying methodologies used in the reviewed studies. One vital, but often overlooked factor is the reporting of the details of the intervention and methodology to enable readers (and reviewers) to evaluate the quality of the evidence provided for exactly what intervention. This was generally extremely thorough, with the exception of Moriarty, Shore and Maxim (1990) which had to be excluded for this reason.

There was great variation in the measures used in the studies. This of course partially reflects the variations in the studies' aims. Only one of the studies used a clinical interview to assess possible diagnosis. Whilst diagnosis is obviously an important measure for an intervention designed to prevent specific disorders, it must be recognised that it is extremely resource intensive, and a reasonably correlated self report questionnaire such as the EDI (Garner, Olmstead and Polivy, 1983) may be a more practical solution. It is also important to use measures which will be optimally sensitive to change in a sub-clinical population. The Body Shape Questionnaire (Cooper, Taylor and Fairburn, 1987) and the Eating Attitudes Test (Garner and Garfinkel, 1979) provide good examples of such scales, both using 6 point Likert scales for maximum sensitivity. Given the abundance of statistically validated measures, the decision to design and use new measures, particularly without gathering validity and reliability data before use, should be carefully justified.
Four of the seven reviewed studies compared the intervention group to a control group. Although it can be difficult to implement, a control group is vital when assessing variables which might be subject to spontaneous change over time, if observed changes are to be attributed with confidence to the intervention. Although randomised controlled trials are generally thought to be the ideal, for interventions such as these (for which change will be partially cultural) the risk of communication of the intervention and thus contamination of the control group may outweigh this where intervention and control groups are in contact with each other. Randomisation of groups by school using many schools is a possible, though extremely resource intensive solution.

A particularly difficult methodological issue is that of potential demand characteristics of studies. It is extremely difficult to prevent participants from biasing their responses in the direction desired by the experimenter, and to assess the extent to which this occurs. Paxton suggests stressing the importance of the accuracy of responses to questionnaires, and having assessment sessions supervised by individuals not directly involved in the intervention e.g. teachers. Another possibility is to introduce demand characteristics into a control group to balance those in the experimental group, for example by stressing concerns about participants' negative body images and disordered eating.

**Implications For Practice**

There is not currently sufficient evidence of the effectiveness of the interventions evaluated in either preventing eating disorders or in ameliorating sub-clinical features, to recommend their widespread adoption (with the resource implications this would bring). However, given the prevalence of eating disorders and their sub-clinical variants, these findings should not be taken to imply that pupils should not be taught about eating disorders and surrounding issues in their general education.
**Implications For Research**

Review of these papers highlights the need for further, well controlled studies, using sensitive and relevant outcome measures. Such studies using high risk individuals in small groups, with interventions combining the strengths of those reviewed here, and perhaps using the Health Belief Model as a framework, may yet yield positive results.
References


<table>
<thead>
<tr>
<th>Authors and Date</th>
<th>Programme content</th>
<th>Programme format</th>
<th>Duration of programme</th>
<th>No. of subjects per group.</th>
<th>Age</th>
<th>Number of Subjects</th>
<th>Selection of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huon, 1994</td>
<td>Two discussions, one on developing a positive body image, the other on giving up dieting. One half of groups discussed strategies to facilitate change, other half discussed barriers impeding change.</td>
<td>Group discussions</td>
<td>2 one hour long sessions</td>
<td>6</td>
<td>Mean age 19.8 years Range 18-25 years.</td>
<td>24, divided into 4 groups of 6.</td>
<td>All students on an introductory course who returned a questionnaire, and answered that they were preoccupied with weight and usually dieting. Response rate and proportion of eligible students agreeing to take part is not reported.</td>
</tr>
<tr>
<td>Killen, Taylor, Hammer, et al., 1993</td>
<td>3 principal components: (i) instruction on harmful effects of unhealthy weight regulation, (ii) promotion of healthy weight control, and (iii) social influence resistance training</td>
<td>Slide show presentations and written assignments</td>
<td>18 lessons (lesson length not reported)</td>
<td>Class size not reported</td>
<td>Mean 12.4 years (s.d. 0.72) Range 11-13 years</td>
<td>931 including controls</td>
<td>From 967 6th and 7th grade girls in 4 schools.</td>
</tr>
<tr>
<td>Moreno &amp; Thelen, 1994</td>
<td>Information on bulimia and dietary restraint and suggestions for resisting pressure to diet.</td>
<td>Video tape and discussion</td>
<td>Video - six and a half minutes discussion - thirty minutes</td>
<td>Mean class size of 15</td>
<td>Group means 13.7 - 13.8 years</td>
<td>219 including 139 controls</td>
<td>Home economics classes in 3 schools.</td>
</tr>
<tr>
<td>Paxton, 1993</td>
<td>Media images of women, determinants of body size, weight control methods, and emotional eating.</td>
<td>Written information, small group and individual research and discussions.</td>
<td>Five 90 min classes</td>
<td>15-20 girls</td>
<td>Mean 14.1 years (group s.d.s between 0.12-0.49)</td>
<td>136 including 29 controls</td>
<td>Girls from year 9 in 3 schools.</td>
</tr>
<tr>
<td>Authors and Date</td>
<td>Programme content</td>
<td>Programme format</td>
<td>Duration of programme</td>
<td>No. of subjects per group</td>
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<tr>
<td>Polivy and Herman, 1992</td>
<td>To raise awareness of costs of dieting and to provide alternatives to strenuous weight loss efforts.</td>
<td>Information giving, group exercises and discussions</td>
<td>Ten 2 hour sessions</td>
<td>5-7 women</td>
<td>mean 41.3 years</td>
<td>18 (in 3 groups)</td>
<td>Waiting list of women who wanted help with dieting. Phone screening eliminated those with eating disorders, or those who merely wanted to lose weight. 35 passed screening and came to information session. 19 agreed to take part in study</td>
</tr>
<tr>
<td>Robinson, Bacon and O'Reilly, 1993</td>
<td>Reducing blame for fatness, broadening standards of attractiveness and encouraging assertiveness regarding discrimination.</td>
<td>Information giving, group discussion and experiential exercises</td>
<td>2-5 individual sessions and 8-12 groups. Group sessions were 2 hours, length of individual sessions not specified.</td>
<td>Not reported</td>
<td>mean 40 years</td>
<td>40</td>
<td>Of women who attended body image lecture, 50 recruited for self-esteem/body image programme</td>
</tr>
<tr>
<td>Shisslak, Crago and Neal, 1990</td>
<td>Aspects of eating disorders including: demographics, symptoms, medical complications, risk factors, psychological and family characteristics and treatment</td>
<td>Presentations and discussion. Psychological consultation service.</td>
<td>8 presentations to pupils, 4 presentations to staff, length not specified. 2 hour weekly consultation service for 9 weeks.</td>
<td>50 students, no. of staff not specified.</td>
<td>Age not given “Sophomores”</td>
<td>181 (including 131 controls)</td>
<td>Sophomore students in particular school.</td>
</tr>
<tr>
<td>Authors and Date</td>
<td>Control Group</td>
<td>Baseline</td>
<td>Follow-up</td>
<td>Dropouts and Missing Data</td>
<td>Measures Taken</td>
<td>Results</td>
<td></td>
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<tr>
<td>Huon, 1994</td>
<td>None</td>
<td>Yes</td>
<td>At 1 month</td>
<td>None reported</td>
<td>Positive and Negative Affect Scale to measure feelings about their body shape and eating habits. Actual and ideal weight and level of intention to diet were also taken.</td>
<td>both strategies and barriers groups showed positive changes, though only those of “strategy” group significant. 5 of 12 of this group also reported that they would be less likely to diet. No changes in discrepancy between actual and ideal weights. Improvements maintained at follow-up.</td>
<td></td>
</tr>
<tr>
<td>Killen, Taylor, Hammer, et al., 1993</td>
<td>Yes - subjects randomised within grade and school by class. Number in control group not reported</td>
<td>Yes - each measure followed up at at least two of these times: 18 wks, 7 mths, 14 mths and 24 mths post baseline.</td>
<td>Yes</td>
<td>36 girls who were randomised did not take part in study. Reason not reported. Subjects only participated in analyses in which their data was complete.</td>
<td>Clinical interview for eating disordered symptoms, knowledge questionnaire, (dietary) Restraint Scale, Eating Disorders Inventory and Body Mass Index.</td>
<td>Knowledge increased - maintained to at least 7 mths. No change in attitudes and unhealthful weight regulation practices or on BMI. Slight difference in BMI for high risk subjects.</td>
<td></td>
</tr>
<tr>
<td>Moreno &amp; Thelen, 1994</td>
<td>Yes - subjects from 2 of the 3 schools.</td>
<td>Yes - 1 month after post-test.</td>
<td>65 of exptal group and 90 of control group excluded due to incomplete data and 7 as it was believed they had not filled out questionnaires properly.</td>
<td>Questionnaire devised to measure attitudes toward weight control, intention to diet and knowledge of effects of bingeing and purging, on 7 point Likert scale.</td>
<td>Factor analysis of questionnaire produced 6 factors. All improved in exptal groups: effects were partially maintained over follow-up.</td>
<td></td>
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</tr>
</tbody>
</table>
## Table 1 - Study Characteristics (continued)

<table>
<thead>
<tr>
<th>Authors and Date</th>
<th>Control Group</th>
<th>Baseline</th>
<th>Follow-up</th>
<th>Dropouts and Missing Data</th>
<th>Measures Taken</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paxton, 1993</td>
<td>Yes - from 1 of 3 schools in study.</td>
<td>Yes</td>
<td>1 and 11 months after start of intervention.</td>
<td>2 girls did not consent, and 1 did not return consent form. 23 girls excluded due to absences on testing occasions.</td>
<td>Body figure perception questionnaire, body cathexis scale, body dissatisfaction scale of EDI, Dutch eating behaviour questionnaire, weight control frequency questionnaire, EDI bulimia and drive for thinness subscales and Rosenberg self esteem inventory.</td>
<td>No effect of intervention</td>
</tr>
<tr>
<td>Polivy and Herman, 1992</td>
<td>None</td>
<td>Yes</td>
<td>Yes - at 6 months, for 2 of 3 groups, 8 of 12 completed follow-up.</td>
<td>1 drop out</td>
<td>Janis Field self-esteem scale, State self-esteem scale, restraint scale, BDI and EDI.</td>
<td>Reduction of depression, eating pathology, restrained eating, and raised self-esteem, maintained over follow-up.</td>
</tr>
<tr>
<td>Robinson, Bacon and O'Reilly, 1993</td>
<td>None</td>
<td>Yes</td>
<td>No</td>
<td>10 did not complete programme or all questionnaires</td>
<td>Fat Phobia Scale</td>
<td>60% of participants improved on Fat Phobia Scale. None deteriorated.</td>
</tr>
<tr>
<td>Shisslak, Crago and Neal, 1990</td>
<td>Yes - not clear how subjects were allocated to control or exptal group.</td>
<td>None</td>
<td>None</td>
<td>7 experimental and 21 control subjects did not complete questionnaires and were excluded from analyses.</td>
<td>Knowledge based questionnaire</td>
<td>Experimental and control groups 69% and 50% correct responses respectively.</td>
</tr>
</tbody>
</table>
SERVICE RELATED
RESEARCH PROJECT

Influences On Non-Attendance And Attrition
In A Child And Family Psychology Service:
The Effects Of Waiting List Length And Of
Asking Clients To Confirm That They Wished
To Remain On The Waiting List

Year 2
August 1998
Influences On Non-attendance And Attrition
In A Child And Family Psychology Service:
The Effects Of Waiting List Length And Of Asking Clients To
Confirm That They Wished To Remain On The Waiting List

Abstract
Non-attendance and attrition are substantial problems for Child-Psychology Services, both wasting therapists' time and hindering the effective treatment of clients. This study investigates the association between requiring clients to confirm that they wish to be seen and the length of time spent on the waiting list to rates of non-attendance and attrition. The method involved a between subjects design comparing 12 month intervention and baseline periods by retrospective analysis of data from the Sevenoaks Psychology Service Database.

Contrary to expectations, requiring confirmation from clients did not affect non-attendance or attrition rates. Possible reasons for this were discussed. However, a longer wait was significantly related to higher rates of both non-attendance and attrition. The idea of "thresholds" for such effects was discussed. Implications for research and practice were considered.

A copy of this report was given to the Child and Family Mental Health Service, and an offer was made to make a presentation of the findings to the team; this offer was not taken up.
Influences On Non-attendance And Attrition In A Child And Family Psychology Service: The Effects Of Waiting List Length And Of Asking Clients To Confirm That They Wished To Remain On The Waiting List

Introduction

The issues of non-attendance at and attrition from psychology services and factors which may affect them are important for several reasons. They lead to wastage of the psychologist's scarce time, which may lead indirectly to increased waiting lists where the missed appointments are fitted in later (Keen, Blackey and Peaker, 1996). Wasting psychologist time also leads inevitably to wasting the service’s money (Armbruster and Kazdin, 1994). It is also likely that non-attendances will negatively affect the therapeutic alliance between client and therapist when the client returns. This may have a detrimental effect on the therapy itself and therefore on the client. More fundamentally, clients who drop out of treatment, especially at an early stage, lose the potential to benefit from the experience of therapy.

Non-attendance and attrition are problems with a substantial proportion of therapists’ work. Cooper and Lynch (1979) reported that 25% of paediatric appointments at a London hospital were broken and Hoare, Scarth and Forbes (1995) report a similar non-attendance rate of 23% in a child psychiatry outpatient service. Cottrell, Hill, Walk, Dearnaley and Ierotheou (1988) found attrition rates of 53% in a child psychiatry clinic, 15.9% of the total not returning after the first appointment. Gould, Shaffer and Kaplan (1989) report a drop out rate of 11% after first appointments at a child psychiatry clinic. Clearly, factors influencing non-attendance and attrition rates have the potential to make a great impact on services.

Although there have been relatively few published studies investigating factors which may affect non-attendance and attrition the literature does suggest several factors which may be influential. Singh, Janes and Schechteman (1982) investigated parental dissatisfaction and found that this related to unfulfilled expectations of treatment. They conclude that attrition may be reduced by enhancing communication about treatment...
and parents expectations from it. Cottrell, Hill, Walk et al. (1988) found that several factors including referral issue, parental attitude and whether it was school holiday or term time influenced non-attendance and attrition.

Background to current study

Until January 1997, the Child and Family Psychology Service at Sevenoaks existed as a specialty of the Psychology Department based at Sevenoaks Hospital. In January 1997, the child and family psychologists became part of a new, unified, multidisciplinary team including psychiatrists, community psychiatric nurses and social workers. This service has been named the Child and Family Mental Health Service and is primarily based at Tunbridge Wells, about 15 miles south of Sevenoaks, but still inside the original catchment area for services. As part of the psychology department, the child and family psychologists and their administrative staff have maintained a detailed database of client contacts since January 1990. This separate psychology database has continued with the advent of the new multidisciplinary service.

The service has a long history of researching into possible ways of reducing its non-attendance and attrition rates. In 1986 the service introduced the provision of a letter and information leaflets prior to the first appointment. This reduced the DNA rate from 10% to between 3.6% and 7.1% in 1993-4. (A DNA is defined in the service as an appointment cancelled with less than 24 hours notice or with no notification.)

More recently, Manning (1996) investigated the effect of sending a letter when clients were first placed on the waiting list, giving information about the service and asking them to confirm whether they required an appointment in order to remain on the waiting list. Requiring patients to confirm that they did require an appointment led to a reduction of approximately 50% in the DNA rate from 21% of appointments to 11%.

The Current Study

The advent of the multidisciplinary service led to the removal of the requirement for clients to confirm their wish to remain on the waiting list. However, from the results of
Manning (1996) it might be expected that this would increase the DNA rate. The primary hypothesis of the current study is that DNA rates will increase when clients were no longer required to confirm their wish to be on the waiting list. In effect, this transforms the AB design used in Manning (1996) to a more powerful ABA design. It is also hypothesised that clients who wait longer for the service will have higher non-attendance rates and be more likely to drop out of treatment. There are several possible mechanisms for this. Firstly, a long wait may encourage negative feelings toward service, e.g. anger, feeling let down or uncontained, thus potentially giving rise to DNAs as “protests” and/or to attrition because of the effects such feelings may have on the therapeutic relationship. Secondly, a longer wait may increase attrition because clients may feel they are no longer in need of the service, either because the wait strengthens the perception that they can cope with problems without intervention of the service, because the problems have ameliorated, or because help has been sought elsewhere.

The Child and Family Psychology Service has recorded data on individual client waiting times since January 1990. Given current concerns within the Child and Family Mental Health Service regarding the length of the waiting list, it seems valuable to use all available data to investigate the relationship between length of wait, attrition and non-attendance rates. It is hypothesised that longer waiting lists will be related to higher non-attendance and attrition rates.

It had also been hoped to investigate the effect of the requirement to confirm on uptake to the service, but this was not possible as uptake data were not collated separately for the psychologists after January 1997.
Method

Setting

The study was carried out in the Child and Family Mental Health Service based in Tunbridge Wells in Kent. This has been functioning as a multidisciplinary team since January 1997. Before this time, the Clinical Psychologists were part of a separate Psychology Department in Sevenoaks Hospital.

Design

The study used a between subjects design involving comparison of twelve month baseline and intervention periods by retrospective analysis of data from the Psychology Service’s client database. During the baseline period, referred clients were required to confirm that they wished to be seen when they were placed on the waiting list. This requirement was removed for the intervention period with the advent of the unified multidisciplinary service. Figure 1 shows the process from referral to first appointment in both baseline and intervention periods and illustrates the difference between the two conditions.

The study also used a separate between subjects design to analyse the relationship between length of wait and non-attendance and attrition rates over a longer period of time for which more limited data were available.
Figure 1: The process from referral to assessment illustrating the difference between baseline and intervention conditions.

**Baseline Period**

Referral

Client sent letter informing of waiting list and asking for confirmation that requires appointment

Client replies yes

Client remains on waiting list

Appointment becomes available: client asked to confirm attendance

Client confirms or does not reply

Client given appointment

Client replies no or doesn't reply

Client removed from waiting list and not seen

**Intervention Period**

Referral

Client sent letter informing of waiting list

Client replies no or doesn't reply

Client remains on waiting list

Appointment becomes available: client asked to confirm attendance

Client confirms or does not reply

Client given appointment

Client replies that appointment no longer required

Appointment refilled, client not seen
Participants

Retrospective data regarding 188 clients were extracted from the Psychology Service database. These 188 clients comprised 190 referrals (or cases) due to two re-referrals. These were included in the analysis as it was thought that the effect of two participants being included in the data set twice was very unlikely to bias the results.

Procedure

1. Selection of Cases

The referrals were in two groups, according to whether or not the service was sending a letter asking them to confirm their wish to be on the waiting list at the time their referral was received. Each group included referrals received within a specified twelve month period. N.B. Cases were NOT grouped according to whether or not each individual was sent a “waiting list letter”. This is because some clients in both time periods did not receive waiting list letters because they were not placed on the waiting list, but seen almost immediately. These were mostly either urgent or for particular areas of service such as paediatric referrals and those from health visitors for brief interventions. It was not possible to identify and exclude such cases in both groups. They were therefore included in both to ensure maximum comparability between the groups. This is also consistent with the study objective to look at the effect of the waiting list letter on the service as a whole. There is a two month gap between the baseline and intervention periods. This was to ensure that data were not contaminated by a transition period in which letters were sometimes sent out, but not routinely.

2. Inclusion Criteria

Criteria for cases to be included also required that they had been discharged within a set time after the referral period. Again, this was to ensure comparability between groups, particularly for calculating attrition rates. However, a result of this was the loss of data on cases for which the total length of time between referral and discharge was greater than fifteen months. It is thus likely to exclude both some clients who
spent longer on the waiting list, and those whose duration of treatment was longer: See Table 1 for a summary of inclusion criteria for cases including details of the time periods within which cases had to have been referred and discharged.

Table 1: Inclusion Criteria and Characteristics of Cases in Baseline and Intervention Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>No. of Participants</th>
<th>No. of cases</th>
<th>Referral period</th>
<th>Discharged by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>97</td>
<td>99</td>
<td>1.11.95 - 31.10.96</td>
<td>12.1.97</td>
</tr>
<tr>
<td>Intervention</td>
<td>91</td>
<td>91</td>
<td>1.1.97 - 31.12.97</td>
<td>12.3.98</td>
</tr>
</tbody>
</table>

3. Historical Analysis of Effect of Waiting List Length

The service also had data available regarding waiting list length and DNAs dating back to January 1990 on its database. This was analysed to obtain longer term information on the effect of the waiting list on rates of non-attendance and attrition. Participants in this analysis were all cases entered on the database between January 1990 and December 1996 for which information was available regarding length of time on the waiting list and DNA rates. Cases waiting for longer than one year were excluded as it was thought that these may skew the data disproportionately, particularly given the probability that some of the data recording cases as waiting up to 5 years were recording errors. For inclusion criteria for this longer term analysis of the effects of length of time on the waiting list see Table 2.

Table 2: Inclusion Criteria and Characteristics of Cases in Longer Term Analysis of the Effects of Waiting List Length

<table>
<thead>
<tr>
<th>Group</th>
<th>Referral period</th>
<th>Waiting times between</th>
<th>Total no. of cases</th>
<th>No. of cases included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long term waiting list</td>
<td>1.1.90-31.12.96</td>
<td>0-52 weeks</td>
<td>654</td>
<td>573</td>
</tr>
</tbody>
</table>
4. Data Preparation and Definition of Variables

Appointment: any direct contact with a client recorded by the clinician. Contacts attended by more than one psychologist were counted as one contact only. Such joint contacts were excluded by deleting from the data set any more than one contact per day with an individual client. Whilst this may have excluded some contacts for which the client was genuinely seen twice in one day, this is likely to be rare, and has the advantage of consistency over both conditions, in addition to picking up DNAs with more than one therapist. N.B. any appointment cancelled with at least 24 hours notice is not recorded on the database and therefore not included in the data set.

DNA: any appointment recorded by the clinician as cancelled either within 24 hours or with no warning from the client.

DNA 1st Appointment: whether or not the client's first appointment was a DNA according to the criteria above

Percentage of DNAs: the total number of DNAs in a period of time divided by the total number of appointments multiplied by 100.

Percentage of DNAs per client: for each case the number of DNAs divided by their total number of appointments multiplied by 100. This variable is more heavily weighted toward cases seen fewer times.

Weeks on waiting list: this is calculated by subtracting the referral date from the date of the first appointment given. It may therefore slightly overestimate the time for clients who were unable to attend their first appointment, but cancelled in good time. 5 of the 190 cases were recorded as having been referred after their first appointment. In the absence of more plausible explanations, these were treated as recording errors and excluded from the data set. Where length of wait is given in months, a month is assumed to be 28 days for ease of comparability.
Drop out: cases who dropped out from the service were usually recorded on the database as such. However, as the reason for discharge was not always specified, clients who did not attend any of the appointments allocated to them were coded as “dropped out” unless another reason (e.g., treatment not appropriate) was specified.

Early drop out: Cases were considered early drop outs if they met either of the above criteria and had attended either only one or no appointments.

Variables used in longer term analysis of effects of waiting list
Less data for individual cases was available for this analysis. It was not possible to extract joint contacts, to ascertain drop out rates (other than by assuming all clients not seen had dropped out) or to isolate which clients did not attend their first appointment. Cases who did not attend any appointment (never seen) were used as a crude measure of early drop out rate. Cases were excluded if they were recorded as having been on the waiting list for over a year, in addition to those cases excluded due to have negative waiting times recorded. This was because waiting times up to five years were recorded and it was thought that these could unduly bias the data set and were also quite likely to be recording errors. 81 of 654 possible cases (12.4%) were excluded for these reasons.

5: Data collection

Data were submitted contemporaneously by individual clinicians regarding each client contact and entered into the Psychology Service database. For each client this information included the length of time on the waiting list, the total number of appointments given, details of non-attendances (DNAs) and the reason for discharge.

Data on cases meeting criteria for inclusion into study were extracted from the database.
Statistical Analyses

Non-parametric analyses were used throughout as none of the variables were normally distributed. Where necessary for chi-squared analyses, waiting times were categorised such that category frequencies were 5 or greater and as constant as possible to maximise statistical power. Analyses used were Kendall’s tau correlation coefficient, the Mann Whitney U Test on ranked data and the Chi-squared Test on raw categorical data. Where two by two contingency tables were used to generate the Chi-squared statistic Yates continuity correction was used.

Results

Relationship Between Waiting Times and Condition

As can be seen in Table 3, the mean length of wait for the baseline condition is almost 15 weeks, whereas in the intervention condition, it is only 9 weeks. According to a Mann-Whitney U Test, this is highly significant at the 0.1% level ($Z = -4.326$, $p < 0.001$).

Table 3: Waiting Times In Weeks For Each Condition

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean wait time (weeks)</th>
<th>Standard deviation of wait time (weeks)</th>
<th>Range of wait times (weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>14.83</td>
<td>9.94</td>
<td>0 - 41.71</td>
</tr>
<tr>
<td>Intervention</td>
<td>9.05</td>
<td>9.05</td>
<td>0 - 28.00</td>
</tr>
<tr>
<td>Combined</td>
<td>12.05</td>
<td>9.48</td>
<td>0 - 41.71</td>
</tr>
</tbody>
</table>
Relationship Between Non-attendance Rates and Condition

As can be seen in Table 4, the overall non-attendance rate for referrals made during the baseline period between 1\textsuperscript{st} November 1995 and 31\textsuperscript{st} October 1996, when the service required clients to confirm that they wished to be seen before receiving an appointment was 21.8\%. The non-attendance rate for referrals made during the baseline and intervention period between 1\textsuperscript{st} January and 31\textsuperscript{st} December 1997 was 17.5\%. Whilst this difference is in the reverse direction to that expected, it is not statistically significant according to a Chi-squared test (Chi squared = 0.478, df = 1, p = 0.478). The mean percentage of appointments not attended per client is also given in Table 4. This is higher than the overall non-attendance rate as it is more heavily weighted toward cases who had fewer appointments. The difference between the mean percentage of appointments that each client did not attend for baseline and intervention groups is also in the reverse direction to that expected, but not statistically significant according to a Mann-Whitney U Test (Z = 0.948, p = 0.343, two-tailed). Because both variables measure very similar phenomena, only the mean percentage of appointments not attended per client will be used from this point forward.

The percentage of non-attendances at initial appointments in the baseline period, at 32.3\%, was also greater than the 25.3\% in the intervention period. Again, according to a Chi-squared test (Chi Squared = 0.828, df = 1, p = 0.363) there was no evidence to suggest that baseline and intervention conditions did not contain similar proportions of initial non-attendances.
Table 4: Non-attendance Rates For Baseline and Intervention Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Total no. of DNAs</th>
<th>Percentage of total appts DNAs</th>
<th>Mean percentage of appts DNAd per client</th>
<th>Mean no. of DNAs per client</th>
<th>No. of DNAs at initial appts</th>
<th>Percentage of DNAs at initial appts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>88</td>
<td>21.8%</td>
<td>33.3%</td>
<td>0.89</td>
<td>32</td>
<td>32.3%</td>
</tr>
<tr>
<td>Intervention</td>
<td>75</td>
<td>17.5%</td>
<td>28.7%</td>
<td>0.82</td>
<td>23</td>
<td>25.3%</td>
</tr>
<tr>
<td>Combined</td>
<td>163</td>
<td>20.7%</td>
<td>31.1%</td>
<td>0.86</td>
<td>55</td>
<td>29.0%</td>
</tr>
</tbody>
</table>

The relationship between length of time on the waiting list and non-attendance rates was also analysed. See Figure 2 for a scatter plot of this relationship. There was no sign of a non-linear relationship. It is noticeable from the graph that all clients who waited between four and five months attended all appointments. There was some tendency for cases who waited longer to demonstrate a higher non-attendance rate, but this did not reach significance according to a Kendall’s tau correlation coefficient (tau = 0.085, p = 0.117). There was no observable relationship between length of time on the waiting list and non-attendance at initial appointment.
Secondary Analyses

Because the results do not demonstrate a significant effect of the intervention as expected, several secondary analyses were conducted to investigate possible reasons for this.

1. The intervention period was divided into two equal time periods and the proportion of DNAs per client was compared between these. There were no significant differences.

2. Cases were divided into those who waited more than/less than 10 weeks and the proportion of DNAs was compared between these. There were no significant differences.

3. The data from Manning (1996) were reanalysed using identical methods to those employed in the current study. There was no difference in the results obtained.

4. The proportion of DNAs at initial appointments by month is shown in Figure 3. This does not appear to follow any explicable pattern.
Attrition and Early Attrition Rates

It can be seen clearly from Table 5 that attrition rates are very similar across both conditions at 31-32%. For both conditions about three-quarters of these occur when the client has attended one or less appointments.

Table 5: Drop Out And Early Drop Out Rates For Each Condition

<table>
<thead>
<tr>
<th>Condition</th>
<th>Total no. of drop outs</th>
<th>Percentage of clients dropping out</th>
<th>No. of early drop outs</th>
<th>Percentage of clients early drop outs</th>
<th>Percentage of drop outs that are “early”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>31</td>
<td>31.3%</td>
<td>24</td>
<td>24.2%</td>
<td>77.3%</td>
</tr>
<tr>
<td>Intervention</td>
<td>29</td>
<td>31.9%</td>
<td>22</td>
<td>24.2%</td>
<td>75.8%</td>
</tr>
<tr>
<td>Combined</td>
<td>60</td>
<td>31.6%</td>
<td>46</td>
<td>24.2%</td>
<td>76.5%</td>
</tr>
</tbody>
</table>
The relationship between length of time on the waiting list and the tendency to drop out of the service was significant at the 2% level (Chi-squared = 15.5, df = 6, p < 0.02) such that cases who had waited longer were more likely to drop out. See Figure 4 for a bar graph to illustrate this.

Figure 4: Relationship Between Waiting Time and Number of Drop Outs

The relationship was even stronger between length of wait and attrition after one or less attendances, significant at the 1% level (Chi-squared = 16.8, df = 6, p = 0.01). See Figure 5 for a bar graph to illustrate this.
**Longer Term Analysis of Effect of Waiting List Length**

This analysis was conducted on 573 cases who were given a total of 3842 appointments and waited an average of 15.8 weeks. See Table 6

**Table 6: Basic Description of Data For Longer Term Analysis of Effect of Waiting List Length**

<table>
<thead>
<tr>
<th>No. of cases</th>
<th>Total no. of appts</th>
<th>Mean wait (weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>573</td>
<td>3842</td>
<td>15.8</td>
</tr>
</tbody>
</table>

As can be seen in Table 7, the overall percentage of non-attendances over this time period was 21.7%. The correlation between the mean percentage of DNAs per client and the length of time waited was 0.054. This does not reach significance at the standard 5% level, but is significant at the 10% level (p<0.1). This correlation is illustrated in figure 6.
The percentage of clients given appointments who were never seen was 15.1%. The relationship between whether a client was seen or not and their length of wait was significant at the 10% level (chi-squared = 10.6, df = 6, p = 0.1) such that clients who waited longer were more likely not to attend any appointments. This relationship is illustrated in Figure 7.

Figure 6: Relationship Between Length of Wait and Percentage of DNAs Per Client

Mean Percentage of Appointments DNA Per Client

Months on Waiting List
Figure 7: Relationship Between Length of Wait and Not Attending Any Appointments

Table 7: Non-attendances and “Never Seens” For Clients Referred Between January 1990 and December 1996.

<table>
<thead>
<tr>
<th>Total no. of DNAs</th>
<th>Percentage of DNAs in total appts</th>
<th>Mean percentage of DNAs per client</th>
<th>No. of clients not seen</th>
<th>Percentage of clients not seen</th>
</tr>
</thead>
<tbody>
<tr>
<td>843</td>
<td>21.7%</td>
<td>32.0%</td>
<td>86</td>
<td>15.1%</td>
</tr>
</tbody>
</table>

Discussion

No significant differences were obtained between the non-attendance rates either for first appointments or overall, or for attrition rates between the baseline and intervention periods. This does not support the study’s primary hypothesis that removing the requirement for clients to confirm a wish to remain on the waiting list would lead to an increase in the rates of non-attendance. This is contrary to the result
reported in Manning (1996) that such an intervention had a substantial effect on rates of non-attendance. In fact the only variable which appeared to show even a slight relationship to this requirement was the length of the waiting list; there was a small, non-significant tendency towards a longer waiting list for the time period during which clients were required to confirm.

Several possible explanations for these unexpected results were examined. The definitions of variables and methods of data analysis were slightly different from those used in Manning (1996); these original data were reanalysed using the methods detailed in the current study and this had no effect on the results obtained. Thus, the differences in methodology between the two studies does not appear to be a plausible explanation for the differences in results. A second possible explanation for the lack of expected results is the confounding effect of the length of the waiting list. However, neither analysing the data by whether the waiting list was greater than or less than its approximate median of 10 weeks, nor splitting the second time period for analysis according to whether clients were referred before or after a waiting list “blitz” (resulting in a dramatic reduction of waiting times) provided any evidence that the difference in waiting times across the two conditions was responsible for the failure to support the study’s primary hypothesis. Plotting non-attendance rates by month over the two year period did not suggest any relationships between events in the service and non-attendance rates.

A more plausible explanation of these results is that the other changes occurring to the service at the start of 1997 also had an effect on the DNA (and perhaps alsoattrition) rates. These changes included a change in name from Psychology to Mental Health Service, a change in location and a tendency towards the service as a whole taking more emergency referrals. There may also have been changes in the expectations of referrers and in the nature of the referrals made to the service taken up by psychologists. Clients were at times offered a choice of locations (Sevenoaks or Tunbridge Wells) by psychologists and this may have reduced both non-attendance and attrition rates. It is also possible that the nature of the client group seen by psychologists changed such that they were intrinsically less likely to miss appointments.
This study does not provide any evidence of the effectiveness of requiring clients to confirm to reduce non-attendance rates. However, it appears unwise to conclude that the requirement to confirm did not reduce non-attendance rates, when a previous intervention without the confounding variables of the current study found to the contrary. It is plausible that other, simultaneous changes to the service masked the effect of the intervention, but further research would be needed to confirm this, and to discover which of these changes were crucial.

The second hypothesis, was partially supported in that clients who waited longer for services were more likely to drop out of treatment. This was found both in the analysis of the two recent time periods and in the longer term analysis. For the more recent data, the effect was strongest for clients who dropped out having been seen only one or less times. As can be seen from Figures 4 and 5, the effect seemed to occur as a large increase in attrition rates with waiting times of about five months; this increase appears to tail off again as waiting times get even longer toward eight and nine months. It is possible that this is not a true effect and would disappear with a larger sample size. Alternatively, it is possible that a client is less likely to drop out after a wait of over eight months, perhaps due to an increase in commitment after a long wait or perhaps the impact of the referral problem has a tendency to decrease at five to seven months and to increase again after this, thus increasing the commitment to attend services. However, perhaps the most plausible explanation is that the result is an artefact of clients with different presenting problems waiting different lengths of time. Previous research in the service (Manning, 1996) has demonstrated that DNA rates vary with the presenting problem and it may be that patients with such problems do not tend to be kept waiting for more than 7 months.

The results of the longer term analysis suggest that the proportion of clients who do not attend any appointments increases at three months, and no reduction in such non-attendance is seen within ten months. Thus, overall it seems fairly clear that waiting up to three months does not have a negative effect on attrition and attendance rates, although this obviously does not say anything about the difficulties faced by clients whilst on the waiting list. Further research is needed to clarify the waiting times at
which non-attendance and attrition rates are affected, the interaction with referral problems and the possible existence of “critical periods” in waiting times at which drop out and/or non-attendance rates peak.

There was limited support for the second part of the hypothesis that clients who waited longer for services had higher rates of non-attendance. There was a small correlation between these variables, but this only reached significance using the data for 1990-1996, and (at p = 0.054) would not usually be considered clinically significant. However, it is worth noting that it can be seen from Figure 7 that this increase in DNA rates seemed to occur after a wait of approximately three months. A waiting time of three months may therefore represent a threshold, before which the time waited does not influence non-attendance rate. The reasons why this might be so are not clear, and this is therefore an interesting area for confirmation and further exploration.

The low correlation between non-attendance and wait times may suggest that clients did not tend to use DNAs as protests at having been kept waiting, but that they may have felt that they no longer needed the service, either because the problem had ameliorated, because help had been sought elsewhere in the meantime or because they now felt they could cope alone. Further research to identify the actual causes of this effect would be beneficial, perhaps in the form of a questionnaire sent to clients who dropped out of the service.

The overall non-attendance rate over the two year period from October 1995 to December 1997 was 20.7%. This is comparable to and slightly better than the 25% reported by Cooper and Lynch (1979) and the 23% reported by Hoare, Scarth and Forbes (1995). It is also comparable with the 21% reported by Manning (1996) for the same service without the requirement to confirm, but substantially poorer than the 11% reported following the study’s intervention to require clients to confirm their wish to be sent an appointment. However, it is difficult to draw firm conclusions from this as inclusion criteria for cases were specified to prioritise comparability across conditions, rather than to include a representative sample of referrals.
The drop out rate from the service was relatively constant over the two years at about 32%. Approximately 24% of clients dropped out after attending only once or less. Thus 75% of those who did drop out from the service did so when the client had been seen once or less. It follows from this that once a client has attended their second appointment, the probability of he/she dropping out is reduced to approximately 7.5%. These early drop out rates are higher than the 15.9% in Cottrell, Hill, Walk et al. (1988) and the 11% of Gould, Shaffer and Kaplan (1989) after one attendance. However the overall attrition rate of 32% is substantially lower than the 53% quoted by the former authors. Again, it is important to stress that these comparisons may not be valid as the sample of cases in the current study was not selected to be representative of referrals. However, it would be interesting to explore this difference and possible explanations for it further.

Conclusions

Implications for Service

1. The current study did not find support for the hypothesis that requiring clients to confirm their wish to be seen reduces DNA rates, but concurrent changes in the service and differences in waiting times imply that it should not be concluded that the intervention did not have such an effect, particularly in light of previous evidence. The Manning (1996) study did not have the confounding variables of the current study.

2. There is preliminary evidence for "thresholds" in the importance of waiting list length. Non-attendance rates appeared to rise when the waiting time reached three months. Attrition rates appeared to peak when the waiting time reached five to seven months and then tail off.

3. Approximately 30% of clients given an initial appointment will drop out before the scheduled end of treatment. Approximately 75% of those clients who will drop out from the service will do so after attending one or less appointments. Once a client...
has attended a second appointment the probability of attrition is reduced to less than 10%.

4. The data on client contacts collected on the Psychology Service database is a particularly rich source of data for research of this nature. The maintenance of this database and its extension to include information on individual contacts for all disciplines would prove extremely valuable.

Implications for Research

1. A further study investigating the reinstatement of the requirement for clients to confirm their wish to be seen, at a time without major concurrent changes in the service would be useful to clarify its effectiveness.

2. Further research is needed to confirm the existence and timing of “thresholds” and “critical periods” in the importance of length of wait and to explore possible mechanisms and other explanations (such as interaction with the nature of the referral problem for the results seen in this study).

3. Further research into psychological and other mediators of DNAs and drop outs is needed. It may be particularly useful to investigate uptake rates as this may distinguish between whether the requirement to confirm excludes less motivated clients or increases the motivation of individual clients. Another particularly useful area of research would be to gather data from clients who have dropped out of the service.
References


SMALL SCALE
RESEARCH PROJECT

THE RELATIONSHIP BETWEEN
EATING ATTITUDES
AND BODY IMAGE
AND KNOWLEDGE
OF WEIGHT REGULATION
IN ADOLESCENT GIRLS

Year 2
August 1998
Abstract

Rationale
Interventions aimed at primary prevention of eating disorders have attempted to change attitudes and behaviours by increasing knowledge. However, the relationship between the relevant knowledge and target attitudes and behaviours has not been systematically studied.

Principal Aims and Objectives
1. To examine the relationship between such knowledge and eating attitudes and body image.
2. To investigate the baseline level of knowledge regarding weight regulation in a population of adolescent girls.
3. To draw conclusions from this regarding the possible primary prevention of eating disorders and encouragement of healthier eating attitudes.

Method

Participants: 80 female Year 8 pupils from a secondary school.
Procedure: Questionnaires were completed in class groups in the presence of the author.
Measures: The Body Shape Questionnaire, The Children’s Eating Attitude Test and two questionnaires devised by the principal investigator to elicit knowledge of weight regulation and attempts at weight loss.

Results and Conclusions
No significant relationship between knowledge of weight regulation and eating attitudes and body image, perhaps in part due to the low variance of the knowledge measure. Levels of knowledge of weight regulation are discussed. The study does not provide any evidence that teaching adolescents about weight regulation would have a preventative effect for eating disorders.
The Relationship Between Eating Attitudes and Body Image
and Knowledge of Weight Regulation in Adolescent Girls

Rationale

The level of body shape dissatisfaction in young women and adolescent girls has attracted considerable research and clinical interest. For a minority of those, estimated at between one and nine percent of young women and adolescent females, (Fairburn and Beglin, 1990; Gross and Rosen, 1988) such dissatisfaction contributes to the eating disorders, anorexia and bulimia. These disorders can involve affective, cognitive and behavioural symptoms, can be chronic and relapsing in course (Slade, 1995) and anorexia has the highest mortality amongst psychiatric disorders at around 20% (Herzog, Keller and Lavori, 1988). However, estimates of the prevalence of subclinical body dissatisfaction suggest that up to 80% of young women are unhappy with their shape (Greenfeld, Quinlan, Harding et al., 1987), and around 70% of adolescent girls have dieted to lose weight (Johnson, Lewis, Love et al., 1983). A self-help book recommended by specialists in the field reports that five percent of women at a healthy body weight regularly vomit to lose weight (Ogdon, 1990).

Clearly, body shape dissatisfaction is a major contributing cause of dieting. However, it is also argued that dieting can itself reinforce and maintain body dissatisfaction, and even lead to weight gain (e.g. Herman and Polivy, 1980; Lacey, Coker and Birchnell, 1986). A diet which successfully results in short term weight loss involves consuming less calories than are expended, thus managing on less energy than the body “thinks” it needs, i.e. a kind of mild starvation. A seminal study (Keys, Brozek, Henschel et al., 1950) which kept healthy men selected for their psychological stability on a restricted calorie diet and found that they developed not only symptoms associated with eating disorders, such as low mood and sleep disturbance, but also physical and psychological changes “intended” to drive the body to maintain its weight. These include an increased preoccupation with food during the diet, (striking in anorexia and bulimia)
and following it, a perceived loss of control over eating. Both of these effects serve to increase food intake where possible. However, even without increased food intake, the metabolic rate slows down, increasing the efficiency of calorific expenditure, thus conserving energy and therefore body weight. Thus, losing weight is not simply a matter of decreasing calorie intake. Moreover, even when the weight is lost through dieting, the body reacts to this change by trying to regain the weight lost. In addition, it has been found (initially from studies with rats (Levitsky, Faust and Glassman, 1976) and then with humans (Brownell, 1988) ) that cycles of calorific restriction, and refeeding, or “yo-yo” dieting, lead to gradually increasing difficulty in losing weight, and more rapid weight gain following the period of restriction.

The concept of a “set-point” for body weight is relevant here. The set point hypothesis states that every individual has a biologically determined “set-point” for weight, which the body attempts to defend (e.g. Nisbett, 1972). Given the current cultural climate in which most women’s ideal weight falls increasingly below an average healthy weight, it is likely that such a set point would be above the ideal weight for many women, (Ogdon, 1990) thus making weight loss particularly difficult. However, the set point hypothesis is likely to be an oversimplification; it seems probable that whilst our body does try to defend a certain weight, that this weight would not be purely genetically determined, but vary in response to certain environmental factors, such as current weight, level of exercise and balance of nutrients eaten. So, losing weight is not necessarily impossible for those already at a healthy weight, but who would like to be slimmer, but there are many factors, not commonly known or discussed in the media, which make weight loss much more difficult than is commonly supposed, and increasingly difficult with each successive attempt.

However, despite this, one-third of women in the UK are actively dieting at any one time, (Ogdon, 1990) and the UK diet industry is worth over £66 million annually (Ogdon, 1990). It is unlikely that either of these figures would be so high if dieting were more successful; of those women who do manage to lose weight intentionally, 95% will have returned to their original weight or heavier within three years (Ogdon, 1990).
Thus, there is considerable evidence to suggest that dieting is at least as likely to be harmful as beneficial. It is important now to consider the evidence that dieting can be a causal factor in anorexia and bulimia and increased body shape dissatisfaction. As discussed earlier, Keys et al.’s (1950) starvation study demonstrated that an extremely low calorie diet could lead to low mood and tiredness, obsession with food, and lack of control over eating during the period following caloric restriction. This is evidence that some of the symptoms associated with eating disorders can be caused by a strict diet in itself, particularly the preoccupation with food characteristic of anorexia, and the essence of the binge-purge cycle associated with bulimia. More recently (Wardle, 1980) found that binge eating is more prevalent amongst dieting than non-dieting students. Although this evidence is correlational, one feasible explanation would be that dieting increases the tendency toward binge eating, as did restriction in the Keyes study. Further support for this is obtained from Pyle’s (1981) finding that most bulimia sufferers began dieting before they begin bingeing.

The evidence that dieting contributes to eating disorders is therefore predominantly correlational and therefore not conclusive. However, given its ineffectiveness as a weight loss strategy coupled with the probability that it influences the genesis of binge eating makes this an intuitively appealing hypothesis. This is not to negate the involvement of other factors such as low self esteem and disturbed family relationships involved in the development of disorders as serious as anorexia and bulimia.

For these reasons, several programmes aiming to prevent the development of eating disorders have been devised and evaluated, using education regarding the ineffectiveness and dangers of dieting as a major component. (See Shisslak, 1996; Wellings, unpublished manuscript; for more detailed reviews of the effectiveness of such programmes.) Killen et al. (1993) evaluated an eighteen lesson programme involving education on harmful effects of unhealthy weight regulation, promotion of healthy weight control and social influence resistance training. Whilst participants increased their knowledge, relative to controls, disappointingly there was no effect on dietary restraint or eating disorder symptoms. The other well controlled study (Paxton, 1993) evaluated a programme of 5 classes on topics including determinants of body
size, healthy and unhealthy weight control methods and emotional eating. Again, there were no effects of the intervention relative to a control group on measures of body dissatisfaction or eating and weight control behaviour. Other studies (Polivy and Herman, 1992; Huon, 1994 and Moreno and Thelen, 1993) have found more positive outcomes, but utilised too poor a methodology, such as a lack of control group or unvalidated measures from which to be able to draw firm conclusions.

From these findings it is unclear whether there is in fact any relationship between level of knowledge of healthy and unhealthy weight regulation and levels of eating and body image pathology. The Health Belief Model (see Becker, 1974) is a conceptual framework for understanding and predicting the potential for changing behaviours related to health. The probability of any health related action, (whether it be methods of healthy or unhealthy weight regulation) can be determined by considering the benefits of and barriers to that course of action. These determinants are, in turn, effected by individual perceptions regarding the perceived susceptibility to and perceived seriousness of any ill effects, demographic variables, sociopsychological variables (e.g. personality and peer pressure) and structural variables (e.g. knowledge of prior experiences of effects). The model’s inclusion of such structural variables as knowledge (including knowledge of eating disorders, unhealthy weight regulation and nutritional information) would lead to a prediction that such knowledge should influence behaviour, although it is not given a central role in the process, and therefore effects may be expected to be relatively small. (See Grodner, 1991, for a fuller discussion of how the Health Belief Model can be applied to prevention of eating disorders.)

The current study uses a correlational methodology to explore levels of body shape dissatisfaction, eating attitudes and behaviour and knowledge regarding healthy and unhealthy weight regulation in a non-clinical population of adolescent girls. The objectives of the study are threefold.
Objectives

1. To investigate the baseline level of knowledge regarding weight regulation in a population of adolescent girls.

2. To examine the relationship between such knowledge and eating attitudes and body image.

3. To draw conclusions from this regarding the possible primary prevention of eating disorders and encouragement of healthier eating attitudes.

Method

Recruitment of Participants

The headteachers of 20 local single sex (female) schools were written to by the principal investigator to ask whether they would be prepared to allow their pupils to participate in the research. See Appendix 1 for letter. One of these schools telephoned the investigator to offer to participate. Because of this, the planned telephone follow-ups were deemed unnecessary.

Participants were eighty female pupils in Year 8 (mostly aged 12-13) from a single sex, state secondary school. The participating school was comprehensive, and did not report a particularly high incidence of eating disorders, but did place a strong emphasis on pastoral care. All Year 8 pupils, present in school on the day of data collection, whose parents had completed consent forms, participated. See Appendix 2 for consent forms. Six of the eighty six pupils present did not have completed consent forms - these completed only the Weight Regulation Knowledge Questionnaire, and are included in the analyses which use only this questionnaire.
Setting

All questionnaires were completed in one of the participants’ weekly Personal and Social Education classes. Each of the three classes constituting Year 8 were seen separately. Participants were seated with enough space between them to prevent them easily seeing one another’s responses.

Procedure

Ethical approval was sought and obtained from the University Committee on Research Ethics. See Appendix 3.

The questionnaires were introduced in each class by the principal investigator, both with an Information Sheet (see Appendix 4) and with verbal instructions. The purpose of the questionnaires, confidentiality and the voluntary nature of participation were made clear. Questionnaires were completed in the presence of the principal investigator, who answered any questions arising. The order of presentation of questionnaires was varied such that equal numbers of participants completed each questionnaire in each position, i.e. 1234, 2341, 3412, 4123. Following completion of the questionnaires, participants were debriefed, and informed that the principal investigator would be available for confidential discussion, should they have any concerns regarding their shape or their eating behaviour. Pupils were then given a brief presentation including: the pressures on young girls to be slim, the effects of dieting, and education regarding eating disorders, and invited to discuss the issues raised.

Measures (See Appendix 5)

Children’s Eating Attitudes Test
This is a 26 item questionnaire adapted for children under 15 years from the Eating Attitudes Test (Garner and Garfinkel, 1979) by Maloney, McGuire and Daniels, (1988). It is designed to assess a broad range of attitudes and behaviours concerning
eating and associated with eating disorders. Concurrent validity has been demonstrated by correlations with weight management behaviour and body dissatisfaction by Smolak and Levine, (1994) who also found adequate internal reliability, reporting Cronbach’s alpha as +0.87. Each item uses a 6 point (1-6) liert scale, recoded so that the most symptomatic response is recoded as 3, the next most symptomatic response as 2, and the next as 1. All other responses are scored as 0. The mean score has been reported as 15.7 (SD=12.4) with a population of girls, mean age, 13.2 years (Smolak and Levine, 1994), with a cut of score of 20 used to identify disturbed versus normal eaters (Garner, Olmsted Bohr and Garfinkel, 1982).

Body Shape Questionnaire
This is a 34 item questionnaire designed by Cooper, Taylor, Cooper and Fairburn (1987) to assess concerns regarding body weight and shape. Criterion validity has been demonstrated by its ability to differentiate clinical from non-clinical samples and concurrent validity by its correlations with related scales (Rosen, Jones, Ramirez and Waxman, (1996). The same authors have estimated test-retest reliability as 0.88. Each item has a six point liert scale, from which individual scores are summed, with a higher score representing greater symptomatology. Cooper et al. (1987) found young British women’s total score averaged between 81 and 85. No psychometric data is available from an adolescent sample, but the questionnaire has been used on non-clinical adolescent samples (see Bunnell, Cooper, Hertz and Shenker, 1992). However, one item, “have you imagined cutting off fleshy areas of your body?” (item 16) was excluded due to concerns that it was inappropriate for children.

Weight Regulation Knowledge Questionnaire
This questionnaire was devised by the principal investigator in conjunction with clinical psychologists and other mental health professionals working with children, and individuals with eating disorders. Following an extensive review of the literature, and consultations with specialist clinicians, both Clinical Psychologists and Dieticians, no suitable existing, validated questionnaire was identified, necessitating the derivation of an original questionnaire. It was designed to measure those factors, knowledge of which might be expected to influence the decision of whether to attempt to lose weight
by dieting, and the nature and methods of such attempts. These included the effect of
diet and exercise on metabolism and weight, effects on health and fitness of weight and
repeated weight changes, the relevance of fat and sugar and a minimum number of
calories for healthy diet, controllability of weight and factors which affect ease of
weight loss. The questionnaire has both multiple choice and TRUE/FALSE items. It is
scored by summing the number of correct answers. Its Expected Score by chance is 5¼

You, Your Diet and Your Weight

This questionnaire was devised by the principal investigator in consultation with
experienced clinicians, to obtain participants' heights and weights, and the discrepancy
from their ideal weight, and information regarding weight loss attempts of participants
themselves and their families and friends and their meal habits. Height and weight was
used to calculate Body Mass Index. These were estimates only, as it was not thought
to be practical or ethical to ask children to be weighed and measured for the purpose of
the study. Responses were not summed to form a total score, but individual items were
analysed individually.

Results

Knowledge of Weight Regulation

The number of correct responses was normally distributed (skew, 0.00, s.d. 0.26,
kurtosis -0.43, s.d. 0.52) with a mean of 6.9 and a standard deviation of 0.22. The
percentage of participants obtaining the correct answer to each question are given in
Table 1. However, these figures are almost certainly considerable overestimates of the
amount of knowledge of each question, as they do not correct for the proportion of
participants likely to have been guessing, in a multiple choice format. A more
conservative estimate of the level of knowledge of each question is also given in Table
1. This is determined from the following formula:
Estimated level of knowledge  =  \frac{\text{Obtained} - \text{Expected}}{100 - \text{Expected}} \times 100

where Obtained = percentage of correct responses obtained
and Expected = percentage of response expected by chance alone

However, this is a measure of the difference between the percentage of respondents knowing the correct answer and the percentage of respondents "knowing" any of the incorrect responses. This is likely to give an underestimate of the true level of knowledge, because of those who thought they knew, but were incorrect, because of the strict correction for guessing, and because of its attribution of all errors to guessing or lack of knowledge, rather than to marking errors, or misunderstanding of the question. However, it does give a clear comparison of the level of knowledge of each question, independent of the number of possible options.

Overall, a conservative estimate of the level of knowledge of the questionnaire items (minus the level of incorrect "knowledge") is 22%. However, it is possible that this knowledge is as high as 53%, the actual proportion of correct responses obtained.

An unhealthy weight regulation subscale was also devised, consisting of items which might be expected to directly discourage attempts at (particularly unhealthy) weight loss. These were identified independently by two raters, the author, and another clinical psychologist in training with the remit of including questions knowledge of which might be expected directly to discourage unhealthy methods of weight regulation. The mean score for this subscale was 4.4 out of 8 (56%), corresponding to an estimated level of (correct) knowledge (minus incorrect knowledge) of 28%.
Table 1: Knowledge of Weight Regulation

<table>
<thead>
<tr>
<th>Question</th>
<th>Obtained %age correct</th>
<th>Estimated %age correct by chance</th>
<th>Estimated level of knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Eating less than you normally do should always lead to losing weight*</td>
<td>70</td>
<td>50%</td>
<td>39%</td>
</tr>
<tr>
<td>2. It is important to have some fat in your diet to remain healthy*</td>
<td>96</td>
<td>50%</td>
<td>93%</td>
</tr>
<tr>
<td>3. It is important to have some sugar in your diet to remain healthy.</td>
<td>9%</td>
<td>50%</td>
<td>-81%</td>
</tr>
<tr>
<td>4. If you are overweight you are more likely to suffer from heart disease and stroke when you are older</td>
<td>82%</td>
<td>50%</td>
<td>64%</td>
</tr>
<tr>
<td>5. You need to be slim to be physically fit*</td>
<td>82%</td>
<td>50%</td>
<td>64%</td>
</tr>
<tr>
<td>6. Muscle weighs less than/the same as/more than fat.</td>
<td>39%</td>
<td>33%</td>
<td>8%</td>
</tr>
<tr>
<td>7. Everyone can be as thin as they want to be if they choose the right, healthy diet and take regular exercise*</td>
<td>38%</td>
<td>50%</td>
<td>-25%</td>
</tr>
<tr>
<td>8. Each time you lose weight and regain it, it becomes easier, harder, no different to lose weight next time*</td>
<td>37%</td>
<td>33%</td>
<td>5%</td>
</tr>
<tr>
<td>9. It is healthier/no different/less healthy to have repeated weight changes than to remain somewhat overweight.*</td>
<td>42%</td>
<td>33%</td>
<td>13%</td>
</tr>
<tr>
<td>10. Average women are heavier/the same/lighter now than ever before.</td>
<td>62%</td>
<td>33%</td>
<td>43%</td>
</tr>
<tr>
<td>11. When you eat less/diet your metabolism....*</td>
<td>57%</td>
<td>33%</td>
<td>35%</td>
</tr>
<tr>
<td>12. When you exercise regularly your metabolism....</td>
<td>76%</td>
<td>33%</td>
<td>64%</td>
</tr>
<tr>
<td>13. What is the minimum number of calories you should eat when trying to lose weight*</td>
<td>23%</td>
<td>25%</td>
<td>-3%</td>
</tr>
<tr>
<td>Unhealthy Weight Regulation Subscale Total</td>
<td>56% (4.4)</td>
<td>40% (3.25)</td>
<td>28%</td>
</tr>
<tr>
<td>Total</td>
<td>40% (5.25)</td>
<td>53% (6.9)</td>
<td>22%</td>
</tr>
</tbody>
</table>

(Asterisked items are included in the unhealthy weight regulation subscale, described later.)
Eating Attitudes and Body Image

The mean ChEAT score for this sample was 9.6 (s.d. 1.2) with 12.5% falling below the cut off score of 20 for disturbed eating. This compares favourably with Smolak and Levine’s (1994) sample (mean age 13.2 years) who obtained a mean score of 15.7 (s.d. 12.42), with 26% falling below the cut off score for disturbed eating.

The mean BSQ score for this sample was 69.5 (s.d. 34.0). Prorating this to account for the one question omitted gives a mean of 71.6. This compares extremely favourably with a slightly older non-clinical sample of adolescents (Bunnell, 1992) who obtained a mean score of 91.8 (s.d. 36.2)

You, Your Diet and Your Weight

The proportion of participants whose ideal weight is the same as, a little less/more than and a lot less/more than their current weight is shown in table 2.

Table 2: Comparisons Between Current and Ideal Weights

<table>
<thead>
<tr>
<th>Ideal Weight Compared To Current Weight</th>
<th>Same</th>
<th>A Little Different</th>
<th>A Lot Different</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>More</td>
<td>n/a</td>
<td>9%</td>
<td>0%</td>
<td>9%</td>
</tr>
<tr>
<td>Less</td>
<td>n/a</td>
<td>38%</td>
<td>14%</td>
<td>52%</td>
</tr>
<tr>
<td>Same</td>
<td>39%</td>
<td>n/a</td>
<td>n/a</td>
<td>39%</td>
</tr>
<tr>
<td>Total</td>
<td>39%</td>
<td>47%</td>
<td>14%</td>
<td>100%</td>
</tr>
</tbody>
</table>

34% of participants were currently attempting to lose weight, 14% by dieting, and 32% by other methods, (without exception exercise and changing eating habits e.g. cutting out eating between meals or trying to eat more healthily). A slightly higher proportion at 40% had attempted to lose weight over the past year, with similar proportions doing so by dieting (17%) and other methods (30%). 38% had friends and 63% family members who were currently attempting to lose weight.
Relationships Between Body Image Eating Attitudes and Behaviour and Knowledge of Weight Regulation

The association between the Weight Regulation Knowledge and other measures, and the association between the ChEAT and the BSQ were explored using Kendall’s Tau. Where both variables were interval/ratio scales, it was used as a standard non-parametric correlation coefficient. Where one variable was categorical or dichotomous, it was used as a non-parametric point biserial correlation. Visual inspection of scatter plots detected no non-monotonic relationships not detected by these statistics.

As would be expected, a highly significant correlation between ChEAT and BSQ was obtained (tau = 0.44 p< 0.01). None of the hypothesised relationships between the BSQ, ChEAT and measures of dieting and weight loss behaviour and measures of knowledge of weight regulation, (either the total score, or the unhealthy weight regulation subscale) yielded significant correlations.

The total Weight Regulation Knowledge score was significantly correlated with one other variable, whether or not friends of participants were currently attempting to lose weight, such that participants whose friends were currently attempting weight loss had less knowledge of weight regulation knowledge (tau = 0.218, p< 0.05). The unhealthy weight regulation subscale of the Weight Regulation Knowledge Questionnaire was also significantly correlated with this variable at 0.270 (p<0.05). This subscale was also significantly correlated with height (tau = 0.263, p<0.05). It is important to note that these were post hoc analyses, making spurious correlations more likely.

Correlations between the unhealthy weight regulation subscale and other variables are reported in Table 3 if they are either:

a) over 0.15, or

b) with variables for which a significant correlation was hypothesised.
Table 3: Correlations Between the Unhealthy Weight Regulation Subscale and Other Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSQ Score</td>
<td>-0.119</td>
<td>0.196</td>
</tr>
<tr>
<td>ChEAT Score</td>
<td>-0.053</td>
<td>0.573</td>
</tr>
<tr>
<td>Currently attempting weight loss</td>
<td>-0.169</td>
<td>0.133</td>
</tr>
<tr>
<td>Currently dieting</td>
<td>-0.152</td>
<td>0.181</td>
</tr>
<tr>
<td>Current other weight loss methods</td>
<td>-0.025</td>
<td>0.824</td>
</tr>
<tr>
<td>Succeeded in losing weight over last year</td>
<td>-0.183</td>
<td>0.106</td>
</tr>
<tr>
<td>Weight loss maintained until now</td>
<td>0.153</td>
<td>0.341</td>
</tr>
<tr>
<td>Duration weight loss maintained</td>
<td>0.155</td>
<td>0.391</td>
</tr>
</tbody>
</table>

**Discussion**

*Knowledge of Weight Regulation*

Whilst respondents obtained an average of 53% correct responses (40% would be expected by chance alone) a more conservative estimate of the level of knowledge (though strictly speaking, correct minus incorrect knowledge) is 22%. When the subscale of items relating directly to unhealthy weight regulation and unrealistic expectations of weight loss is analysed separately, the mean percentage of correct responses rises to 56% (compared to the 40% expected by chance) with the more conservative estimate of knowledge at 28%. There was great variability in knowledge between items. A majority of participants knew that exercise increases metabolism, but only a minority that dieting decreased metabolism, making it harder to lose weight. A majority appeared to have an idea of the effects on health of being overweight, that it leads to increased risk of heart disease and stroke, but does not preclude physical
fitness. However, only a minority were aware that repeated weight changes were unhealthy, and led to an increased difficulty in losing weight. It is not possible to test for the statistical significance of such differences in the levels of knowledge in the above areas, as the level of error in these results cannot be estimated, precluding computation of confidence intervals.

Thus, while this sample of children had some knowledge of how to regulate their weight healthily, and the disadvantages of unhealthy weight regulation, there was still much that they appeared not to know, particularly regarding the potentially harmful effects of unhealthy weight regulation. It is not clear to what extent these findings are generalisable to a larger population of adolescent girls of this age. Whilst the sample is relatively large, and from a non-selective school, it is from a relatively wealthy area, and from only one school, whose curriculum would impact greatly on the level of knowledge.

**Validity of the Weight Regulation Knowledge Questionnaire**

The extent to which the Weight Regulation Knowledge Questionnaire actually measures such knowledge requires discussion. The questionnaire was devised by the author, due to the lack of existing, validated measures. The author did find one such existing measure, the Eating Disorders Awareness Test (Trotter, unpublished). Unfortunately, this was not suitable for use with children due to its complexity, and would not have provided an adequate test of the hypotheses of the current study due to its emphasis on symptoms of eating disorders, rather than weight regulation. The current questionnaire was designed as a brief assessment instrument, at a level appropriate for young adolescents of knowledge directly relevant to healthy and unhealthy methods of weight regulation and relevant to attitudes to weight loss and being overweight. However, whilst it has face and content validity, its reliability and other types of validity should be assessed, perhaps by comparing responses to interview data or by its use as a before and after measure for a course covering relevant topics. It is not clear whether the questionnaire measures one cohesive factor or a combination of several factors, for example knowledge of healthy weight regulation, knowledge of
unhealthy weight regulation and knowledge of the controllability of weight. It is also possible that where respondents were not certain of the correct answer that their guesses were influenced by their attitudes, therefore confounding the interpretation of any associations found. Conversely, the measure has a low standard deviation (0.22) in the sample studied: this may mean that it is less discriminating between high and low knowledge respondents and therefore make it less able to detect associations between knowledge and other variables. This could be rectified by including more items, and carefully graduating their difficulty, but at the obvious expense of brevity.

*The Relationships Between Knowledge Of Weight Regulation And Measures Of Eating Attitudes And Behaviour And Body Image*

The hypothesis that knowledge of weight regulation would be correlated with eating attitudes and behaviours and body image was not supported, either by use of the total score, or the unhealthy weight regulation subscale of the questionnaire. The only significant correlations were with height, and with whether friends were currently dieting, such that those with high knowledge were less likely to have friends dieting. These correlations were post hoc analyses, and it is likely that they are spurious. However, it is possible that taller children who may be at a more advanced stage of puberty, and have experienced more weight gain than shorter children have become more interested in methods of controlling their weight, and sought out such knowledge. It is equally possible that those who reported that their friends were currently dieting have engaged in more discussion about weight loss than peers who either had no dieting friends or did not know that friends were dieting, thus increasing their knowledge.

Examination of the correlations between knowledge and attitudes and behaviour shows that these were all in the direction expected. Whilst the study did not find significant relationships between knowledge and measures of attitudes and behaviour, contrary to initial predictions according to the Health Belief Model, it may be that these non-significant correlations do represent the rather modest relationships predicted by this
model. Further research with larger sample sizes and/or more sensitive measures is needed to test this.

There are many factors which could influence the relationship between these factors. Higher levels of knowledge could be associated with healthier attitudes and behaviours through the protective effect of such knowledge leading to a reduction in unhealthy weight regulation, and less self-blame regarding body shape and eating behaviour. Alternatively, a family or school environment which ensures that children have a good knowledge of weight regulation issues, may also be a family which encourages the development of a healthy body image and eating attitudes and behaviour. Alternatively, such an effect could be due to a circularity in the measurement process if guesses on unknown responses to the knowledge questionnaire were not guessed randomly, but affected by attitudes. Moreover, greater knowledge could have been associated with less healthy eating attitudes and behaviours if a motivation to lose weight motivates an individual to seek out knowledge regarding effective weight regulation. Equally, a family or peer environment which places great importance on weight and shape could encourage both high levels of knowledge and unhealthy attitudes and behaviour.

Interestingly, high levels of knowledge were associated with a lower probability of having succeeded in losing weight over the previous year, but with a higher chance of maintaining any weight loss, and for a longer duration. The lower success rates for losing weight may reflect fewer attempts. The higher levels of maintenance, if a real effect, may follow from a more effective use of weight loss strategies. This raises the question of whether education regarding healthy and unhealthy weight regulation would be beneficial as part of a treatment package to treat obesity.

*Implications For Primary Prevention*

However, the associations obtained were all small and non significant. If representative of a true relationship, it may be worth including such knowledge in a primary prevention programme, but, given its limitations, the evidence of the above study does not suggest it would be of central importance. This is consistent with the lack of
evidence of the effectiveness of such programmes discussed earlier (e.g. Killen et al., 1993; Paxton, 1993). However, this is not to say it should not be taught in school. (Although, if there is a possibility of harmful effects, then it should not be included.) If a proven effect on the well being of its students was a requirement for inclusion, the school curriculum would be short indeed. It is also important to note that this study had looked at the association in twelve and thirteen year olds only. It is possible that such knowledge would have a greater impact in older adolescents and/or adults as they begin to have personal experience of the difficulties of dieting. Another possibility is that it is not the knowledge itself which is important, but the salience of such knowledge, both for the individual, for their peers and family, and for society as a whole. How easy would it be for an adolescent with good knowledge of weight regulation to resist the pressure to diet, if amongst peers, family and surrounded by media which saw dieting as a simple and effective weight loss method? If this is the case, the implications for primary prevention lie more in the domain of changing attitudes in society as a whole, and in the media, particularly the acknowledgement (in more than the occasional article) of mainstream female oriented magazines of the lack of success of dieting and other unhealthy weight loss methods.

This parallels research and practice in the primary prevention of smoking in adolescents. Extensive education programmes have ensured that all secondary school age children are aware of the harmful effects of smoking, but a majority experiment and many continue to become regular smokers. However, a meta-analysis by Tobler (1986) indicated some success in delaying the onset of tobacco smoking. Hansen (1992) suggests that active ingredients in such programmes may include: peer pressure resistance training, correction of normative expectations, inoculation against mass media messages, information about parental and other adult influences, peer leadership, and affective education/self image enhancement. It is not difficult to see how such strategies could be applied to discourage unhealthy weight regulation and promote body esteem. However, each of these elements should be evaluated with respect to the primary prevention of eating disorders.
Conclusions

Implications For Practice

The low levels of knowledge of weight regulation knowledge found, suggest that teaching could improve the knowledge of twelve and thirteen year old girls regarding effects and efficacy of different methods of weight regulation. However, there is no evidence from the above study that to do so would improve their eating attitudes or body image or change their behaviour. From predictions of the Health Belief Model and research into primary prevention of smoking it is likely that successful programmes would need to include substantial psychosocial components.

Implications For Research

Research in this area would benefit greatly from improved and well standardised and validated measures of weight regulation knowledge. This would enable further investigation of levels of relevant knowledge and thus its relationships with attitudes and behaviour. It would be interesting to repeat the current research with a larger, and more representative sample to ascertain whether, as predicted by the Health Belief Model, modest relationships between knowledge, and measures of attitudes and behaviours are detectable. It would also be interesting to study older samples, to investigate whether greater knowledge, or experience of dieting, affects the nature of the relationship. Research into the possible mechanism of such a relationship would also be of great value.

Research into the factors which affect the ability of the individual to use such knowledge, such as those predicted by the Health Belief Model, and primary prevention of smoking programmes is vital if progress is to be made in understanding how eating disorders can be prevented.
References


Dear Headteacher

I am a Psychologist in Clinical Training, studying for my Doctorate in Clinical Psychology at the University of Surrey. I am currently undertaking a piece of research into the relationship between 1) attitudes to eating and body shape and 2) knowledge about dieting and weight regulation of young girls. The purpose of this research is to look at the importance of adolescents’ understanding of the realities and the dangers of dieting and how this may relate to the development of the eating disorders, anorexia nervosa and bulimia. It is hoped that this research will contribute to current thinking on how eating disorders might be prevented.

This research involves asking a total of 110 adolescent girls between 11 and 15 years old to complete 4 short questionnaires. I am writing to you to ask if you would be prepared to discuss allowing some of your pupils to take part in this study by completing these questionnaires at school. I anticipate that this would take about half an hour. It would be very useful if this could be classroom time as this would greatly increase the expected response rate and therefore the value of the research. Whilst the responses of individuals would have to remain confidential, I would be able to give the school some general feedback on the level of eating and body image concerns of participants, if you would find such information helpful. I understand that the prevalence of eating disorders and unhealthy eating attitudes and body image in young girls is an issue of ongoing concern for schools. Therefore if you feel it might be useful, I would be happy to talk with staff about ways of dealing with concerns about eating disorders, and/or to discuss issues related to body image and eating attitudes with groups of pupils. Thank you for your time in considering this proposal. If you would like to discuss it further, my telephone number is (0181) 540-3142. Alternatively, I can be contacted at the university at the above address, or, more quickly, at home, 80 Haydon Park Road, Wimbledon, London SW19 8JT. I hope to hear from you soon.

Yours sincerely

Christy Wellings
Psychologist in Clinical Training

University of Surrey
Guildford
Surrey GU2 5XH
England

Telephone: (01483) 300800
Fax: (01483) 300803
Telex: 859331
Appendix 2

Department of Psychology
University of Surrey
Guildford

Dear Parent,

I am a Psychologist in Clinical Training studying for a Doctorate at the University of Surrey. I am currently undertaking a research study and would like to ask for your daughter’s help.

The study looks at young girls’:
1) attitudes to food, eating and their body shapes
2) their eating habits and
3) knowledge about how people lose or maintain weight.

It is hoped that the research will be helpful for girls who consider dieting.

I would like to ask for your daughter’s help, by completing a set of four questionnaires which ask about her attitudes toward food, her body image, her own eating behaviour, whether she has tried to lose weight and her knowledge about how people lose or maintain weight. Some of the questions asked may be sensitive, for example, “have you felt ashamed of your body?” Responses to the questionnaires will be completely confidential.

I would be grateful if you could discuss this with your daughter and then complete and return the enclosed slip. If you have any questions, I can be contacted by telephone at the University of Surrey on (01483) 259441.

If you agree to your daughter taking part, she will be given the questionnaires in a sealed envelope and asked to complete them privately, without showing her responses to anyone. Please respect this as people feel less able to answer questions honestly if they feel their answers may be seen by people they know.

Yours faithfully

Christy Wellings
Psychologist in Clinical Training
University of Surrey

I do/do not wish my daughter........................................... to complete the questionnaires.

Signed.........................................................
Appendix 3

Department of Psychology
University of Surrey
Guildford

The Advisory Committee on Ethics
University of Surrey
Guildford
Surrey GU2 5XH

25th August 1998

Dear Sir or Madam,

Thank you for considering the enclosed proposal. Whilst I understand the pressures on your time, I would be very grateful if you could make a decision as soon as possible as Lady Margaret School, Parsons Green, London, have agreed to ask their Year 8 pupils to take part in the study and would be happy for me to start collecting data from September 14th. Due to the urgency of this submission, I have not been able to obtain the signature of my supervisor, Dr. Paul Davis as he is currently on leave. I understand that any approval given by the committee is subject to his signature. However, I would like to assure you that he has seen, and is satisfied with the proposal.

I have discussed the issue of parental consent with Ms. Thomas, the teacher asked by the headteacher of Lady Margaret School to liaise with me. She is confident that, from the school’s point of view, it is not necessary for me to communicate directly with parents or ask for their consent for their daughter’s participation. I hope that this is also satisfactory to the committee.

Thank you again for your time and consideration.

Yours faithfully

Christy Wellings
Psychologist in Clinical Training
Summary of Project

Title: The Relationship Between Eating Attitudes and Body Image and Knowledge of Weight Regulation in Adolescent Girls

Principal Investigator: Christy Wellings, Psychologist in Clinical Training
Supervisor: Dr. Paul Davis, Senior Clinical Tutor, University of Surrey

Rationale

Interventions aimed at primary prevention of eating disorders have attempted to change attitudes and behaviours by increasing knowledge. However, the relationship between the relevant knowledge and target attitudes and behaviours has not been systematically studied.

Principal Aims and Objectives

1. To examine the relationship between such knowledge and eating attitudes and body image.
2. To investigate the baseline level of knowledge regarding weight regulation in a population of adolescent girls.
3. To draw conclusions from this regarding the possible primary prevention of eating disorders and encouragement of healthier eating attitudes.

Method

It is hoped to recruit approximately 110 Year 8 pupils from secondary schools, by writing to headteachers. The principal investigator will then give the questionnaires to classes of female pupils. These questionnaires are the Body Shape Questionnaire, The Children’s Eating Attitude Test and two questionnaires devised by the principal investigator to elicit knowledge of weight regulation and attempts at weight loss.

Data Analysis

It is anticipated that data will be analysed using non parametric correlational tests, and that there will be sufficient participants to test at 90% power.
PROTOCOL OF PROPOSED STUDY

The Relationship Between Eating Attitudes and Body Image and Knowledge of Weight Regulation in Adolescent Girls

Principal Investigator: Christy Wellings, Psychologist in Clinical Training
Supervisor: Dr. Paul Davis, Senior Clinical Tutor, University of Surrey

Rationale

Interventions aimed at the primary prevention of unhealthy behaviours, such as smoking (Tobler, 1986) and substance abuse (Hansen, 1992) have had some success. Research into primary prevention of eating disorders and reducing the sub clinical symptoms of body dissatisfaction and unhealthy weight regulation is still in its infancy, and strong evidence of the effectiveness of such interventions to change behaviour has not yet been forthcoming (Shisslak, 1996, Wellings, unpublished). Several studies have demonstrated increases in knowledge after such interventions (e.g. Killen et al., 1993; Moreno and Thelen, 1993), but whilst it is well understood that disturbed eating attitudes are closely linked to eating disordered behaviour (Crisp, 1967; Garner and Garfinkel, 1979) it is less clear whether levels of relevant knowledge is related to such attitudes, and behaviours (e.g. Perry-Hunnicutt and Newman, 1993).

It is the investigator’s clinical impression that the levels of knowledge of the negative aspects of dieting are very low in adolescent girls. This is potentially vital as it is claimed that the practice of dieting can be a contributing factor in the development of eating disorders (Herman and Polivy, 1980; Lacey et al. 1986). It therefore seems feasible to suggest that greater knowledge of the negative aspects of dieting may be related to lower levels of eating and body image pathology. Such a relationship would suggest that preventative interventions might usefully include an educative component about the negative aspects of dieting. This study will therefore investigate the presence of this relationship in a non clinical sample.

Objectives

1. To examine the relationship between such knowledge and eating attitudes and body image.

2. To investigate the baseline level of knowledge regarding weight regulation in a population of adolescent girls.

3. To draw conclusions from this regarding the possible primary prevention of eating disorders and encouragement of healthier eating attitudes.
Method

Recruitment of Participants

Participants will be female secondary school pupils between the ages of 11 and 15 from a primarily non-clinical population. It is hoped to recruit approximately 110 pupils from secondary schools. The principal investigator will write to the headteachers of single sex (female) schools and ask whether they would be prepared to allow their pupils to complete 4 questionnaires in school for a research project investigating the relationship between young girls’ eating attitudes and body image and their knowledge of dieting and weight regulation (letter enclosed). This letter will be followed up with a phone call in order to maximise response rate.

Procedure

The principal investigator will go into classes and introduce the questionnaires, both with an information sheet (enclosed) and with verbal instructions. The purpose of the questionnaires will be made clear, both verbally, and in the accompanying Information Sheet. The confidentiality and voluntariness of participation will be stressed. A ruler for height and weighing scales will be available for those who do not know their height and/or weight in metres. The order in which questionnaires are completed will be varied to minimise any order effects. Questionnaires will be completed in the presence of the principal investigator, who will answer any questions. Following completion of the questionnaires, participants will be debriefed and informed that the principal investigator will be available for confidential discussion in the school should they have any concerns about their shape or eating behaviour.

The principal investigator will make herself available for private discussions with any individuals who are concerned about their shape or eating or have other concerns arising from their participation in the study, in order to clarify the extent of their difficulties and encourage them to seek help if appropriate. Any participants who do so will be told immediately, that whatever they say is confidential, unless they tell me something that leads to concern about their health or safety. In that case a teacher would need to be informed, who would probably share concerns with their parents.

If felt to be beneficial by staff, participants will then be given a presentation which may include: the pressures on young girls to be slim, the effects of dieting, and education regarding eating disorders, and invited to discuss the issues raised. Staff will also be offered education and advice regarding eating disorders and how to deal with concerns regarding pupils. The exact content of the advice/education to staff and/or pupils will be carefully negotiated with staff, to ensure that it is tailored to their particular concerns.
Consent

Informed consent will be sought from parents prior to completion of the questionnaires by letter. This letter will differ slightly depending on whether questionnaires are presented in the classroom or not. It will be made clear to all potential participants that participation in the study and completion of the questionnaires is entirely voluntary, but they will not be asked to sign a consent form as the value of this is questionable value where participants are under 16 years of age.

Confidentiality

Confidentiality of individual responses will be assured by asking participants not to write their names on the questionnaires. Instead, they will be numbered to enable the investigators to study the relationships between the responses to different questionnaires. This will be explained to participants and they will be assured that these numbers will not allow them to be identified, and that only the investigators will see the responses so they will not be identifiable by their handwriting. Completed questionnaires will be checked for any names and these will be made illegible before responses are read to prevent any dilemmas arising over whether to breach confidentiality if any identifiable participants suggest severe eating pathology.

School staff will be offered some very general feedback on the questionnaire responses to aid their understanding of the eating and body image concerns of their pupils. However, confidentiality for individuals’ responses will remain paramount and no information which could possibly risk an individual’s confidentiality will be disclosed. This will be made clear to all participants both verbally and in written information sheets.

Measures (included)

Children’s Eating Attitudes Test (Maloney, McGuire and Daniels, 1988)
Body Shape Questionnaire (Cooper et al., 1987)
You, Your Diet and Your Weight
Weight Regulation Knowledge Questionnaire
(both developed by the principal investigator, in consultation with experienced clinicians)

Risks of Proposed Study

There are two potential risks foreseen by the investigators. The first is the possibility of drawing participants’ attention to negative aspects of their body image and eating attitudes. However, there is no evidence that the use of such measures or discussion of such issues had negative effects (Shisslak, 1996; Wellings, unpublished). Participants will be debriefed sensitively and given the opportunity for discussion to minimise this possibility.
The second potential risk is that of suggesting methods of unhealthy weight regulation to the participants as the questionnaires ask directly about such unhealthy behaviours. However, it is unlikely that they are not already familiar with such ideas as eating disorders are receiving increasing public attention, and adolescents are shielded less and less from such information. It is obviously preferable that such issues are discussed in school with chance to ask questions and air concerns, rather than being discussed only with peers, leading to potential misinformation. There is no direct research into the effects of asking such questions to adolescents. However, both the ChEAT and the BSQ have previously been used with samples of healthy adolescents (Bunnell et al., 1992; Smolak and Levine, 1994). Previous studies investigating the primary prevention of eating disorders have asked such questions of both control and intervention groups and discussed such behaviours in an attempt to prevent them (e.g. Killen et al. 1993; Paxton et al. 1993). Whilst the success of such programmes has so far been limited, there is no evidence that asking such questions had any undesirable effects. This is paralleled in drug and sexual education programmes in schools, which are now widespread despite initial concerns regarding possible negative effects.

Benefits of Proposed Study

An information sheet will include information on how to seek help if concerned about their eating behaviour. The principal investigator (under supervision from the research supervisor) will make herself available for confidential (within normal clinical limits) discussion for any participants concerned about their eating attitudes or body image or other worries brought up for them by completing the questionnaires. In addition to this, education/advice will be offered to participating school(s) either to pupils themselves and/or to staff, whichever staff feel would be most beneficial.

These measures, and the process of completing the questionnaires itself, may be of benefit to participants, both encouraging them to think about their own eating attitudes and body image, and providing an easy pathway to seek help if they have concerns. This may enable any participants with clinical problems to receive treatment at an earlier stage than they would otherwise, increasing the probability of a positive response to treatment (Steinhausen and Glanville, 1983).

In addition to the potential benefits to the participants themselves, it is anticipated that this study will make a significant contribution to the body of knowledge relevant to the prevention of eating disorders and reducing the sub clinical symptoms of body dissatisfaction and unhealthy weight regulation.

Statistical Analyses

Data from the questionnaires will be subjected to statistical analyses. It is anticipated that the subjects' questionnaire responses will be normally distributed, and it will therefore be possible to use parametric statistical tests. These test will be correlational.

Assuming that parametric, correlational statistical tests are used, 109 participants will be needed for 90% power (i.e. a 90% probability of detecting, at a significance level of
5%, a correlation of 0.3). As it is hoped to recruit 110 participants this gives the proposed study an very good chance of detecting clinically significant relationships.

Statistical advice has been and will continue to be sought from Dr. Chris Fife-Shaw, Psychology Department, University of Surrey, Guildford.
References


Dear Miss Wellings

The relationship between eating attitudes and body image and knowledge of weight regulations in adolescent girls. (ACE/98/23/PSY)

Further to your recent submission of the above protocol to the Advisory Committee on Ethics, the Committee has made the following comments:-

1. The Committee expressed reservations over the methods stipulated for recruiting volunteers and gaining their consent. Concern was raised because the study is asking 12 and 13 year old volunteers to provide very personal information through questionnaires which contain both intrusive and potentially distressing questions. Furthermore, the children are required to make a decision on whether to participate or not in class immediately after a presentation on the project. It is difficult to believe that their decision would not be apparent to others. In view of the sensitivity of this issue and the distress that it could lead to, I consider that informed parental consent should be obtained (Information Sheet for parents and parental Consent Form) and that a child’s participation or not should not be apparent from a classroom-based exercise.

2. The letter to headteachers requires amending to maintain consistency as the stated age range differs from that given in the detailed protocol.

3. As far as possible the study should be conducted through the University and therefore you are advised to give the University address and telephone number. If contact by this means is difficult, then an external telephone number could be given, but the external address should be withheld. This is particularly important as the Committee would like you to provide a contact telephone number for participants who may have further queries after the study itself (pupils may not wish to raise queries during the experimental period). In addition, you are reminded that all correspondence should be on University headed paper.
4. The Committee would like the following amendments to the questionnaires and Information Sheet:

i. the body shape questionnaire, please remove question 16 as this is considered offensive.

ii. the weight regulation knowledge questionnaire, question 6 is confused and needs to be rephrased.

iii. please remove the word 'their' from point 3) of the Information Sheet i.e. '3) knowledge about how people lose or maintain weight'.

iv. please replace the sentence 'It is hoped that this research about their weight' (Information Sheet) with 'It is hoped that this research will be helpful for girls who consider dieting'.

On receipt of your response to these points, I shall circulate it to the Committee for further consideration. I look forward to hearing from you shortly.

Yours sincerely

Helen Schuyleman (Mrs)
Secretary, University Advisory Committee on Ethics
Dear Mrs. Schuyleman,

Thank you for sending the comments from the University Advisory Committee on Ethics regarding my protocol.

1. The protocol has been amended to include informed consent from parents. However, we feel that the method of presentation of the questionnaires requires more detailed discussion, and we have therefore presented three options on a separate sheet. Option one is preferred, but if this is not satisfactory, please consider Option 2 and then Option 3. However, we do have some concerns regarding the ethics of Option 3 relating to confidentiality.

2. The stated age range of pupils in the detailed protocol has been amended to maintain consistency with the letter to headteachers.

3. I have given my own telephone number to schools to ensure that I can be contacted quickly. However, participants and their parents will be given only the University telephone number and I have amended the Information Sheet to include it. University headed paper has been and will continue to be used for all correspondence.

4. The questionnaires and information sheet have been amended as suggested in point 4 of your letter.

I hope these changes prove satisfactory to the Committee. I look forward to hearing from you shortly.

Yours sincerely

Christy Wellings
Psychologist in Clinical Training
Options For Consent and Confidentiality

Option 1

Questionnaires would be administered in the classroom. Written informed consent would be sought from parents who were asked to discuss it with their daughters.

Children whose parents had not given their consent would be given only the Weight Regulation Questionnaire, as this is purely a test of knowledge and is unlikely to be considered personal or potentially distressing. Children would be told that some would be given 4 questionnaires and some only one, partly according to parental consent, but that some of those who received the Weight Regulation Questionnaire only were randomly allocated. Children will be given the option of getting on with some work if they choose not to complete any of the questionnaires, or when they have completed them. Those whose parents give consent, but would still prefer not to participate will be given the option of completing the Weight Regulation Questionnaire only without drawing attention to themselves.

Questionnaires themselves would not contain children’s names, but names would be on adhesive stickers on the front of each questionnaire, to ensure that each child is given the correct questionnaire according to their parents’ wishes. Each name label would be removed as each questionnaire was given out. All children would be given the same information sheet as a front sheet and those receiving the Weight Regulation Questionnaire only would be given several blank pages, so that it would not be obvious which questionnaires children were receiving whilst they were being given out.

Advantages

• Children can discuss with their parents whether they want to take part in good time before the administration of the questionnaires, and therefore need not feel pressured to participate
• Children do not need to take responsibility with their peers if they choose not to participate, but, if it is noticed, can attribute this to their parents, or to the “random” allocation of some of the questionnaires
• Complete confidentiality of responses can be ensured in the classroom setting and children can be most effectively discouraged from discussing their responses.
• In the classroom setting, children can be immediately debriefed and ask any questions following completion of the questionnaires.
• Children whose parents gave informed consent but who would prefer not to participate themselves can choose not to participate and complete only the Weight Regulation Questionnaire without drawing attention to themselves

Disadvantages

• Children may be able to tell who is completing which questionnaires
Option 2

As Option 1, except that children will be given an extended nutritional knowledge questionnaire, consisting of the same number of pages and layout as the “real” questionnaires, to make it difficult to tell who had which questionnaires.

Advantages

• Difficult for children to tell who had which questionnaires
• As in Option 1

Disadvantages

• Wasting children’s time by asking them to fill out spurious questionnaires. (They will be made as relevant as possible by trying to interest the children in good nutrition).
• Considerable time needed to devise such questionnaires.
• Children may feel that being asked to complete a questionnaire which will not be used a pointless exercise.
• It may still be possible for children to ascertain who has which questionnaires.
• It may not be so simple for children whose parents have given consent, but prefer not to participate themselves, to know what to do as they will not have the full dummy questionnaires.

Option 3

Children will be given a presentation in school and then those whose parents have given informed consent will be given questionnaires to take home. Those whose parents have not consented will be given dummy envelopes. Children will be urged to complete the questionnaires in complete confidence and asked not to ask their friends how they responded. The informed consent sheet will ask parents not to look at their daughter’s responses. Children will be given stamped addressed envelopes with my name and the University address and asked either to send them straight to me or to give them to their teacher who will pass them on.

Advantages

• It will not be possible for children to tell who is taking part in the study.

Disadvantages

• Confidentiality of responses from parents or peers cannot be safeguarded, with obvious implications, both ethically and for the accuracy of the information given.
• Children will not have an immediate opportunity to ask questions or be debriefed.
• The anticipated response rate is much lower once the onus is placed on individuals to return questionnaires.
28 September 1998

Miss C Wellings
80 Haydon Park Road
Wimbledon
London
SW19 8JT

Dear Miss Wellings

The relationship between eating attitudes and body image and knowledge of weight regulations in adolescent girls. (ACE/98/23/PSY)

I am writing to inform you that the Chairman, on behalf of the Advisory Committee on Ethics, has considered the above protocol and the subsequent information supplied, and has approved it on the understanding that the Ethics Guidelines are observed and the following conditions are met:–

1. option 3. is used. It has been suggested that you may be able to improve the response rate by returning to the school, hopefully the following day, and asking participants to return their papers at this time.

2. amend point 6. of the ‘Weight Regulation Knowledge Questionnaire’ so that the TRUE/FALSE section is removed and that its phraseology is similar to question 8.

This letter of approval relates only to the study specified in your research protocol (ACE/98/23/PSY). The Committee should be notified of any changes to the proposal, any adverse reactions and if the study is terminated earlier than expected (with reasons). I enclose a copy of the Ethics Guidelines for your information.

I should be grateful if you would confirm in writing your acceptance of the conditions above and either enclose a copy of the amended document or submit it under separate cover by Tuesday, 6 October.

Yours sincerely

Helen Schuyleman

Helen Schuyleman (Mrs)
Secretary, University Advisory Committee on Ethics

cc: Dr Paul Davis, Co-Investigator (Psychology)
The relationship between eating attitudes and body image and knowledge of weight regulation in adolescent girls. (ACE/98/23/Psych)

I am writing to inform you that after your meeting with Professor King to discuss protocol (ACE/98/23/Psych), the Chairman has considered your application further taking into account the original approval letter in which the Advisory Committee on Ethics agreed to a revised submission on the principal condition that Option 3 would be followed. This option was preferred by the Committee because it offered better assurance of confidentiality to the respondents, in respect of fellow pupils, and thus minimised the risk of bullying and other stressful occurrences. However, with the additional assurance provided by the preparation of pupils through their personal and social education programme and the inclusion of the preparation and debriefing sessions as outlined in your letter dated 7 October 1998, the Chairman has given approval to a limited study under the conditions of Option 1. The limitations are as follows:

1. the study is restricted to pupils at Lady Margaret School.

2. any student who for any reason has not taken part in the personal and social education programme is to be excluded from the study.

If you wish to extend the study to other schools a new application will have to be submitted to the University Advisory Committee on Ethics together with a brief outline of the success of the present investigation at Lady Margaret School.
This letter of approval relates only to the study specified in your research protocol (ACE/98/23/Psych). The Committee should be notified of any changes to the proposal, any adverse reactions and if the study is terminated earlier than expected (with reasons). I enclose a copy of the Ethics Guidelines for your information.

Yours sincerely

Helen Schuyleman (Mrs)
Secretary, University Advisory Committee on Ethics

cc: Professor L J King, Chairman, ACE
    Dr Paul Davis, Co-Investigator (Psychology)

Enc
Information Sheet

These questionnaires are part of a research study looking at young girls’:
1) attitudes to food, eating and their body shapes
2) their eating habits and
3) knowledge about how people lose or maintain weight.
It is hoped that this research will be helpful for girls who consider dieting.

I would like to ask for your help in this study by completing these questionnaires as honestly as you can.

Please do not put your names on the questionnaires. Your answers are completely confidential. nobody but myself will see the completed questionnaires. Please do not show your answers to anyone else or ask to look at anyone’s responses, as this may make it more difficult for people to answer truthfully. I may give your teachers some general information about the kind of things girls have said in the questionnaires, but no-one will know what you have answered.

Please answer the questionnaires in the order in which you have been given them. Read any instructions at the start of each questionnaire carefully. Please answer all the questions. If you are not sure what to answer for any of them, don’t worry about spending too much time thinking about them - just circle (or write down) the response which seems the best option. When you have finished all the questionnaires, please go through them again to check that you have answered every question.

If you have any questions about filling in these questionnaires, please put up your hand and ask me. I will be happy to help. Or, if you have any questions later, I can be contacted by telephone at the University of Surrey on (01483) 259441.

Thank you very much for your help.

Christy Wellings
Psychologist in Clinical Training
University of Surrey
The Children’s Eating Attitude Test

We should like to know how you feel about food and eating. Please read each question and circle the appropriate number to the right. Please answer all the questions.

1. I am scared of being overweight .............................................................. 1 2 3 4 5 6
2. I stay away from eating when I am hungry .............................................. 1 2 3 4 5 6
3. I think about food a lot of the time ............................................................. 1 2 3 4 5 6
4. I have gone on eating binges where I feel that I might not be able to stop 1 2 3 4 5 6
5. I cut my food into small pieces ................................................................ 1 2 3 4 5 6
6. I am aware of the energy (calorie) count of foods that I eat .................... 1 2 3 4 5 6
7. I try to stay away from foods such as breads, potatoes and rice ............ 1 2 3 4 5 6
8. I feel that others would like me to eat more .............................................. 1 2 3 4 5 6
9. I vomit after I have eaten .......................................................................... 1 2 3 4 5 6
10. I feel very guilty after I have eaten .......................................................... 1 2 3 4 5 6
11. I think a lot about wanting to be thinner ................................................. 1 2 3 4 5 6
12. I think about burning up calories when I exercise ................................... 1 2 3 4 5 6
13. Other people think I am too thin ............................................................. 1 2 3 4 5 6
14. I think a lot about fat on my body ........................................................... 1 2 3 4 5 6
15. I take longer than others to eat my meals ............................................... 1 2 3 4 5 6
16. I stay away from foods with sugar in them ............................................ 1 2 3 4 5 6
17. I eat diet foods .......................................................................................... 1 2 3 4 5 6
18. I think that food controls my life .............................................................. 1 2 3 4 5 6
19. I can show self control around food .......................................................... 1 2 3 4 5 6
20. I feel that others pressure me to eat .......................................................... 1 2 3 4 5 6
21. I give too much time and thought to food .............................................. 1 2 3 4 5 6
22. I feel uncomfortable after eating sweets ............................................. 1 2 3 4 5 6
23. I have been dieting ........................................................................ 1 2 3 4 5 6
24. I like my stomach to be empty ........................................................ 1 2 3 4 5 6
25. I enjoy trying new rich foods.......................................................... 1 2 3 4 5 6
26. I have the urge to vomit after eating ................................................. 1 2 3 4 5 6
The Body Shape Questionnaire

We should like to know how you have been feeling about your appearance over the PAST FOUR WEEKS. Please read each question and circle the appropriate number to the right. Please answer all the questions.

OVER THE PAST FOUR WEEKS:

1. Has feeling bored made you brood about your shape? 1 2 3 4 5 6
2. Have you been so worried about your shape that you have been feeling you ought to diet? 1 2 3 4 5 6
3. Have you thought that your thighs, hips or bottom are too large for the rest of you? 1 2 3 4 5 6
4. Have you been afraid that you might become fat (or fatter)? 1 2 3 4 5 6
5. Have you worried about your flesh not being firm enough? 1 2 3 4 5 6
6. Has feeling full (e.g. after eating a large meal) made you feel fat? 1 2 3 4 5 6
7. Have you felt so bad about your shape that you have cried? 1 2 3 4 5 6
8. Have you avoided running because your flesh might wobble? 1 2 3 4 5 6
9. Has being with thin girls made you feel so bad about your shape? 1 2 3 4 5 6
10. Have you worried about your thighs spreading out when you sit down? 1 2 3 4 5 6
11. Has eating even a small amount of food made you feel fat? 1 2 3 4 5 6
12. Have you noticed the shape of other girls and felt that your own shape compared unfavourably? 1 2 3 4 5 6
13. Has thinking about your shape interfered with your ability to concentrate (e.g. while watching television, reading, listening to conversations)? 1 2 3 4 5 6
14. Has being naked, such as when taking a bath, made you feel fat? 1 2 3 4 5 6
15. Have you avoided wearing clothes which make you particularly aware of the shape of your body? 1 2 3 4 5 6
16. Has eating sweets, cakes or other high calorie food made you feel fat? 1 2 3 4 5 6
17. Have you not gone out to social occasions (e.g. parties) because you have felt bad about your shape? ................................. 1 2 3 4 5 6
18. Have you felt excessively large and rounded? ........................................... 1 2 3 4 5 6
19. Have you felt ashamed of your body? ........................................................ 1 2 3 4 5 6
20. Has worry about your shape made you diet? ....................................... 1 2 3 4 5 6
21. Have you felt happiest about your shape when your stomach has been empty (e.g. in the morning)? ........................................ 1 2 3 4 5 6
22. Have you thought that you are the shape you are because you lack self control? .................................................................................. 1 2 3 4 5 6
23. Have you worried about other people seeing rolls of flesh around your waist or stomach? ............................................................. 1 2 3 4 5 6
24. Have you felt that it is not fair that other girls are thinner than you? .... 1 2 3 4 5 6
25. Have you vomited in order to feel thinner? ........................................... 1 2 3 4 5 6
26. When in company have you worried about taking up too much room (e.g. sitting on a sofa, or a bus seat)? ........................................ 1 2 3 4 5 6
27. Have you worried about your flesh being dimply? .................................. 1 2 3 4 5 6
28. Has seeing your reflection (e.g. in a mirror or shop window) made you feel bad about your shape? ........................................... 1 2 3 4 5 6
29. Have you pinched areas of your body to see how much fat there is? .... 1 2 3 4 5 6
30. Have you avoided situations where people could see your body (e.g. communal changing rooms or swimming baths)? ........ 1 2 3 4 5 6
31. Have you taken laxatives in order to feel thinner? ............................... 1 2 3 4 5 6
32. Have you been particularly self-conscious about your shape when in the company of other people? .......................... 1 2 3 4 5 6
34. Has worry about your shape made you feel you ought to exercise? ...... 1 2 3 4 5 6
Weight Regulation Knowledge Questionnaire

Please answer these questions by circling the response you think is correct. If you are not sure of your answer, please circle the response you think is most likely to be correct. Please answer all questions.

1. Eating less than you normally do should always lead to losing weight  TRUE/FALSE

2. It is important to have some fat in your diet to remain healthy  TRUE/FALSE

3. It is important to have some sugar in your diet to remain healthy  TRUE/FALSE

4. If you are overweight you are more likely to suffer from heart disease and stroke when you are older  TRUE/FALSE

5. You need to be slim to be physically fit.  TRUE/FALSE

6. Muscle weighs less than / the same as / more than fat.  TRUE/FALSE

7. Everyone can be as thin as they want to be if they choose the right, healthy diet and take regular exercise.  TRUE/FALSE

8. Each time you lose weight and regain it, it becomes easier / no different / harder to lose weight next time.

9. It is healthier / no different / less healthy to have repeated weight changes than to remain somewhat overweight.

10. Average women are heavier / the same / lighter now than ever before.

11. When you eat less/diet, your metabolism (speed at which your body uses energy from food)

    a) slows down and makes it harder to lose weight
    b) stays the same
    c) speeds up and makes it easier to lose weight

12. When you exercise regularly your metabolism

    a) slows down and makes it harder to lose weight
    b) stays the same
    c) speeds up and makes it easier to lose weight

13. What is the minimum number of calories you should eat when trying to lose weight?

    a) as few as you can manage on - it’s up to you
    b) 500-1000
    c) 1000-1500
    d) 1500-2000
You, Your Diet and Your Weight

Please answer all the questions below as accurately as you can. If you are not sure of your height and/or weight in cm/kg there are some weighing scales and a ruler available in the classroom.

1. Please give your height (in cms)
2. Please give your weight (in kgs)

3. Is your ideal weight
   a lot less / a little less / about the same as / a little more than / a lot more than your current weight?

4. Are you currently trying to lose weight? YES/NO
   If yes: Are you dieting? YES/NO
   Are you trying other ways of losing weight? YES/NO
   (if yes please specify)

5. Are any of your friends currently trying to lose weight? YES/NO
6. Are any of your family currently trying to lose weight? YES/NO
7. Have you tried to lose weight at all over the last year? YES/NO
   If yes: Have you dieted? YES/NO
   Have you tried other ways of losing weight? YES/NO
   (if yes please specify)

8. Have you succeeded in losing any weight at any time over the last year? YES/NO
   If yes: How much of this weight has stayed off? All / some / none
   How long has it been since you lost it? months
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Do you eat breakfast?</td>
<td>Always, Usually, Sometimes, Rarely, Never</td>
</tr>
<tr>
<td>10. Do you eat lunch?</td>
<td>Always, Usually, Sometimes, Rarely, Never</td>
</tr>
<tr>
<td>11. Do you eat an evening meal?</td>
<td>Always, Usually, Sometimes, Rarely, Never</td>
</tr>
<tr>
<td>12. How many pieces of fruit do you eat on average per day?</td>
<td>(If less than one, how many per week)</td>
</tr>
<tr>
<td>13. How many portions of vegetables do you eat per day?</td>
<td>(If less than one, how many per week)</td>
</tr>
</tbody>
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MAJOR
RESEARCH PROJECT

Changes In Motivation Over Time
In An Acute Inpatient Treatment Service
For Substance Misuse
And Their Relationship
To Withdrawal Symptoms
And Attrition Rates

Year 3

Supervisor
Dr. Paul Davis
Abstract

Title: Changes in motivation over time in an acute inpatient treatment service for substance misuse and their relationship to withdrawal symptoms and attrition rates.

Background: Attrition is a particular problem in drug and alcohol services. Motivation at the start of treatment has been shown to be related to attrition. However, motivation changes throughout treatment and their ability to predict attrition from treatment have not yet been studied. Motivational interviewing has been shown to increase motivation, and decrease attrition rates in drug and alcohol patients.

Principal Research Questions: How does motivation change over time during acute inpatient treatment? Does this predict unplanned discharge?

Sample Group Description: 60 of 77 consecutive admissions on an acute inpatient drug treatment unit.

Method: The study uses a time series design to measure motivation with additional baseline control data to evaluate any effect of this assessment on attrition rates. Participants were asked to complete questionnaires as soon as possible after admission, and three times weekly thereafter during their inpatient stay.

Outcome Measures: Three questionnaires measuring different aspects of motivation, The Treatment Motivation Questionnaire, The Drug Avoidance Self-Efficacy Scale and the Outcome Expectancies Questionnaire. The Opiate Withdrawal Symptom Questionnaire was used to measure severity of withdrawal symptoms. The planned or unplanned nature of discharge was the measure of attrition.

Results and Conclusions. Self-efficacy increases with time in treatment, consistent with previous research findings. Outcome expectations appear to decrease with time in treatment, but this finding needs replication. Greater increases in self-efficacy do appear to be negatively associated with attrition. A similar tendency was apparent for
outcome expectations, but this was not significant. Severity of withdrawal symptoms is significantly related to low motivation, both in terms of self-efficacy and outcome expectations. There was no evidence to suggest that participation in the study influences attrition rates.
Introduction

“Addictive disorders are essentially motivational problems” (Heather, 1992). Substance misusers in treatment can be viewed as in a continuing motivational or decisional conflict regarding whether or not to use the substance to which they are addicted (Miller and Rollnick, 1991).

Definitions and Conceptualisations of Motivation

Motivation has variously been defined as the “intervening process or internal state of an organism that impels or drives it to action” (Reber, 1995) and with changes in addictive behaviour in mind, by Miller (1985) as the “probability that a person will enter into, continue, and adhere to a specific change process.” It would seem more precise to qualify this latter definition by restricting to the influence of factors internal to the individual, though including his/her perception of external circumstances.

The conceptualisation of motivation has developed substantially since Hull’s (1943) drive theory, which posited that all behaviour was motivated and reinforced by the anticipated reduction of a drive state. Opinion has shifted away from the potentially pessimistic views that motivation is an inherent and unchanging personality characteristic of the individual (Clancy, 1961; 1964), and a prerequisite for the treatment of addictive behaviours (Beckman, 1980).

Stages of Change

Prochaska and DiClemente’s (1983; 1986) Stages of Change model has been particularly influential in encouraging clinicians to view motivation or “readiness to change” as more fluid and responsive to intervention (Sutton, 1996). Their most recent conceptualisation (Prochaska, DiClemente and Narcross, 1992) proposes that individuals spiral through five stages of change; precontemplation, contemplation,
preparation, action and maintenance, perhaps several times, on their route to the termination of the addiction. The second core aspect of the model is the specification of the processes of change that individuals can use to help them in their progression toward recovery, and the proposal that different processes are more-or-less important in different stages. For example, whilst “counter conditioning” or problem substitution may be vital in the action stage, such strategies are unlikely to be helpful in precontemplation or contemplation stages, in which, for example, “consciousness-raising” is likely to be more beneficial.

However, whilst intuitively appealing (Sutton, 1996) and useful to clinicians and addicts in aiding “treatment matching” (Wanigeratne, Wallace, Pullin, Keaney and Farmer, 1990), this model does not greatly contribute to our understanding of the sources of motivational influence.

Internal Versus External Motivation

Deci and Ryan (1985) propose that self-determination theory (a development of Heider's (1958) attribution theory) can help to explain these sources of motivation. They distinguish between an internal perceived locus of causality (PLOC), the extent to which the self is perceived as the initiator and sustainer of one’s actions, and an external PLOC, the extent to which one sees forces outside the self as initiating or coercing one’s action. It is important to note that external and internal PLOC are not seen as opposite poles of a unidimensional scale, but as two potentially independent dimensions. However, a high external PLOC may explain why some individuals who appear to have extremely low internal motivation present for treatment.

Ryan, Plant and O’Malley (1995) propose that higher internal PLOC will be associated with persistence and success in treatment. They cite evidence that higher internal motivation was associated with abstinence from smoking (Curry, Wagner and Grothaus, 1990) in support of this claim.
Whilst such a distinction between internal and external motivation appears valid and useful, such a conceptualisation still does not help us to understand the essence of motivation, and how it influences behaviour.

**Social Cognitive Conceptualisations - Self Efficacy and Outcome Expectations**

Perhaps most promising in the above respect are the dual conceptualisations proposed both by Sutton (1987) and by Rollnick (1998) which combine self-efficacy and outcome expectations. Rollnick (1998) conceptualises readiness to change, importance (or outcome expectations) and confidence (or self-efficacy) as currently the most important conceptualisations of motivation.

The concept of self-efficacy was originally proposed by Bandura (1977) as the individual's perception of their own abilities and capacity to cope with specific situations and problems. Much research has confirmed its importance as a predictor of change in a variety of behaviours (see Bandura, 1994). Expectancy value theories, for example Fishbein's Theory of Reasoned Action (Azjen and Fishbein, 1980) emphasise the importance of expectations of the outcome of a behaviour change in predicting whether that change will occur. Such expectations equate to the costs and benefits of engaging in and/or giving up the behaviour; such decisional balances are common therapeutic techniques for assessing and enhancing motivation, and thus already fundamental to clinicians’ conceptualisations of motivation (Miller and Rollnick, 1991; Wanigeratne et al., 1990). Bandura (1986) has combined these two concepts into a unified social cognitive theory of motivation. Such a theory increases its utility by breaking motivation down into more specific concepts, both of which are open to intervention. There is already an extensive literature on methods of increasing self-efficacy, and outcome expectancies are targeted by decisional balance techniques and Miller and Rollnick’s motivational interviewing principle of developing discrepancy (i.e. increasing negative outcome expectations of continued misuse).
The Relationship Between Motivation and Treatment Outcome

Given the definitions of motivation cited earlier, it follows, almost by necessity, that motivation should predict treatment outcome. This can lead to accusations of circularity in the concept of motivation (e.g., by Einstein and Garitano, 1972), i.e., that motivated patients succeed because they are motivated and unmotivated patients do not succeed because they are not motivated. Such tautologies can be avoided, and the concept of motivation remains useful if research into motivation seeks to investigate the factors which underlie individual differences in the probability of successful outcome, whilst not negating the importance of external factors such as programme factors, and social circumstances, particularly indices of deprivation. Studies assessing the relationship between outcome are still useful, not in supporting the self-evident conclusion that motivation predicts treatment outcome, but
(i) to assess the extent to which motivation predicts treatment
(ii) to assess the validity of different measures of motivation
(iii) to increase our understanding of how motivation affects outcome, and
(iv) to increase our ability to predict individual differences in treatment outcome.

Predictive Ability of Different Conceptualisations of Motivation

Each of the various conceptualisations of motivation have had some success in predicting outcome. Intake measures of readiness to change (DiClemente et al., 1991; Cady, Winters, Jordan, Solberg and Stinchfield, 1996); internal motivation (Curry, Wagner and Grothaus, 1990); self-efficacy (Solomon and Annis, 1990; DiClemente, Prochaska and Gilbertini, 1985) and outcome expectations (Rollnick, Morgan and Heather, 1996; Cunningham, Sobell, Gavin, Sobell and Breslin, 1997) have all predicted positive outcome in terms of reduced consumption and higher levels of abstinence. There is preliminary evidence of difference in the predictive abilities of these conceptualisations. For example, the association of high self efficacy with positive outcome appears relatively robust, whereas at least one study has confirmed this association, but failed to find a relationship with outcome expectations (Solomon-
and Annis, 1990). However, such comparisons must be interpreted with caution; as Rollnick et al. (1996) point out, the relative predictive ability of self-efficacy and outcome expectations is likely to vary according to the perceived difficulty and importance of the specific behaviour for the individual.

Several studies have also found that end of treatment self-efficacy predicts treatment outcome (McKay, Maisto and O'Farrell, 1993; Goldbeck, Myatt and Aitehison, 1997). However, to this author’s knowledge, there has been little research into the predictive value of end of treatment measures of end of treatment motivation. Another area in which research is clearly lacking is the extent and nature of changes in motivation during treatment, and the extent to which such changes are able to predict outcome. Whilst motivation is now generally conceptualised as a fluid construct that is amenable to intervention, surprisingly little is known about how, and under what circumstances motivation changes. A literature search revealed only one study assessing changes in motivation. Martin Wilkinson and Poulous (1995) found that in both inpatient and outpatient treatment, self-efficacy increased over time, as would be predicted for successful treatment.

Undoubtedly, the most important contribution to this area of study is that of Miller and colleagues through their work on motivational interviewing.

Motivational Interviewing and Changes in Motivation

Rollnick and Miller (1995) define motivational interviewing (MI) as “a directive client-centred counselling style for eliciting behaviour change by helping clients to explore and to resolve ambivalence”.

Miller (1983) outlined five general principles that form its basis.

1. Express empathy
2. develop discrepancy (between present behaviour and broader goals).
3. avoid argumentation
4. roll with resistance
5. support self-efficacy

The primary objective of motivational interviewing is to change motivation (Davidson, 1996), but it is not based on any of the theories of motivation outlined above, but rather developed from practical experience of working with substance (primarily alcohol) misusing clients (Miller and Rollnick, 1992).

Rollnick and Miller (1995) reviewed the findings of seven randomised controlled trials evaluating the effectiveness of different forms of MI (one form was an interview lasting only fifteen minutes (Senft, Polen, Freeborn and Hollis, 1995) and found evidence in each for the efficacy of MI in influencing behavioural change.

Miller and Sanchez (1994) suggest that the active ingredients of their approach can be summarised by the acronym “FRAMES”:
Feedback - from a comprehensive assessment
Responsibility - emphasising that of the client to make any changes
Advice - to make a change
Menu - offering alternative strategies for change
Empathy
Self-efficacy

However, this remains rather speculative as these ingredients have not so far been empirically evaluated in themselves, and further work is required to ascertain which aspects of the MI style and associated techniques have the greatest impact on outcome.

What is clear is that motivation can and does change in response to intervention. The development of motivational interviewing has served to highlight both how little we know of such changes and their mechanisms, and the impact their occurrence can have.
Attrition

Thus far, all discussion of outcome has been in reference to measures of levels of continued drug or alcohol use or abstinence. The focus of the present study, however, is an important moderating variable for such outcomes, attrition, or drop-out from treatment, and its relationship with motivation.

Impact of Attrition from Treatment for Substance Misuse

Whilst attrition rates are not an issue specific to substance misuse, drop-out rates in this field are undeniably high. Simpson (1981) found that only 15-24% of clients involved in the Drug Abuse Reporting Project completed treatment, whether methadone maintenance, outpatient counselling, outpatient detoxification or therapeutic community programme. Gossop, Johns and Green (1987) followed 54 patients undergoing detoxification from opiates and found that only 17% of outpatients completed the programme, whilst inpatients fared relatively well with a 76% completion rate.

Stark (1992) points out that whilst the prevalence of attrition from treatment may be similar for substance misusers and clients of other psychiatric services. However, the impact of such attrition is very different. Pekarik (1985) found that those who dropped out of outpatient psychiatric treatment after three or more sessions demonstrated approximately the same improvement as “appropriate terminators. The outlook is much bleaker for drop-outs from substance misuse. Stark (1992) reviewed studies comparing the medium to long term outcomes of treatment completers and drop outs and concluded that nonCompleters were less likely to be drug and alcohol free, had higher unemployment and rates of arrest and had higher relapse rates.

It is important to note that this relationship is not necessarily causal. Rather, it could be that treatment attrition is correlated with some other variable, for example, impulsivity, that increases the probability of both treatment drop-out and of future substance use.
Whilst this is extremely plausible, and may contribute to the association, there is preliminary evidence that length of treatment may act as a moderating variable between attrition and outcome, in that length of treatment is significantly related to positive outcome for both outpatient (Simpson, Joe and Rowan-Szal, 1997) and inpatient programmes (Simpson, 1981).

Attrition and Motivation

Given the definition of motivation as the “probability that a person will...adhere to a specific change process”, and the evidence that:

a) motivation is positively related to outcome and
b) attrition is negatively related to outcome

it would be surprising if there were not a negative relationship between levels of motivation and attrition rates.

Indeed, several researchers have confirmed this relationship empirically. Simpson and Joe (1993) found that two intake assessment scales (Assessment of Drug Use Problems and Desire for Help) representing progressive levels of change similar to those of Prochaska and DiClemente were significantly predictive of outpatient treatment retention. Ryan, Plant and O’Malley (1995) have found a positive (though weak) relationship between initial internal motivation and retention in alcohol outpatient treatment. To this author’s knowledge, there have been no studies to date which assess the relationship between outcome expectancy or self-efficacy with attrition from treatment for substance misuse. However, such a relationship has been demonstrated in general psychiatric outpatient services (Longo, Lent and Brown, 1992). Again, to the author’s knowledge, there are no empirical studies examining the relationship between attrition and changes in motivation over time.

It is important to note that motivation is not the only factor influencing retention. Studies have found younger age, (Feigelman, 1987) female sex, (Baekelund and Lundwall, 1975) and more prior treatment (Beckman and Bardsley, 1986) to-be-
positively related to attrition. However, such associations do not appear to be particularly strong as other studies have found neither age, (Robinson and Little, 1982) sex, (Stark and Cambell, 1988) nor treatment history (Feigelman, 1987) to be associated with attrition rates. (See Stark, 1992 for an excellent review of both client and treatment factors associated with attrition.)

Summary of Rationale for the Current Study

Considering:
1) the current interest in the social cognitive conceptualisations of motivation in terms of self efficacy and outcome expectations (Rollnick, 1997; Davidson, 1996)
2) the view of motivation as a fluid construct, amenable to change (Miller and Rollnick, 1991) and
3) the high level of attrition from drug abuse treatment, and its impact on outcome (Stark, 1992)
a study investigating changes in motivation, as conceptualised from such a social cognitive perspective, and its relationship to attrition rates, would clearly be timely.

Research Questions Addressed by the Current Study

These are phrased as questions, rather than hypotheses, as the literature reviewed did not generally describe sufficient theory or empirical work on which to base the formulation of hypotheses. The exception to this is the work of Martin, Wilkinson and Poulous (1995) to suggest that self-efficacy increases during treatment. It is therefore hypothesised that self efficacy will increase during treatment.

The current study addresses two principal research questions:

1. How does motivation change over time during acute inpatient treatment for substance abuse? and
2. do these changes in motivation predict attrition?

An acute inpatient unit was chosen for the study due to the typically short duration of each treatment episode, thus allowing a greater number of participants to be assessed, and the accessibility of patients whilst in treatment, to allow more frequent assessments of motivation.

As patients admitted to this unit almost all underwent detoxification from opiate and/or benzodiazepine medication, and would therefore be expected to experience significant physical withdrawal symptoms, it was considered important to additionally assess withdrawal symptoms. Thus a supplementary research question was:

1. Are there relationships between withdrawal symptoms and motivation, and withdrawal symptoms and attrition?

Because of the relative uncertainty regarding factors influencing motivational change, and attrition rates, it was thought possible that participation in the research might, in itself, affect motivation and attrition. Obviously, it was not possible to assess whether or not assessment of motivation influenced motivation, but it was possible to assess whether attrition rates on the unit changed during the period of the study. Thus a second supplementary research question was:

2. Does regular questionnaire assessment of motivation affect attrition rates, compared to a baseline control group?
Method

Participants

Data from 60 participants were included in the data analysis. 62 of 77 consecutive inpatient admissions agreed to participate in the study. Two were excluded from the analysis.

Of those included, 38 (63%) were male and 22 (37%) were female. Ages ranged from 18 years to 49 years with a mean of 31 years. 93% reported heroin as their primary drug of abuse, whilst 58% reported polydrug misuse. Further information regarding both participants and non-participants can be seen in Table 1.

Table 1: Characteristics of Participants and Non-participants.

<table>
<thead>
<tr>
<th>Patient Characteristics</th>
<th>Participants (60)</th>
<th>Non-participants (17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage male/female</td>
<td>63/37</td>
<td>65/35</td>
</tr>
<tr>
<td>Mean age</td>
<td>31</td>
<td>32.4</td>
</tr>
<tr>
<td>Age range</td>
<td>18-49</td>
<td>24-39</td>
</tr>
<tr>
<td>Mean length of stay/days</td>
<td>18 (s.d 11)</td>
<td>17.6</td>
</tr>
<tr>
<td>Range of length of stay/days</td>
<td>0-41</td>
<td>0-41</td>
</tr>
<tr>
<td>Median number of previous detoxes</td>
<td>1.5</td>
<td>2</td>
</tr>
<tr>
<td>Range of number of previous detoxes</td>
<td>0-24</td>
<td>0-10</td>
</tr>
<tr>
<td>Percentage reporting misuse of opiates</td>
<td>97</td>
<td>-</td>
</tr>
<tr>
<td>Percentage reporting misuse of cocaine</td>
<td>30</td>
<td>-</td>
</tr>
<tr>
<td>Percentage reporting misuse of benzodiazepines</td>
<td>30</td>
<td>-</td>
</tr>
<tr>
<td>Percentage reporting misuse of alcohol</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>Percentage reporting misuse of other drugs</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Percentage reporting misuse of more than one drug</td>
<td>28</td>
<td>-</td>
</tr>
</tbody>
</table>
Data were also collected from a discharge audit for 77 consecutive admissions from January 1st 1998. These data were chosen rather than the 77 admissions immediately prior to the main participants as it was considered by the author and ward staff that season may have a significant impact on rates of unplanned discharge.

Setting

The research was conducted in a thirteen bedded acute inpatient substance misuse ward. The ward was part of a national specialist unit, which accepted referrals from secondary substance misuse services, for patients aged between 16 and 65, who misused drugs other than alcohol. Most, but not all of the patients were undergoing an opiate (methadone) detoxification treatment. See Appendix 6 for details of the treatment programme.

Measures

See Appendix 1.

Measures were selected to assess motivation from a social cognitive conceptualisation, i.e., self-efficacy and outcome expectations. The Treatment Motivation was used additionally, as this provided a measure of motivation for treatment rather than motivation for change. No measure of readiness to change was included as it was anticipated that such a measure would show a marked ceiling effect in a tertiary treatment population.

*Treatment Motivation Questionnaire (TMQ)*

This questionnaire assesses the extent to which an individual has internal (from within him or herself), and external (pressure from others) motivation and their desire to
accept help from other people. Hence it is comprised of three subscales: external 
motivation (4 items) internal motivation (11 items) and interpersonal help seeking (6 
items). Each item is scored on a five point Likert scale on which participants are asked 
to judge statements as “not at all true” to “very true”. This was adapted by Al-Otaibi 
(1998) has demonstrated excellent internal reliability for this questionnaire, with a 
Cronbach’s Alpha of 0.85. The validity and other reliability measures are reported by 
Al-Otaibi in an as yet unpublished study.

**Drug Avoidance Self-Efficacy Scale (DASES)**

This questionnaire is an 11 item scale which assesses the extent to which an individual 
feels confident that they will be able to resist temptation to use drugs. Each item has a 
seven point Likert scale in which participants are asked to rate how likely they would 
be to use or resist using drugs in certain situations from “definitely not” to “definitely 
yes”. It was adapted by Al-Otaibi (1998) from a questionnaire of the same name 
excellent internal reliability for his adaptation, with a Cronbach’s Alpha of 0.86.

**Outcome Expectancy Questionnaire (OEQ)**

This questionnaire is a 16 item scale which assesses the positive and negative outcomes 
that an individual expects from ceasing their substance use. Each item is scored on a 
five point Likert scale on which participants are asked to rate their agreement with 
statements from “agree strongly” to “disagree strongly”. This measure was adapted by 
Al Otaibi (1998) from a questionnaire of the same name by Saunders, Wilkinson, and 
Phillips, 1995). Al-Otaibi (1998) has demonstrated good internal reliability for his 
adapted version, with a Cronbach’s Alpha of 0.73.
Importance and Confidence Scales

These were two visual analogue scales, on which participants were asked to rate the importance of and confidence in achieving their treatment goals along a straight line marked 0-10. Their use was recommended by Wanigeratne (personal communication).

Opiate Withdrawal Symptom Questionnaire (OWSQ)

This questionnaire is an 18 item scale developed to measure withdrawal symptoms (Ghodse, 1995) at St. George’s Hospital Medical School, Department of Psychiatry of Addictive Behaviour. Participants are asked to rate each symptom’s severity over the past 24 hours from 0 (absent) to 3 (severe). For the present study, the direction of this scale was reversed, by subtracting each total score from 54, so that severe withdrawal symptoms were reflected by low scores and mild withdrawal symptoms were reflected by high scores. This was so that all outcomes which were considered “positive” were reflected in higher scores, primarily to aid interpretation of graphs.

Planned/Unplanned Discharge

Data regarding planned versus unplanned discharges are collected routinely for each patient. Patients are deemed to have taken a planned discharge if they have completed their detoxification (or stabilisation if this was their goal on admission) whether or not they left the ward on the scheduled day. Patients who did not complete their detoxification (or stabilisation) are deemed to have taken an unplanned discharge. This includes both patients who discharged themselves and those who were discharged for breaking their treatment contract, either for using drugs or another disciplinary issue.

Procedure

Ethical approval was sought and obtained from the Local Research Ethics Committee. See Appendix 2.
Recruitment and Selection of Participants

From 1st January 1999, consecutive admissions to an acute substance misuse ward (see Setting) were approached by the author and asked to participate in the study. They were given an Information Sheet (see Appendix 3) which they either read or had read to them, according to their preference, and this information was also summarised verbally by the author. All patients were approached within 30 hours of their admission.

The only exceptions to this were two patients who were not seen as they were admitted as emergencies on a Friday afternoon, and were discharged before the author returned the following Monday.

Seven patients (12%) asked to discontinue their participation before their discharge from the ward, and a further two (3%) did not complete two consecutive scheduled sets of measures prior to discharge. Such cases are included in analyses other than those investigating the relationship between questionnaire responses (other than the first) and discharge type.

Inclusion/Exclusion Criteria Applied

All patients admitted to the ward who agreed to participate were included except for those who met the following exclusion criteria:

1. Those without sufficient understanding, whether due to mental illness, or developmental or acquired intellectual impairment. This was assessed using case notes and the author’s clinical judgement. No patients were excluded using this criterion.
2. Those who were detained against their will under the Mental Health Act, as such patients would be unable to take their own discharge. One patient was excluded under this criterion.

3. Patients who agreed to participate, but who were, for whatever reason, unable to complete the questionnaires. Neither physical disability nor poor reading ability were reasons for exclusion according to this criterion as such patients were aided by the author. One patient was excluded under this criterion, as, due to distress she was unable to complete a full set of questionnaires in one day.

4. Patients who agreed to participate but whose responses were clearly not an attempt to complete the questionnaires honestly. No patients were excluded under this criterion.

**Administration**

All participants signed an informed consent form (see Appendix 4) after being informed of the confidentiality of the information given, and that it would not influence any treatment decisions. Those participants who agreed, completed the first set of questionnaires immediately. However, ten (17%) asked to delay their participation for up to five days following admission, usually because of physical withdrawal symptoms. See Table 2 for further details.

**Table 2: Numbers Of Participants Delaying Participation In Research**

<table>
<thead>
<tr>
<th>Number of Participants</th>
<th>Number of days following admission participation in research began</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>
Initial Assessment

All participants were seen individually in a private room. They completed each assessment measure, in the presence of the author, who answered any questions, and provided any help necessary for the completion of the assessment measures. These were:

1. Treatment Motivation Questionnaire
2. Outcome Expectancy Questionnaire
3. Drug Avoidance Self-Efficacy Scale
4. Opiate Withdrawal Symptom Questionnaire
5. Analogue scale of Importance of and Confidence in change

Subsequent Assessments

Each participant was asked to complete a set of measures three times weekly. These were as above, with the exception of the Treatment Motivation Questionnaire, which was not repeated. At designated times (Monday and Wednesday evenings and Friday lunch-times) participants were asked to complete the measures in a quiet room, in the presence of the author. However, where participants would only agree to complete the measures in the ward day room, or in their dormitory, this was accepted. When patients did not wish to or were unable to complete questionnaires on the designated day, it was first clarified whether they wished to continue to participate in the research, and, if so, the author returned the following day wherever possible, or otherwise left measures (with sealable envelopes) with patients or ward staff. Despite such measures, not all participants completed the measures three times each week.
Data Analysis

Missing Data

Where only one response was missing from a questionnaire, the missing value was estimated by calculating the modal score for that item for that respondent on other occasions. The exception to this was the Opiate Withdrawal Scale, for which missing values were calculated using the mean of the previous and subsequent administrations of the same questionnaire item for that participant. This was because these varied more systematically over time, and therefore appeared to be a more accurate method of estimation for this questionnaire. All missing values were estimable from these procedures. Such estimates accounted for only 19 (0.09 %) of questionnaire values.

Where more than one response was missing from a questionnaire, and for single item scales, all data from that measure were deleted from the data set. Data from 7 (0.5 %) of questionnaires were deleted for this reason.

The two participants who did not complete measures on either of the two consecutive scheduled occasions prior to discharge were excluded from all analyses involving “end of treatment” measures or comparisons between measures and the start and end of treatment. The nine participants who only completed one set of measures were excluded from all analyses involving changes in motivation over time and variability of motivation over time.

Statistical Tests

Non-parametric statistical tests were used throughout. Whilst responses to the OEQ, the DASES and the “interpersonal help seeking” scale of the TMQ could be considered normally distributed, the consistent use of non-parametric tests allowed comparability between the strengths of the relationships. The tests used in the following analyses have 95.5% of the power of the equivalent parametric tests where the assumptions for normality are met (Siegel, 1956).
Non-parametric correlational analyses (Spearman’s Rho) were conducted on all questionnaire and demographic variables. Wilcoxon Signed Rank tests were used to test for significant changes in questionnaire variables over time. The relationships between questionnaire variables and discharge type were assessed using Mann-Whitney U tests. Differences in proportions of each discharge type were assessed using a Chi-Squared Test.

Participants completed varying numbers of sets of measures (1-18). For this reason, change in motivation over time was measured using the difference between initial and end of treatment measures. The standard deviations of each participant’s responses were also used as a measure of variability in motivation over time.

Multivariate statistical analyses were not performed, due to statistical advice that the sample size was not sufficient for such analyses. Tabachnik and Fidel (1996) recommend a sample size of at least 50, with an additional eight for each predictor variable, thus suggesting a sample size of 90 in the current study (due to the five measures of motivation and withdrawal) for sufficient power to test the statistical significance of a regression equation.
Results

Means and Standard Deviations of Measures in Sample

Descriptive data for the scales used can be seen in Table 3.

Table 3: Initial, End of Treatment and Overall Means (and Standard Deviations) of Measures in Sample

<table>
<thead>
<tr>
<th>Measure</th>
<th>Initial</th>
<th>End</th>
<th>Overall*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n=60)</td>
<td>(n=58)</td>
<td>(n=437)</td>
</tr>
<tr>
<td>Drug Avoidance Self Efficacy Scale</td>
<td>41.9 (11.9)</td>
<td>46.1 (12.7)</td>
<td>44.2 (12.1)</td>
</tr>
<tr>
<td>Outcome Expectancy Questionnaire</td>
<td>12.1 (8.1)</td>
<td>10.2 (9.2)</td>
<td>10.8 (7.8)</td>
</tr>
<tr>
<td>Confidence Scale</td>
<td>7.2 (2.5)</td>
<td>7.7 (2.6)</td>
<td>7.9 (2.4)</td>
</tr>
<tr>
<td>Importance Scale</td>
<td>9.5 (0.7)</td>
<td>9.4 (1.1)</td>
<td>9.6 (0.7)</td>
</tr>
<tr>
<td>Treatment Motivation Questionnaire (Internal)</td>
<td>48.2 (6.3)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Treatment Motivation Questionnaire (External)</td>
<td>10.3 (3.8)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Treatment Motivation Questionnaire (IPH)</td>
<td>20.7 (5.4)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Opiate Withdrawal Scale (Reversed)</td>
<td>35.9 (13.5)</td>
<td>29.3 (13.0)</td>
<td>32.3 (13.0)</td>
</tr>
</tbody>
</table>

*N.B. Overall means and standard deviations cited are from varying numbers of measures for each participant at varying stages in detoxification.*
Numbers of Planned and Unplanned Discharges

Of the 77 patients asked to participate, 45 (58%) took planned discharges and 32 (42%) took unplanned discharges. Of the 60 participants, 35 (58%) took planned discharges and 25 (42%) took unplanned discharges. See Table 4.

Table 4: Planned and Unplanned Discharges

<table>
<thead>
<tr>
<th></th>
<th>Planned</th>
<th>Unplanned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants (n=60)</td>
<td>35 (58%)</td>
<td>25 (42%)</td>
</tr>
<tr>
<td>All Patients (n=77)</td>
<td>45 (58%)</td>
<td>32 (42%)</td>
</tr>
</tbody>
</table>

Relationships Between Questionnaire Variables and Demographic Data

The matrix of correlations obtained can be seen in Table 5.

Correlations With Demographic Variables

Age and number of previous admissions for detoxification were significantly positively correlated (r = 0.289, p <0.05). Age was significantly negatively correlated with DASES score (r = -0.325, p <0.05) i.e. younger participants had higher self-efficacy. The number of previous admissions for detoxification was positively correlated with the Internal Motivation scale of the TMQ (r = 0.351, p <0.01). Length of stay was not significantly correlated with any other variables.

Correlations with Withdrawal Symptoms

Both the DASES (r = 0.170, p <0.01) and the OEQ (r = 0.121, p <0.05) were significantly correlated with the OESQ, i.e. high levels of motivation were associated with low levels of withdrawal symptomatology. Those with high levels of initial withdrawal symptoms scored significantly more highly on the External Motivation (r =
Correlations Between Motivational Variables

Correlations between all four main measures of motivation (DASES, OEQ, Confidence and Importance were all positive and significant at the 0.01 level. (See Table for details.) All of these variables, and the Interpersonal Help Seeking scale of the TMQ were also significantly correlated with the Internal Motivation Scale of the TMQ (at the 0.01 level, excepting the OEQ, which was at the 0.05 level. Interestingly, the External Motivation Scale of the TMQ was significantly correlated with the Importance scale.
Table 5: Correlation Matrix For Questionnaire Variables and Demographic Data

<table>
<thead>
<tr>
<th>Variable</th>
<th>Age</th>
<th>No. previous detoxes</th>
<th>Length of stay</th>
<th>DASES</th>
<th>OEQ</th>
<th>Importance</th>
<th>Confidence</th>
<th>TMQ Ext</th>
<th>TMQ Int</th>
<th>TMQ IPH</th>
<th>With drawa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.0</td>
<td>.289*</td>
<td>.187</td>
<td>-.325*</td>
<td>-.002</td>
<td>.119</td>
<td>-.080</td>
<td>-.080</td>
<td>.112</td>
<td>.171</td>
<td>-.09</td>
</tr>
<tr>
<td>No. previous detoxes</td>
<td>.289*</td>
<td>1.0</td>
<td>.202</td>
<td>-.176</td>
<td>-.015</td>
<td>.071</td>
<td>.117</td>
<td>.163</td>
<td>.351**</td>
<td>.250</td>
<td>-.163</td>
</tr>
<tr>
<td>Length of stay</td>
<td>.187</td>
<td>.202</td>
<td>1.0</td>
<td>-.158</td>
<td>.125</td>
<td>.002</td>
<td>.235</td>
<td>-.010</td>
<td>.065</td>
<td>-.090</td>
<td>-.39</td>
</tr>
<tr>
<td>DASES</td>
<td>-.325*</td>
<td>-.176</td>
<td>-.158</td>
<td>1.0</td>
<td>.323**</td>
<td>.100*</td>
<td>.316**</td>
<td>-.053</td>
<td>.105</td>
<td>.040</td>
<td>.170**</td>
</tr>
<tr>
<td>OEQ</td>
<td>-.002</td>
<td>-.015</td>
<td>.125</td>
<td>.323**</td>
<td>1.0</td>
<td>.244**</td>
<td>.418**</td>
<td>-.244</td>
<td>.311*</td>
<td>.093</td>
<td>.121*</td>
</tr>
<tr>
<td>Importance</td>
<td>.119</td>
<td>.071</td>
<td>.002</td>
<td>.100*</td>
<td>.244**</td>
<td>1.0</td>
<td>.510**</td>
<td>-.275*</td>
<td>.354**</td>
<td>.119</td>
<td>.075</td>
</tr>
<tr>
<td>Confidence</td>
<td>-.080</td>
<td>.117</td>
<td>.235</td>
<td>.316**</td>
<td>.418**</td>
<td>.510**</td>
<td>1.0</td>
<td>-.247</td>
<td>.339**</td>
<td>.050</td>
<td>.059</td>
</tr>
<tr>
<td>TMQ Ext</td>
<td>-.080</td>
<td>.163</td>
<td>-.010</td>
<td>-.053</td>
<td>-.244</td>
<td>-.275*</td>
<td>-.247</td>
<td>1.0</td>
<td>.093</td>
<td>.158</td>
<td>-.383*</td>
</tr>
<tr>
<td>TMQ Int</td>
<td>.112</td>
<td>.351**</td>
<td>.065</td>
<td>.105</td>
<td>.311*</td>
<td>.354**</td>
<td>.339**</td>
<td>.093</td>
<td>1.0</td>
<td>.480**</td>
<td>-.065</td>
</tr>
<tr>
<td>TMQ IPH</td>
<td>.171</td>
<td>.250</td>
<td>-.090</td>
<td>.040</td>
<td>.093</td>
<td>.119</td>
<td>.050</td>
<td>.158</td>
<td>.480**</td>
<td>1.0</td>
<td>-.358*</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>-.09</td>
<td>-.163</td>
<td>-.39</td>
<td>.170**</td>
<td>.121*</td>
<td>.075</td>
<td>.059</td>
<td>-.383**</td>
<td>-.065</td>
<td>-.358**</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

N. B. "Withdrawal" signifies scores on the reversed OWSQ, and therefore a high score relates to greater physical wellbeing.
Changes in Motivation With Time

The graphs in Figures 1-6 illustrate examples of changes in motivation (and withdrawal) over time. Each variable has been standardised to a z score for the graphs so that the comparisons to the sample means for each variable can be seen visually. (See Appendix 5 for graphs for all participants who completed more than one set of measures). The six graphs shown here have been selected to show a variety of patterns in changes in motivation for participants with both planned and unplanned discharges. It is immediately clear that there is no one typical pattern of variation in motivation or withdrawal over time. However, there is a clear, though not uniform, tendency for the motivational and withdrawal measures to vary with each other over time.

Figure 1: Changes in Motivation and Withdrawal with Time

The motivation of Participant 2 (Figure 1) decreases fairly steadily until his unplanned discharge, whilst the motivation of Participant 14 (Figure 2) remains relatively constant until a sharp rise and immediate drop in several measures prior to taking an unplanned discharge. It is important to note, however, that not all participants whose discharge was unplanned, demonstrated an observable decrease in motivation, as can be seen from the graphs in Appendix 5.
Participant 22 (Figure 3) shows a steady increase in motivation, before her unplanned discharge. This graph is also a particularly clear illustration of the ceiling effect in the Importance and Confidence scales.
The interpretation of Figure 4 is less straightforward and is included primarily as an illustration of a more complex pattern. However, it is worth noting that when shown to the participant himself, following discharge, he found it to be a striking reflection of the changes in his motivation and physical symptoms during his treatment.
Figures 5 and 6 are further illustrations of participants who took a planned discharge, one of whom, Participant 26, increased relatively steadily, the other increased initially and then decreased, both tied closely to levels of withdrawal symptoms.

It can be seen from Table 6 that self efficacy as measured by the DASES increases significantly between its first and last administration. The Confidence Scale also tends to increase over time, though not significantly. However, outcome expectations, as measured by the OEQ, decrease significantly between its first and last administration. The Importance Scale also tends to decrease over time, though not significantly.
### Table 6: Changes in Motivation Between Start and End of Treatment

<table>
<thead>
<tr>
<th>Measure</th>
<th>Z Statistic</th>
<th>P Value</th>
<th>Direction of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>DASES</td>
<td>-2.67</td>
<td>0.008</td>
<td>Increase</td>
</tr>
<tr>
<td>OEQ</td>
<td>-2.62</td>
<td>0.009</td>
<td>Decrease</td>
</tr>
<tr>
<td>Confidence</td>
<td>-1.47</td>
<td>0.143</td>
<td>Increase</td>
</tr>
<tr>
<td>Importance</td>
<td>-1.16</td>
<td>0.247</td>
<td>Decrease</td>
</tr>
</tbody>
</table>

### Relationships Between Demographic Variables and Discharge Type

There were no significant relationships between discharge type and sex, age or previous number of admissions for detoxifications as assessed by Chi-Squared and Mann-Whitney U tests. 57.9% of females and 59.1% of males took planned discharges. Younger participants and those with more previous detoxification attempts took slightly more unplanned discharges.

### Relationships Between Motivation and Discharge Type

#### Initial Motivation

Of the initial measures of motivation, only the DASES score was significantly different for participants with planned and unplanned discharges ($U = 298$, $p<0.05$). However, unexpectedly, this difference was such that initially high self efficacy was associated with unplanned discharge. The only other initial motivational variable approaching significance was that of the internal motivation scale of the TMQ ($U = 332$, $p = 0.11$) such that high internal motivation was associated with planned discharge.
None of the motivational variables at the end of treatment were significantly associated with discharge type. The (positive) association between planned discharge and high Confidence was approaching significance (U = 295.5, p = 0.08). For all other variables (DASES, OEQ and Importance) there was some tendency for high motivation to be associated with planned discharge, but this did not approach significance.

**Change in Motivation**

More positive changes in the DASES were significantly associated with planned, rather than unplanned discharge (U = 185.6, p<0.05). For other motivational variables (OEQ, Importance and Confidence) this relationship did not approach significance, though all demonstrated a non-significant tendency for more positive changes in motivation to be associated with planned discharge.

**Variability in Motivation**

There were no significant associations between the participants’ standard deviations on measures of motivation and their discharge type.

**Changes in Withdrawal Symptoms with Time and Their Relationship with Discharge Type**

Withdrawal symptoms as measured by the OWSQ increased between the start and end of treatment (Z = -3.16. p<0.05). Initial withdrawal was not significantly associated with discharge type, but high levels of withdrawal symptoms at the end of treatment were significantly associated with planned discharge (U = 246.5, p <0.05). Relatively smaller increases in withdrawal symptoms were associated with unplanned discharge (U = 179, p <0.05). There was no significant association between the variation (standard deviation) of participants’ OWSQ scores and discharge type.
Levels of Planned and Unplanned Discharge During Period of Study and 77 Consecutive Admissions One Year Previously

As can be seen in Table 7, exactly the same numbers of patients took planned and unplanned discharges in the period of the study and in a consecutive 77 admissions from the same time period in 1998. Because levels of planned and unplanned discharge were identical across time periods, the anticipated Chi-Squared test for association was not performed.

Table 7: Levels of Unplanned and Planned Discharge For 77 Patients Asked to Participate and 77 Consecutive Admissions to Ward Twelve Months Previously

<table>
<thead>
<tr>
<th>Year</th>
<th>Planned Discharge</th>
<th>Unplanned Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>45 (58%)</td>
<td>32 (42%)</td>
</tr>
<tr>
<td>1998</td>
<td>45 (58%)</td>
<td>32 (42%)</td>
</tr>
</tbody>
</table>
Discussion

Before addressing the principal research questions, it is useful to consider the relationships between the measures of motivation, and between these and the demographic variables taken, in order to place discussion in context.

Measures of Motivation

The Drug Avoidance Self-Efficacy Scale and the Confidence Scale, and the Outcome Expectancy Scale and the Importance Scale, are intended to measure broadly similar constructs, those of confidence in, and of importance of change respectively. However, they clearly differ in their specificity; the two visual analogue scales are intended to measure the individual's overall perceptions of self-efficacy and importance, whereas the two questionnaire scales measure these as pertaining to more specific outcomes and situations. Thus, it would be expected that responses to the two sets of measures would be highly, though by no means perfectly, correlated with each other.

Responses to the DASES and the Confidence Scale were significantly correlated at the 0.001 level (r = 0.316, p < 0.001) and responses to the OEQ and the Importance Scale were significantly correlated at the same level (r = 0.244, p < 0.001). However, these correlations are both weaker than that between the OEQ and the DASES of 0.418 (p < 0.001). It is likely, however, that the explanation for this lies in psychometric weaknesses in the Importance and Confidence Scales, rather than in their lack of similarity as constructs. Both scales, (but particularly the Importance scale) are extremely skewed, leading to low variances and a ceiling effect. Variables which do not vary greatly themselves, have less potential to covary strongly with other variables, and thus show weaker relationships with other variables (Tabachnik and Fidell, 1996). Such a low standard deviation, and such a marked ceiling effect, which can be seen clearly in many of the participants' graphs (see Appendix 5), compromise their utility. However, because the nature of this weakness is such that it renders them less likely to show
relationships with other variables, they were still included in the analyses as supplements to the OEQ and the DASES.

Within the TMQ, the Internal Motivation and Interpersonal Help Seeking (IPH) Scales were significantly correlated with each other, but not with the External Motivation Scale, as reported by Ryan, Plant and O'Malley (1995). The Internal Motivation Scale was also significantly correlated with the OEQ, but not the DASES. This lack of correlation may have been because the Internal Scale measures motivation for treatment, rather than change, per se, and those with higher self-efficacy may not consider themselves as in need of treatment.

Relationships Between Motivation and Demographic Variables

Older participants had lower self-efficacy. This may be because, if they have longer histories of attempting to change their addictive behaviour (as suggested by the positive correlation between age and number of previous inpatient detoxification attempts) they may be more realistic in their predictions than younger patients. Alternatively, it may be that older patients represent a subgroup whose difficulties are more severe and entrenched.

The Internal Motivation Scale of the TMQ and the number of previous inpatient detoxifications attempted showed an unexpected positive correlation. It is possible that patients who have already undergone several attempts may feel under more pressure to convince themselves and others of their commitment. Alternatively, it may suggest that such patients place a high value on the importance of an inpatient detoxification to help them to overcome their difficulties.
Changes in Motivation Over Time

Self-Efficacy

The hypothesis that self-efficacy would increase over time was supported, replicating the findings of Martín, Wilkinson and Poulous (1995). However, as can be seen from the graphs, (see Results; Figures 1-6 and Appendix 5) not all patients followed such a pattern, and very few of those whose self-efficacy did increase showed a smooth, linear progression. The difference between responses between the first and last assessment is an extremely crude measure of change; however, visual inspection of the graphs demonstrates, at least, that this increase does not occur purely at the end of treatment. It is worth noting that the Confidence Scale also tended towards improvement over time, although this trend was non-significant.

There are several possible reasons for such an increase. Patients may gain valuable social support from staff and other patients. The therapeutic programme itself, which includes a Relapse Prevention element specifically addressing coping with situations in which patients might be tempted to use drugs, may help to bolster self-efficacy. It is also plausible that their ability to remain in the unit and to abstain from illicit drugs, in itself acted to boost confidence. A rather more pessimistic possibility is that this difference is somehow purely an artefact of repeated administration. Such a possibility could be eliminated by assessing end of treatment motivation in patients who have not taken part in this study and comparing it with end of treatment motivation in the study participants.

Outcome Expectations

In contrast to self-efficacy, outcome expectations decreased between the first and last assessments. This is an extremely interesting and (to the author’s knowledge), novel finding, and needs replication to confirm its validity. It is somewhat supplemented by the non-significant trend for Importance to decrease with time in treatment. As with self-efficacy, it is important to note that not all participants demonstrated this pattern. Whilst the difference between first and last assessment is a crude measure, the graphs
demonstrate that this was not due to anomalies either at the start or end of treatment, but neither did they show a tendency for the OEQ score to increase steadily with time.

There are several possible explanations for this finding, but each is highly speculative. As with the changes in self-efficacy, it is possible that it is purely an artefact of repeated measurement, although there is no particular reason to expect such an effect. It is possible that their interactions with other patients may influence them, either by encouraging them to focus on the positive aspects of a drug using lifestyle, through discussion, or by becoming less self-critical if they positively evaluate other patients with similar problems to themselves. Such effects are reminiscent of the findings of social psychologists regarding people’s tendency to categorise an “ingroup” as sharing positive attributes and an “outgroup” as sharing negative attributes (e.g. Sherif, et al., 1961) and may reflect participants’ ambivalence at joining the “outgroup” of non-users and a strengthening of their commitment to the “ingroup”. Whilst this does appear to be a plausible explanation for the finding, further research, to confirm and explore the mechanisms underlying it, is important here. Perhaps using individualised decisional balance sheets at varying stages of treatment and analysing the nature of any changes would be a fruitful direction.

Whilst the relationships between discharge type and demographic variables, and levels of motivation at a point in time do not relate directly to the research questions, it is important to discuss these findings, as they help to place discussion of the research questions in context, and because they have yielded interesting findings in themselves.

**Relationship Between Demographic Variables and Discharge Type**

Discharge type showed no significant relationships with any of the demographic variables examined. However, the non-significant tendency was for older participants, and participants with less previous detoxification attempts to demonstrate less attrition. This is therefore consistent with the weak relationship found in the literature (Stark, 1992). Proportions of planned discharges were almost identical across males (57.9%)
and females (59.1%). This is not inconsistent with the literature showing a weak, if any, relationship (Stark, 1992).

Initial Motivation and Discharge Type

Initially high self-efficacy was significantly associated with unplanned discharge. This is surprising given the findings that:

a) initial self-efficacy is positively related to outcome (e.g. Goldbeck, Myatt and Aitchison, 1997),

b) initial self-efficacy predicts retention in general psychiatric outpatient services, (Longo, Lent and Brown, 1992) and

c) other measures of initial motivation predict attrition in substance misuse treatment (e.g. Ryan and Plant, 1995).

It may be therefore that this was an artefact of a methodological weakness in the study, although it is not easy to see what could have caused such a result.

If the association is real, there are several possible explanations, although all are highly speculative. It may be that patients with high initial self-efficacy are motivated to change, but not to undergo treatment, as they may have more belief in their ability to manage alone. It is possible that substance users tend to see treatment as less important than other psychiatric patients, although there is little evidence for this, other than their high levels of attrition (Stark, 1992). There may be some relevant factor specific to detoxification treatment, or even to a patient population group with such severe difficulties, although it is not easy to see what this could be. It is possible that patients whose self-efficacy is initially high, form a subgroup who are unrealistic in their appraisal of their coping skills, whose responses may relate more to “wishful thinking” and a difficulty accepting the possibility of relapse, than genuinely high self-efficacy. Such a style of thinking would hinder their attempts to learn from past experience regarding “high risk” situations they should avoid to minimise risk of relapse (Wanigeratne et. al., 1990). The positive relationship between high self-efficacy and increasing age is consistent with this explanation. This result is clearly in need of
replication before firm conclusions can be drawn, and if it is found to be valid, such possible explanations would require systematic research.

Initial outcome expectations were not significantly related to discharge type, although there was a non-significant tendency for those with higher outcome expectations to take a planned discharge. This lack of significance may relate to the severity of the problems of the sample population, and the proposal of Rollnick, Morgan and Heather (1996) that outcome expectations become less important and less predictive relative to self-efficacy as dependence is more severe. Such patients are likely to be relatively convinced of the importance of change but may not have the confidence that they will be able to achieve the desired change.

High initial internal motivation was significantly related to treatment retention. This replicates the result of Deci and Ryan (1995) who investigated attrition in an alcohol outpatient programme. This scale measures motivation to engage in treatment, rather than motivation to change, which may explain the comparative strength of its association with treatment retention.

End of Treatment Motivation and Discharge Type

Neither end of treatment outcome expectations nor self-efficacy were associated with discharge type, though there was a non-significant tendency for those who scored more highly on these scales to take a planned discharge. It seems likely that this relationship was confounded by the effect of withdrawal. Planned discharges were associated with more severe withdrawal symptoms, and more severe withdrawal symptoms were significantly negatively correlated with both self-efficacy and outcome expectations. Thus, the effect of withdrawal may have masked the significance of the relationship between end of treatment motivation and planned discharge. It is unfortunate that the study's sample size prohibits the use of multivariate analyses to statistically control for the effects of withdrawal severity.
A high scoring Confidence Scale at end of treatment correlated more highly than any of the other motivational variables with planned discharge, approaching significance at \( p = 0.083 \). This is consistent with the posited confounding effect of withdrawal severity as Confidence is the motivational variable assessed least associated with withdrawal.

**Relationship Between Changes in Motivation and Discharge Type**

Greater increases in self-efficacy during treatment were significantly associated with planned discharge. This could be interpreted as those for whom treatment was successful, (i.e. by increasing their perception of their ability to achieve their goals) remained in treatment. It is important not to assume the direction of causality as it is equally plausible that:

a) increases in self-efficacy helped them to remain in treatment,

b) their success in remaining in treatment and successfully completing detoxification helped to boost their self-efficacy, or

c) some element(s) of the treatment itself helped to boost self-efficacy, and those undergoing the full treatment received more of this than dropouts.

It may also be that some other factor, such as, impulsivity, or finding the treatment programme unhelpful, led to both a lack of improvement in self-efficacy and attrition. For example it is plausible that those who did not find the treatment helpful, would not have experienced increased self-efficacy and would have been more likely to drop out.

It is also possible that the observed relationship was purely an artefact of the association between initially high self-efficacy, and perhaps, therefore, less scope for positive change, and unplanned discharge. I.e. those who were more likely to drop out, perhaps due to poor self-appraisal skills, were subject to a ceiling effect in their self-efficacy, and were thus unable to show the same gains as those whose self-efficacy was initially lower.

There was some tendency for more positive changes in outcome expectations, Importance and Confidence to be associated with planned discharge although these did
not approach significance. Rollnick et al.'s (1995) suggestion that self-efficacy may be more predictive than outcome expectations for severely dependent patients may account for the difference in significance of these relationships. Alternatively, it may be that outcome expectations do not vary as much in these relatively short durations as self-efficacy. Certainly the mean differences for individual patients between the start and end of their treatment were 4.9 points for the DASES and 2.2 points for the OEQ, lending some support to this suggestion. Assessing changes over a longer period of time, perhaps in inpatient rehabilitation or outpatient treatment, and with less severely dependent patients, may yield greater changes in outcome expectancies.

Variability in motivational variables, as measured by the standard deviation of individual's scores on each of the four measures, was not significantly associated with discharge type. This finding may have positive implications for patients whose mental state is subject to particular fluctuations, such as those with Borderline Personality Disorder, (Linehan, 1993) if they do not tend to discharge themselves impulsively due to such fluctuations in motivation. However, this is highly speculative and further research would be required to draw any such conclusions. It is also possible that such fluctuations are associated with a greater likelihood of unplanned discharge, but that this relationship was masked, as those who completed treatment stayed for longer, and therefore had more opportunity to experience greater changes in motivation.

Withdrawal Symptoms - Their Change Over Time and Relationship to Motivation

Withdrawal symptoms increased over time. This is to be expected during treatment for detoxification from opiates, (Ghodse, 1995) undergone by the great majority of participants.

Greater severity of withdrawal symptoms was significantly associated with lower motivation as assessed by the OEQ and the DASES. Whilst it is not surprising that physical discomfort is associated with low motivation, the relationship between
physical and psychological well-being is complex, and it should not necessarily be assumed that such physical symptoms cause low motivation. It is also possible that low motivation influences subjects ratings, or even their experience of their withdrawal symptoms, or that some other factor, such as depression or anxiety, influences both withdrawal and motivation.

The significant relationships between greater severity of withdrawal and high External Motivation and Interpersonal Help Seeking scales of the TMQ are difficult to explain. It is possible that an external locus of causality, and a desire to be helped by others, whilst not identical to an external locus of control, do relate to a sense of a lack of control over one's decisions and/or circumstances, which may plausibly influence the experience of pain.

Relationship Between Withdrawal and Discharge Type

Greater severity of withdrawal symptoms at the end of treatment was associated with planned discharge. Whilst this appears to be counter intuitive, it is almost certainly an artefact of the greater severity of withdrawal symptoms associated with the end of detoxification (Ghodse, 1995).

Levels of Attrition During the Period of the Study Compared to a Baseline Control

It was thought that the increase in individual attention and/or the increased attention to their own levels of motivation may have some positive effect on motivation or on patients ability to complete treatment. Such an effect, if it existed, was not reflected in the proportions of planned and unplanned discharges.
Summary of Findings with Regard to Research Questions

**Principle Research Questions**

1. *How does motivation change over time during acute inpatient treatment for substance abuse?*
   Self-efficacy increases with time in treatment, consistent with previous research findings. Outcome expectations appear to decrease with time in treatment, but this finding needs replication.

2. *Do these changes in motivation predict attrition?*
   Greater increases in self-efficacy do appear to be negatively associated with attrition. A similar tendency was apparent for outcome expectations, but this was not significant.

**Supplementary Research Questions**

*Are there relationships between withdrawal symptoms and motivation, and withdrawal symptoms and attrition?*
Severity of withdrawal symptoms is significantly related to low motivation, both in terms of self-efficacy and outcome expectations. Severity of withdrawal symptoms at the end of treatment is associated with unplanned discharge, but this is likely to be an artefact of the greater severity of withdrawal symptoms towards the end of detoxification.

*Does regular questionnaire assessment of motivation affect attrition rates, compared to a baseline control group?*
There was no evidence to suggest this.
Strengths and Limitations of the Research

The use of an inpatient unit allowed frequent and repeated access to a group of patients who are notoriously difficult to research, enabling the development of a clear picture of the trends in motivation over time in individual participants. The use of an acute unit with a faster throughput of patients enabled a relatively large number of participants to be included, particularly for a repeated measures design. However, the sample size was not large enough to justify the use of multivariate statistics, and thus the statistical control of potentially confounding variables. A disadvantage of using an acute unit was the high level of withdrawal symptomatology reported and its probable confounding effect on the relationship between motivation and attrition. This is a particular disadvantage given the lack of multivariate data analyses. It is also important to note that findings of this study may not generalise beyond acute inpatient units for patients undergoing detoxification.

The lack of information regarding the test-retest reliabilities of the motivational measures used could be seen as a limitation of the study, as an adequate test-retest reliability permits the assumption that changes observed over time are not due to random error. However, Hammond (1995, p.204) makes the point that “it makes little sense to assess test-retest reliability.....(where) we would fully expect changes in the characteristic to occur over time”. The findings of significant correlations between these and other variables also suggest that changes were more meaningful than random fluctuations due to poor reliability.

Using the difference between initial and end of treatment motivation as the measure of changes in motivation, is rather crude, particularly given the richness of the data available. However, more sophisticated techniques could not cope with the varying numbers of data points between participants. It may therefore be useful to investigate changes in motivation over time in an acute unit in which all patients stay a uniform length of time, or alternatively to compare over a certain duration of outpatient or longer term inpatient treatment. This would not however, allow exploration of the
relationship between motivation and attrition, as early dropouts would have to be excluded in such a methodology.

Whilst attrition rates are important, and clearly correlated with outcome, they are not in themselves a measure of the success or otherwise of treatment or of the participant’s functioning. This study would have been greatly strengthened had it been able to relate its findings to a more direct measure of outcome, such as levels of abstinence, relapse rates, or even forensic or employment outcomes.

Implications For Research

This study has clearly demonstrated that changes in motivation during treatment and their relationship to attrition and other outcome variables are a fruitful area for research.

Aspects of the current study require replication. These include the obtained decrease in outcome expectations with time, and the positive association between high initial self-efficacy and attrition. If such findings are representative of real relationships, further research to gain further understanding of such effects would be beneficial, particularly investigating the role of unrealistic estimation of self-efficacy, and of the influence of group processes on outcome expectations.

Several of the relationships of interest in the current study were confounded by the effect of withdrawal. Similar studies, either with sufficient participants to utilise multivariate statistical analyses, or of patients who were not experiencing detoxification, would further elucidate these relationships.

It would also be of interest to assess changes in motivation over longer periods of time, and with less severely dependent populations, as it might be expected that outcome expectations would have more predictive value under such circumstances.
Longer term research investigating the relationship between changes in motivation and more direct outcome variables, such as abstinence and relapse rates would be extremely valuable.

Implications For Practice

It may be helpful to inform patients that their motivation will decrease when withdrawal symptoms are worse, as this may encourage them not to make important decisions on the basis of lowered motivation when withdrawing.

The increase in self-efficacy is encouraging, and potentially a good reflection on the inpatient unit. Given the evidence for the importance of such increases in self-efficacy, for both retention and outcome, it may be beneficial to identify and strengthen any aspects of the programme which may help to increase self-efficacy further, for example the relapse prevention group.

If decreases in outcome expectations are due to group processes, it may be helpful to find some way to address this therapeutically. However, it is difficult to know how this could be achieved, and such an attempt may risk a paradoxical effect. A safer option may be to encourage patients to consider their individual costs and benefits of change, and to use motivational interviewing strategies and style of intervention such as “developing discrepancy” (Miller and Rollnick, 1991).
Conclusions

This study provides:

1) additional evidence that self-efficacy increases during treatment.
2) preliminary evidence that outcome expectations decrease treatment, possibly due to group processes, although this requires replication before firm conclusions can be drawn.
3) preliminary evidence that initially high rather than low self-efficacy may predict attrition from acute inpatient treatment, but again this requires replication and further explanation.
4) preliminary evidence that increases in self-efficacy (and possibly outcome expectations) may be associated with treatment retention.
References


Appendix 1

Treatment Motivation Questionnaire

These questions are about your reasons for seeking treatment on this ward. I want to know how true each of these reasons is for you. Please mark the number on the answer sheet corresponding to the number on the scale below which indicates how true that reason is for you.

For example, if an item is “very true” for you, circle number 5 for your answer.

A. I CAME FOR TREATMENT BECAUSE:

1. I really want to make some changes in my life.

   1  2  3  4  5
   not at all true somewhat true very true

2. My doctor/therapist told me that I should be in treatment.

   1  2  3  4  5
   not at all true somewhat true very true

3. I won’t feel good about myself if I don’t get some help.

   1  2  3  4  5
   not at all true somewhat true very true

4. I feel so guilty about my problem that I have to do something about it.

   1  2  3  4  5
   not at all true somewhat true very true

5. It is important to me personally to be able to solve my problems.

   1  2  3  4  5
   not at all true somewhat true very true

B. IF I REMAIN IN TREATMENT IT WILL PROBABLY BE BECAUSE:

6. I’ll get in trouble if I don’t.

   1  2  3  4  5
   not at all true somewhat true very true

7. I’ll feel bad about myself if I don’t.

   1  2  3  4  5
   not at all true somewhat true very true
8. It’s in my best interests to complete treatment.

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<td>not at all true</td>
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9. I’ll feel like a failure if I don’t.

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10. I feel like it’s the best way to help myself.

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<td>very true</td>
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11. I don’t really feel like I have a choice about staying in treatment.

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<td>very true</td>
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C: RATE EACH OF THE FOLLOWING IN TERMS OF HOW TRUE EACH STATEMENT IS FOR YOU:

12. I came to treatment here because I was under pressure to come.

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<td>very true</td>
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13. I decided to come to treatment because I was interested in getting help.

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<td>very true</td>
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14. I want to openly relate with others in the programme.

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<tr>
<td>very true</td>
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15. I want to share some of my concerns and feelings with others.

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</table>

16. It will be important for me to work closely with others in solving my problem.

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<td>very true</td>
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</table>
17. I am responsible for this choice of treatment.

\[\begin{array}{cccc}
1 & 2 & 3 & 4 & 5 \\
\text{not at all true} & \phantom{1} & \text{somewhat true} & \phantom{1} & \text{very true} \\
\end{array}\]

18. I look forward to relating to others who have similar problems.

\[\begin{array}{cccc}
1 & 2 & 3 & 4 & 5 \\
\text{not at all true} & \phantom{1} & \text{somewhat true} & \phantom{1} & \text{very true} \\
\end{array}\]

19. I chose this treatment because I think it is an opportunity for change.

\[\begin{array}{cccc}
1 & 2 & 3 & 4 & 5 \\
\text{not at all true} & \phantom{1} & \text{somewhat true} & \phantom{1} & \text{very true} \\
\end{array}\]

20. It will be a relief for me to share my concerns with other programme participants.

\[\begin{array}{cccc}
1 & 2 & 3 & 4 & 5 \\
\text{not at all true} & \phantom{1} & \text{somewhat true} & \phantom{1} & \text{very true} \\
\end{array}\]

21. I accept the fact that I need some help and support from others in order to beat my problem.

\[\begin{array}{cccc}
1 & 2 & 3 & 4 & 5 \\
\text{not at all true} & \phantom{1} & \text{somewhat true} & \phantom{1} & \text{very true} \\
\end{array}\]
The Drug Avoidance Self Efficacy Scale

This questionnaire is about how a person might behave in certain situations. To answer the questions, imagine yourself as you are now confronted with each situation. You may have answered questions like this before, but answer them “as you feel now” (not last week or usually). There is no right or wrong answer to the questions: the main thing is to try to be completely honest with yourself. Circle the answer you choose.

When questions refer to “drug/alcohol use” this should be taken to refer to the drug (including alcohol) that you would be most likely to use in the situation described.

Read the questions carefully to make sure your answer fits the way the questions are asked. Be sure to answer each question.

1. Imagine that you are going to a party where you will meet new people. You feel that drug/alcohol use will relax you and make you more confident. Could you avoid drug/alcohol use?

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<tbody>
<tr>
<td>definitely</td>
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<td>very likely</td>
<td>probable</td>
<td>really</td>
<td>probably</td>
<td>very likely</td>
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<tr>
<td>not</td>
<td>not</td>
<td>can’t say</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td></td>
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</table>

2. Imagine that you are home with a loved one, and feeling angry after a fight. You want to make up, but at the same time you want to get stoned/loaded. Could you resist the urge to take drugs/alcohol?

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<td>probable</td>
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<td>probably</td>
<td>very likely</td>
</tr>
<tr>
<td>not</td>
<td>not</td>
<td>can’t say</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
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</table>

3. Imagine it is late, you cannot sleep, and drugs or alcohol are available in the house. You have decided not to use drugs. Could you resist the urge to use drugs to help you get to sleep?

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<tr>
<td>definitely</td>
<td>not</td>
<td>very likely</td>
<td>probable</td>
<td>really</td>
<td>probably</td>
<td>very likely</td>
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<tr>
<td>not</td>
<td>not</td>
<td>can’t say</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
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</table>

4. Imagine that you are starting a new job tomorrow, you are going out with friends and expecting a good time. Could you resist the urge to celebrate with drugs/alcohol?

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<th>4</th>
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<tr>
<td>definitely</td>
<td>not</td>
<td>very likely</td>
<td>probable</td>
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<td>very likely</td>
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<tr>
<td>not</td>
<td>not</td>
<td>can’t say</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
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</table>

5. Imagine that a very important relationship had just ended, and you are very depressed. Would you give in to the urge to take drugs/alcohol?

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<th>4</th>
<th>5</th>
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<tr>
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<td>not</td>
<td>can’t say</td>
<td>yes</td>
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<td>definitely</td>
<td>very likely</td>
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</tr>
<tr>
<td>6. Imagine that you are at a party and feeling uptight. Most people seem to be having a good time. You are tempted to use drugs/alcohol to loosen up. Would you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7. Imagine that you had managed to stay straight for a near record time, but last night you blew it. Because of last night you are feeling weak. Would you take drugs/alcohol tonight?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8. Imagine that you have just blown a good job. You are home alone and you are depressed. Could you resist the urge to go out and find some drugs/alcohol?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9. Imagine that a good friend has accused you of being insensitive. Now you are feeling hurt and tempted to use drugs/alcohol. Could you resist?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>10. Imagine that a good friend is feeling miserable. He wants you to join him in heavy discussion and drug/alcohol use to pick his spirits up. Could you resist the urge to take drugs/alcohol?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11. Imagine that you are home alone; it is a dull weekend with nothing in particular to look forward to. You are bored. Would you give in to the urge to get stoned/loaded?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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Outcome Expectancy Questionnaire

This questionnaire is concerned with things that might occur as a result of stopping or reducing your drug use.

For each question circle the number representing your answer.

If I stopped or reduced my opiate use:

1. I would get more things done:
   - 1 2 3 4 5
   - Agree strongly  Agree  Unsure  Disagree  Disagree strongly

2. I would not have to lie to people as often:
   - 1 2 3 4 5
   - Agree strongly  Agree  Unsure  Disagree  Disagree strongly

3. I would be bored:
   - 1 2 3 4 5
   - Agree strongly  Agree  Unsure  Disagree  Disagree strongly

4. I would be healthier:
   - 1 2 3 4 5
   - Agree strongly  Agree  Unsure  Disagree  Disagree strongly

5. I would lose some of my friends:
   - 1 2 3 4 5
   - Agree strongly  Agree  Unsure  Disagree  Disagree strongly

6. I would have better relationships with my family:
   - 1 2 3 4 5
   - Agree strongly  Agree  Unsure  Disagree  Disagree strongly

7. I would have less fear of getting hepatitis or AIDS:
   - 1 2 3 4 5
   - Agree strongly  Agree  Unsure  Disagree  Disagree strongly
8. I would not enjoy myself as much:
   1  2  3  4  5
   Agree strongly  Agree  Unsure  Disagree  Disagree strongly

9. I would have less trouble with the police:
   1  2  3  4  5
   Agree strongly  Agree  Unsure  Disagree  Disagree strongly

10. I would lose my motivation to do things:
    1  2  3  4  5
    Agree strongly  Agree  Unsure  Disagree  Disagree strongly

11. I would feel less sociable:
    1  2  3  4  5
    Agree strongly  Agree  Unsure  Disagree  Disagree strongly

12. I would have more time to do things:
    1  2  3  4  5
    Agree strongly  Agree  Unsure  Disagree  Disagree strongly

13. I would worry more about things:
    1  2  3  4  5
    Agree strongly  Agree  Unsure  Disagree  Disagree strongly

14. I would have less energy:
    1  2  3  4  5
    Agree strongly  Agree  Unsure  Disagree  Disagree strongly

15. I would suffer from depression:
    1  2  3  4  5
    Agree strongly  Agree  Unsure  Disagree  Disagree strongly

16. I would think a lot more clearly:
    1  2  3  4  5
    Agree strongly  Agree  Unsure  Disagree  Disagree strongly
Opiate Withdrawal Symptom Questionnaire

Please rate the absence or presence of the following symptoms over the past 24 hours using the following scale.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
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<tbody>
<tr>
<td>0</td>
<td>none/not at all</td>
</tr>
<tr>
<td>1</td>
<td>slightly/little/occasionally</td>
</tr>
<tr>
<td>2</td>
<td>moderately</td>
</tr>
<tr>
<td>3</td>
<td>very much/a great deal/continuously</td>
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</tbody>
</table>

Over the last 24 hours to what extent have you:

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<table>
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<tbody>
<tr>
<td>1</td>
<td>Been yawning</td>
</tr>
<tr>
<td>2</td>
<td>Had muscle cramp</td>
</tr>
<tr>
<td>3</td>
<td>Had a pounding heart</td>
</tr>
<tr>
<td>4</td>
<td>Had a runny nose</td>
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<tr>
<td>5</td>
<td>Been sneezing</td>
</tr>
<tr>
<td>6</td>
<td>Experienced pins and needles</td>
</tr>
<tr>
<td>7</td>
<td>Had hot/cold flushes</td>
</tr>
<tr>
<td>8</td>
<td>Had diarrhoea</td>
</tr>
<tr>
<td>9</td>
<td>Had gooseflesh</td>
</tr>
<tr>
<td>10</td>
<td>Felt sick</td>
</tr>
<tr>
<td>11</td>
<td>Had stomach cramps</td>
</tr>
<tr>
<td>12</td>
<td>Had difficulty sleeping</td>
</tr>
<tr>
<td>13</td>
<td>Felt aches in bones or muscles</td>
</tr>
<tr>
<td>14</td>
<td>Felt twitching and shaking</td>
</tr>
<tr>
<td>15</td>
<td>Felt irritable/bad tempered</td>
</tr>
<tr>
<td>16</td>
<td>Been sweating</td>
</tr>
<tr>
<td>17</td>
<td>Had runny eyes</td>
</tr>
<tr>
<td>18</td>
<td>Felt craving</td>
</tr>
</tbody>
</table>
Change Process

1) How important is it for you to change?

0 ___________________________ 10
(not important) (important)

2) How confident are you that you will succeed?

0 ___________________________ 10
(not confident) (confident)
Our ref: IAS/jb/98.97.15

9 December 1998

Ms C Wellings
Doctorate in Clinical Psychology
Department of Psychology
University of Surrey
Guildford
Surrey

Dear Ms Wellings

Re: Motivation through treatment and attrition rates in an inpatient substance misuse unit - 98.97.15

The Local Research Ethics Committee of 25 November 1998 considered your application and based on the information provided gave approval for the above study to proceed.

Yours sincerely

Canon Ian Ainsworth-Smith
Chairman
Local Research Ethics Committee

Please Note: All research should be conducted in accordance with the guidelines of the Ethical Committee and the Committee should be informed:

(a) when the project is complete.
(b) what stage the project is at one year from today's date.
(c) if any alterations are made to the treatment or protocol which might have affected ethical approval being granted.
(d) all investigators whose projects have been approved by this Committee are required to report at once any adverse experience affecting subjects in the study.

cc Dr Paul Davis, Department of Psychology, Springfield Hospital
Project Protocol

Principal Investigator: Christy Wellings, Psychologist in Clinical Training, Surrey University

Supervisor: Dr. Paul Davis, Senior Clinical Tutor, University of Surrey and Consultant Clinical Psychologist, Pathfinder Mental Health Services NHS Trust.

Title: Changes in motivation over time in an acute inpatient treatment service for substance misuse and their relationship to withdrawal symptoms and attrition rates in an inpatient substance misuse unit.

This protocol has been prepared in consultation with Dr. Sally Porter, Consultant Psychiatrist and Dr. Abdullah Al-Otaibi, PhD student in motivation in addictive behaviour, both at the Department of Psychiatry of Addictive Behaviour, St. George's Medical School.

Summary

Background: Attrition is a particular problem in drug and alcohol services. Motivation at the start of treatment has been shown to be related to attrition. However, motivation changes throughout treatment and their ability to predict attrition from treatment have not yet been studied. Motivational interviewing has been shown to increase motivation, and decrease attrition rates in drug and alcohol patients.

Principal Research Question: How does motivation change over time during acute inpatient treatment, and does this predict unplanned discharge?

Sample Group Description: 60 consecutive admissions on an acute inpatient drug treatment unit.

Method: The study will use a time series design to measure motivation with additional baseline control data to evaluate any effect of this assessment on attrition rates. Participants will be asked to complete questionnaires as soon as possible after admission, and three times weekly thereafter during the inpatient stay.

Outcome Measures: Three questionnaires measuring different aspects of motivation, The Treatment Motivation Questionnaire, The Drug Avoidance Self Efficacy Scale and the Outcome Expectancies Questionnaire. The Opiate Withdrawal Symptom Questionnaire will be used to measure severity of withdrawal symptoms. The planned or unplanned nature of discharge will be used as a measure of attrition.
Background to the Research

Attrition rates are higher in drug and alcohol services than in other specialties (Kranzler, Escobar, et al. 1996). High attrition rates lead to patients not receiving treatments which have been shown to be beneficial. Longer stays in treatment are related to better outcomes (Simpson, Joe and Rowan-Szal, 1997). It is therefore important to understand the factors which may affect attrition. These may be static (e.g. demographic factors such as age and duration of substance misuse) or dynamic (e.g. programme factors). Both may lead to interventions to improve attrition rates.

Low motivation has been hypothesised to lead to increased attrition rates. Simpson et al. (1997) found that patient motivation at intake (together with early programme involvement) did predict length of treatment stay. However, there has been little research into the effect of changes in motivation during a programme and the effects these have on the intervention and attrition rates. The study therefore aims: firstly to assess motivation on an ongoing basis throughout the stay as an inpatient, secondly to investigate its relationship to severity of withdrawal symptoms, and thirdly to investigate whether motivation predicts attrition.

Assessing motivation in itself, particularly when achieved by motivational interviewing, can act as a powerful intervention, both to improve outcome (Brown and Miller, 1993) and to reduce attrition rates (Saunders, Wilkinson and Phillips, 1995). Whilst the participants in the current study will not be interviewed, it is predicted that completing the questionnaires will encourage them to evaluate the advantages and disadvantages of change, and thus increase motivation. Therefore the second aim of the study is to compare attrition rates of patients receiving motivational assessments with those in a baseline (i.e. pre-intervention) control group.

Aims/Objectives to the Research

1. To assess changes in motivation during acute inpatient treatment, and investigate whether these predict unplanned discharge.
2. To investigate whether severity of withdrawal symptoms is correlated to level of motivation, and whether these predict unplanned discharge.
3. To evaluate whether completing questionnaires assessing motivation three times weekly has an effect on rates of unplanned discharge.

Principal Research Question

How does motivation change over time during acute inpatient treatment, and does this predict unplanned discharge?

Supplementary Research Questions

1. Does regular questionnaire assessment of motivation affect unplanned discharge rates, relative to a baseline control group.
2. Are there relationships between severity of withdrawal symptoms and motivation and attrition rates.

Methodological Description

The principal investigator will be informed of all admissions to Rowan Ward. All new admissions will be invited to take part in the study, given the information sheet (see Appendix 1) and asked for their informed consent. This will take place within 48 hours, (and preferably 24 hours) of admission. All patients who agree to take part will be asked to sign the informed consent form (see Appendix 2). Confidentiality will be fully explained. They will then be asked to complete each questionnaire, with close supervision and help from the principal investigator.

Patients whose English is not sufficient for them to fully understand and/or respond to the information given to them and/or the questionnaires will be provided with an interpreter for the duration of their stay. Patients whose reading/writing ability is not sufficient for them to read and understand the information sheet and/or questionnaires (or who are visually impaired) will have the information sheet read to them as many times as is necessary for them to digest the information, and it will be provided to them on audiotape for reference. For such patients the questionnaires will be administered as structured interviews and analysed separately.

Participants will then be asked to complete the same questionnaires three times weekly, until discharge on Mondays, Wednesdays and Fridays. The exception to this is the Treatment Motivation Questionnaire which will only be administered once. Patients will be provided with a quiet room in which to complete the questionnaires, and the principal investigator will be available to answer any questions and give assistance.

It is anticipated that some participants, on some occasions will be reluctant to comply. When this happens, participants will be encouraged to take part and an attempt will be made to reschedule the questionnaires within 24 hours. If this is not possible, no further attempts will be made to reschedule and the patient will not be included in the study.

Data will also be collected regarding planned/unplanned discharge rates for six months prior to the intervention period to act as a baseline control group.

Sample Group Description

All inpatients admitted to Rowan Ward, Springfield Hospital, an acute treatment ward for drug misuse within the time frame of the study (January-June 1999). It is anticipated that approximately 60 participants will be recruited. Patients will only be excluded from the study if they are discharged within 48 hours of admission, and before the first set of questionnaires can be administered, or if consent is not given or withdrawn.
Outcome Measure Descriptions

Treatment Motivation Questionnaire
This questionnaire assesses the extent to which an individual has internal (from within themselves), and external (pressure from others) motivation and their desire to accept help from other people. Hence it is comprised of three subscales: external motivation (4 items) internal motivation (11 items) and interpersonal help seeking (6 items). Al-Otaibi (1998, personal communication) has demonstrated excellent reliability for this questionnaire, with a Cronbach’s Alpha of 0.85.

Drug Avoidance Self Efficacy Scale
This questionnaire is an 11 item scale which assesses the extent to which an individual feels confident that they will be able to resist temptation to use drugs. Al-Otaibi (1998) has demonstrated excellent reliability for this questionnaire, with a Cronbach’s Alpha of 0.86.

Outcome Expectancy Questionnaire
This questionnaire is a 16 item scale which assesses the positive and negative outcomes that an individual expects from ceasing their substance use. Al-Otaibi (1998) has demonstrated good reliability for this questionnaire, with a Cronbach’s Alpha of 0.73.

The above questionnaires all measure different aspects of motivation. They were adapted by Dr. Abdullah M. M. Al-Otaibi, from existing questionnaires developed for slightly different populations, who has given his permission for their use. The wording of some items has been altered slightly for use with this (inpatient) population.

Participants will also be asked to complete two visual analogue scales assessing the importance of and confidence in change on a ten point scale.

Withdrawal Scale
This questionnaire is a 15 item scale developed to measure withdrawal symptoms (Ghodse, 1995) at St. George’s Hospital Medical School, Department of Psychiatry of Addictive Behaviour.

Planned/Unplanned Discharge
Data regarding planned versus unplanned discharges are collected routinely for each patient. Unplanned discharges reflect either patients who decided to leave before completing the programme planned for them, or who are discharged due to breaking their treatment contract.

Data Analysis
It is anticipated that logistic regression analyses will be used to determine the extent to which motivation, changes in motivation and withdrawal symptom severity predict unplanned discharge. Statistical advice confirmed that 60 subjects should be sufficient to perform these procedures. It was not possible to perform a power analysis for logistic regression procedures on the population to be studied, but a power analysis based on multiple regression procedures and norms from an outpatient sample.
estimated a power of 0.75, given a medium effect size of 0.15 and a statistical significance threshold of 0.05. This is generally considered to be sufficient power.

It is anticipated that a chi-squared analysis will be used to evaluate whether the frequent assessment of motivation has affected attrition rates relative to a baseline control group. A power analysis has shown that a sample size of 53 (and 53 baseline controls) would have a 70% power to detect a decrease in the unplanned discharge rate from 44% to 34%. This is generally considered to be sufficient power. However, it is a rather large effect, and hence this question is considered supplementary, as it is not considered probable that the motivational assessment would have such a large effect.

Statistical advice has been and will continue to be sought from Chris Fife-Schaw and his colleagues at the Department of Psychology, University of Surrey.
References


Appendix 3

NHS TRUST PATIENT INFORMATION SHEET

STUDY OF CHANGES IN MOTIVATION, WITHDRAWAL SYMPTOM SEVERITY AND DROPOUT RATE IN ACUTE WARD

Please read the following information sheet carefully and think about whether you might be interested in participating in the study.

What is the study about?

Research has shown that people who are more highly motivated at the start of treatment for drug and alcohol misuse are more likely to succeed in their treatment goals, and less likely to drop out of treatment.

This study has been designed to look at changes in motivation throughout treatment, and whether this will predict such unplanned discharges.

We also want to know about how severe your withdrawal symptoms are throughout your stay on this ward, as we know that people can feel pretty bad at times and this may contribute to unplanned discharges.

We are hoping to recruit about 60 people to take part in this study, and we would like to invite you to take part.

What will I have to do if I take part?

If you agreed to take part in this study, you would be asked to fill in some questionnaires, firstly, in a few minutes time, and then three times each week during your stay on the ward.

These questionnaires will ask you about:

1. your reasons for wanting treatment
2. how confident you are that you will succeed in your treatment goals
3. how you feel this success would affect your life
4. the withdrawal symptoms you are experiencing.

It is anticipated that it will take you about 10-20 minutes to fill in these questionnaires each time.

Whatever you decide, it will not in any way affect your treatment.
Do I have to take part?

No, taking part is entirely voluntary. If you would prefer not to take part you do not have to give a reason. Your treatment will not be affected in any way. If you do decide to take part, but later change your mind, you can withdraw at any time.

What about confidentiality?

All of your responses will be strictly confidential. They will be seen only by me. The information will be put together into a report, but this will not include names, or any information that would enable you to be identified.

Signed by the person in charge of the study:

Christy Wellings

Psychologist in Clinical Training
Surrey University
Tel: 01483-259441

The Local Research Ethics Committee has approved the above statement.
NHS TRUST
CONSENT FORM

Title of Project:

Motivation Throughout Treatment And Attrition Rates In An Inpatient Substance Misuse Unit

I have read the Information Sheet, and agree to take part in the above study.

Signed (Participant)..........................................................

Name (print).................................................................

Date..........................................................................

Signed (Researcher)....................................................... 

Name (print).................................................................

Date..........................................................................

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Appendix 5:

Graphs to Show Changes in Motivation and Withdrawal Symptoms Over Time For Individual Participants

Changes in Motivation and Withdrawal with Time

Participant No. 1: Unplanned Discharge

Changes in Motivation and Withdrawal with Time

Participant No. 2: Unplanned Discharge
Changes in Motivation and Withdrawal with Time

Participant No. 3: Planned Discharge

Changes in Motivation and Withdrawal with Time

Participant No. 4: Unplanned Discharge
Changes in Motivation and Withdrawal with Time

Participant No. 5: Planned Discharge

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Changes in Motivation and Withdrawal with Time

Participant No 7: Planned Discharge

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Changes in Motivation and Withdrawal with Time

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Questionnaire Date
Changes in Motivation and Withdrawal with Time

Participant No. 11: Planned Discharge

Questionnaire Date

19.01.99 21.01.99 24.01.99 25.01.99

Changes in Motivation and Withdrawal with Time

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Importance

Questionnaire Date

Changes in Motivation and Withdrawal with Time

Participant No. 14: Unplanned Discharge

Questionnaire Date
Changes in Motivation and Withdrawal with Time

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Questionnaire Date
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Changes in Motivation and Withdrawal with Time

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Changes in Motivation and Withdrawal with Time

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Withdrawal

Confidence

Importance

Changes in Motivation and Withdrawal with Time

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Withdrawal

Confidence

Importance
Changes in Motivation and Withdrawal with Time

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Changes in Motivation and Withdrawal with Time

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Change in Motivation and Withdrawal with Time

Participant No. 32: Planned Discharge

Questionnaire Date
Changes in Motivation and Withdrawal with Time

Participant No. 36: Planned Discharge

Questionnaire Date

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Changes in Motivation and Withdrawal with Time

Participant No. 38: Planned Discharge

Changes in Motivation and Withdrawal with Time

Participant No. 39: Unplanned Discharge
Changes in Motivation and Withdrawal with Time

Participant No. 44: Unplanned Discharge

Questionnaire Date

Changes in Motivation and Withdrawal with Time

Participant No. 45: Planned Discharge

Questionnaire Date
Changes in Motivation and Withdrawal with Time

Participant No. 46: Planned Discharge

Questionnaire Date

Changes in Motivation and Withdrawal with Time

Participant No. 47: Unplanned Discharge

Questionnaire Date
Changes in Motivation and Withdrawal with Time

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Participant No. 53: Planned Discharge

Questionnaire Date

Changes in Motivation and Withdrawal with Time

Participant No. 54: Planned Discharge

Questionnaire Date
Changes in Motivation and Withdrawal with Time

Participant No. 55: Unplanned Discharge

Questionnaire Date

301
Changes in Motivation and Withdrawal with Time

Participant No. 57: Unplanned Discharge

Questionnaire Date

Change in Motivation and Withdrawal with Time

Participant No. 59: Planned Discharge

Questionnaire Date
Changes in Motivation and Withdrawal with Time

Participant No. 60: Planned Discharge

Questionnaire Date

Changes in Motivation and Withdrawal with Time

Participant No. 61: Unplanned Discharge

Questionnaire Date
Appendix 6
Treatment Programme of Inpatient Unit

On admission, all patients undergo a full psychiatric assessment, including objective assessment of withdrawal symptoms. They are then stabilised on an appropriate dose of medication (usually methadone and/or diazepam) for one to three days before beginning gradual withdrawal. For opiate withdrawal, this is usually in pre-specified reductions of 5-10mg of methadone every other day, with some flexibility according to objective signs of withdrawal. Patients are discharged from the ward within seven days of the end of their medication. Typically, this is four to six weeks after admission, for those who complete treatment. Withdrawal symptoms may remain severe at this time; however the priority for the acute unit is for patients to be completely drug free. They are strongly encouraged to progress either to the adjoining recovery ward, or to a residential rehabilitation facility upon discharge.

The unit controls the use of illicit drugs by daily urine samples, prohibiting visitors other than young children (of patients), not allowing patients to leave the unit unless accompanied by staff, and by the immediate discharge (subject to mental state) of any patient found to be using or in possession of non-prescribed drugs during their treatment.

During their stay on the acute unit, patients are allocated a key worker, whom they see regularly on an individual basis, and are required to participate in the daily group programme. This consists primarily of creative and educational activities and opportunities for physical exercise, so as not to be too challenging for patients who are often suffering severe withdrawal symptoms. However, there is a weekly Relapse Prevention Group which deals with topics of motivation for change, coping with high risk situations and coping with craving.