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**CLINICAL PSYCHOLOGY AND SUBSTANCE MISUSE:  
A PORTFOLIO OF STUDY, PRACTICE AND RESEARCH**

Submitted in partial fulfillment of the requirements for the degree of  
Doctor of Clinical Psychology (D.Clin.Psych) conversion programme

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June 1997

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## **Acknowledgements**

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Further

Executive for the portfolio

## SECTION A

This portfolio presents aspects of my continuing professional development in terms of clinical interest, research and service development. Since obtaining my 1983 Diploma in clinical psychology in 1983, I have worked in the area of alcohol misuse, in psychology services in general-practice medicine and HIV, and for the past five years in Drug Services. Two years ago the Drug Service merged with Alcohol Services to form a Substance Misuse Service. During the past three years, gambling behaviours have emerged as my main area of clinical and academic interest. I have included in this portfolio examples of my research work involving the measurement and the measurement of outcome in the treatment of opiate users. One aspect of my work is developing a model for clinical psychology services for addiction and a range of measures in an area that is currently gaining considerable interest, namely, the link between trauma, post traumatic syndromes, borderline personality disorder and substance misuse.

## SECTION B

Research

Throughout my professional career I have had an ongoing research component to my work. Most of my research has been practical and applied.

## **Preface**

### **Introduction to the portfolio**

This portfolio presents aspects of my continuing professional development, in terms of clinical interest, research and service development. Since obtaining my BPS Diploma in clinical psychology in 1988, I have worked in the area of alcohol misuse, in psychology services in genito-urinary medicine and HIV, and for the past five years in Drugs Services. Two years ago the Drugs Service merged with Alcohol Services to form a Substance Misuse Service. During the past nine years addictive behaviours have emerged as my main area of clinical and academic interest. I have included in this portfolio examples of my research work involving the assessment and the measurement of outcome in the treatment of opiate users, description of my work in developing a model for clinical psychology services in addictions and a review of literature in an area that is currently gaining considerable interest, namely, the links between trauma, post traumatic syndromes, borderline personality disorder and substance misuse.

## **SECTION B**

### **Research**

Throughout my professional career I have strived to maintain a strong research component to my work. Most of my research has been practical and clinically



relevant research, often linked to demonstrating the contribution a clinical psychologist can make in a service setting. Much of my work, including the studies in this portfolio, can be described as 'applied' research. My approach was particularly influenced by Dr Chris Barker, who supervised my BPS Diploma thesis and has continued to provide advice and support on methodological and statistical problems over the years. Barker, Pistrang and Eliot (1995) describe 'pure research' and 'applied research' as being on a continuum. This formulation enables the use of pluralistic methodology and a pragmatic stance to be taken in conducting research in a clinical setting. I have endeavoured to pass on Chris Barker's influence in the supervision of research projects of trainee clinical psychologists during the past nine years.

Included in **Section B** are three research studies in the area of outcome measurement in the treatment of opiate users. I developed an interest in assessment and outcome measurement in the area of addiction early on in my career. I was working in the Alcohol Service and was struck by the lack of outcome measurement or evaluation of clinical interventions that was taking place. Exploring the literature in this area I soon discovered that there were very few standardised assessment and outcome measurement instruments available and very few reported studies of treatment outcome. The Addiction Severity Index (MacLellan et al., 1980) had been recently developed and provided the best instrument available, but after attempting to use it clinically, it became very clear that it was suitable for evaluative research but not for routine clinical use. With Tom MacLellans' permission I modified it into a simple form for use in routine clinical work which was published in a chapter on evaluation

relapse prevention interventions (Wanigaratne et al., 1990). This chapter also set out an evaluation framework for addiction services based on the work of Moos and Finney (1983). However, I left the Alcohol Service before this instrument and the evaluation framework could be validated and my interest in this area lay dormant until a colleague approached me about using the instrument in her MD research. The need for the validation of the modified ASI, led me to work on developing a new instrument that would be comprehensive and overcome the limitations of the ASI. While this work was being planned, Darke et al., (1992) published the OTI that claimed to overcome those limitations and fulfilled the objectives of a comprehensive outcome measure. This instrument was developed in Australia and needed validation across diverse populations, and also needed norms for a British population. Evaluating the OTI for routine use in a British clinical setting forms the backdrop for the three studies presented in this portfolio.

**Chapter 1** reviews the literature and outlines the issues relating to outcome measurement in the area of treatment of opiate addiction. Outcome measurement cannot be separated from the process of assessment. Information gathered at assessment is used for clinical decision making and outcome measurement. Measures that can predict outcome could benefit clinical decision-making. This chapter also examines factors that are linked to treatment decisions such as, motivation, severity of dependence, self-efficacy and expectations. It is seen that in the treatment of opiate users few of these factors have been studied in relation to outcome. The literature also shows that apart from the Severity of Dependence Scale (SDS), there are no validated instruments to be used with opiate users. Hence the argument is

made for development of measures to be used with this client group.

**Chapter 2** describes the development of an instrument to measure treatment expectations of opiate users. The work described in this chapter, as with the other two studies, uses both qualitative and quantitative methodology. The item selection of the measure was based on previous qualitative studies on opiate users. The predictive validity of the expectations measure is investigated in the study described in Chapter 4.

**Chapter 3** describes the evaluation of an assessment and outcome measurement framework developed incorporating the OTI. The main objective of the study was to look at the feasibility of using the OTI in routine clinical work. The work was carried out in three phases. The first phase involved pilot work with the OTI using a clinical sample, and modifying the instrument from the resulting feed-back. The second phase involved using the modified OTI to evaluate a discrete part of a service for opiate users. The third phase involved incorporating the OTI into an assessment and outcome measurement framework and evaluating it from a staff perspective.

**Chapter 4** describes the evaluation of an alternative framework for outcome measurement using the Plymouth Drug Outcome Questionnaire (PDOQ), (Hassard, 1994). It also looks at factors predicting outcomes and predictive validity of a number of measures. Pluralistic methodology described by Barker et al., (1995) is used in this study and the study described in Chapter 3, to look at the staff perspective in the measurement of outcome.



**Chapter 5** provides a general summary of the findings of the two studies and discusses their implications for outcome measurement in general. It also explores future directions in outcome measurement and avenues for future research in the area.

## **SECTION C**

### **Case study**

The case study that I have selected for this section describes the development of a psychology service for Drugs Services. The early years of my professional career in the Alcohol Service was a period of tremendous learning and also a period of frustration. The frustration was generated by the culture within the service that did not allow a distinct role for clinical psychology. The multidisciplinary team worked on a 'generic worker' model and the contribution of the specific skills of different professions and individuals within the team felt like a secondary function. My experience of working in the department of Genito-urinary medicine was a complete contrast. In a predominantly medical setting the psychologists had a specific and clear role. When I was appointed to the post in the Drugs Service I was determined to define the role of the psychologists clearly and develop a service where the skills of psychologists that are obtained from an unique training is made available directly to the client who is able to use it and indirectly to other clients through other professionals. It was also my objective to ensure the utilisation by the service of the research and evaluation skills of psychologists. The NHS was going through a number of changes and the resulting environment with its emphasis on

multidisciplinary work, provided the opportunity to develop a psychology service based on a model. It is hoped that this model will be generalisable to other services in the area of substance misuse.

## **SECTION D**

### **Literature review**

It not possible to work in the area of substance misuse and not be struck with the high incidence of reported sexual and physical abuse, and other incidence of trauma among the clients. The behavioural patterns or the personality profiles of clients manifest recurring themes. Clients whose drug use is chronic and problems extreme often fit descriptions of the 'dramatic' or cluster B description of personality disorders in DSM-IV (1994). These are difficult clients with whom to work, but the experience that these clients can benefit from cognitive behavioural work and the almost inevitable traumatic background in their histories inspired me to look at the links between trauma, post traumatic syndromes, personality disorder and substance misuse. The co-incidence of these phenomena in clients appears to be remarkable, yet there are few attempts to link them or develop models to explain these links, in clinical literature.

**Chapter 7** reviews the literature on the definitions of borderline personality disorder, post traumatic stress disorder and substance misuse. Examining the evolution of the definitions the chapter attempts to explore the hypothesis that they are part of the

same syndrome. Models to demonstrate the observed overlap of the categories found in the literature and possible aetiology are presented. The implications of such a formulation for interventions and directions for future research are also explored.



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## SECTION B

### 1.1 Introduction

In treatment settings the process of assessing a patient's structure is inseparable from the  
process of intervention. If a patient's structure is not gathered at the initial  
assessment stage, subsequent evaluation becomes meaningless if not impossible as  
shown (Wallerstein, et al., 1993). Assessment is defined by conceptual,  
theoretical and practical frameworks. In the area of the addictions, assessment  
was previously based on a reductionist model with the primary aim of diagnostic  
classification (Deegan and Martin, 1988). The emergent Biopsychosocial model  
(Seligman, 1982) as the fundamental approach in the field of addictions demands a  
move away from reductionist assessments to an approach that will take into  
account the multiplicity of interacting variables that contribute to the individual's  
assessment and general level of functioning, as well as the person's interaction  
and susceptibility to an addictive behaviour (Pool, 1985). A multi-systems  
assessment process, while providing the prospect of acquiring more comprehensive  
knowledge about the individual and his or her addiction, will also add a great deal  
of complexity to the assessment and therapy process for both the client and the  
clinician (Kratzschwill and Marx, 1983). However, few researchers and clinicians  
have taken up the challenge of developing assessment systems within a  
Biopsychosocial framework. The Addiction Severity Index or ASI (McLellan, et al.,  
1980) is an example of an instrument that takes a broader view of addiction  
but it falls short of the comprehensive demands of the biopsychosocial approach.



# **Chapter 1    Assessment and outcome measurement in the treatment of opiate addiction: an overview**

## **1.1            Introduction**

In treatment settings the process of outcome measurement is inseparable from the process of assessment. If relevant information is not gathered at the initial assessment stage, subsequent evaluation becomes meaningless if not impossible to achieve (Wanigaratne, et al., 1990). Assessment is dictated by conceptual, theoretical and practical frameworks. In the area of the addictions, assessment was previously based on a reductionist model with the primary aim of diagnostic classification (Donovan and Marlatt, 1988). The emergent Biopsychosocial model (Schwartz, 1982) as the fundamental approach in the field of addictions demands a move away from reductionist assessments to an approach that will take into account the multiplicity of interacting variables that contribute to the individual's uniqueness and general level of functioning, as well as the persons attraction towards and susceptibility to an addictive behaviour (Peel, 1985). A multi-system assessment process, while providing the prospect of acquiring more comprehensive knowledge about the individual and his or her addiction, will also add a great deal of complexity to the assessment and therapy process for both the client and the clinician (Kratowill and Mace, 1983). However, few researchers and clinicians have taken up the challenge of developing assessment systems within a Biopsychosocial framework. The Addiction Severity Index or ASI (McLellan, et al., 1980) is an example of an instrument that takes a broader view of addiction but it falls short of the comprehensive demands of the biopsychosocial model.

## **1.2 Factors influencing assessment for treatment**

Assessment for the treatment of opiate addiction is based on three main factors.

- i) Theories and models of addiction
- ii) Goals of treatment
- iii) Aims of service provision

### **1.2.1 Theories and models of addiction**

Theories and models of addiction range from biological theories, psychological theories, psychodynamic theories to social theories. Assessment of an individual is either overtly or covertly based on a particular model or a combination of models, depending on the assessor or the setting in which the assessment is carried out. During the assessment process these models are used to make decisions about treatment, but different professions and different individuals in a treatment setting may subscribe to different theories and different models of addiction. This can lead to confusion and conflict between the assessment and treatment process. If different information based on different models is collected by different assessors, this has obvious implications for outcome measurement. Uniformity of assessment in a treatment setting is thus an essential prerequisite for effective outcome measurement.

It is rare that a treatment setting subscribes to one theory or model of addiction.

Some settings may have a dominant model (for example a Twelve Step approach; Cook, 1988; Wells, 1987) whilst individuals working within that environment may hold differing views. Uniformity of assessment, nevertheless could be achieved by consensus in a treatment setting. A consensus on what information is collected during assessment can be reached if there is clarity regarding the prevalent theories and models of addiction. Overt statements on the rationale for collecting the information in treatment settings are rare. This is probably due to the lack of clarity about the models that underpin treatment. It will be argued in this chapter that clarity on theories and models upon which treatment is based is crucial not only for assessment and outcome measurement but also for the effectiveness of treatment.

#### **1.2.1.1 Classification of models**

There are numerous conflicting models and theories of addiction for example, disease model, moral model, psychological model, and a system of classification or a framework for organising these models will be of considerable use to clinicians as well as researchers. The conceptual framework proposed by Brickman et al., (1982) to organise models of helping and coping has been suggested as particularly relevant in the area of addictions (Maisto and Conors, 1988). Using a framework of responsibility for developing the problem and responsibility for its solution, Brickman et al., (1982) arrived at a four category classification. They named these models a) Moral, b) Compensatory, c) Enlightenment and d) Medical and argued that whilst the models are internally



coherent, nevertheless each model is in some way not compatible with the others. It can be argued that in addition such a high level of incompatibility may not exist and that it may be convenient to amalgamate them into two categories. A brief outline of the models or categories proposed by Brickman et al., (1982) can be presented as follows:

#### **A) The Moral Model**

Individuals are viewed as responsible for both the development and solution of their problems and are expected to exert will-power to resolve them. This model has had influence with regard to policy development in relation to addictive behaviours and media and public attitudes (Maisto and Caddy, 1981). External agents, for example treatment agencies, are not seen as able or obliged to help. It can be argued that much of the interventions that take place at treatment agencies (for example, assessments and information giving), emphasising the individual making a choice or informed decision, are directly or indirectly based on this model.

#### **B) The Compensatory Model**

This model sees individuals as not responsible for the development of their problems but nevertheless as responsible for the solutions. The model sees individuals as able to compensate for the circumstances that they find themselves in by extra effort or by receiving and utilising help. The responsibility for using

help is seen to lie with the individual. In this respect this model has close affinity to the Moral model. Psychological interventions in the area of addictions, particularly cognitive behavioural interventions are based on the compensatory model. Marlatt and Gordon's (1985) cognitive-behavioural model of relapse prevention is the best example of this. This essentially 'self-control' approach to treatment aims to help the individual maintain changes in addicted behaviours achieved, by increased self-awareness; and a range of techniques which includes, self-monitoring and alternative coping skills; and life-style balance. This particular approach, over the last decade has become a major influence in the treatment of addictive behaviours.

### **C) The Medical Model**

The Medical model views individuals as not responsible for the development of their problems or the solutions to them. The basic application of this model is the treatment of physical illness. The individual in essence is seen as a passive recipient of help from the expert for example, a doctor.

### **D) The Enlightenment Model**

The individual is seen as responsible for the development of the problem but not responsible for the solution. The model gets its name from the perceived need to educate (enlighten) individuals about the nature of their problems and then to do whatever that is necessary to solve them. In the field of addiction this model



describes most closely the 'Twelve step' approach, although some authors (Maisto and Connors, 1989) suggest that the medical model best describes this approach.

It is the nature of the field of addiction that it does not easily fit existing paradigms. The Brickman et al., (1982) system, whilst serving as a useful framework does not satisfactorily solve the problem of classifying the theories or models of addiction. In addition the medical or disease model is seen by some as a 'metaphor' and the current formulations of the model have as many psychosocial elements in it as biological factors. On the other hand, some of the psychosocial theories are formulated within a disease metaphor: the self-help approach (dominated by the Twelve step movement, which according to the Brickman system as described above fits into the enlightenment model) has incorporated a large aspect of the medical model into its thinking.

It is proposed here that for the sake of clarity and simplification that is required for assessment and outcome measurement from the outset, the Brickman system is collapsed to two categories. The moral and compensatory into 'psychosocial theories' and the enlightenment and medical into 'disease theories'. This would enable the description of the main conceptual frameworks that have influence in treatment settings. It must be stated once again that this is an arbitrary classification for the purpose of simplifying theoretical positions for the purpose of assessment and outcome measurement in clinical settings.

Dominant theories and models of addiction will be outlined in the following section.

### **1.2.1.2 Disease theories**

The disease model of opiate addiction which has dominated medical and scientific thinking since the 1920's is based on a psychiatric formulation that linked chronic addiction with psychoneurotic deficits in certain individuals (Acker, 1993). There is an underlying assumption that continued research will yield definitive answers regarding the nature of addiction, with clear implications for treatment.

Researchers have attempted to answer some of the most common questions.

For example:

Is abstinence the only acceptable treatment aim, or can some clients resume episodic and controlled drug use?

Will a genetic marker be found to explain why some individuals seem to fall easily into destructive patterns of drug use, whilst others exposed to the same drug, do not?

Will further study of how perception and experience are modulated by neurotransmitter metabolism lead to treatment breakthroughs?

The disease concept in addictions, seen by some only as a 'metaphor' has a long history dating back to the 18<sup>th</sup> century both in Europe and in America (Berridge and Edwards, 1987; Sonnedecker, 1963). The 'disease concept in addiction' sits

uneasily with accepted medical definitions of 'disease' and has changed over the past 150 years with dominant political and socio-economic trends. The 'disease concept' has struggled with attempts at accommodating moral views, concepts of social deviance, biological determinism, philosophical views of free will and control and scientific inquiry. This produced hybrids of medical and moral theory with parallels only in 'functional' psychiatric illnesses. The disease concept subsequently developed a dichotomy within, that led to much confusion. An example of this is the dichotomy between Morphinist (an individual with a morphia habit) vs the morphinomaniac (an individual with a definite disease or a functional neurosis), with no clear distinguishing criteria between the two (Crothers, 1902; Kerr, 1988). It is worth noting that this dichotomy has re-emerged in the most recent diagnostic classification systems, but with clear distinguishing criteria (DSM-IV, 1994; ICD-10, 1992).

Despite its long history it is acknowledged that a consensus on the disease model of addiction does not exist (Acker, 1993) and questions remain on its utility even as a metaphor. Whilst some await research to confirm the standing of the model and argue its functional utility (for example a source to direct attributions of causality as a way of relieving guilt and responsibility), others argue that it erodes the human capacity to take responsibility for one's actions (Szasz, 1974).

The disease model remains a dominant model both in Europe and in America and forms the basis for much of current opiate treatment. Hence an examination of the key elements and a brief outline of the evolution of the model is necessary in



any context of assessment and outcome evaluation.

The phenomena of tolerance and dependence (the need to continue to take opiates to stave off withdrawal symptoms) which is central to the disease model had been described as early as the 18<sup>th</sup> Century (Sonnedecker, 1963). The autoimmune theories of addiction of Bishop (1913) and Pettey (1913) offered early scientific explanations of tolerance by hypothesising that the body developed an antitoxin that protected it from the toxic effects of morphine, necessitating steadily increasing doses to supersede the blocking effects of the presumed antitoxin. Withdrawal effects were explained by the antitoxins exerting their own toxic effects on organs.

A psychiatric model of addiction emerged from the work of Lawrence Kolb (1925) in America. He argued that while any one could become dependent on opiates given continuous sufficient administration, only certain types of individuals who had pre-existing psychoneurotic deficits would develop problems with addiction. He contrasted “psychopathic” or “vicious” addicts with “normal” or “innocent” addicts. This model was both stigmatising and dichotomous and reflected dominant views of policy-makers and the American establishment (Acker, 1993). Addiction was defined as a kind of deviance that was indicative of an underlying personality disorder. This was a stigma-laden disease model.

A new disease model has emerged in America in the 1970's with a functionalist description which emphasised behaviour as out of control and cited as predisposing



factors a combination of genetic, psychological and social factors; this is a 'biopsychosocial' disease model (Schwartz, 1982). In the 1980's definitions included compulsiveness, loss of control, and continued drug use in spite of adverse consequences among diagnostic signs (Smith, Milkman and Sunderwirth, 1985). This formulation has several implications: it focusses on behaviour rather than the physical sequelae of long term drug use; it justifies early intervention; and it is not drug specific. The description of the behavioural model is so broad that it could include any compulsive behaviour (Smith, Milkman and Sunderwirth, 1985).

In Europe, particularly in Britain the work of Griffith Edwards has been particularly influential in the development of the disease model. He integrated existing knowledge on addiction and different levels of explanation to develop the concept of a dependence syndrome (Berridge and Edwards, 1987; Edwards and Gross, 1976; Edwards, et al., 1977). The description of the link between psychological and biological dependence in the formulation of the dependence syndrome has helped delineate them from each other. Some believe that this description is arbitrary and underestimates the frequent co-occurrence of physical and psychological symptoms (Drummond, 1991). The dependence syndrome formulation also viewed problem drug-taking, and dependence, as separate dimensions. Physical dependence was described by the 'neuro-adaptational model' based on tolerance and withdrawal. The avoidance of the withdrawal

experience is seen as providing the drive to continue to use, with or without the positive experience of the drug:

*"Addiction to opiates may be best pictured as both a psychological and biological condition, characterised by a desire to continue taking the drug in high dosage, a salience of this drug-seeking drive over other life considerations and a tendency to relapse." (Berridge and Edwards, 1987)*

The concepts of neuro-adaptation and dependence syndrome forms the basis of current definitions of drug dependence in both the main disease diagnostic and classification systems in the world, the American DSM-IV and the WHO ICD-10.

There are seven key elements to the original description of the dependence syndrome (Edward and Gross, 1976; Drummond, 1991). These can be outlined as follows:

- i) Increased tolerance to the drug
- ii) Repeated withdrawal symptoms
- iii) Subjective awareness of the compulsion to take the drug
- iv) Salience of drug seeking behaviour
- v) Relief or avoidance of withdrawal symptoms
- vi) Narrowing of the repertoire of drug taking
- vii) Reinstatement following a period of abstinence

The assessment systems or the assessment process in most treatment settings are overtly or covertly aimed at detecting these elements in an individual.

### **1.2.1.3 Psychosocial theories**

#### **A) Cognitive-behavioural theories**

Derived from the principles of social learning theory (Bandura, 1977), cognitive psychology, and experimental and social psychology the 'addictive behaviours' model sees addictions as 'overlearned habits' that can be analysed and modified in the same manner as any other habits (Marlatt, 1985). Taking substance misuse as an example, this model sees the development of the addiction taking place in a continuum, from experimentation, recreational use, problematic use to dependence. The continual, excessive use and 'loss of control' marks the end-point of dependence. According to this model an individual's position in each point of this continuum is governed by processes of learning. The determinants of addiction could include, situational and environmental antecedents, beliefs and expectations, the individuals family history and prior learning experiences, the consequences of the addictive behaviour and social factors (Marlatt, 1985). A key assumption in this model is that addictive behaviours are maladaptive coping mechanisms that has led to negative consequences for the individual in terms of health, social status and self-esteem.

The key cognitive processes related to addictions are identified as a) self-efficacy, b) outcome expectancies, c) attributions of causality and d) decision making (Beck, et al., 1993; Marlatt, 1985). A number of models of addiction and intervention have been developed, based on these factors, for example self-efficacy

model (Annis, 1986); cognitive model (Beck, et al., 1993). The cognitive model of Beck, et al., (1993) describes addictive behaviours arising out of interplay between layers or levels of beliefs. Core beliefs or core schemas of an individual is activated by an critical incident to give rise to anticipatory beliefs related to the addiction which in turn gives rise to craving. Cravings then activates permissive beliefs to indulge in the addiction, which subsequently leads to the addictive behaviour. This explanatory model of the cognitive processes involved in the addictive behaviour enables the construction of individually-based intervention strategies.

## **B) Excessive appetite theory**

The dominance of the disease model and the closely associated enlightenment model (Twelve step) have not fostered the development of alternative frameworks for understanding addictions. One of the few exceptions is the excessive appetite model developed by Orford (1985). This model attempts to provide a psychological explanation for addiction outside the neuro-adaptation model. The fundamental premise of this theory is that an attachment or an addiction to a substance or an activity can be formed by psychological processes rather than neuro-adaptation, tolerance and withdrawal as in psychobiological formulations (Orford, Daniels and Somers, 1996). Since the conceptualisation in substance addiction is very much tied up with the neuro-adaptation model, the advancement of alternative models has to rely on non-substance addiction and comparative studies between substance and non-substance addictions. Gambling and



comparative studies with substance addictions offer scope for this work. A structure for an alternative model has emerged from a study comparing drinkers with gamblers (Orford, Daniels and Somers, 1996). This model suggests that a process involving three sets of factors, primary, secondary and tertiary, contributes to the maintenance of an addiction and are independent of psychobiological factors. According to the model the **primary factor** is incentive motivation-focus on positive rewards as opposed to avoidance of withdrawal distress. This could involve memories of past reward, and expectations of future rewards (positive outcome expectancies). Evidence supporting this view has also come from research within the psychobiological framework where positive incentive seem to offer a better explanation for addictive behaviours than drive reduction (Bozarth, 1990; Jaffe, 1989).

The **secondary factors** in this model, consistent with drive reduction formulations, are said to act to consolidate and strengthen attachment to an addictive object. New drives are set up as a result of strong and negative emotions associated with the addictive behaviour and are enhanced by the operation of cognitive defences (for example, denial and rationalisation) that prevent the person concerned from seeing his or her situation objectively. The **tertiary factors** in the model are described as factors associated with harm resulting from the excesses of the addictive behaviour (for example loss of self-respect, relationships and employment). This may set up a cycle for further increase in addictive behaviour (increase of incentive value and addiction lifestyle) or motivate attempts to change.

A study which had operationalised this model and measured attachment across 12 areas (strong desire, preoccupation, acting against judgement, loss of control, non-social activity, acquiring money for the activity by special means, feeling addicted or dependent, feeling depressed or guilty as a result, being criticised by others, and feeling the need to change) by a twenty four item questionnaire found a very similar pattern of response between gamblers and problem drinkers (Orford, Daniels and Somers, 1996). The same study investigated the relationship between this measure and an instrument that was developed to measure the severity of dependence (SADQ: Stockwell et al., 1979) within a neuro-adaptational framework and found significant differences in all scales between gamblers and problem drinkers in a predicted direction.

The psychological model outlined above appears to offer an alternative to the established neuro-adaptational model of addiction. Unfortunately few researchers have taken up the challenge of exploring addiction in different frameworks. Further research along these lines would not only broaden our understanding of the addiction process but offer avenues for interventions for conventional addictions as well as new addictions. The present study attempts to develop such a measure for opiate addiction by adapting and modifying a measure developed by Orford (1991) for problem drinkers and gamblers.

Evidence supporting psychological theories of dependence have ironically come from biological research into neural networks and neurochemistry, particularly the neurobiology of craving. Evidence for opiates activating neural mechanisms

effecting both positive and negative reinforcement processes have been found (Wise, 1988). The negative reinforcement process supports the avoidance of withdrawal theory and the positive reinforcement process supports the excessive appetite theory. The discovery of positive reinforcement mechanism also explains dependence in the absence of physical dependence (Bozarth and Wise, 1984; Deneau, Yanagitha, and Seevers, 1969). Biological animal studies of opiate addiction have concluded that 'reinforcing effects of opiates has been temporally, procedurally, neuroanatomically, and neurochemically dissociated from their physical dependence producing effects (Bozarth, 1994).

### **C) Motivational distortion theories**

This theory views repetitive behaviours such as chronic drug misuse changes the motivational system underlying that behaviour (West, 1991). The concept of 'habit strength' based on conditioning theory is said to play a part here. This refers to the causal link between a stimulus which is a cue to action and the subsequent action. It has been argued that it may involve the enhancement of synaptic connections in the circuitry involved like automation of psychomotor skills. The action of the drug itself may act to distort motivation. Motivational distortion theories can explain why relapse and craving can occur in the absence of withdrawal distress and why it takes time for an addiction to form (West, 1991).

One of the most salient clinical features of addiction is that with the increased motivational strength for drug related behaviour there is a severe attenuation of the



motivational properties of other reinforcers for example food and sex. The disruption of the previous motivational hierarchy where motivation for behaviours essential for survival and well-being become less important compared to motivation for drug-related behaviour, has been termed 'motivational toxicity' (Bozarth, 1990; Wise and Bozarth, 1985). The basis of this characteristic described as an aspect of the dependence syndrome (Edwards and Gross, 1976 ), is better explained by behavioural theories of positive reinforcement than, withdrawal avoidance theories (Bozarth, 1994).

#### **1.2.1.4 Psychodynamic theories**

An overview of psychological models in the area of addiction would not be complete without the inclusion of psychodynamic formulations and theories, because this perspective has influenced much of the thinking behind the psychological work carried out in clinical settings. It must be noted that this perspective is largely ignored in reviews and texts on addictions (for example, Bell-Glass, 1991; McMurrin, 1994).

On the one hand there has been minimal contribution from this perspective to the theoretical and conceptual developments in this field (Hopper, 1995), on the other hand in treatment settings it has had and continue to have a large influence. This paradoxical situation is due to the domination of relationship based models or philosophies of treatment in specialised treatment settings that was the tradition in the 60's and 70's. The assumption was that the addict will achieve abstinence



through a process of a therapeutic relationship with a drugs worker. Counselling, which became the main intervention in many treatment settings, was based on psychodynamic assumptions but often carried out by individuals with little or no training in psychodynamic therapy or counselling. It can be argued that much of this counselling took place under a 'pseudo-Rogerian' humanistic banner with little or no acknowledgement of the underlying psychodynamic processes. Like most other schools of psychotherapy at different times in their historical development, the humanistic counselling perspective has thus far had little to say on the specifics of addictive patterns, and could be seen as having no identifiable theory or model for addictions. However, Carl Rogers' concept of distorted symbolisation (Rogers, 1951) encompasses a broad sweep of ideas that indicate how the individual may acquire attachments to behaviours or items that are ultimately destructive to them, despite apparent early benefits in the individual's experience of them; this could be seen as a variant on more classical object relations theory, with a focus on the acquisition of guilt and its consequences for the otherwise contented organism (Dryden, 1990). It can be argued that this approach may not facilitate change in addicted individuals, although Rogers' own early research findings were to the contrary (Rogers, 1961). The psychodynamic processes for example transference, counter-transference, projection, projective identification, and denial, (Dryden, 1990) which appear to dominate the counselling work that goes on in many addiction treatment settings takes place without the supervision and theoretical framework such work requires. This lack of framework or clarity accounts for much of the 'stuckness' that is seen in

psychological work in addiction treatment settings and is arguably damaging to both the patient and the counsellor.

The area of addictions appear to be largely ignored by psychodynamic theorists because addicts are seen as difficult patients who are found to be rarely held in treatment for any length of time. Yet there is a vast amount of literature and theorising about borderline personality disordered patients from this perspective, despite these patients being seen to be difficult in similar ways. It is argued in this thesis (Chapter 7), that these two patient groups are the same, or if not that there is a large overlap between them. This link has only recently been implied by theorists from this perspective (De Zulueta, 1993; Hopper, 1995).

The psychodynamic umbrella encapsulates a range of viewpoints or schools of thoughts. These range from the psychoanalytical school, analytical psychotherapy to transactional analysis. Theorising for the development and maintenance of drug addiction has largely come from the psychoanalytical school. The most recent formulation which encapsulate much of the past theory by Hopper (1995) suggests that:

*"the main cause of the addiction syndrome is the unconscious need to entertain and enact various kinds of homosexual and perverse fantasies, and at the same time to avoid taking responsibility for it. It is hypothesised that specific drugs facilitate specific fantasies and using drugs is considered to be a displacement from, and a concomitant of, the compulsion to masturbate while entertaining homosexual and perverse fantasies".*

The new and perhaps more salient aspect of the theory that Hopper (1995) presents is the link with traumatic experience:

*" The addiction syndrome is also hypothesised to be associated with life trajectories that has occurred within the context of traumatogenic process, the phases of which include social, cultural and political factors, encapsulation, traumatophilia, and masturbation as a form of self-soothing. "*

This aspect of the theory have implications for assessment and outcome measurement, whether the treatment is psychodynamic or not. It also links the psychodynamic perspective with an accumulating mass of evidence from other perspectives in psychology, neurochemistry and neurology linking substance misuse and personality disorders as aspects of a post-traumatic syndrome.

Some of the other psychoanalytical views of addiction are outlined below:

- i) Addiction is associated with primitive or 'psychotic' anxieties, and therefore, is intermediate between the perversions and the psychoses (Glover, 1932b).
- ii) Addiction is based on a compulsion to obliterate internal objects (Glover, 1932b) and not on a search for bliss in terms of a fixation in an oral stage of development.



- iii) Addiction is associated with homosexuality in two ways, sexualisation of aggression towards female and maternal objects and similar process towards male and paternal objects (Limentani, 1986).
- iv) Addiction is associated with if not actually a form of, masturbation, by virtue of it being a displacement from or replacement of it. This view originates from Freud's comments (Nagera, 1971) that 'masturbation is the primary addiction and that other addictions .....are ..... a substitute and replacement for it' and that both addiction and masturbation is characterised by withdrawal into fantasy life.
- v) Some drugs such as opiates are anti-aggressive or regressive and other drugs such as cocaine are anti-regressive or aggressive (Battegay, 1991).

It can be said that it would be rare for a treatment setting to base its treatment overtly on the psychodynamic theories outlined above. Nevertheless much counselling and group work, particularly in therapeutic community settings is done with covert psychodynamic assumptions.

In the context of the present study this approach does not produce clear criteria for assessment or the measurement of outcome. Nevertheless, history-taking by most workers in the area, gathers information on developmental aspects of the individual and addiction broadly based on psychodynamic assumptions.



### **1.2.1.5 Theories of addiction and the assessment process**

The theories and models of addiction described above, albeit not comprehensively, capture what forms the basis of most interventions in the area. They attempt to explain both aetiology and the maintenance of addiction. In general aetiological theories are used to formulate treatment or intervention and there is an assumed linear relationship. In addictions interventions may not directly follow aetiological process. In many cases interventions may be based on theories of maintenance of problems and desired outcomes.

A necessary pre-requisite for assessment, although rare in practice, is to make explicit why the information is collected. In the absence of explicit statement of theoretical underpinnings, information collection loses precision. Engaging in the process of information collection with the assumption that it would be of relevance at some stage or would serve some purpose cannot lead to meaningful assessments; yet this is exactly what happens in many treatment settings. In services where there are multidisciplinary teams or workers who do not belong to a profession, there is undoubtedly a risk of wide variations in what information is collected at assessment. In an attempt to reduce heterogeneity of information collection many services have devised 'assessment forms' or 'front sheets' as they are known. This undoubtedly standardises the information collected, but they also have had the paradoxical effect of losing the focus of assessment. These forms often become part of the implicit 'tradition' in treatment settings and new staff joining the service are expected to pick up these forms and use them without much explanation of theoretical underpinnings (if there are any). It is argued here that

unless the theoretical basis of treatment provided within a setting is made explicit and without clarity as to what information is needed to make clinical judgments, assessment is reduced to a 'hit or miss' process. If the theory or treatment philosophy is made explicit to the client being assessed, this could lead to better co-operation and better quality of information collected. This could also help manage expectations that clients have about treatment which have implications for outcome.

## **1.2.2 Goals of treatment**

Goals of treatment are the second most important factor that effect assessment and outcome measurement. In the treatment of addictive behaviours goals of treatment present a unique situation. Compared to other conditions these can be described as being in a dynamic state of change. In classical medical treatment the goals are either curative or palliative.

### **1.2.2.1 Abstinence**

Abstinence became the objective of treatment from both moral and disease standpoints. Traditionally this was the only goal of treatment. The Enlightenment approach (Twelve step) that encapsulates much of the disease perspective maintains 'abstinence' as the only acceptable goal of treatment. It also views the abstinent addict, not as cured, but in a state of remission.

The acceptance of abstinence as the only goal of treatment changed in the 70's with the publication of the studies on controlled drinking studies in problem drinking. The controversy that the studies sparked had a profound influence within the field. The net result has been the emergence of a much broader spectrum of treatment goals in addictions in general.

In the area of treatment of opiate addiction the use of methadone as a substitute opiate since the 50's (Dole and Nyswander, 1965; Payte, 1991) has also contributed to the change of treatment goals. Methadone was initially seen as an opiate substitute to use in the detoxification process. The experience of using methadone with this purpose has contributed to a paradigm shift in treatment goals both in the USA and the UK (Dole, 1980; Payte, 1991). The treatment goal or choice of methadone maintenance is now established in the USA and is rapidly gaining acceptance in the UK. This is closest to a palliative goal of treatment in the medical world.

#### **1.2.2.2 Harm reduction**

The concept of reducing drug-related harm, which is associated with the concept of palliation, has by-and-large replaced abstinence as the main goal of treatment in the UK. The acceptance of this option in drug treatment settings became accelerated by two factors: the "heroin epidemic" and the "AIDS pandemic". The former refers to the dramatic increase of heroin use reported in the 1980's (Power, 1994) and the latter to the threat of HIV to public health worldwide.



The response to the increase in drug use in the UK was to shift the emphasis in treatment from specialised units which provided abstinence based intensive treatment programmes to less intensive community-based and treatment-linked general treatment settings. The Advisory Council on Misuse of Drugs (ACMD) report in 1982 recommended the implementation of Community Drug Teams (CDT's) which was to develop alternative models of treatment. This approach which was pioneered by 'non statutory sector' organisations, incorporated a model of liaison work between drug users, general health care settings (primary and secondary) and specialist centres. The aim was to increase access to treatment to a larger number of individuals who were in early stages of their drug using careers. The CDT's which were to be assessment and liaison services soon found them-selves to be second level specialist treatment services because the task of persuading generic services to treat opiate users proved to much more difficult than that was envisaged originally. A concept of severity of problems requiring different levels of treatment emerged where patients whose problems were thought to be more severe were assessed and treated at specialist centres while CDT's commenced treatment with patients with less severe problems with the objective of persuading generic community-based services to take over their care. Abstinence-only outcome criteria for these patients conflicted with the aims of accessing and retaining them in treatment. Broader outcome criteria became necessary to deliver ACMD objectives. Reduction of drug-related harm in different domains of the patient's functioning and behaviour (for example, physical health, psychological health, criminal activity) became more acceptable outcomes of treatment (Strang, 1990).



In the mid 1980's the British health policy makers were alerted to the threat of the HIV pandemic and the route of transmission of the disease by the sharing of needles by Intra-Venous (IV) drug users. The report of the Advisory Committee on the Misuse of Drugs (ACMD) in 1989 had the following statement:

*“ the first goal of work with drug misusers must be to prevent them from acquiring or transmitting the virus. In some cases this will be achieved through abstinence, in others abstinence will not be achievable for the time being and efforts will have to focus on risk reduction.”*

In the UK this statement had a dramatic impact on service provision to drug users and widened the goals of treatment even further. Harm reduction became in many services the main goal of service provision. Harm reduction can include a broad spectrum of outcomes. Outcomes that reduce the risk of HIV transmission became a priority. HIV risk reduction became a treatment goal. The reduction or elimination of needle sharing, use of clean needles, use of other routes of taking drugs other than injecting, use of condoms, adoption of safer sexual practices and reduction of activities such as sex working in order to obtain drugs became outcome criteria.

Harm reduction is not a coherent model of treatment but an umbrella term for a range of service strategies that are aimed at different outcomes (Strang and Farrell, 1992). In the absence of pre-defined outcome criteria, harm reduction becomes meaningless as any treatment intervention can be justified in terms of reducing harm.

### **1.2.3 Aims of Service Provision**

The third factor that determines assessment and outcome measurement in practice is the aims of service provision in a particular service. This is of course determined by external factors: mainly the theories of addiction, government policy directives and the goals of treatment. The choice of a particular combination of theory and goals of treatment makes each service unique. The lack of clarity around these issues that was mentioned above undermines both the assessment process and outcome measurement. Some treatment settings are primarily aimed at abstinence and some are primarily aimed at harm reduction. Most services attempt to do both and much of the confusion and problems in assessment and outcome measurement are inherent in these settings.

Some services aim to provide a comprehensive range of services that could range from harm reduction programmes such as 'low threshold methadone programmes', methadone detoxification, methadone maintenance, residential rehabilitation, counselling to psychodynamic psychotherapy. When there is a range of services the assessment process has to help make clinical decisions as to the most suitable treatment programme for the client. It was argued at the beginning of the chapter that the outcome measurement process has to be linked to the assessment process if it is to be meaningful. In services where there are a wide range of programmes it may be necessary to have a multi-level outcome measurement system. Such a system would mean that broad generic outcome measures will be taken at the stage



of initial assessment and more programme specific and sensitive measures are taken at various phases of treatment (Moolchan and Hoffman, 1994).

### **1.3 Review of outcome measurement**

Outcomes are measurable changes attributable to treatment. In Britain and elsewhere, changes in health service organisation have reinforced the necessity of demonstrating the outcome of clinical interventions (Ziebland and Rogers, 1994). In the treatment of drug users outcome measurement has been much neglected compared to other areas of health care. In the current climate in Britain this situation could no longer be tolerated. The statistics showing the increase in drug use in the country and political pressure on the government to intervene, prompted a debate on the effectiveness of treatment of drug users. The awareness of the lack of sufficient and suitable outcome data came as both an embarrassment and a shock to the health service, research institutions and service providers. The minister of health at the time commissioned an effectiveness review and this body reported in 1996. At the same time the Department of Health commissioned a national research study of treatment outcomes. This study the National Treatment Outcomes Research Study or NTORS (Gossop, 1996) has been entrusted with the task of not only evaluating the outcome of treatment of opiate users in different settings with different treatment regimes and philosophies but also to develop an instrument to measure outcome. The first phase of the study was completed in 1996 and it has received an extension to continue with the work for a further five years. Arguments for and against this approach will be discussed later. Criticism

for not systematically evaluating outcome and not developing suitable measures until this late stage must be accepted by all in the field, both researchers and clinicians.

A number of hypotheses can be put forward to explain the complacency towards outcome measurement. The traditional treatment goal of abstinence can be put forward as one of the reasons for this. If abstinence was the only outcome of treatment, then a simple tally of abstainers at various follow up intervals was all that was needed. This was indeed what was done in outcome measurement for many years. Nevertheless for nearly two decades it has been recognised that this is an inadequate reflection of drug interventions (Gillam, et al., 1992). From an abstinence framework poor outcome was seen as the norm in drug treatment, after all, relapse is the commonest outcome in the treatment of addictions (Marlatt and Gordon, 1985). This can explain the attitude towards outcome measurement in treatment settings.

In a context where relapse into drug use was the norm, 'retention in treatment' became a goal and an outcome of treatment in many settings. This led to many services keeping patients on in treatment with no measurable change for long periods. Once the culture of 'retention in treatment' as a treatment outcome was set within services it led to a resistance to measure any other outcome.

The lack of consensus of what measures of outcome to take other than 'abstinence', is another reason for the lethargy in this area (Darke, 1992; Ziebland



and Rogers, 1994). The conclusion by Edwards and Goldie (1987) “ to a large extent, assessment of outcome is a value judgement that varies from individual to individual and from one professional group to another”, sums this up. Outcome studies have focused on different outcomes in an arbitrary fashion. To illustrate this with a few examples of outcome measures in recent studies, the identified measures range from: ‘cessation of drug use and criminality’ (Charuvastra et al., 1992), ‘mortality, drug use, abstention, intentions’ (Gossop et al., 1989), ‘mortality, use of services, needle sharing, HIV, employment status & marital status’ (Skidmore et al., 1990), ‘length of stay, readmission, drug use, abstention, HIV status’ (Gillam et al., 1990), ‘use of services, abstention, drug use, illegal behaviour, employment status & client satisfaction’ (McAuliffe, 1990), ‘mortality, re-admission, drug use, abstention, illegal behaviour, employment status, marital status, emotional & social function, & life style’ (Winick, 1990), ‘internal & external attribution & personal responsibility’ (Morojele and Stephenson, 1992), ‘drug use - urine tests, HIV status, illegal behaviour, sexual behaviour, needle sharing, clean injecting sites & client satisfaction’ (Greenwood, 1992), ‘mortality, illegal behaviour, employment status, emotional & social functioning, & dependency on welfare’ (Berglund, et al., 1991), ‘drug use, length of stay in treatment, needle sharing, reasons for sharing & sexual behaviour’ (Stimson, et al., 1989), to ‘adjective checklist & personality change’ (Craig et al., 1990).

One of the major negative consequences of this diversity of outcome criteria is the inability to compare relative efficacy of different treatment programmes. This is seen as a substantial problem in the area of opiate treatment evaluation research

(Darke, 1992). In his major review of opiate treatment outcome studies Darke (1992) groups outcome evaluation into five broad categories, which in essence outlines the evolutionary chronology of progress in this area. These categories, the domains they measure and the limitations in each area are outlined below.

### **1.3.1 Studies utilising composite outcome criteria**

These studies measured performance in a number of areas with the aim of obtaining an estimate of the overall functioning of the individual including drug-taking behaviour. Measures were taken on opioid use, non-opioid drug use, criminality, re-entry into drug treatment, low alcohol use and employment. The method of evaluation in studies using this approach involved two levels of success (absolute and moderate) and measure success or failure on the basis of arbitrary a priori standards for example, no opioid use or some opioid use and whether clients were employed for more than 6 months out of the 12. The main limitation of this approach is the absence of continuous variable measurement which makes it insensitive to a degree of change in a single domain. The studies that used this approach include, Drug Abuse Reporting Programme (DARP) studies which were national longitudinal outcome studies in the USA (Bracy and Simpson, 1982; Simpson and Sells; 1982 Simpson, 1986) and Phoenix House studies looking at outcome following treatment in therapeutic communities (DeLeon et al., 1982, DeLeon, 1985; DeLeon, 1986; DeLeon, 1988). Opiate use is associated with a wide range of health, legal and social problems. The narrow range of outcome domains selected in these studies are a serious limitation in them. These studies

have not taken into consideration the literature that exists, pointing to the relevance of psychopathology, social functioning and health status of drug users both in terms of predicting outcome and changes in these domains, as outcomes of treatment programmes (Bell, et al., 1990; Gernstein and Harwood, 1990; Swift et al., 1990; Webster et al., 1977).

### **1.3.2 Descriptive outcome studies**

These studies used a methodology that was an advance on the dichotomous and criterion-based composite methodology. Different descriptive measures were used to evaluate performance in different outcome domains for example, frequency of use of different categories of drugs and number of weeks of full time employment. This method, although it lacked strict standardisation, was more sensitive to subtle changes. The Treatment Outcome Prospective Study (TOPS) a large multi-centre follow-up study in the USA is the most significant study to use this methodology (Hubbard, et al., 1983; Hubbard, et al., 1986). The outcome domains used in this study were drug use, depression indicators, full-time employment and illegal activity. This study like the DARP and Phoenix studies mentioned above can be criticised for using only a limited number of outcome domains.

### **1.3.3 Studies using global outcome measures**

This methodology involves deriving a total score from the performance on a number of variables rather than a classification of 'success' or 'failure' on the



basis of 'a priori' criteria used in composite methodology. Two studies can be cited as good examples of this approach. Bale et al.' (1980) study which used four variables (no heroin use in the previous month, no illegal drug use in the previous month, no convictions in the previous year and currently employed or enrolled in an academic institution), scored dichotomously to make up a four point global scale. Judson et al., (1980) used twelve variables (six drug use variables: heroin, other opiates, amphetamines, barbiturates, cocaine, tranquillisers; alcohol use, arrests, being gaoled, living with an addict, employment and treatment) with each variable scored on a three point sub-scale to make up a thirty six point global outcome measure. The global measure approach has advantages over the composite approach and is more standard than the descriptive approach. Again the limitations in the studies using this approach is the restricted range of outcome variables used.

#### **1.3.4 Time-based studies**

This is a variation of the criterion based dichotomous measurement. Instead of measuring performance at particular points in time, this approach measures performance using the period of time since treatment as a variable. The best example of this is the 'survival analysis' study of Fisher and Anglin (1987). To study the relative efficacy of three methadone treatment clinics in the USA they analysed the performance of treated individuals over time using four outcome domains (heroin use, crime, drug dealing and loss of employment). Failure or 'relapse' in the four domains plotted against time gave the picture of 'survival'.



The same criticisms of the composite methodology applies here.

### **1.3.5 Studies using the Addiction Severity Index (ASI)**

The development of the Addiction Severity Index (ASI) (McLellan et al., 1980) marked a major advance on the existing approaches to outcome measurement in the area of addictions. It has undoubtedly set the standard in terms of the choice of domains for outcome measurement. The adoption of a broad range of outcome variables in it self is an advance on the studies reported above. It also uses continuous variables instead of categorical or criterion-based variables which maximises its sensitivity to measure behaviour change. It also has built in the construct of 'severity' which is a global measure useful in both assessment and outcome measurement. The choice of seven outcome domains: drug use, alcohol use, medical problems, employment/support status, legal problems, interpersonal problems (family/social relationships), and psychological problems, was the broadest range of variables to be used in an outcome measurement instrument in the area and the only one to include physical health (Darke, 1992). This allowed for comprehensive analysis of treatment efficacy. The ASI was intended to be a clinical and research instrument thus linking assessment and outcome measurement. It was designed to be administered as a structured interview and the subjective estimates of problem severity is scored on a 0 - 9 scale for each domain. The ASI has been used in a large number of studies (for example, Corty and Ball, 1987; McLellan, et al., 1981; McLellan et al., 1986) and these

studies have the advantage of the possibility of direct comparison to be made between various treatments.

However, the ASI does have problems and limitations. One of the major methodological problems is the subjectivity of the scoring procedures. The severity in a outcome domain is not assessed on the basis of an objective scale but on the basis of estimates of the assessor and the assessed. This problem can be illustrated in the domain of physical health, where non-medical personnel are required to estimate the health problems of patients (Darke, 1992). The computation of composite scores is complex and is not suitable for clinical use. The composite scores, although more suitable for research purposes, rely on subjective impressions.

### **1.3.6 The Opiate Treatment Index (OTI)**

The OTI was developed by Dark et al., (1991) by taking into consideration the gaps and limitations of the existing measures outlined above as a “comprehensive, standardised set of measures for the evaluation of opiate treatment”. The main methodological issue it set out to address is the non comparability of findings of outcome studies. In doing this it also set out to tackle the ‘subjectivity’ problem of the ASI. The OTI claims to have resolved many of the problems of the ASI and is now being recommended for routine clinical use (Darke, et al., 1992).

The OTI is structured to contain six independent outcome domains. These

domains reflect an emerging consensus on variables for outcome measurement and is similar to that of the ASI. These domains are; a) drug use, b) HIV risk taking behaviour (needle sharing & sexual practices), c) social functioning, d) criminality, e) health status and f) psychological adjustment. The development of each of these scales is described in a series of publications by Shane Darke and his team (Darke, Hall, et al., 1991; Darke, Heather, et al., 1991; Darke, Ward et al., 1991). The OTI has integrated the General Health Questionnaire (GHQ) (Goldberg and Hillier, 1979; Goldberg and Williams, 1988), a global measure of current psychological adjustment.

The OTI appears to be a considerable advance in addiction assessment but it is still in its early stages of use and now requires evaluation across diverse populations.

There are no studies evaluating it with a British drug using population. For use as a standard assessment instrument in a clinical treatment setting, the OTI also lacks measurements in other important areas such as motivation for treatment and relapse predictors.

### **1.3.7 Plymouth Drug Outcome Questionnaire (PDOQ)**

The need for a brief and easy to administer measure that can be used by generic drug workers will be acknowledged by most clinicians working in the field. The Plymouth Drug Outcome Questionnaire (Hassard, 1994) is a response to this need within services in a British context. The dilemma of using 'rough and ready' measures that fulfils immediate service evaluation needs, compared with using

measures with good psychometric properties which are complicated to administer is a difficult one for the busy clinician. The latter approach may have more serious and wider implications in terms of development of intervention and extending the knowledge base, nevertheless if all workers in a clinical setting cannot be persuaded use such an instrument routinely it will be of little value. This is a serious challenge to clinicians.

The PDOQ is a composite measure adopting the dichotomous categorical scoring formula described in studies above for example the DARP studies (Simpson and Sells, 1982; Simpson, 1986) and the Phoenix House studies (DeLeon, 1988; DeLeon, et al., 1992). Clients are scored on a 2 point scale whether they meet the a priori criteria or not. The advance from the previous studies is the choice of outcome domains. In keeping with current trends the PDOQ adopts similar outcome domains to the ASI and OTI, namely reduction in drug use, physical health, HIV risk behaviours, crime and legal problems and social functioning. Higher overall score means better functioning. It takes under 5 minutes to administer if you are familiar with the questions.

It is not validated against another measure, although the author argues for high face validity and only moderate reliability figures are published. Hassard (1994) calls for independent validation of the instrument before it is adopted for wider use.



### **1.3.8 The Maudsley Addiction Profile (MAP)**

The Maudsley Addiction Profile (Gossop, 1996) is the most recent development in the field in Britain. This instrument was developed as part of the National Treatment Outcome Research Study (NTORS) which is a multi-centre, longitudinal outcome study. This is the biggest ever study of this nature undertaken in Britain. The MAP is a comprehensive assessment and outcome measurement instrument, whilst retaining the outcome domains of the ASI and OTI, goes beyond to incorporate factors such as motivation and coping in its scales. The MAP includes; patient demographics, drug and alcohol use, severity of dependence, HIV risk behaviour, motivation and coping, health, psychological functioning, family and social relationships, legal status and criminal involvement and treatment history. NTORS is still at an early stage and only the initial profile data has been published to date (Gossop, 1996). The evaluation of the instrument and data on its utility in routine clinical work, would be eagerly awaited by those working in the field.

In summary there appears at present, to be an evolution towards a convergence of opinion about the purpose and domains of outcome measurement. This is demonstrated in the overlap of outcome domains in the recent measures (ASI, OTI, PDOQ and MAP).

This shows a general acceptance of the 'biopsychosocial' framework and 'harm reduction' as a broadly accepted goal of treatment. Harm reduction can be better evaluated within this framework.

## **1.4 Measures that predict outcome**

There are a number of recent theoretical and conceptual developments in the field of addiction that are relevant to the measurement of outcome, which are not included in the OTI or the ASI. The study of these developments in relation to outcome, will extend our understanding of addictions.

In each of the key areas outlined below there are instruments which can validate the conceptual framework, and assess individuals, or measure change in terms of the framework. Many of these instruments are lengthy with the number of items ranging from 10 to 100. The administrative difficulties restricts the utility of these instruments in clinical settings and makes them only suitable for research purposes. Their length also restricts the combined exploration of the models to study the extent to which they overlap.

### **1.4.1 The severity of dependence**

The neuro-adaptational model of addiction has the severity of dependence as its key construct. The level of addictive behaviour is assumed to be proportional to the severity of dependence. The concept of dependence is used in both psychological and psychobiological formulations of addiction. The Leeds Dependence Questionnaire (LDQ), (Raistric, et al., 1994) is a 10 item measure of dependence developed with a bias towards a psychological formulation. This has been shown to have concurrent validity with other dependence measures, such as

the Severity of Dependence Questionnaire (Sutherland et al., 1987). More recently a 5 item dependence measure, Severity of Dependence Scale (SDS), based on the same conceptual framework has been developed by Gossop, et al., 1995. This measure requires further evaluation before it is recommended for routine clinical screening (Gossop et al., 1995).

Measures of severity of dependence can be both predictor measures as well as outcome measures. The reduction of severity of dependence is an desired outcome of treatment. In treatment settings that subscribe to the disease model of addiction, a measure of severity of dependence should be an essential part of assessment.

#### **1.4.2 The process of change model**

The process of change model (Prochaska and DiClemente, 1986; Prochaska et al., 1992) is a widely accepted model as a framework for understanding the addiction process in treatment settings. It has implications for both assessment and outcome measurement. Nevertheless a validated instrument based on the model with practical clinical utility is yet to be developed. There are two validated instruments that have been developed to measure change in terms of this model:

- i) The University of Rhode Island Change Assessment (URICA) (Prochaska and DiClemente, 1986) with 40 items.



- ii) **The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES) (Miller, 1991)** the shorter version of which has 20 items. These measures are by and large more suitable for research purposes.

The more recent **Readiness to Change Questionnaire (RCQ)**, developed by Rollnick et al., (1992) for use with problem drinkers has the promise of fulfilling the need for a practical measure for clinical use in this area. This measure is currently in need of validation across addictions. It also needs to be validated as a measure predictive of outcome as well as an instrument measuring the stage of change. A recent study by Budd and Rollnick (1996) has questioned the discriminant validity of stages of change of this measure and in doing so also raised issues regarding the stages of change model.

#### **1.4.3 The excessive appetite model (the degree of psychological attachment)**

Proposed as an alternative to the neuro-adaptational model, the **Excessive Appetite (EA) model (Orford, 1985)** views attachment to the addictive behaviour as more to do with the rewarding aspects of it rather than avoidance of unpleasant withdrawal effects. The **Dissonance Questionnaire (Orford, 1991)** was developed to validate the model, and has 40 items. Development of measures to test this model across addictions offers much scope for research. It has the potential of contributing a great deal to our understanding of addictions.

#### 1.4.4 The process of relapse

Relapse is the most common outcome of treatment in addictions (Mackay, et al., 1991; Saunders and Allsop, 1987; Vaillant, 1983). There are a number of models that describe the process of addiction, (Annis, 1986; Beck et al., 1993; Marlatt and Gordon, 1985). The Marlatt and Gordon (1985) model is the most comprehensive and global model of the relapse process. Because of its complexity, a single predictive instrument that would assess an individual in terms of the model is yet to be developed. Nevertheless, there are instruments based on the models of Annis (1986) and Beck, et al., (1993) that focus on aspects of the Marlatt and Gordon (1985) model. The Inventory of Drug Taking Situations (IDS) and the Situational Confidence Questionnaire (SCQ) Annis (1986) has 100 items and 40 items respectively. Instruments based on the Beck et al., (1993) model includes, Beliefs About Substance Use (BSU, 20 items), Craving Beliefs Questionnaire (CBQ, 20 items) and Relapse Prediction Scale (RPS, 50 items) (Wright, 1993).

Again these instruments are more suited for research purposes. A validated instrument that could be used routinely in clinical settings is yet to be developed. Measurement of relapse predictors should be an essential aspect of any assessment process.

#### **1.4.5 Expectations of treatment**

Expectations of treatment have been shown to be an important variable in determining treatment outcome in the area of mental health (Collins and Hyer, 1986; Goldstein and Shipman, 1961; Wilkins, 1973). This area is largely unexplored in the field of addiction.

Researchers have concentrated on expectancy as a predictor of relapse and largely ignored the role that expectations of treatment may play on outcome. Treatment in drug addiction is in no means homogeneous. It varies both between and within treatment settings. Models of treatment may vary from disease models to psychotherapeutic models. Treatment may involve substitute prescription alone, psychological interventions on its own or a combination of both. Measuring expectations of treatment at assessment may be invaluable in treatment allocation or matching. There is a strong case for investigating the relationship between treatment expectations and outcome.

There are no validated measures of treatment expectations in the area of addictions.

#### **1.5 A framework for assessment and outcome measurement**

Translating the factors and issues relevant for assessment and outcome measurement reviewed above into practice in service settings, requires a structure



or a framework. Such a framework needs to be robust and flexible cope with the demands that could be placed on it and at the same time, acceptable to staff who has to use it routinely. The demand for information at assessment may stem from needs ranging from, clinical decision making, collection of service statistics, construction of patient demographic profiles, national epidemiological data to outcome measurement. With regards to outcome measurement, if change other than in drug use is accepted as treatment outcome, the necessity to assess the drug user's 'total psychosocial situation' to look for fundamental changes in lifestyle resulting from changes in patterns of drug use, cannot be over emphasised (Berglund, et al., 1991). In the search for relevant outcome measures, the use of client and therapists ratings, family perception, client background variables and clinical evaluation have also been suggested (White, et al., 1991). Outcome measurement also demands that the process of information gathering has to be repeated at pre-determined intervals over the period of treatment and beyond.

A structure or framework for assessment and outcome measurement in the field of substance misuse, that could cope with the above demands was proposed by Moos and Finney (1983). An adaptation of this framework by Wanigaratne et al., (1990) is outlined below (figure 1). The framework consists of four stages of information gathering: a) pre-treatment, b) during treatment, c) post treatment and d) follow-up.

A service can decide, according to its needs, philosophy and treatment objectives, etc what information is included at each stage. Assessment forms, evaluation forms, patient rating forms, outcome measurement forms and discharge forms can be seen as tangible aspects of such a framework. Computerised clinical information systems can greatly enhance the operation of such a framework in a service setting.

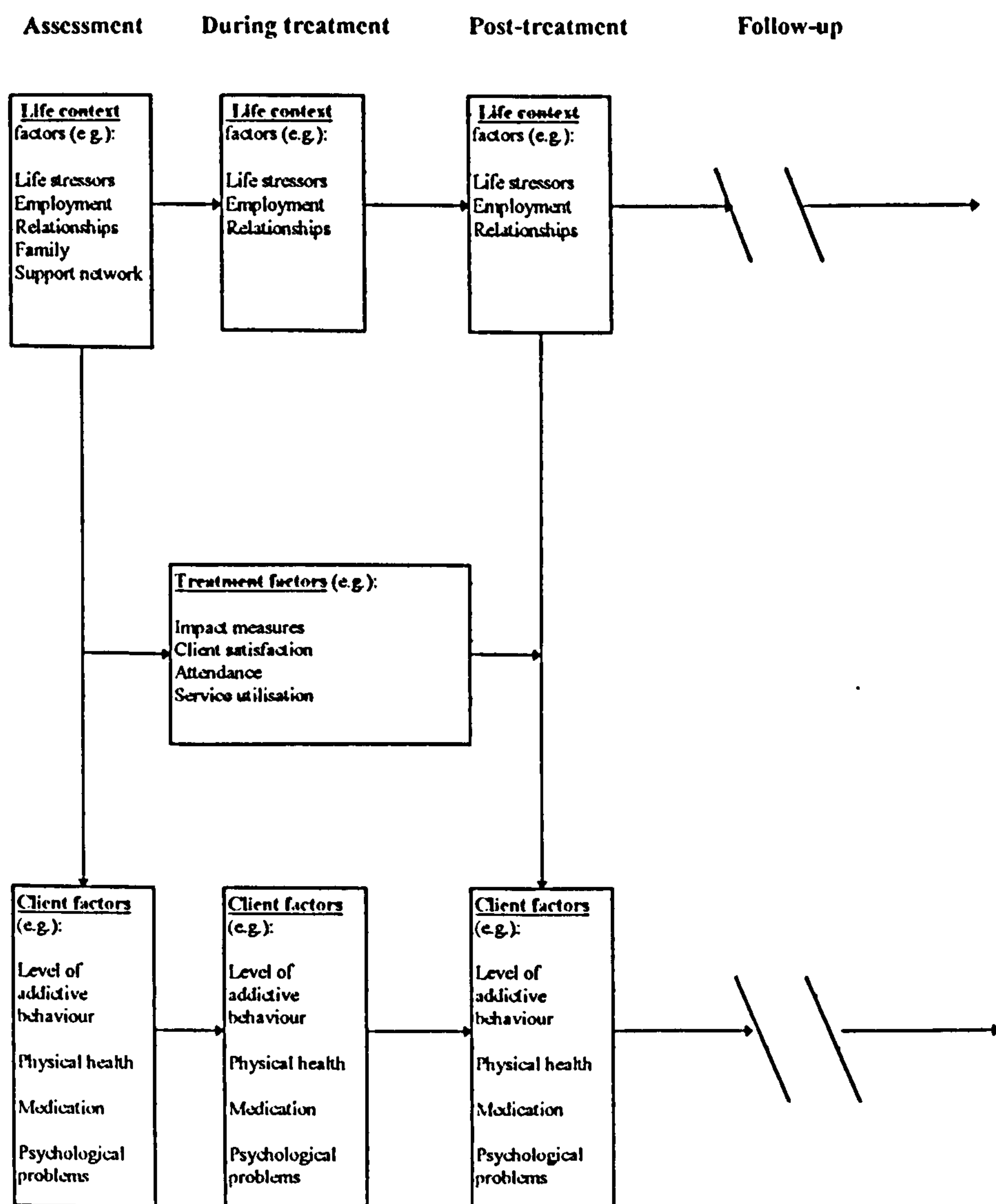


Figure 1.1 Framework for evaluating substance misuse interventions

## **1.6 The aims of the thesis**

The main aim of the studies reported in this thesis is to examine the current issues in assessment and outcome measurement in the treatment of opiate users. The emphasis will be on finding practical solutions to the needs in this area in busy clinical settings. The studies were carried out in a busy inner city London Substance Misuse Service, which is one of the largest services of its kind in Britain. It is a service that has pioneered many developments in service provision for drug users in Britain. It can be argued from an historical perspective that the findings will be of relevance to other drug services in the country.

The focus of the studies was on practical aspects of outcome measurement. This was done by comparing two frameworks of outcome measurement based on two outcome measurement instruments, the OTI (Darke, et al., 1991) and the PDOQ (Hassard, 1994). The studies investigated the relative merits of these two systems in terms of clinical utility.

The studies also examined measures that describe the addiction process that are relevant to assessment as aids to clinical decision making. Particular emphasis was placed on the predictive utility of these measures in terms of treatment outcomes. The development of an instrument to measure expectations of treatment is described. The utility of this measure in predicting treatment outcome was also investigated. The studies also aim to contribute towards the further development of an instrument to measure dependence from a non neuro-adaptational framework

and a practical measure to predict relapse. The utility of the brief severity of dependence measure (Gossop, et al., 1995) and the adapted Readiness to Change measure (Rollnick, et al., 1992) in predicting outcome was also investigated.



## **Chapter 2 Development of a scale for measuring expectations relating to the treatment of opiate addiction**

### ***Abstract***

This chapter describes the process of development of a brief scale to measure expectations of treatment among intravenous opiate users. The scale was designed to address different domains of a person's life which may be affected by treatment. It measures the subjective probability of change in each area due to treatment. The scale was administered to a sample of clients in treatment for opiate addiction. The process of development of the measure employed both qualitative and quantitative research methods. Principal components analysis indicated that the scale consists of three components, relating to drug use, sickness/withdrawal and social/psychological factors. The limitations of the measure, the potential for its further development and its implications for assessment of opiate users seeking treatment are discussed.

## 2.1 Introduction

Expectations of treatment has been established as an important variable in the treatment outcomes of psychiatric patients (Collins and Hyer, 1986; Goldstein and Shipman, 1961; Wilkins, 1973). In the field of addictions, researchers have begun to unravel the role that different types of expectations may play in determining treatment outcome (Rollnick, Morgan and Heather, 1996; Solomon and Annis, 1989; Sutton, 1996). The terms 'expectations of treatment' and 'expectancy' have been used interchangeably in the literature. The term 'expectancy' is most often used in the literature as meaning credibility and self-efficacy, which leads to confusion. In this chapter the term expectations of treatment is used to include the relevant literature covered by the term 'expectancy'.

There are a number of factors associated with the psychological construct of expectations of treatment. In the area of mental health, treatment expectations have been linked to compliance (Bowden et al., 1980) motivation (Logan, 1970), locus of control (Rotter et al., 1972), hopelessness (Fry, 1984), self-efficacy (Bandura and Adams, 1977; Williams, et al., 1989), perceived credibility of treatment (Borkovec and Nau, 1972) and preference (Wanigaratne and Barker, 1995). In terms of clinical utility, this construct is of considerable importance as a predictor of treatment outcome. Comparisons of different treatments for the same problem, focusing on credibility, have shown direct links between treatment expectations and outcome in the mental health field (Hardy, et al., 1995; Morrison and Shapiro, 1987). Hardy et al., (1995) found that treatment expectations in terms of

credibility had three clear factors: **a) Principle credibility** - pertaining to rationality of treatment, **b) Initial credibility** - expectations of treatment immediately prior to treatment and **c) Emergent credibility** - expectations arising from the experience of treatment. This study also considered outcomes of cognitive-behavioural and psychodynamic-interpersonal therapy and found that initial and emergent credibility of the assigned treatment predicted improvement for clients who received 8 sessions, but not for those who received 16 sessions. This points to a complex and variable relationship between treatment expectations and outcome.

Whilst the importance of expectations of treatment in the process and outcomes of treatment is acknowledged in psychiatric patients, there appears to be little research in the area of addiction treatment. Farid and Clarke (1992) described treatment expectations among clients with alcohol-related problems and reported that the most frequently cited was an alcohol-free lifestyle. Research which has considered expectations in the area of addiction has generally focussed on expectations of the drug and/or expectations of changing one's pattern of consumption, rather than expectations of treatment per se. For example, Rollnick, Morgan and Heather (1996) developed a measure of the expectations of the outcome of reduced consumption among problem drinkers, designed to assess both the benefits and the costs of this change in behaviour. In their study of excessive drinkers, this measure was found to have good predictive validity. Simpson and Joe (1993) examined measures of motivation for change in drug use and treatment with respect to psychometric properties and prediction of early dropouts from



methadone maintenance. They found that expectations for reducing future drug use was one of the most significant predictors of treatment retention beyond 60 days.

A number of studies have considered the predictive validity of alcohol-related expectancies (what drinkers expect to get out of the substance). Brown (1985b) assessed alcohol-related expectancies in a group of alcoholic patients entering inpatient treatment. Scores on the Alcohol Expectancy Questionnaire (AEQ; Brown, et al., 1980), were found to predict outcome at a one year post-treatment follow-up. Specifically, strong expectancies were predictive of poorer outcome. This issue has also been considered in non-patient samples. For example, Stacy, Widaman & Marlatt (1990) and Stacy, Newcomb and Bentler (1991) used structural equation modelling techniques and found that alcohol expectancies predict alcohol use in young adults over a variety of intervals. A measure of positive alcohol expectancies was found to be a better predictor of subsequent use than a measure of negative expectancies. Carey (1995) reported a study of alcohol-related expectancies among college students. She found that scores on the AEQ predicted both quantity and frequency of heavy drinking over a four week period.

A number of studies by Schafer and his colleagues have considered cocaine expectancies. Schafer and Fals-Stewart (1993b) identified three cocaine expectancy factors and developed the Cocaine Effect Expectancy Questionnaire (CEEQ). This measure was developed with a non-clinical population and a study



of inpatients with psychoactive substance abuse disorders failed to confirm the original three-factor model (Schafer and Fals-Stewart, 1996). The latter study also failed to find a relationship between expected positive effects and treatment participation. According to Schafer and Fals-Stewart (1996) "these results serve as a reminder that the development of an instrument sets the parameters for its use". Therefore, in developing an instrument to be used with opiate misusers it was considered important to use data obtained from clinical groups. In the present study, initial item selection was based on qualitative data obtained from a survey of opiate users (Dale, Jones and Power, 1992). In addition, piloting of the measure and collection of qualitative and quantitative data was also conducted with opiate using subjects.

Addictions include a range of human activities from alcohol, drug abuse and gambling to risky sexual behaviours. The emphasis in the past decade, both in research and treatment in addictions, has been the commonality between the various addictive behaviours. Despite the large areas of commonality in the aetiology and treatment approaches emerging between diverse addictive behaviours, there are aspects that are unique to particular addictions. Examples such as abstinence not being a treatment goal in eating addictions, research evidence supporting possibility of controlled drinking whilst not supporting controlled smoking, highlights these differences. In some addictions for example, stimulant use and gambling the only acceptable approach to treatment is a psychological one.

The current study focus on the treatment of opiate misuse. One of the unique features of treatment of opiate misuse is the option of substitute prescription. In the study of expectations in the treatment of opiate users this introduces an interesting set of variables. The availability of physical treatment as an adjunct to psychological interventions makes it in some ways comparable with treatment in psychiatric populations. Hence, an investigation of treatment expectation should explore the three types of credibility that have been shown to delineate the construct.

The measurement of principle credibility in the Hardy et al., (1995) study was carried out using the Opinions about Psychological Problems Questionnaire (OPPQ; Pistrang and Barker, 1992), a validated instrument describing treatment rationales of different counselling approaches. There are no similar validated instruments in the area of opiate treatments. Initial credibility in the Hardy et al., (1995) study was measured by the credibility of therapy measure (Borkovec and Nau, 1972). This does not translate directly and appropriately to opiate treatment. Similar limitations exist in the measurement of emergent credibility. The latter can be of particular relevance in this field as most clients presenting for treatment have experienced some form of previous treatment.

In this preliminary study aimed at developing an expectations measure in the area of opiate treatment, it seemed appropriate to develop a broad overall measure that covers all three types of credibility in the first instance, before specific credibility measures are developed.

Treatments for opiate misuse vary considerably in goals. Some treatments, such as low-threshold methadone programmes, may involve simply providing daily methadone and generally have a harm reduction aim. Other programmes focus on the user's lifestyle and social / psychological aspects to a greater or lesser extent. Thus it is important to identify which aspects of a user's life s/he expects to be affected by treatment. Therefore, in developing this measure of expectations, the aim was to identify different aspects which may be affected by treatment and to consider subjective probabilities of change due to treatment.

This chapter reports on the development of a brief scale to measure expectations of treatment among opiate users. The process of item selection is described. The scale was administered to a sample of clients seeking treatment for problem opiate use and the results of qualitative and quantitative analysis of the data are presented. The utility of such a measure is discussed together with recommendations for future research.

## **2.2 Method**

### **2.2.1 Item selection and pilot work**

Initial selection of the items was based on a information from a qualitative survey conducted by Dale, Jones and Power (1992). In this survey, users of methadone, both licit and illicit, were asked about ways in which methadone had helped them and the various experiences they had had with it. These statements were adapted



into the form of an expectations questionnaire, in which subjects were asked to rate the likelihood that treatment would help in various domains. Ratings were made on a 7 point scale from 'not at all likely' to 'extremely likely'. The items covered drug use, injecting, sickness, health, financial, legal, social and psychological factors. These aspects broadly correspond to the domains covered by outcome measures such as The Opiate Treatment Index (Darke et al., 1991).

The questionnaire was evaluated in terms of ease of administration and face validity, based on clients' self-reports and observation. Individuals arriving at 'Drop-In' for an initial assessment were invited to take part. Four subjects participated. They were asked to complete the questionnaire, make comments and verbalise any thoughts that came to mind whilst doing so.

This procedure identified items containing ambiguous words or phrases as well as difficulties of administration. It also highlighted inconsistencies in responding, for example, clients responded in two ways when they deemed an item inapplicable: they either omitted a response or responded with a rating of "1- not at all likely".

In the course of the interviews two clients spontaneously made explicit references to a difference between **expected** effects of treatment and those they **wanted** or **hoped for**. Although the questions refer specifically to expectations, this distinction may not have been sufficiently clear. For example, one client gave the same written response to two items on the questionnaire, but his verbalisations

("certainly" and "hopefully") indicated some qualitative difference in the meaning of the written responses.

Following this, the measure was presented to 12 clients of an inner city London outpatient Drug Dependency Service, which is one of the largest services of its kind in the country, for self-completion. This was primarily to assess ease of administration and clarity of items and instructions. Participants reported some difficulty with negatively worded items, such as 'the treatment programme will not help me at all'. Therefore all items on the scale are positively worded. Finally, any items identified as ambiguous were amended.

### **2.2.2 The final measure**

The final measure used in the study had 11 items (appendix A). The instructions to the questionnaire read as follows:

"Below are a number of expectations that people have had about treatment programmes. Please indicate how likely you think they are to happen to you. Please circle the appropriate number."

Each item started with the stem "The treatment programme will help me to -" and included the following items:

- i) - take less drugs,

- ii) - **feel more in control,**
- iii) - **avoid feeling sick,**
- iv) - **keep me straight and functioning,**
- v) - **to be safer and healthier,**
- vi) - **have less legal problems,**
- vii) - **inject less,**
- viii) - **save money,**
- ix) - **help me with relationship problems,**
- x) - **help me with psychological problems,**
- xi) - **help me with child care problems.**

The items were scored on a 7 point scale, where 1 was 'not at all likely' and 7 corresponded to 'extremely likely'. Scores higher than 4 indicated greater likelihood of the outcome being true, while scores of less than 4 indicated that it would be untrue.

### **2.2.3 Participants**

The questionnaire was administered to clients receiving treatment in three different parts of the Drugs Service: a community service which provides treatment in a primary care setting, two satellite clinics linked with a probation service and an out-patient service. Eighty nine clients participated. The sample consisted of 59 men and 15 women (gender was not recorded for 15 participants). The age range was 20 to 49 years, with a mean age of 33 years. The data was collected as part



of a general service evaluation and client satisfaction survey. Administrative staff approached clients in the waiting area and asked them to complete the questionnaires while waiting for appointments. Participation was voluntary and all responses were confidential and anonymous.

## **2.3 Results**

### **2.3.1 Descriptive statistics**

The means and standard deviations of participants responses for each item of the questionnaire is presented in Table 2.1. It can be seen from the table that participants indicated that all outcomes were more likely to happen than not to happen. The highest means were obtained for items relating to avoidance of withdrawal symptoms ('avoid feeling sick and 'keep straight and functioning'). The lowest means were obtained for items relating to child care problems and relationship problems. Standard deviations indicate that these were also the items with the greatest variation in response.

**Table 2.1 Means scores and standard deviations for 11 expectation items (N=89)**

<b>Item</b>	<b>Mean (s.d.)</b>
Childcare problems	4.41 (2.54)
Relationship problems	4.94 (2.22)
Psychological problems	4.95 (2.05)
Legal problems	5.48 (1.86)
Take less heroin	5.50 (1.89)
Inject less	5.70 (1.74)
Save money	5.77 (1.57)
Feel more in control	5.83 (1.36)
Safer and healthier	5.94 (1.45)
Straight and functioning	6.00 (1.35)
Avoid feeling sick	6.15 (1.43)

### **2.3.2 Questionnaire structure**

The questionnaire items were factor analysed using principal components extraction with varimax rotation. Three components of items relating to a) **drug use**, b) **sickness and withdrawal** and c) **social/psychological factors**, were found to have Eigen values of greater than 1 (accounting for 73.1% of variance). Factor I had an Eigen value of 5.26 and accounted for 47.8% of the variance. Factor II had an Eigen value of 1.71 and accounted for 15.5% of the variance and Factor III had an Eigen value of 1.29 and accounted for 11.8 % of variance. Table 2.2. presents the item loadings for the these three components.

Examination of the loadings between items and factors indicates that the three

factors correspond to issues around use of drugs, more general social/psychological factors and items relating to withdrawal and sickness. Only one item loaded highly (greater than .5) on two components. This was the item relating to childcare problems. The items that loaded clearly on **Factor I** were: a) take less heroin, b) feel more in control, c) inject less and d) save money. Items loading clearly on **Factor II** were concerned with wider issues, namely a) legal, b) psychological and c) relationship problems. **Factor III** was clearly concerned with sickness and withdrawal. The items that loaded highly with this factor were: a) avoid feeling sick, b) straight and functioning and c) safer and healthier.



**Table 2.2** Item loading for components extracted from varimax rotation and percentage variance accounted for by each component

<b>Item</b>	<b>Factor I 47.8%</b>	<b>Factor II 15.5%</b>	<b>Factor III 11.8%</b>
Take less heroin	.832	-.092	.156
Feel more in control	.741	.324	.291
Avoid feeling sick	.115	.089	.890
Straight & functioning	.226	.091	.908
Safer & healthier	.494	.345	.566
Legal problems	-.021	.780	.168
Inject less	.866	.181	.127
Save money	.631	.430	.317
Childcare problems	.564	.628	-.043
Relationship problems	.169	.877	.114
Psychological problems	.233	.841	.093

**A) Internal Reliability Analysis**

Cronbach's Alpha statistic was calculated for the 11 items of the scale. The resulting value of Alpha was .89. This was also calculated for the three factors

separately. For Factor I, it was .83, for Factor II it was .83 (.81 without item 11) and for Factor III it was .81.

## **B) Item-Total Correlations**

Each item was correlated with the total score. All correlations were significant at  $p < .005$ . Correlations ranged from .49 to .77. All except one item correlated at greater than .5.

## **2.4 Discussion**

This chapter describes the development of a brief measure of treatment expectations designed for use with intravenous opiate users. The following section summarises the main findings and their implications.

### **A) Item selection**

The items were scored on a 7 point scale, where 1 was 'not at all likely' and 7 corresponded to 'extremely likely'. Scores higher than 4 indicated greater likelihood of the outcome being true, while scores of less than 4 indicated that it would be untrue. It can be seen from the results that participants indicated that all outcomes were more likely than not to happen. The subjective probabilities of treatment helping with sickness and withdrawal were the highest, while the lowest expectations were of help with aspects of childcare, relationship and psychological

problems. Standard deviations indicate that these were also the items with the greatest variation in response. This may be partly due to the problem identified in the pilot study of subjects responding in one of two ways when an item was deemed inapplicable. Participants tended to leaving it blank or to respond 'not at all likely'. This was a common problem with the item relating to childcare, since many of the subjects did not have children. It is therefore recommended that this item is omitted from future versions of the questionnaire.

## **B) Questionnaire structure**

Factor analysis indicated that the items related to three factors, broadly corresponding to drug use, sickness & withdrawal and social/psychological issues. The development of this measure involved a combination of qualitative and quantitative methods. It was hoped that by selecting the items based on opiate users' reported experiences, the validity of the measure would be enhanced. The sample of clients who subsequently completed the measure gave high subjective probabilities for these items, indicating that these were aspects that they expected to be affected by treatment. Pilot work indicated that clients distinguish between expectations and hopes. However, there were also indications that clients may give the same written response for what they expect to happen and what they hope to happen. Although the instructions stress that it is what the client **expects** to happen that is of interest, the high subjective probabilities may indicate that clients were responding based on what they **hoped for** from treatment. This distinction between expectations and hopes may be an important one and further research is



needed to explore the possibility that the **disparity** between these aspects could predict treatment outcome.

### **C) Limitations of the study**

The main limitation of the study was that it was carried out on a sample of participants already in treatment. Their expectations of treatment is likely to be influenced by their experience of treatment so far. It is possible that the questionnaire measures emergent credibility. Administering the questionnaire to patients at different stages of treatment, for example at assessment, six months into treatment, etc may address this limitation. With a larger sample, cross-sectional analysis could also be used to address this limitation.

The second limitation is that the expectations of 'methadone' was not differentiated from expectations of 'treatment'. This is a unique factor in the treatment of opiate users where substitute prescription of methadone may be seen as 'treatment'. It may be necessary to define 'treatment' in the questionnaire. Dale, Jones and Power, (1992) primarily examined the experience of methadone in their study of expectations. Inclusion of items on methadone or cross validation with a measure of expectations of methadone would address this limitation.

#### **D) Prediction of outcome**

The ultimate aim of developing a measure of this type is that it would have predictive validity and, therefore, clinical utility. Before testing the predictive validity of the measure, it is important to consider previous findings.

A number of studies have considered the predictive validity of measures of alcohol-related expectancies and produced evidence that expectations of the substance are important (Brown, 1985; Carey, 1995); however, when considering treatment outcome, it may be necessary to consider expectations of the treatment as well as expectations of the drug. In the field of mental health, treatment expectations have been found to predict outcome (Hardy et al., 1995; Morrison and Shapiro, 1987). Three types of credibility; principle, initial and emergent, were found in Hardy et al's 1995 study. A measure with predictive validity which would have clinical utility particularly in the assessment of patients prior to treatment should address principle credibility (rationality of treatment) and initial credibility (expectations immediately prior to treatment).

In the treatment of opiate dependence the treatment rationales show considerable variation. In Britain this may vary both between and within treatment centres. Patient's expectations may be influenced by their past experience or what they have heard about treatment. In order to test the predictive validity of an expectations measure, clear rationales of treatment should be presented to the patient, prior to administration of the measure. The objectives of the expectations

measure were essentially to measure principle and initial credibility. The results of the present study may also reflect emergent credibility because of the sample used. The study reported in Chapter 4, exploring the predictive validity of the measure has addressed this limitation. It is important to note that the predictive validity of this measure can only be established by using measures of treatment outcome and the validation will be dependent on the psychometric qualities of the outcome measures. The sensitivity of a outcome measure will be of particular relevance. A composite measure with a forced choice "yes/no" criteria of scoring will be expected to be less sensitive to changes in behaviour than a measure with a continuous scale. The sensitivity of the outcome measure will determine the "size" of change over a period of time such as 6 weeks, 3 months, 6 months, etc. The ability of the expectations measure to predict outcome at different stages of treatment needs to be established with appropriately sensitive outcome measurement instruments. The congruence between the items of the expectation measure and the domains of the outcome measure should also be established prior to evaluating its predictive validity. If a composite outcome measurement instrument is used, a bias in the distribution of items towards a particular domain could influence the evaluation.

Another factor that has been found to be related to treatment outcome is the discrepancy between the expectations of the patient and those of the therapist. For example, Baekeland and Lundwall (1975) conducted a study with alcoholics, heroin addicts, psychiatric and general medical patients and found that discrepancies between patient and therapist treatment expectations was one of the



factors that predicted dropping out of treatment.

The process of developing a scale to measure treatment expectations in the area of opiate dependence has highlighted a number of areas for future research:

expectancies of a particular substance, distinction between expectations and hopes, credibility or rationality of treatment, experience of past treatment and the

discrepancy between the expectations of the patient and the therapist are all areas

that needs to be included in a comprehensive measure, and predictive validity of

such a measure needs to be established. The full potential of recent technological

developments such as computer assisted clinical decision making systems for

example **CogniSys SM** (1996) for substance misuse, can only be realised if there

are measures with predictive validity that can be used during assessment.

Measures of factors predicting outcome have implications, not only for the

assessment process, but for treatment provision as a whole.

### **Chapter 3 Evaluating the utility of the OTI to measure outcome in routine clinical work**

#### ***Abstract***

This chapter describes the evaluation of the Opiate Treatment Index (OTI) for its utility in a British substance misuse treatment setting. The investigation was carried out in three phases. Phase I, piloting the instrument for suitability with a clinical population, phase II evaluation of interim methadone programmes using the OTI and phase III, evaluating its acceptability for routine use by clinical staff. Phase I resulted in a number of modifications to the OTI. The planned investigation for phase II was not completed because of changes in the clinical service which led to poor recruitment and retention of participants. Baseline results are reported and compared with available normative data. The results of phase III of the study showed that the OTI was not suitable for routine use in a busy clinical service and was not acceptable to staff for routine outcome measurement. The implications of these findings for outcome measurement and directions for future research are discussed.

### **3.1 Introduction**

#### **3.1.1 Assessment and outcome measurement**

The need for assessment and outcome measurement to go hand in hand in hand was discussed in Chapter 1. The factors that affect assessment and outcome measurement were outlined. The limitations of the existing outcome measurement methods and instruments and the development of the Opiate Treatment Index (OTI) (Darke, et al., 1991) which claims to have resolved much of the difficulties were also discussed. In Britain, at present the need to measure treatment outcome and develop practical systems of measuring outcome has become urgent, with the Department of Health expressing its intention to move towards outcome based funding of services. In treatment settings outcome measurement must be, a) relevant to the target population, b) relevant to the treatment and intervention and c) easy to be carried out. On the face of it, the OTI meets the first two requirements and with the claim that it can be administered in under 30 minutes, appears to meet the third. The latter is a crucial factor because if the process of measurement is not acceptable to the clinicians then it is unlikely to be successfully implemented.

#### **3.1.2 The Opiate Treatment Index (OTI)**

The OTI (Darke, et al., 1991), described in Chapter 1, is a comprehensive multi-dimensional assessment and outcome measurement instrument.



The aims of the OTI are outlined as follows:

- i) To be a multi-dimensional instrument to reflect the heterogeneity of aims of treatment for opiate misuse.
- ii) To be based on 'objective' criteria rather than impressions of interviewers.
- iii) To maximise the sensitivity of the instrument to measure behaviour change by the use of continuous measures rather than categorical measures.
- iv) To be of maximum utility for both clinical and research purposes.
- v) To have utility in a clinical settings as an assessment instrument which could be used by medical and non-medical staff.
- vi) To have high reliability and validity.

The OTI claims to have achieved all the above aims and is recommended for general use (Darke, et al., 1992). The OTI is structured to contain six independent outcome domains. These domains reflect an emerging consensus on variables for outcome measurement and is similar to that of the ASI.

These domains are a) **drug use**, b) **HIV risk taking behaviour** (needle sharing & sexual practices), c) **social functioning**, d) **criminality**, e) **health status** and f) **psychological adjustment**.

The initial psychometric validation of the OTI was carried out on 290 opioid users in Sydney, Australia. Darke et al., (1991) reports high test re-test reliability figures (range 0.78 - 0.92) and high inter-rater reliability figures (range 0.81 - 0.93). The internal reliability figures for the different scales show a much more varied picture, with coefficient alpha's ranging from 0.38 for Criminality to 0.83 for Psychological adjustment. The validity of the measure was established by correlational analysis of its scales with equivalent scales of the ASI, where significant correlations were found in all scales with the exception of the Crime scale.

In recommending the OTI for international use Darke et al., (1991) argue that the demographics of the Sydney sample is comparable with that of international studies (Power, et al., 1988; Skidmore et al., 1990). The generalisability of the OTI is yet to be rigorously tested; to date it has not been validated on a British population; there are only two studies that report its use in the U.K. (Macleod et al., 1996; Wilkes and Armstrong, 1996) and these are not large-scale validity studies and do not attempt to produce British norms for the OTI. Reports of attempts at routine use of the OTI in drugs services in the U.K. are favourable (Macleod et al., 1996., Wilkes and Armstrong, 1996) but both these studies highlight the difficulties of obtaining follow-up data. Routine use require routine

re-assessments and this may be difficult to institute in busy clinics. A systematic evaluation of the utility of the OTI in a clinical setting in the U.K. has not yet been reported and the present study attempts to do this.

The present study aims to test the utility of the OTI for routine use in a busy inner city London Drug Service. This was carried out in three phases:

- i) Piloting and adapting the OTI to suit a British population.
- ii) Using the OTI to measure the outcome of a discrete treatment area of the service, the Interim Methadone Programmes. Exploring the relationship between the outcomes and predictor measures.
- iii) Developing an assessment and outcome measurement system incorporating the OTI and evaluating this system for routine clinical use.

### **3.1.3 The Aims of the study**

The aims of the study can be outlined as follows:

- i) Investigate treatment outcomes of a particular programme using a framework based on the OTI.



- ii) Evaluate the OTI as a suitable instrument for programme evaluation and outcome measurement.
- iii) To investigate the utility of predictive measures.

## **3.2 Phase I - Pilot study**

### **3.2.1 Introduction**

The OTI was developed in Australia and although it is recommended for international use, there are a number of terms and phrases which are based on Australian slang. In the absence of a British version it was decided to test its acceptability with a British clinical population, prior to modifying it.

### **3.2.2 Method**

#### **A) Participants**

The main purpose of the pilot study was to test out the general procedure and facilitate decisions about the measure, therefore there were no exclusion criteria and anyone who volunteered was interviewed. The participants were patients receiving treatment for opiate dependence in a busy inner city London Substance Misuse Service. Eight patients, 5 men and 3 women participated in the pilot study.

## **B) Procedure**

Clients were recruited by the researcher or via key-workers from all parts of the service, which included outpatients, daily programmes and satellite clinics. As there was no follow-up, subjects did not have to give their names and all information was confidential and anonymous. Subjects were paid in the form of £5 vouchers for their participation.

The OTI was administered as a semi-structured interview. Any questions that subjects had problems with were noted by the researcher.

### **3.2.3 Results**

#### **3.2.3.1 Outcome of pilot study**

For most clients in the pilot study, the session took more than one hour. The OTI was relatively easy to administer, but it became apparent that a number of important points from the manual were not re-stated in the instructions on the form and were thus easy to miss out. This measure was being proposed as part of the service-wide assessment instrument and thus it was important that it be used in the same way by different individuals. The first outcome of the pilot work, therefore, was the production of a brief set of instructions for administering the OTI (appendix A).

The next outcome of the pilot work involved modifying the measure to be used in

the evaluation. Decisions about modifications were based, not only on the pilot study but also on feedback from Drugs Service staff about their experience of using the assessment instrument. Thus modifications were based on research and clinical considerations.

### **3.2.3.2 Modifications to the OTI**

#### **A) Treatment history**

Three further questions were added.

- Question on drug related contact in the last 6 months.
- Question on why previous treatment did not work.
- Question on why the client is seeking treatment now.

#### **B) Drug use**

The OTI asks about the recent episodes of use and records Q scores for each class of drug as well as a score for poly-drug use, i.e. the total number of classes of drug used in the past month. Additional questions were included, relating to each drug class:

- Clients are asked to rate each drug in order of their main drug, next main drug etc.



- Whether the drug was prescribed or not was recorded.
- Clients are asked to estimate how often they use each drug (times per day/week/month).
- The route of intake for each drug was also asked.
- Duration of this drug episode.
- Age of first use.
- Age addicted from.
- Number of drug free periods.
- Duration of drug free periods.

For the questions on alcohol, the measures have been converted to terms more familiar to a British sample. A number of clients mentioned drinks not covered by the OTI, e.g. cider, therefore, an additional unspecified category of drinks was included. If appropriate, this is to be specified by the interviewer.

### **C) Risk behaviour**

- **Injecting:** Again, the OTI simply asks about recent behaviour (the past month).

As well asking about recent injecting and sharing, this was changed to:

'Have you ever injected ?'

'Have you ever shared a needle ?'

Additional questions on:

- Reasons for injecting,

- When the client last injected,
  - When the client last shared,
  - Which injection sites they use, were also asked.
- **Sexual behaviour:** Instructions were changed in this section, and some additional questions (appendix A) were added. The format of the questions were changed but the scoring system was preserved.

The OTI asks 'how many people, including clients, have you had sex with in the last month ?' - 'including clients' was dropped, as some staff felt this might cause offence. It could also cause confusion if taken to mean other clients of the Drug Service, rather than someone who has paid the interviewee for sex.

The OTI contains 3 questions relating to condom use (with regular partners, casual partners, and clients). Before each of these questions 'do you have a regular partner ?' etc was added to avoid confusion and so as not to appear to make assumptions about the person's sexual behaviour.

Instead of referring to 'clients' the phrase 'have you had to exchange sex for money and/or drugs ?' as this appears to be a more sensitive way to ask the same question.

A question on the gender of the respondents regular/casual/paying partners was added. This seems to be important in terms of HIV transmission and also avoids

making assumptions.

**D) Criminal behaviour**

Again, instructions were change in this section. Instead of beginning by referring to 'crime', the interviewer will begin by asking about 'ways in which you may have had to finance your drug taking'.

**E) Social functioning**

What is defined as employment is different to the definition given in the OTI.

This was changed to include only paid work.

**F) Health scale**

No modifications were made.

**G) Psychological adjustment (GHQ)**

No modifications were made.



### **3.3 Phase II - Evaluation of the interim methadone programmes**

#### **3.3.1 Introduction**

This project involved evaluating the outcomes for all new clients taken into treatment into two programmes over a period of six months, using the modified OTI and the outcome predictor measures.

The interim methadone programmes were selected because they form a discrete part of the Drugs Service, there are minimum requirements for taken into these programmes compared to the rest of the service and previous pilot work carried out to evaluate them.

##### **A) Interim Methadone Programmes**

Interim methadone programmes are one of the main service provisions to emerge in Britain with the treatment goal of 'harm reduction'. This was largely in response to the response to the 1989 ACMD report. Interim methadone programmes generally involve the daily provision of methadone to those who are on a waiting list for conventional treatment.

##### **B) Low-threshold Methadone Programmes**

Low-threshold methadone programmes constitute a relatively recent development

in the provision of drugs services and there has been little evaluation of such programmes to date. Low threshold programmes involve the provision of methadone without the usual restrictions and conditions of treatment. A priority of such programmes is getting in touch with drug users, especially those at risk of contracting and spreading HIV, to encourage them into some form of treatment and move towards less risky drug taking.

Low threshold programmes have a philosophy of harm reduction often focusing on primary health care and HIV risk behaviours. There are few absolute requirements for clients for example, detoxification and urine testing are not mandatory. There is generally an acceptance that clients may use additional drugs and there is no fixed reduction programme. Clients may be encouraged to set their own goals.

One of the first low threshold methadone programmes in the UK was set up in Portsmouth and described by Fleming (1989) in the DrugLink newsletter.

Fleming reported that staff and clients prefer this system and that relationships between them were much improved. In addition the number of opiate users coming to the Clinic doubled, with a particular increase in the number of longer term users who had not been previously in contact with services. Although this programme was thought to have important harm minimization benefits, Fleming (1989) stated that it was not known whether this type of approach was more effective than others and pointed to the need for comparative research.

In the service in which the study was carried out there were two interim methadone programmes. The Low Threshold Methadone Programme (LTMP) and the Daily Dispensing Programme (DDP). Both programmes had a broad general goal of harm reduction, with primary healthcare and HIV risk behaviours being seen as being particularly important. Both aimed to provide easy access and a rapid intake facility for particularly chaotic drug users who may be ambivalent about their goals. Both programmes involved daily dispensing of oral methadone on site, thus providing daily structure. Clients on both programmes were assigned a named key-worker who was available on a regular basis.

The structure of the programmes has changed considerably since the study was conceived. When the evaluation was planned there were important differences between the two programmes. The LTMP provided much more in terms of group support and regular education sessions. It also concentrated more on goal setting. The LTMP had a flexible time limit of approximately six months with the aim to move on generally between six and nine months, or at least to discuss the next stage of treatment at this time. In contrast, the DDP had no fixed time limit and involved fortnightly individual key worker sessions as opposed to daily group sessions.

Some evaluation of these services has been conducted. Finch, et al., (1995) evaluated the LTMP in terms of outcome over a one year period. She measured the changes in risk behaviour and psychiatric indices. This was a prospective study in which data was collected at entry to the programme and at two month intervals



during the year. In terms of outcome the main finding was that there was a decrease in risk behaviour scores which was especially marked in the first two months.

A small scale evaluation of the DDP has also been conducted by Weiner (1994). As an outcome measure, she used the Opiate Treatment Index (Darke et al., 1991). Seven clients were interviewed at four weeks after entry and followed up six weeks later, at which time only four clients were seen. The only significant improvement observed was in illicit drug use, however, the findings should be treated with caution due to the small number of subjects and the fact that the follow-up group may not have been representative.

In the conclusion to her report, Weiner (1994) recommended that the OTI become a part of the service as a monitor for assessment of clients and that future studies include greater numbers of clients and follow-up those who drop-out of the programme. It is against the background of these studies that the present study was conceived.

### **3.3.2 Method**

#### **3.3.2.1 Measures**

##### **A) The Opiate Treatment Index (Dark, et al., 1991)**

This is an outcome measurement instrument with six independent domains:

**i) Drug Use**

For each drug class the average amount per day is recorded (Q). Participants are asked when the three most recent days of drug use occurred and how much they used on the last 2 occasions. Intervals between the days of drug use (t1, t2) are taken as estimates of frequency of use. The number of use episodes on the last two occasions is as an estimate of quantity consumed (q1 + q2). The average amount per day (Q) is computed as follows:

$Q = q1 + q2 / t1 + t2$ . The poly-drug use score is the number of drug classes endorsed.

**ii) HIV Risk-Taking Behaviour**

This measures behaviour that puts a person at risk of contracting or passing on Human Immuno-deficiency Virus. There are two sub-scales, a) drug use (injecting) and b) sexual behaviour. There are 11 items in total (6 injection and 5 sexual behaviour). Scores range from 0 - 5 on both scales. Higher scores indicates a greater risk.

**iii) Social Functioning**

This scale measures the individual's level of social functioning. There are 12

items in this scale and scores range from 0 - 4 for each item. Higher scores indicate greater difficulties in social functioning.

#### **iv) Criminality**

This scale measures recent involvement in criminal activity. It contains 10 items and is divided into four areas of criminality. These areas are: a) property crimes, b) dealing in drugs, c) fraud and d) crimes involving violence. For each area, participants are asked to estimate how often they have committed crimes in the area during the last month. A total score is obtained by adding up the score of the 4 crime areas.

#### **v) Health**

This scale is a symptom checklist relating to physical health, especially those areas within which drug users usually develop problems. The scale is divided into items addressing signs and symptoms in each of the major organ systems. There is also a section specifically on injection-related health problems. The score is the total for each section when added up.

#### **vi) Psychological Adjustment**

This is assessed using the General Health Questionnaire (G.H.Q.) Golberg and Hiller, 1979. This measure has four sub-scales: a) somatic, b) anxiety, c) social



disfunction and d) depression. The score is the total for each section added up. Higher scores indicate poor psychological adjustment.

## **B) Outcome Predictor Measures**

In addition to this, subjects were asked to complete a number of questionnaires:

### **i) The Severity of Dependence Scale (SDS) (Gossop, et al., 1995)**

This is a 5-item questionnaire measuring severity of dependence, based on the neuro-adaptational model of addiction, with constructs derived from the dependence syndrome described by Edwards and Gross (1976). The severity of dependence can be both a predictive variable and an outcome measure. The scoring for this measure ranged from 0 - 3 for each item (maximum score = 15 and minimum score = 0).

There are no studies demonstrating the predictive validity of the SDS with opiate users. The hypothesis is that the higher the severity of dependence, the poorer the outcome. A negative correlation will be expected between high SDS scores and high outcome scores.

### **ii) The Readiness Change Questionnaire (Rollnick, et al., 1992)**

This is an adaptation of a 12-item questionnaire based on the Prochaska and

DiClemente (1986) stages of change model. This is a measure of motivation, hence it could be both a predictive variable and an outcome variable. It has three scales representing pre-contemplation, contemplation and action stages of change. Participants are allocated to one of the above stages based on raw scores. Highest score determines the allocated stage.

In terms of outcome it is hypothesised that those participants obtaining the highest score on the action scale will show better outcome than those obtaining the highest score on the contemplation scale. Similarly it is hypothesised that those obtaining higher scores on the contemplation scale will show better outcome than those obtaining the highest score on the pre-contemplation scale. It is also hypothesised according to the Prochaska, et al., (1992) model that the majority of participants will be in the action stage since they are commencing treatment.

### **iii) The Relapse Questionnaire (Wanigaratne, 1997)**

This is a 7-item questionnaire, developed as part of the project, as a simple measure of relapse or failure to maintain change. It is based on the main categories of high risk situations of the Marlatt and Gordon (1985) model of relapse. Participants are required to respond in terms of their confidence to maintain positive changes in relation to categorical situational statements. Scoring ranged from 0 (0% confidence) to 5 (100% confidence), higher score indicating greater confidence to maintain changes (Maximum score = 35 and minimum score = 0). This measure assesses subjects' confidence to maintain positive changes in

drug use in a variety of situations.

Self-efficacy has been shown to be a good predictor of outcome as well as maintenance of change (Annis, 1986; Solomon and Annis, 1990). It is hypothesised that participants scoring high on this measure will show better outcome. A positive correlation between this measure and outcome is expected.

**iv) The Dissonance Questionnaire (Wanigaratne, 1997), adapted from Orford (1992)**

This 24-item questionnaire was developed as part of the project by adapting a questionnaire developed to measure the degree of addiction independent of the withdrawal experience. The constructs of this measure includes, a) Strong desire, b) preoccupation, c) acting against judgement, d) loss of control, e) non-social activity, f) acquiring money for the activity by special means, g) feeling addicted of dependent, h) feeling depressed or guilty, i) being criticised by others and j) feeling the need to change (Orford, 1991). For the purpose of the study the questionnaire was scored to yield an aggregate score , a higher score indicating a greater degree of addiction. The direction of the scale was reversed for 12 items.

It is hypothesised as an outcome predictor measure, similar to the SDS, participants scoring high on the DQ will show poorer outcome. A negative correlation between the measure and outcome measures will be expected.



v) **The Expectations Questionnaire (Byrne, Wanigaratne, et al., 1997).**

This was a measure developed as part of the project (Chapter 2) to measure expectations of treatment prior to clients entering treatment. Treatment expectations have been shown to be an important factor in predicting outcome in general. There are no standardised measures available to measure treatment expectations in the area of addictions at present. The questionnaire was designed using factors identified in a qualitative study of expectations (Dale, Jones and Power, 1992).

The questionnaire comprised of 10 items. Participants are required to respond to series of statements based on the likelihood of occurrence. Items were scaled 1 (not at all likely) to 7 (very likely). Higher score indicated more positive expectations.

Copies of all measures can be found in Appendix (A).

### **3.3.2.2 Design**

A repeated measures longitudinal design was employed, taking measures at baseline (entry into treatment within the first three weeks) and following participants up at three different points in treatment. Follow-up occurred at six weeks after the initial interview and then at two further times six weeks and twelve weeks later.

### **3.3.2.3 Participants**

The aim was to recruit three groups of participants: clients from the daily dispensing programme, clients from the low threshold programme and a comparison group. The comparison group consisted of clients who had been prioritized for treatment in out-patients and had therefore not been on the waiting list. Clients were prioritized if they had partners who were already in treatment, if they were pregnant, had young children, were HIV positive, sex working or had serious physical or mental health problems. Clients were only invited to take part if they were beginning a new episode of treatment.

### **3.3.2.4 Procedure**

#### **A) Recruitment of participants**

All new clients to the DDP and LTMP over a five month period were invited to take part in the study. They were offered “payment” in the form of £5 gift vouchers which were given at the second and fourth (mid-point and final) interviews. Participation was voluntary. In accordance with the guidelines on which ethical approval was granted for the project by the Ethics Committee the following procedure was followed. Participants were informed about the nature of the study, assured that the information they gave was treated in confidence and that participation did not affect their treatment in any way. Participants were asked to sign a consent form and given an information letter with details of the

research study. Participants were also told that they were able to withdraw from the study at any time and that this would not affect their treatment. Copies of the information letter and consent form given to subjects are included in Appendix (B).

## **B) Participants**

A total of 15 participants were recruited to the study over the five month period. Of these, at the time of recruitment, 2 were in out patients, 4 were in the DDP and 9 were in the LTMP. The total client group consisted of 8 males and 7 females. At the time of recruitment the mean age of the total population was 31 years. The mean age of females was 30 years and for males 32 years.

The number of participants recruited were far below the anticipated number. This was due to the service going through a period of re-organisation with a number of staffing problems. The programmes were closed for new clients for a period when recruitment was to take place.

### **3.3.3 Results**

#### **3.3.3.1 Mobility of participants**

During the study period partly due to the disruption of the service, there was substantial mobility of participants between treatment groups and a number of



clients left treatment or were discharged. Of the 15 recruited to the study only 6 completed four interviews, 3 completed three interviews, 4 completed two interviews and 2 only managed one. The intended analysis of data with the aim of evaluating the interim methadone programmes was not possible due to the small numbers. The only meaningful analysis of outcome possible was by individual case study basis. This would not fulfill the aim of the study of evaluating the interim methadone programme. In keeping with the main aim of the study of evaluating the utility of the OTI the results reported focus on the comparison of the baseline data with the OTI norms and the process of using the OTI.

### **3.3.3.2 Baseline data**

This section presents a description of the clients who participated in the study based on information collected at first interviews. Mean scores on the OTI scales are compared with the normative scores published in the OTI manual (Darke et al., 1991). The sample on which the OTI was standardized consisted of 290 opiate users; 230 of these subjects were in some form of opiate treatment (methadone maintenance: 187; NA: 6; drug free counselling: 8) whilst 60 of the subjects were not in any treatment.

The data was collapsed into overall scores, as opposed to scores for the different programmes, because of the poor recruitment achieved.

## **A) Type and length of drug use**

For 13 of the 15 clients, heroin was their main drug. For the remaining 2 clients, methadone was the main drug misused. Of those whose main drug was heroin, 11 injected and 2 smoked or 'chased'. The mean age of first use was 21.9 years (range 13 to 38 years), while the mean age at which clients felt they were addicted was 23.1 years (range 14 to 38 years).

For those using heroin, the mean Q (i.e. occasions of use per day) score at baseline was 3.31. For those whose main drug was methadone, the mean Q score was .95. All subjects used at least one other drug.

Overall, the mean poly-drug score at baseline was 5. The sample described in the OTI manual had a mean polydrug score of 4.1 (s.d.=1.6, range=0-8). Presented below are the numbers of subjects using different types of drugs in addition to heroin or methadone.

**Table. 3.1 Pattern of drug use among participants**

<b>Drug</b>	<b>Number of subjects</b>
Tobacco	14
Alcohol	8
Crack	8
Tranquilizers	7
'other'	7
Cannabis	6
Amphetamines	4
Hallucinogens	1

Drugs mentioned under the category 'other' included Temazepam, DF118's, Anadin extra, Prozac and Rohypnol and Ecstasy.

#### **B) HIV risk Behaviours**

The extent of HIV risk taking showed considerable variation at baseline. The higher drug risk scores reflect the fact that the majority of clients were injecting regularly. Although clients did not report sharing needles, many re-used their own without cleaning them with bleach. The high standard deviations in the sex risk scores indicate that, while a number of clients had not been sexually active in the past month, others scored quite highly on this measure, either through having multiple partners (usually while sex working) or through not using condoms with regular partners.



**Table. 3.2 OTI risk behaviour scale results**

	Drug risk (Max=30)	Sex risk (Max=25)	Total HRBS
Overall	5.8 (3.43)	4.33(4.54)	10.13 (4.47)
OTI norms			9.0 (7.1)

**C) Criminality**

The mean crime score at baseline was 0.6. However, this is slightly inaccurate as the frequency of crime reported was not always recorded. One of the clients reported breaking and entering and forging prescriptions in the past month, but the frequency of these crimes was not recorded. The crimes endorsed were shoplifting, drug dealing and possession of weapons (knife). OTI: Mean=1,( s.d.=1.7), range=0-10. (n=275)

**D) Social functioning**

The mean social functioning score at baseline was 25.4. Higher scores on this measure indicate poorer social functioning, the maximum score is 48, the minimum score is 0. The mean score from the OTI norms was 20.5 (s.d.=7.2), range=4-47.

**E) Health**

The scores presented below represent the mean number of symptoms endorsed in each category. The mean health score from the OTI sample was 12.6.

**Table. 3.3 The OTI health scale scores**

	<b>Overall</b>
Cardio/respiratory Max = 9	2.67
Gastro/intestinal Max = 5	3.33
General Max = 14	6.53
Genito/urinary Max = 4	1.13
Gynaecological Max = 2	.86
Injection related Max = 5	1.87
Musculo/skeletal Max = 3	1.07
Neurological Max = 10	3
Total scores Max = 52	19.93

**F) Psychological Adjustment**

The GHQ has four scales measuring, a) somatic symptoms, b) anxiety, c) social dysfunction and d) depression, respectively. The commonly used cutoff points are 4/5 for case criteria. The mean GHQ score from the OTI sample was 8.6.

**Table 3.4 The GHQ score of the participants**

	<b>Overall</b>
GHQ- a	3.4
GHQ-b	3.73
GHQ-c	2.87
GHQ-d	3.07
Total score	13.07

From this brief comparison it can be seen that the subjects from the interim methadone programmes had considerably higher scores on many of the domains than the published norms. This is particularly the case in relation to general health and psychological adjustment.

### 3.3.3.3 Outcome predictor measures

The baseline scores of the predictor measures are presented in Table 3.5. Due to the attrition of participants it was not possible to carry out planned statistical analysis to establish the relationship with changes in OTI scores.

**Table. 3.5 Means and standard deviations of outcome predictor measures**

Measure	Mean	s.d.	Range
Severity of Dependence	9.6	2.4	6-14
RCQ - Pre-contemplation	10.2	1.9	8-13
RCQ - Contemplation	15.8	2.9	6-14
RCQ - Action	15.8	6.0	11-16
Relapse Questionnaire	15.5	9.7	2-35
Dissonance Questionnaire	122.4	17.4	96-145
Expectations Questionnaire Total	47.3	12.0	35-69
EQ-Drug	22.3	5.1	12-28
EQ-Sic	17.2	3.5	11-21
EQ-Soc	11.0	6.1	3-21



The only comparison of the means obtained with published normative data possible, is that of the SDS. The mean SDS score of 9.6 is higher than the means of a London Heroin using sample found by Gossop, et al., (1995).

The RCQ was adapted from a questionnaire developed for problem drinkers and hence there are no norms.

The RQ was developed for the study. The means of the sample (15.5) from a maximum of 35 shows a level of confidence of 42%. This is a low level of self-efficacy. This may be an indication of the high attrition rate found in the study. The method of scoring adopted was to re-code the percentage scores in the form to a 5 point scale. To calculate a total confidence score and average it would be a better method of scoring. This would yield a direct average confidence level as a percentage.

### **3.4 Phase III Evaluation of an integrated assessment and outcome measurement framework for routine use**

#### **3.4.1 Introduction**

To ensure the objective of developing an assessment / outcome measurement instrument of clinical utility, any such instrument has to be linked to the routine clinical work and evaluated within that context. The third phase of the project of evaluating the OTI was carried out by integrating it within the assessment framework

and developing new forms for routine clinical use. This framework was evaluated by means of a pilot project involving senior clinicians using it and by a service wide training/evaluation session.

The main aims of this phase of the project were:

- i) Develop assessment/outcome measurement framework with integrated paperwork.
- ii) To evaluate this framework in terms of practicality of its use and staff feedback and satisfaction.
- iii) To develop a template for the introduction of new information technology to the service.

### **3.4.2 Method**

#### **3.4.2.1 Measures**

##### **A) General Assessment Instrument**

A general assessment instrument (appendix A) was developed which had the aim of gathering information needed on patients on a broad range of areas. The information needed can be categorised as follows: a) administrative, b) demographic, c) clinical decision making, d) giving information and advice to patients, e) outcome

measurement, f) regional database returns, g) home office returns and h) prognostic indicators.

There is considerable overlap between the above areas of data items. Collecting information on all the relevant areas without repeating data items required an amalgamated assessment instrument from which specific sets of data for example, Regional returns could be extracted with relative ease. If all the data from an amalgamated assessment instrument was entered into a computer information system, specific information for example, clinical summary, regional return, outcome information etc could be generated by the system in the form of reports. Developing a robust and flexible "pencil and paper" (manual) assessment/outcome measurement system is an essential prerequisite for an information system for a clinical service.

The data structure of the amalgamated assessment instrument developed is tabulated below (Table 3.6.). The main target areas of information are coded as follows:

- i) (A) Administrative
- ii) (D) Demographic
- iii) (C) Clinical decision making
- iv) (I) Giving information and advice to patient
- v) (O) Outcome measurement
- vi) (N) Regional database returns
- vii) (H) Home office returns
- viii) (P) Prognostic indicators
- ix) (R) Research



**Table 3.6 Data structure of the assessment instrument**

Page	Item No:	Item category	Target area	Comments
1	A1-A3 A4 - A6 A7 A8 A9 A10 A11 A12-A14 A15 A16-A18 A19 A20-A22 A23-A26	Name Address NHS Number D.O.B. Gender Ethnic Origin Housing Living Arrangement Children Employment Referral info G.P. Assessment info	A,D,N,H,C	
2	B1-B7 B8-B13	Treatment history Prescribing Plan	C,I	
3	C1-C...	Drug use	C,O,R	OTI
3	D1-D5	Alcohol use	C,O,R	OTI
4	E1-E5	Sexual behaviour	C,O,R	OTI
5	F1-F10	Criminal behaviour	C,O,R	OTI
6	G1-G12	Social Functioning	C,O,R	OTI
7	H1-H14 H15-H23 H24-H28 H29-H32 H33-H34 H35-H43 H44-H46 H47-H51	General health Neurological Injecting problems Genito-urinary Gynaecological Cardio/respiratory Musculo-skeletal Gatro intestinal	C,O,R	OTI
8-11	I1-I28	General Health Questionnaire	C,O,R	OTI
12	J1-J4	Dependence	C,O,R	Outcome measure/predictor variable
13	K1-K12	Readiness to Change Questionnaire	C,O,R	Outcome measure/predictor variable
14	L1-L7	Relapse Questionnaire	C,O,R	Predictor variable
15	M1-M24	Dissonance Questionnaire	O,R	Predictor variable
16	N1-N12	Expectations Questionnaire	O,R	Predictor variable

## **Questions A - C**

These are basic screening and administrative questions that are included in the Regional and Home Office database forms.

### **3.4.2.2 Participants**

The participants for this project were staff working in the drugs service.

Senior members of staff (n=4) acted as volunteers to use the 'new forms' over a period of two weeks to assess new patients referred to the service.

All members of staff (n=18) participated in the training feed-back event.

### **3.4.2.3 Procedure**

#### **A) Senior clinicians**

Senior clinicians were briefed regarding the development of the new assessment instrument and were given both verbal and written instructions on how to carry out the assessment. Each assessment pack was accompanied by a letter (appendix A) outlining the background and purpose of the new assessment and contained the instructions. The clinicians were required to fill out an evaluation questionnaire after assessing each patient.

## **B) Staff of the drugs service**

All staff of the Drugs Service, including clinical and administrative staff were made to participate in a training afternoon involving the general assessment instrument. This was part of an overall strategy to train all staff in the service to use a new service-wide assessment instrument and an information system. The staff were required to gain experience of using the instrument by administering the instrument to each other in pairs and feed-back. Their comments and feed-back on the instrument were recorded.

### **3.4.3 Results**

#### **3.4.3.1 Evaluation with senior staff**

Number of patients interviewed = 7

Time taken to complete assessment Mean = 50.4 minutes range 40 to 70 minutes.

Number of sessions mode = 1.

#### **A) Qualitative Feed-back**

##### **i) Aspects that were difficult that could be changed**

"Sexual behaviour."

"Criminal activity."



"Dealing /fraud."

"Crimes involving violence."

**ii) Aspects that were helpful**

"Organization of the interview - gives a framework to work with."

"Helps you to remember to ask in detail about specific areas."

"General Health Questionnaire."

"Injecting allowed for plenty of discussion."

**iii) Changes to the assessment recommended**

"Information on drug free periods."

"Previous treatment / why it did not work."

"Why wanting treatment now."

"Lined continuation sheets for extra notes."

"More formal treatment plan / action plan post assessment."

"Drug use layout too cramped."

### **3.4.3.2 Staff group evaluation session**

#### **A) Group session**

The participants then split into pairs and took part in a role play of trying out the new assessment form.

Total number of staff participating = 18

A lively feed back discussion followed. The main conclusions and themes to emerge from that discussion are outlined in the following statements:

- i) Staff felt it was unsuitability for use at the first meeting because of the in-depth nature of the questions.

"Too much information to ask at drop-in /initial meeting if treatment does not follow immediately (ie. if client is put on a waiting list). "

"A screening instrument similar to the summary form which covers essential information for prioritization (for example, mental state, HIV status, pregnancy and partner in care) should be developed for drop-in assessments."

"The proposed in-depth assessment should be used at the commencement of treatment. The information could be collected over a number of sessions."

- ii) The structure of the instrument was felt to be problematic with staff finding the flow of information unsuitable.

"Problems in the flow of information for example prescribing plan, injecting and sharing, sexual behaviours, not following a logical order."

- iii) The feeling that a great deal of sensitivity and skill being needed to ask questions included in the OTI.

"Process of obtaining information in difficult areas that are nevertheless crucial for outcome measurement (for example, needle sharing, sexual behaviour, condom use, criminal activities, etc) requires sensitivity and skill."

- iv) There was consensus of opinion for the collection of assessment and outcome measurement information in a standardised manner.

"For reliable outcome measurement information should be gathered and recorded in a standard way."

- v) There was a positive attitude towards the use of the outcome predictor measures (RCQ, EQ and RQ).



"The self completion information currently obtained is of poor quality and of relatively little use and could be replaced by the self completion questionnaires of the new assessment form."

- vi) Instead of using the assessment instrument across the service, there was a call for flexibility according to the needs and the nature of different parts of the service.

"The Needle Exchange should use/adapt only the relevant sections of the assessment form."

**B) Written Feed-back**

- i) **Aspects that were difficult that could be changed**

**- OTI-Drug use**

"Layout of section too cramped."

"It doesn't specify whether the questions refer to use over the past month as in other sections."

"The way some questions are phrased caused difficulty."

"Main drug caused no problem - second or third main drug? caused confusion in clients. Clients have different criteria, eg. if based on frequency cigarettes could be every one's main drug, if it is based on preference it could be a drug that is not used often but would if they could."

"Why rate 1 - 5 for each of the two rows, rather than 1 - 10 for all specified drugs?"

"Why ask how much after asking about the third most recent day of use, instead of how many times? as in previous questions? Does this refer to an average session or that particular day?"

"Duration of this episode sounds awkward - ? How long have you been using at this level? sounds better."

"Age from which addicted also caused problems with clients. Clients don't feel they are addicted to other drugs besides Heroin. Clients do not necessary accept that they are addicted based on their frequency of use. A way round this problem could be ? do you feel you are addicted/dependent/have a problem with ...? before asking what age this occurred."

"The alcohol section does not include cider. Does not ask first use or problematic use. There is no space to record if this is a client's main problem."

**- OTI-Injecting**

"? misprint in question 4. How many different people have used a needle before....."

**- OTI-Criminality**

"Re-phrase all questions avoiding the word crime! for example, "ways you may have supported your habit...."

**- Other questionnaires**

"Negatively worded items constantly problematic."

**ii) Aspects that were helpful**

**- OTI**

"Recent drug use most helpful; most clients had little difficulty remembering when and how much they used except in cases where the most recent use was several months ago or more."

"The structure i.e. layout and response options of the injecting social and crime scales were very good - quick and easy to administer."

"Health section was also quick and easy to administer."



## **3.5 Discussion**

### **3.5.1 Phase I**

This part of the study clearly indicated that, despite the recommendation for international use (Darke, et al., 1991), the original version of the OTI was unsuitable for direct use with a British population without modification. Modification of standardised questionnaires has a number of implications and is not recommended from a psychometric perspective. A stem of a question or how a question is asked is crucial to the response obtained. Darke et al., (1991) themselves cites the example how the question on criminality is asked to explain the poor correlation between the OTI and the ASI in the criminality scales. Changing stems of questions is unsound methodology indeed. On the other hand when using an international scale, if difficulties arise because of linguistic and cultural differences, serious consideration must be given to re-phrasing the question whilst preserving the construct. In a structured interview style may also be an important factor. The feed-back and the evaluation of the original OTI required a number of modifications. As far as possible this was done while preserving the original constructs. The fact that there were a number of limitations highlighted in Phase III of the study regarding the modified version, indicates that a more radical adaptation of the OTI is needed before it is recommended for general use in Britain. If such modification were made then British norms for it must be established.

### **3.5.2 Phase II**

The aims of this study were to investigate the outcomes of the interim methadone programmes in the service using the OTI and predicting outcome. Because of the small numbers recruited and the changes in treatment programmes, it was not possible to do this as planned. However, some conclusions may be drawn, based on the information collected.

#### **3.5.2.1 The client group served by the interim programmes**

A comparison of subjects' OTI scores with the published norms appears to confirm that clients of the interim programmes are experiencing relatively more problems relating to their drug use. All the clients who took part were polydrug users, most injected their drugs and several reported sharing needles. In addition to heroin, the most commonly used drugs were crack, alcohol and tranquilizers. One unexpected finding was that most of those clients using crack reported injecting it. This highlights the importance of including questions about route of administration. This finding also has important implications for risk behaviours. All of those clients who used crack saw their use as recreational. This indicates that, even when someone has stopped using heroin, it cannot be assumed that safe injecting is no longer an issue.

In relation to risk behaviours, several clients reported sharing and/or re-using needles but no-one reported sterilising them before re-use. Of the 6 women interviewed, 5 were sex working. While they generally reported always using condoms with their

clients, they tended not to use them with regular partners. Indeed, only one subject interviewed reported using condoms with a regular partner.

The clients interviewed for the study reported less crime than those in the OTI sample, though this must be treated with caution as the data collected was incomplete and also because it is particularly difficult to get reliable self reports of criminal activity. However, the types of crime endorsed showed agreement with findings of Dobinson and Ward (1985; 1986). They reported that the most common types of criminal behaviour IDUs engaged in were drug dealing, property crime and fraud.

The clients interviewed showed a poorer level of social functioning compared to the OTI norms. They also reported more health problems, but perhaps the most striking difference was in psychological adjustment. Overall, the clients interviewed had much higher GHQ scores than the OTI sample.

It is difficult to make any conclusions based on apparent differences between groups because of the small numbers of subjects and also because of the heterogeneity of the groups.

### **3.5.3 Prediction of outcome**

The questionnaire measures included in the study were intended as predictors but it was not possible to look at the impact of these factors statistically as planned. Correlational analysis between the measures was also not attempted because of the



small numbers recruited. Such an analysis will be important to establish how these various factors relate to each other and the extent of overlap.

The only measure that was validated for use with this population was the Severity of Dependence Scale (SDS). The means for the participants of the study was higher than the means obtained for a London opiate using population by Gossop et al., (1995). The high severity of dependence of the study population may explain the high attrition rates found. It is in keeping with a hypothesis that severity of dependence will be negatively correlated with outcome. It not possible to draw any firm conclusions regarding this because of the small numbers in the present study.

The means of the Relapse Questionnaire (RQ) shows a general low level of confidence (42%). Whilst it is possible to speculate that this may also be predictive of the high drop-out rate, without further validation of the questionnaire and statistical analysis on the relationship with outcome, no conclusions can be drawn from this. The items of the questionnaire were based on the taxonomy of high risk situation proposed by Marlatt and Gordon (1985). This measure could benefit from some qualitative research to ensure that it is covering those risky situations that are most salient to clients. Further research is needed to establish face validity, construct validity and reliability of this measure.

Further research is also needed to validate the dissonance questionnaire.



### **3.5.4 Research issues raised by the evaluation of the interim methadone programmes**

#### **A) Measures**

Based on this experience of using the OTI there are a number of recommendations that can be made. The development and modification of the outcome measures was closely tied to the development of the assessment instrument for clinical use in the Drugs Service. However, having been involved in this development and using this instrument for research, it became clear that there are different requirements for an outcome measure used clinically and one used for research purposes. The OTI may be an excellent research tool, however some parts of it would be extremely difficult to be used for routine clinical assessments. This is particularly true of the drug use section. Not only do the units of measurement differ for each category of drug, but the person administering the measure must calculate a Q score for each class of drug. This is very time-consuming and is often difficult to do if there is incomplete information. Furthermore, it is difficult to see how meaningful a single Q score would be in someone's case notes.

In retrospect, many of the modifications to the OTI were unnecessary in research terms. Many of the questions added to this measure would seem to be primarily of clinical usefulness and these questions caused the most difficulties. For example, asking clients about their main drug, next main drug etc, may be useful clinically but is very difficult to define precisely. Asking 'what is your main drug?' made sense

to most clients but asking about 'next main drug' etc, did not. Clients often asked what was meant by this, i.e. the preferred drug ?, the one used most frequently ? (if the latter was the case then tobacco would be everyone's main drug). It was also very difficult to define 'drug free periods' and clients gave very varied responses to this.

The changes that were made that should remain in the research instrument include the changes to the format of the crime and sexual behaviour sections. These changes made the questions easier to ask and less 'accusatory' while still preserving the scoring system. The additional categories of drugs (crack) and alcohol (unspecified) should also be retained. Route of administration of each drug should be recorded as changes in this may be an important outcome. Finally, recording age of first use and age from which 'addicted' may be useful as these may be predictors of outcome.

### **3.5.5 Phase III**

The results of this phase of the study clearly indicate the difficulties of using the OTI in routine clinical work. The claims by Darke et al., (1991) that they have achieved the aims of maximum utility for both clinical and research purposes and utility in clinical settings as an assessment instrument which could be used by medical and non-medical staff, are not backed up by the results.

The claim by Darke et al., (1991) that the OTI could be administered in under 30 minutes was not supported by this phase of the study, and this was also the case in

phase II. The administration of the OTI took twice as long as claimed by Darke et al., (1991). It took an average of 55 minutes for the clinicians to complete it which is almost identical to the time researchers took to complete it in phase II. This fact alone clearly makes it unsuitable for routine clinical use. Even if it took only 30 minutes it would still be difficult to use in busy settings.

The clinicians used a version of the OTI modified after the pilot study. The results indicate that they still found the language and the phrases of the OTI unacceptable. The comments indicates that further modifications are needed to the phrases or the stems of OTI for it to be acceptable for use with a British population. Again the recommendation for its use internationally is not supported.

The clinicians also found the structure of the OTI to be problematic. The flow of questioning and the sections were noted. The drug use section was particularly problematic. If all this is to be taken on board the OTI will require substantial modification. If this was to happen then it would have to be re-validated as an instrument.

The results also indicated that the clinicians found aspects of the OTI helpful, particularly giving a structure to the assessment process. They also found that some scales for example, injecting, gave scope for more in-depth discussion. This should have the effect of scope for intervention, for example, safer injecting advice.

With regards to the difficulties encountered in terms of the acceptability of the



assessment structure for routine clinical use, it was not possible to take the process further by mapping it on to an information system and evaluating it for its utility with the support of information technology. An information system that was commissioned for the purpose was not ready in terms of its development for this to be taken forward. It is difficult to envisage clinicians entering data directly to a computer while conducting an assessment interview in drug service settings although it is not beyond the realms of possibility, as this is now the case in many other settings. If appropriate user-friendly software is developed staff attitudes may change and the use of the OTI in routine clinical work may be a possibility. The results of the study indicates that unless data was directly entered into an information system during assessment, the use of the OTI for assessment was not suitable.

### **3.5.6 Conclusions**

The conclusions that can be drawn from the three phases of the investigations are as follows:

- i) The recommendations for use of the OTI as an international instrument and for routine clinical work is not supported.
- ii) The OTI needs substantial modification before it is suitable for use with a British drug using clinical population.
- iii) It is suitable for use as a research instrument to evaluate treatment

programmes and the claims in this area are supported.

- iv) The time taken for its administration is double that claimed by its developers and it is unlikely even with the support of information systems that it will have utility routinely.
- v) The outcome domains of the OTI are seen by clinicians as appropriate and useful.
- vi) A shorter, easy-to-administer instrument, with the same domains as the OTI may be more appropriate for routine clinical use.

## **Chapter 4 Measurement of outcome in the treatment of opiate addiction using the Plymouth Drug Outcome Questionnaire**

### ***Abstract***

This chapter describes the evaluation of the Plymouth Drug Outcome Questionnaire (PDOQ) in a busy inner city London Drugs Service. Treatment outcomes were measured in 41 clients at 6 weeks and 3 months, after being taken into treatment and compared with baseline measures. The PDOQ scores were also compared with case note entries and the objective outcome measure of urinalysis.

Five measures, Severity of Dependence Scale, Readiness to Change Questionnaire, Expectations Questionnaire, Relapse Questionnaire and Dissonance Questionnaire were used as outcome predictor measures. The PDOQ was also investigated from a staff perspective with regards to its acceptability and utility for routine clinical use.

The results indicated that there were significant improvements in outcome as measured by the PDOQ at 6 weeks into treatment and this was maintained at 3 months. These improvements were not correlated with changes in urinalysis results and case note analysis. The predictor measures, with the exception of pre-contemplation scale of the Readiness to Change Questionnaire that predicted dropping out of treatment, failed to show any significant relationship to outcome. Staff attitudes towards the instrument showed equivocal results, whilst finding the PDOQ easy to use and helpful, they also indicated ambivalence about using it routinely and about outcome measurement in general.

The implications of the findings for outcome measurement in this area and directions for future research are discussed.



## **4.1 Introduction**

It was established in the previous study that the Opiate Treatment Index or OTI (Darke, et al., 1991) whilst being an excellent research instrument was not suitable for routine clinical use. Despite Darke et al's claim that it can be administered in under 30 minutes, our findings showed that on average it took 55 minutes to administer. This makes it a tall order to expect clinicians to administer it routinely in busy settings. It is therefore necessary to find alternative instruments that would fulfill the need for outcome measurement in clinical settings.

### **4.1.1 Plymouth Drug Outcome Questionnaire (PDOQ)**

The Plymouth Drug Outcome Questionnaire (Hassard, 1994) was developed as a response to the current need for outcome measurement in busy clinical settings in a British context. Hassard (1994) note that the 30 minutes that is given as average time taken to administer the ASI and the OTI is not practical in clinical settings unless extra resources are available for this purpose. The need for a brief and easy to administer measure that can be used by generic drug workers will be acknowledged by most clinicians working in the field. The dilemma of using 'rough and ready' measures that fulfils immediate service evaluation needs, compared with using measures with good psychometric properties which are complicated to administer is a difficult one for the busy clinician. The latter approach may have more serious and wider implications in terms of development of intervention and extending the knowledge base, nevertheless if all workers in a clinical setting cannot be persuaded

to use such an instrument routinely, it will be of little value. This is a serious challenge to clinicians. Taking up this challenge Allan Hassard and his colleagues (Hassard, 1994) adopted what they call “from the bottom up” approach to outcome measurement to fit the requirements and limitations of their service. They attempted to make a virtue of the limitations of their service with the confidence that these are shared by most services in Britain.

The PDOQ is a composite measure adopting the dichotomous categorical scoring formula described in Chapter 1 ( DARP studies - Simpson and Sells, 1982; Simpson, 1986) and the Phoenix House studies (DeLeon, et al., 1992; DeLeon, 1988). Clients are scored on a 2 point scale whether they meet the a priori criteria or not. The advance from the previous studies is the choice of outcome domains. In keeping with current trends the PDOQ adopts similar outcome domains to the ASI and OTI namely, reduction in drug use, physical health, HIV risk behaviours, crime and legal problems and social functioning. Higher overall score means better functioning. It is claimed that it takes under 5 minutes to administer if you are familiar with the questions.

It is not validated against another measure, although the author argues for high face validity and only moderate reliability figures are published. Hassard (1994) calls for independent validation of the instrument before it is adopted for wider use. The present project aims to evaluate the PDOQ in a busy clinical setting and compare its usefulness with other measures including the OTI.

#### **4.1.2 Staff perspective**

The paucity of outcome measurement in the treatment of addictive behaviours, particularly in Britain was discussed in Chapter 1. Hypothesis about the lack of outcome measurement in the area and some of the key factors effecting outcome measurement in the treatment of opiate addiction was also discussed in Chapter 1. Attitudes, perceptions and the compliance of staff working in treatment settings are all critical factors in determining outcome measurement. Researchers appear to have paid very little attention to this particular aspect of outcome measurement.

Staff feed-back formed a key element in the study evaluating the utility of the OTI (Chapter 3). The results of the study highlighted the need to further investigate the staff perspective on outcome measurement. The present study evaluating the PDOQ placed a greater emphasis on staff feed-back.

The inextricable link between assessment and outcome measurement was discussed in Chapter 1. A framework for outcome measurement requires that the outcome measures are taken at assessment and are repeated at subsequent intervals. In Chapter 3, the range of other information collected at assessment was described. This information is collected for clinical decision-making and for administrative purposes. Measuring factors that predict outcome could be of significant benefit for the clinical decision making process. Factors such as motivation, severity of dependence, expectations and self-efficacy were described as important to the clinical decision making process and need for studies linking these factors to outcome was discussed



in Chapter 1. The investigation of these factors and their relationship with outcome was one of the objectives of the study described in Chapter 3. Due to the attrition of participants in the study, it was not possible to conclude these investigations. The present study makes a further attempt to investigate predictor factors using the same framework.

#### **4.1.3 Present study**

An investigation into an alternative framework of outcome measurement was carried out in a second study using a range of methods including the Plymouth Drugs Outcomes Questionnaire (Hassard, 1994), urinalysis and case note analysis in the same service as in the previous study.

The evaluation emphasised staff perception and attitudes about the instrument. It also investigated staff attitudes and perception about outcome measurement in general.

#### **4.1.4 The aims of the study**

The aims of the present study were:

- i) To evaluate the usefulness of the PDOQ.
- ii) To evaluate a practical system of measuring outcome closely linked to routine work of the clinic.

iii) To investigate the acceptability and attitudes of staff regarding the use the measure.

iv) To investigate factors predicting outcome.

## **4.2 Method**

### **4.2.1 Measures**

#### **4.2.1.1 Demographics**

The demographic and client profile information was obtained from the assessment schedule in the clients case notes.

#### **4.2.1.2 Outcome measures**

##### **i) The Plymouth Drug Outcomes Questionnaire (PDOQ) Hassard (1994)**

The PDOQ is a 20-item questionnaire developed as an easy to administer measure for routine use in drugs services. It has a dichotomous 2 point scoring system that yields a composite score. The composite score represents the overall level of function of the drug user measured across a number of domains. The higher the score the greater the level of functioning. The domains that outcome is measured on includes;

**a) stability (keeping appointments, registering with a G.P.), b) reduction in drug**

use, c) physical health, d) HIV risk behaviours, e) crime and legal problems and f) social functioning. The PDOQ has demonstrable sensitivity to change (Hassard, 1994).

## **ii) Template for case note analysis**

The case note analysis was done using the same scoring method as the PDOQ with reports of behaviours or drugs in the urinalysis scored as 0 or 1 and a composite score obtained. Treatment outcome was also measured by analysing client case notes with a template consisting of the following headings:

- i) Reported drug use
- ii) Urinalysis results
- iii) Attendance/ phase of treatment
- iv) Reports of health, legal problems, HIV risk factors, and social functioning.

### **4.2.1.3 Outcome predictor measures**

- i) **The Readiness Change Questionnaire (RCQ) Rollnick, et al., (1992)**

This is an adaptation of a 12-item questionnaire, originally designed for problem drinkers and based on the Prochaska and DiClemente (1986) stages of change model.

This a measure of motivation, hence it could be both a predictive variable and an outcome variable. It has three scales representing pre-contemplation,



contemplation and action stages of change. Participants are allocated to one of the above stages based on raw scores. Highest score determines the allocated stage.

In terms of outcome it is hypothesised that those participants obtaining the highest score on the action scale will show better outcome than those obtaining the highest score on contemplation scale. Similarly it is hypothesised that those obtaining higher scores on the contemplation scale will show better outcome than those obtaining the highest score on the pre-contemplation scale. It is also hypothesised according to the Prochaska, et al., (1992) model that the majority of participants will be in the action stage since they are commencing treatment.

**ii) The Severity of Dependence Scale (SDS) Gossop, et al., (1995)**

This is a 5-item questionnaire measuring severity of dependence based on the neuro-adaptational model of addiction. Its constructs are derived from the dependence syndrome described by Edwards et al., 1978. The severity of dependence can be both a predictive variable and an outcome measure. The scoring for this measure ranged from 0 - 3 for each item (maximum score = 15 and minimum score = 0).

There are no studies demonstrating the predictive validity of the SDS with opiate users. The hypothesis is that the higher the severity of dependence, the poorer the outcome. A negative correlation will be expected between high SDS scores and high outcome scores.

**iii) The Relapse Questionnaire (RQ) Wanigaratne, (1997)**

This is a 7-item questionnaire, developed as part of the project as a simple measure to predict relapse or failure to maintain change. It is based on the main categories of high risk situations of the Marlatt and Gordon (1985) model of relapse. This measure assesses participants' confidence to maintain positive changes in drug use in a variety of situations.

Participants are required to respond in terms of their confidence to maintain positive changes in relation to categorical situational statements. Scoring ranged from 0% to 100%. Higher score indicating greater confidence to maintain changes.

Self-efficacy has been shown to be a good predictor of outcome as well as maintenance of change (Annis, 1986; Solomon and Annis, 1990). It is hypothesised that participants scoring high on this measure will show better outcome. A positive correlation between this measure and outcome is expected.

**iv) Expectations Questionnaire (EQ) Byrne, Wanigaratne, et al., (1997)**

This was a measure developed as part of the project (Chapter 2), to measure expectations of treatment, prior to clients entering treatment. Treatment expectations have been shown to be an important factor in predicting outcome in general. There are no standardised measures available to measure treatment expectations in the area of addictions at present. The questionnaire was designed using factors identified in a qualitative study of expectations (Dale, Jones and Power, 1992).

The version of the questionnaire used in this study comprised of 10 items. Participants are required to respond to series of statements based on the likelihood of occurrence. Items were scaled 1 (not at all likely) to 7 (very likely). Higher score indicated more positive expectations.

It is hypothesised that participants with more positive expectations will show better outcome. A positive correlation between this measure and outcome measures are expected.

- v) **The Dissonance Questionnaire (DQ)** Wanigaratne, (1997), adapted from Orford, (1991)

This 24-item questionnaire was developed as part of the project by adapting a questionnaire developed to measure the degree of addiction independent of the withdrawal experience. The constructs of this measure includes, a) Strong desire, b) preoccupation, c) acting against judgement, d) loss of control, e) non-social activity, f) acquiring money for the activity by special means, g) feeling addicted of dependent, h) feeling depressed or guilty, i) being criticised by others and j) feeling the need to change (Orford, 1991).

For the purpose of the study the questionnaire was scored to yield an aggregate score, a higher score indicating a greater degree of addiction. The direction of the scale was reversed for 12 items.



It is hypothesised as an outcome predictor measure, similar to the SDS, participants scoring high on the DQ will show poorer outcome. A negative correlation between the measure and outcome measures is predicted.

#### **4.2.1.4 Staff opinions questionnaire**

Clinic staff opinions about the PDOQ and the method of outcome measurement was carried out using a brief structured interview (Appendix A).

#### **4.2.1.5 Staff qualitative interview template**

Staff opinions were further investigated by in-depth interviews of staff. These interviews were tape-recorded and analysed using thematic analysis according to Grounded Theory techniques (Patton, 1990).

The questions asked at the interviews were based on the following template:

**Please keep in mind one client you recently assessed.**

- i) What factors were you mainly looking for to base your assessment on ?
- ii) How did you decide this client was suitable/not suitable for treatment ?
- iii) Did you feel your client had certain expectations from you/the treatment ?
- iv) Did you have certain expectations from your client (as to how he /she would benefit or perform during treatment ?

- v) What factors do you base your decision on whether a client is benefiting from treatment ?
- vi) What do you consider to be a 'successful' treatment outcome ?
- vii) What do you think your client views as a successful treatment outcome ?
- viii) How do you feel about outcome studies ?
- ix) Do you feel they are useful from your perspective ?
- x) Have you used the Plymouth outcome questionnaire ? How did you feel about it ?
- xi) Have you got any suggestions as to what you would like to happen in terms of research in treatment outcome, that might benefit you in doing your job ?
- xii) Any questions/remarks about this interview ?

## **4.2.2 Participants**

### **4.2.2.1 Clients**

The participants of this study were 41 clients taken into treatment in all parts of the Drugs Service. The parts of the service included the main outpatient service, a satellite clinic, Community Health and Drugs Service and the interim methadone programmes included in the previous study. There were 18 women (44%) and 23 men (56)%. The mean age of participants was 33.6 years, (s.d. =8.11), range 24 to 54 years.

#### **4.2.2.2 Key-workers**

Staff from all parts of the service who were key-working the clients who volunteered to participate in the study volunteered to participate in the key-worker interviews about the clients' progress. They also answered a questionnaire on the PDOQ. A total of 7 members of staff participated in the key worker interviews.

#### **4.2.2.3 Qualitative staff interviews**

Three members of staff participated in in-depth qualitative interviews.

#### **4.2.3 Design for outcome measurement**

A repeated measures longitudinal design was employed, taking measures at baseline (entry into treatment) and following subjects up at different points in treatment. Follow-up was carried out at 6 weeks and 3 months.

#### **4.2.4 Procedure**

##### **4.2.4.1 Participant recruitment**

Specific parts of the service were targeted for participant recruitment for specific periods to facilitate data collection and to minimise disruption to routine functioning of the service. All new clients taken into treatment in specific parts of the service



targeted for participant recruitment were approached, and their voluntary participation requested.

In accordance with the guidelines on which ethical approval was granted for the project by the Ethics Committee of the Camden & Islington Community Health Service NHS Trust (appendix B), the following procedure was followed. Subjects were informed about the nature of the study, assured that the information they gave was treated in confidence and that participation did not affect their treatment in any way. Subjects were asked to sign a consent form and given an information letter with details of the research study. Subjects were also told that they were able to withdraw from the study at any time and that this would not affect their treatment. Copies of the information letter and consent form given to subjects are in Appendix (B).

Those clients agreeing to participate in the study were given a pack containing the self completion questionnaires (Expectations Questionnaire, Dissonance Questionnaire, Maudsley Severity of Dependence Scale, Change Questionnaire and Relapse Questionnaire). They were instructed to fill out the questionnaires in the presence of the researcher who was available to answer any questions regarding the measures. Once the questionnaires were completed the participants were instructed place them in an envelope and seal it. Confidentiality of their responses from their key-workers was reiterated. It was also ensured that the participants were aware that their case notes and urinalysis will be looked at as part of the study.

#### **4.2.4.2 Key-worker interviews**

All clients taken into treatment are allocated key workers who co-ordinate their care. The key worker of the participating clients were identified and approached for their voluntary participation in the study. All key-workers agreed to participate.

The key-workers were interviewed using the PDOQ by the researcher for each client at the beginning of an episode of treatment, at six weeks and at three months. The items in the questionnaires they could not answer were marked as missing data.

Comments about the questionnaire at the time of the interview were noted.

#### **4.2.4.3 Key-worker questionnaire**

The key workers were also given an evaluation questionnaire about the PDOQ (appendix A).

#### **4.2.4.4 Staff qualitative interviews**

Four members of staff from different part of the service was identified and requested to participate in a tape recorded in-depth interview with a researcher. Three members agreed to participate, one declined.

The interview was conducted using the methodology described by Patton (1990) with

the interviewer posing the questions outlined above, but using the questions as a guide, rather than imposing a structure to the interview. The questions were asked in an open ended manner.

The instructions to participants were as follows:

"This interview is confidential: tape recording will be erased after transcribing, no names will be used, the interviewer is only person who will be able to link name with data and this remains confidential. It will not be reported to anyone in or outside the department, only the ideas voiced in the interview will be used anonymously."

#### **4.2.4.5 Case note analysis**

Clinical case notes of all the participants were analysed by a researcher using a template designed for this purpose (appendix A). Measures were taken of notes at assessment, at 6 weeks and 3 months after commencement of treatment.

### **4.3 Results**

#### **4.3.1 Participant characteristics**

Forty-one patients receiving treatment for their opiate addiction participated in the study. The demographic details and their profile was recorded from their case notes. Some case notes had information on some categories missing: these are indicated in



the statistics outlined below.

**A) Ethnicity**

The majority of the participants in the study were White. 46% identified them-selves as White British, 6% as White European, 10% as Scottish, and 3% (n=1) as Irish. 3% (n=1) identified them self as Mixed Race and 3% (n=1) identified them self as British Asian. Data on ethnicity was missing in 30% of the participants.

**B) Children**

16% of the participants indicated that they had one or more children.

**C) Accommodation**

The largest percentage of the participants (28%) was of No Fixed Abode (NFA). 21% had council accommodation, 10% had hostel accommodation and 8% had private rented accommodation. The following categories had 3% (n=1) each; squat, living with family and owner occupier. 23% of the participants had no accommodation entries.

**D) Method of use**

The majority of participants in the study were Intra-Venous (IV) drug users, 43% of

the participants falling into this category. 15% indicated that they smoked heroin. 8% indicated that they inhaled (chased) heroin. 8% of participants used methadone or codeine linctus which they took orally. Data on method of use was missing in 25% of the participants.

#### **E) Amount of use**

38% of the participants indicated on assessment that they used 1 gramme of heroin a day and 21% of the participants indicated that they used 0.5 grammes of heroin a day. 8% had indicated that they took 100 mls (100mg) of methadone a day, one participant reported taking 600 mls of codeine linctus a day.

#### **F) Age of first use**

The mean age of first use indicated by the participants was 21.3 years, (s.d.=6.2), range 13 to 36 years.

#### **G) Age addicted**

Similar responses to age of first use was given by the participants with a mean age of 23 years, (s.d.=5.6), range 14 - 36 years.

## H) Use of other drugs

The participants of the study indicated a pattern of poly-drug use. The number of participants indicating use of other drugs and their percentages are presented in Table 4.1.

**Table 4.1** Numbers and percentages of other drug use by participants

<b>Drug</b>	<b>Number</b>	<b>Percentage</b>
Tobacco	8	20%
Alcohol	14	35%
Crack	8	20%
Cocaine	8	20%
Tranquillizer	12	30%
Amphetamine	5	12.5%
Hallucinogens	5	12.5%
Missing	10	25%

It is probable that the percentage of subjects smoking tobacco is an under-estimation. Most clients smoke and this question is often not asked.

### 4.3.2 Outcome predictor measures

The descriptive statistics of outcome predictor measures are presented in Table 4.2. The mean Severity of Dependence score of the participants (N=41) was 9.8 (s.d.=2.5). This is higher but comparable with the means for a London heroin using population found by Gossop et al., (1995). The scores are almost identical to the



scores obtained by the participants in the previous study.

The Readiness to Change Questionnaire (RCQ) scores obtained showed the following means: pre-contemplation, 9.6 (s.d.=4.1), contemplation, 16.3 (s.d.=3.1) and action, 15.9 (s.d.=3.9). These means are comparable to the baseline means of the previous study. The pre-contemplation means are slightly lower, with the other two being slightly higher.

The mean Relapse Questionnaire score was 51.5 (s.d. = 25.3). The 51% confidence score is higher than the 42% score obtained in the previous study.

The mean total score of the Dissonance Questionnaire was 115.5 (s.d.=17.7). This was much lower than the mean of the previous study of 122.3.

The mean total score of the Expectations Questionnaire (N=41) was 42.4, (s.d.=6,2). This is lower than the mean (47.1) obtained by the participants the OTI study (Chapter 3). The mean score on the EQ Drug-use scale was 17.4, (s.d.=2.8), which was lower that obtained by participants in the OTI study. The mean score on the EQ Sickness scale was 13.2, (s.d.=2.1), which again was lower than the means for this scale in the OTI study. The mean score for the EQ Social scale was 11.8, (s.d.=2.7), which is identical to the scores for this scale obtained in the OTI study.

**Table 4.2 Descriptive statistics for outcome predictor measures (n=41)**

Measure	Mean	s.d.	Range
Severity of Dependence Scale	9.8	2.5	4-15
Readiness to Change Questionnaire - Pre-contemplation Scale	9.6	4.0	4-19
Readiness to Change Questionnaire - Contemplation Scale	16.3	3.0	7-20
Readiness to Change Questionnaire - Action Scale	15.9	3.8	4-20
Relapse Questionnaire	51.5	25.3	3 - 97
Dissonance Questionnaire	115.6	17.7	77-147
Expectations Questionnaire - Total	42.4	6.3	26-50
Expectations Questionnaire - Drug-use Scale	17.4	2.8	11-20
Expectations Questionnaire - Sickness Scale	13.2	2.1	6-15
Expectations Questionnaire - Social Scale	11.8	2.7	5-15

### 4.3.3 Outcome measures

The descriptive statistics of the results of the outcome measures are presented in Table 4. 3. and presented in a graphical form in Figure 4.1.

**Table 4.3 Means, standard deviations and significance levels for differences between baseline and six weeks, and between six weeks and three months**

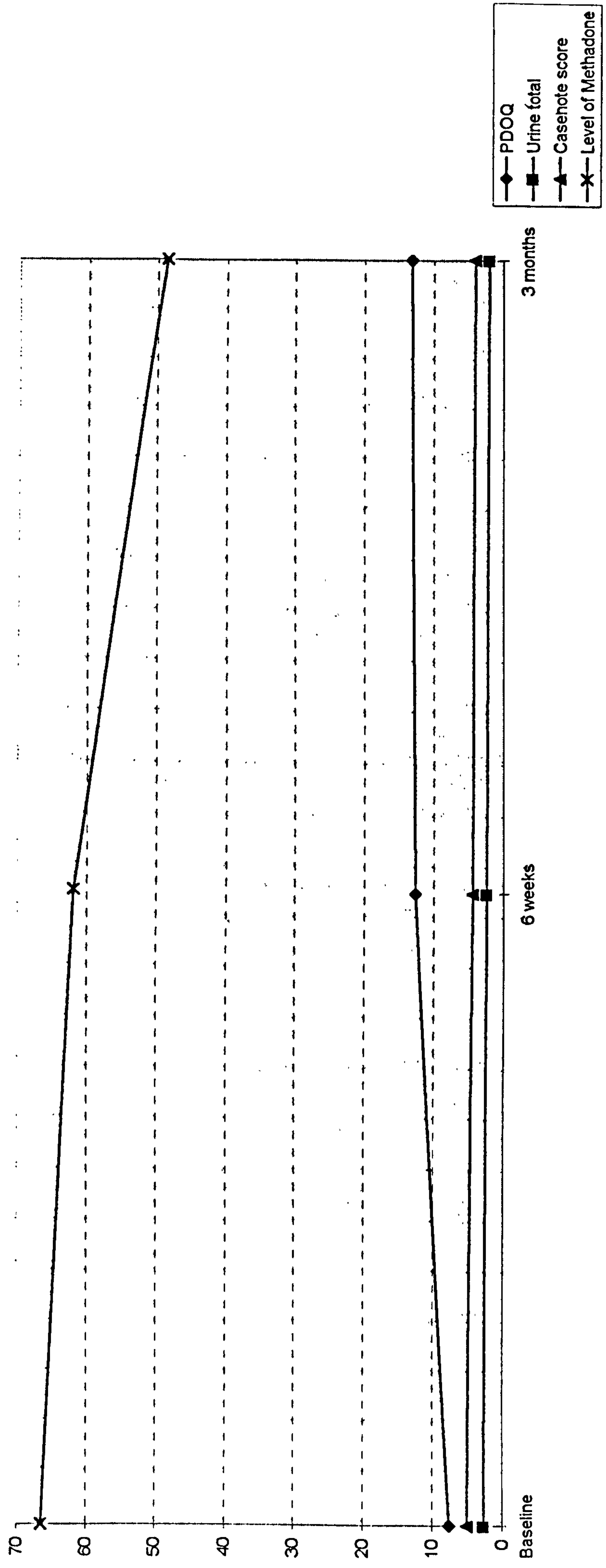
Measure	Baseline		6 weeks		3 months		Sig B/6w	Sig 6w/3mths
	Mean	s.d.	Mean	s.d.	Mean	s.d.		
PDOQ	7.6	4.1	12.7	3,8	13.2	4.7	0.00	NS
Urine total	2.7	1.2	2.5	1.2	2.1	1.5	NS	NS
Case score	5.1	2.4	4.5	2.0	4.1	2.1	NS	NS
Level of methadone	66.5	20.6	61.9	19.7	48.6	22.7	0.02	0.03

## PDOQ

The scores on the PDOQ has a range of 0 to 20, with higher scores indicating a higher level of functioning or better outcome. The participants had a baseline mean of 7.6 (s.d. = 4.1) which increased to 12.7 (s.d. = 3.8) at six weeks. The mean score increased to 13.2 (s.d. = 4.7) at three months which was a smaller increase compared with baseline and six weeks.

The comparisons of means of the PDOQ between baseline and six weeks using the Wilcoxon sign test (Wilcoxon, 1947, Siegel and Castellan, 1988). The Wilcoxon test was used because of the ordinal nature of the data and to avoid the assumption of normal distribution of the responses that is necessary for the use of more robust parametric tests for comparison of means such as the t-test (Robson, 1973). It was also selected because of the small sample size and its suitability for "repeated measures" or "matched subject" design that the study utilised. The Wilcoxon test showed the difference to be highly significant ( $z=4.7$ ,  $p=.000$ ). The difference between the means between baseline and three months also remained highly significant ( $z=4.1$ ,  $p=.001$ ). The difference in the means between six weeks and three months were not significant.

**Figure 4.1 Means of outcome measures at baseline, 6 weeks and 3 months**





### **A) Urinalysis**

The scoring template allowed for a range of scores from 0 to 7, a higher score indicating the presence of a greater number of substances in the urine. Since all participants were prescribed methadone, if they were complying with treatment the expected score would be 1. The results showed a mean score of participants at baseline was 2.7 (s.d. = 1.2) which decreased to 2.5 (s.d. = 1.2) at six weeks. The mean score further decreased to 2.1 (s.d. = 1.5) at three months. The difference between the means were not statistically significant.

### **B) Case note analysis**

The template for case note scoring allowed for a range of 0 to 12, a higher score indicating a higher level of functioning or better outcome. The mean score at baseline was 5.1 (s.d. = 2.4), the mean at six weeks was 4.5 (s.d. = 2.0) and the mean at 3 months was 4.1 (s.d. = 2.1). In general, case notes were found to be not detailed enough to measure change. Data on PDOQ domains (sexual behaviour, criminal activity, interpersonal relationships, housing) are entered at the initial assessment and subsequent mention was rare. The means show a decreasing trend from T1 to T3. This trend is in the opposite direction to the PDOQ means.

### **C) Level of methadone prescribed**

The level of methadone prescribed between baseline six weeks and three months

changed in the expected direction with a decrease from a base line mean of 66.5 mls (s.d.=20.6), the six week mean of 61.9 mls (s.d.=19.7), to three month mean of 48.6 mls (s.d.=22.7). The comparison of the differences in means between six weeks and assessment was found to be significant ( $Z=2.4$ ,  $p=.02$ ). The differences between the means of six weeks and three months was also found to be significant ( $Z=2.1$ ,  $p=.03$ ).

#### **4.3.4 Comparison of methods**

The level of agreement between the PDOQ and case notes was analysed using Kendall's Tau a non parametric correlation test. There was a significant but negative correlation between six week PDOQ and case note score (Kendall's Tau=-.4,  $p=.02$ ) and three month PDOQ and case note score (Kendall's Tau= -.5,  $p=.001$ ).

#### **4.3.5 Drop-out rates**

Ten out of the forty one participants had dropped out of treatment at 3 months.

#### **4.3.6 Predictors of outcome**

##### **4.3.6.1 Relationships between the variables**

The relationship between the predictor variables were analysed using Kendall's

correlational test for non parametric data. The Kendall's rank order correlation coefficients and their levels of significance are presented in Table 4.4.

**Table 4.4** Correlations between Severity of Dependence (SDS), Dissonance Questionnaire (DQ), Expectations Questionnaire (EQ), Relapse Questionnaire (RQ) and the Readiness to Change Questionnaire scales (RCQ: Pre-Contemplation, Contemplation and Action).

SDS						
DQ	-.01					
EQ	.36**	.08				
RQ	.10	-.3**	.19			
PRE	-.07	-.15	-.19	-.02		
CONT	.07	.20	.13	.08	-.5***	
ACT	.14	-.2	.06	.23*	-.3**	.23*
	SDS	DQ	EQ	RQ	PRE	CONT

$p > .05^*$ ,  $p > .01^{**}$ ,  $p > .001^{***}$  (N=40)

Table 4.4 shows a varied pattern of relationships between the predictor variables. The statistically significant results are described below. The trends in the relationships are explored in the discussion section.

Significant relationships were found between the Dissonance Questionnaire and Relapse Questionnaire. These two variables were negatively correlated. This indicates that self-efficacy regarding maintaining changes vary in an opposite direction to the degree of psychological attachment. This finding is in keeping with the hypothesis regarding these measures.

A positive correlation was found between the Expectations Questionnaire and the Severity of Dependence Scale, indicating that severity of dependence and expectations of treatment vary in the same direction. This finding is in keeping with Gossop, et al., (1995) finding that high SDS scores are linked to clients seeking treatment.

Correlational analysis involving the different scales of the Expectations Questionnaire only showed a significant correlation between the Social scale and the Severity of Dependence Scale (Kendall's Tau = .34,  $p = .01$ ). It appears that the Social sub-scale make a significant contribution towards the relationship between the two measures.

The responses of the participants to the Readiness to Change questionnaire showed a highly significant relationship in the expected direction. Pre-contemplation scores were significantly and negatively correlated with contemplation and action scores. This confirms the robustness of the structure of the measure. Contemplation scores were positively correlated with action scores. The action scores were positively correlated with the Relapse Questionnaire scores, indicating that self-efficacy and positive motivation vary in the same direction at time of entry into treatment.

Action scores were negatively correlated with Dissonance Questionnaire scores indicating that the higher the psychological dependence, the lower the motivation for change at the time of entry into treatment.



#### **4.3.6.2 The relationship between the predictor variables and treatment outcome**

The relationship between predictor variables and outcome was investigated using multiple regression analysis to establish the extent to which each of variables independently predicts outcome. The predictor variables together with the dependent variable (change in PDOQ scores) were entered into a forced entry multiple regression. This method indicates the predictive power of each variable, taking into account all the other variables. None of the predictor variables showed a significant relationship with outcome measured by the PDOQ.

Correlational analysis between changes in PDOQ scores and the predictor measures failed to show any strong associations.

Participants who dropped out of treatment showed significantly high pre-contemplation scores (Kendall's  $Tau=.4$ ,  $p=.02$ ). This result is in keeping with theory (Prochaska, et al., 1992) regarding the pre-contemplation stage of change. This was the only measure used in the study that predicted outcome.

There was a negative correlation between clients dropping out of treatment and the Relapse Questionnaire scores, but it failed to reach significance at .05 level (Kendall's  $Tau=.3$ ,  $p=.06$ ).

Correlational analysis of the data of high scorers on the predictive measures also failed to show strong associations with changes in outcome measures.

### **4.3.7 Staff Feed-back on the measure**

#### **4.3.7.1 Quantitative measures**

Number of staff participated = 7.

Mean years of experience working with drug users = 8.4 years (s.d. =9.8, range 2.5 to 30).

Mean case load = 18 (s.d. =8.6, range 10 to 35).

Mean taken to complete the PDOQ = 4.4 mins (s.d. =1.3, range 3 to 7 mins).

Mean usefulness rating = 2.6 (s.d. =0.98, range 1 to 4), (max=5, min=1).

Mean satisfaction rating = 2.4 (s.d. =1.3, range 1 to 4), (max=5, min=1).

#### **4.3.7.2 Qualitative feed-back**

##### **A) Ease of administration**

All participants indicated that they found the PDOQ easy to use. There were no negative comments on it's ease of use. Participants also indicated that the questions were easy to answer.

##### **B) Most helpful aspects of the questionnaire**

A number of areas were indicated as helpful by the participants. These included the PDOQ helping to monitor client's progress through treatment, helping to focuss on

different areas of client's functioning, helpful as a risk assessment tool, providing a snap shot measure and helpful in obtaining a profile of participants case load. The comments on the helpful aspects of the questionnaire seem to mainly focus on the functionality of the questionnaire rather than aspects of it.

"It can help track progress of clients through treatment."

"It allowed to look at clients progress."

"It can help to get a profile of your case load."

"Helpful to focus on different areas of the client's functioning."

"A tool for risk assessment."

"Questions on crime and being registered with a GP was helpful."

"It provided a snap-shot measure."

### **C) Limitations and unhelpful aspects**

All participants commented on the lack of sensitivity and the limitations of 'all' or 'nothing' answers. This limitation appeared to provoke a strong response from the participants. This response was mainly a one of 'frustration' that small but significant changes in clients behaviour according to the participant's clinical judgement had to go unrecorded because of the 'all or nothing' responses required. There was a sense of underestimation of positive outcome because of the lack of sensitivity of the instrument. The other limitations highlighted included the phraseology of the questionnaire, non inclusion of domains that were considered relevant and the subjective judgements required by the key-worker.



"Frustrating having to give yes/no answers - not sensitive enough."

"Questions too elliptical - could be better phrased - e.g. did the client appear healthy?."

"Some questions too ambiguous - e.g. did the client report GP being helpful?."

"Some of the wording and phrases are awkward."

"No questions on mental health."

"No questions on how clients structure their time."

"Some of the questions relied on subjective judgement of the key worker - e.g. was the clients personal relationships improved?."

#### **D) Recommended changes**

The recommendations for change were mainly based on the limitations highlighted above. Increasing the sensitivity of the instrument was the main recommendation. Reducing the ambiguity of the questions and suggestions of other areas of outcome measurement were also recommended.

"Make it more sensitive to change."

"It could be more specific."

"Some questions were insensitive - e.g. stable monogamous relationship."

"Change - did the client report the GP being helpful?."

"A question on weight gain would be helpful."

"Specific questions on Hep.B and Hep.C will be helpful."

"Questions regarding mental health functioning of patients."



"Questions regarding how clients structure their time."

"Questions regarding behavioural change."

"Questions regarding changes in compliance, lifestyle and deviant behaviour."

"Question on personal relationships does not make any sense."

"Does the client use condoms? This day and age you will always get an yes answer!"

"Clean injecting equipment requires definition."

#### **E) Other comments**

Other comments about the instrument included suggestions for a more efficient way of administration and an observation regarding the quantitative nature of the instrument.

"Self administration of questionnaire will be easier than structured interview."

"Takes up time and adds to your work load."

"It is very quantitative rather than qualitative, it might give you a rough picture of what is happening, there is no way to qualify the answers. Yes and no answers are very simplistic."

#### **F) Routine use**

Paradoxical and perhaps the most surprising responses emerged when participants were asked whether they would use the PDOQ routinely in their work. Whilst responding that it was easy to use and identifying a number of positive aspects to it,

most participants responded that they would not use it routinely or were ambivalent about its use. Negative attitudes about filling forms and the perception that this would add to the 'work-load' were the main themes to emerge.

"No. Dislike filling questionnaires."

"Yet another chore; unlikely to use it routinely."

"Might use it."

"May be not."

"..probably - may be."

"No. Duplication of assessment information."

"Too many questionnaires to fill out - takes up staff time - adds to existing pressures."

#### **G) Comments about outcome measurement**

The responses indicated a wide variation in attitudes and perceptions regarding outcome measurement. Whilst some participants saw it as essential, most participants felt the need for 'qualification' or purpose of their use. In general outcome measurement was seen as 'outside' routine clinical work.

"Essential - helpful in needs assessment."

"Could be useful to monitor trends."

"Outcome measurement is of limited use."

"There is a place for outcome measurement, it can be useful, but not on its own."

"Outcome measurement is more relevant for research, not for routine clinical work. It is to do with financial considerations in the present climate - not about patient care."

"We need to take it into account; if not, we will be failing in our duty to care for clients."

"Outcome measurement is useful but it depends who we are measuring outcome for, is it for the clients or the purchasers? Depends on the agenda. If it is an outside agenda you have to be careful what information is given out because they may not understand the full picture and pick on measures out of context. Different measures for different agendas. The agenda must be explicit."

#### **H) Alternative methods of measuring outcome**

Informal and qualitative approaches were suggested as alternative methods of outcome measurement. Clinical reviews were seen as the routine method of monitoring outcome.

"Care programming approach, regular review."

"Better questionnaires."

"Interviewing clients."

"Research. It would be more helpful if a researcher met the clients at different stages, at regular intervals."

"Six month reviews."

"Movement of clients within the service."

"Scrutiny of discharge sheets, discharge criteria is relevant to outcome."

"Client review is a measure of outcome."

"Regular monitoring of own case load."

#### **4.3.8 Qualitative staff interviews**

The core themes that emerged are described below. The participants are identified as A, B, and C.

##### **A) Factors that are taken into account on assessment**

First impressions and how the client makes the assessor feel emerged as an important factor. Whether the client can be managed in that setting and the safety of the assessor were also factors:

"I think the first thing before going into the actual assessment room is to see the client in the waiting room and I form a first impression, what do they look like, how are they dressed, what mood do they convey, facial characteristics. In the formal assessment situation I would be aware of those first impressions and see whether I would alter them or not. With the actual format of the assessment form there are set pieces of information I would ask the client, and obviously those need to be elaborated on, I might need more information to flesh out what they are saying. I suppose one thing that comes up when seeing clients is whether I am getting a truthful account from this client or



is this client saying the right things that would get him into treatment. I guess that is something I would question myself from time to time, what's going on in the client's life? I would also be aware of how this client is making me feel, a sort of instinctual response to the client..." (B)

"The second inquiry is to what drugs that person is taking. I could talk about the assessment form and the different criteria if you'd like or about my own feelings around it..." (C)

"Well, the client I had in mind was referred by a GP. One of the first things that came to my mind was whether that person is going to be manageable in a community setting. This client is actually rather difficult, their behaviour alerts me to whether they would benefit from our community treatment, so I'm watching that. Also whether they might be dangerous to be managed or how difficult they seem, dangerous. Secondly, their forensic history seems important. About criminal behaviour and how that person reacts in certain situations. This client has a long history and he appeared very anxious to get what he wanted. That triggers a counter-reaction from me because I find that very difficult. When someone is very demanding I immediately think 'oh my God. I respect clients until I'm taught otherwise by the client. Sometimes clients just come to try and get a script because they have an impending court case. And I'm also quite scared sometimes; I'm sure a lot of our clients carry firearms or knives which I find very unsettling. I'm sure they use them when they want something and they are not getting it. All those factors would have

an influence on my decision whether a client could benefit from our program in community care. They would obviously need some care or a script or whatever but it would not be the right setting. This particular client has a history of violence and he was very demanding, looked agitated and was shouting. He had been to the doctor's clinic and he was also there very demanding, in front of the queue and all that. These things I keep in my mind, about motivations and about suitability. I think there is a dilemma in our situation because as we are able to access clients more easy and get them into treatment when they obviously need it, but then it is to decide whether they should go to the DDU or come to us for treatment. We haven't decided yet for this particular client. If he were to stay we would have to have much more boundary setting and a treatment plan of not very long duration I should think." (C)

A clear difference of what is looked for in an assessment dependent on the profession of the assessor also emerged. An expected physical focus by a medical practitioner combined with a more global psychosocial outlook emerged.

"I firstly assess their physical health, and secondly the impact of their drug use on their physical health. So my assessment is much more comprehensive than you would commonly find, and so I have a pro forma that is used for every patient. Two reasons for that: one, so there is consistency, whether it is me or a locum. Secondly, to ensure it is thorough and thirdly, it forms a data store of previous information about drug use, about their general health,

about their access to health services, about whether or not they have been immunised, needle sharing, it is very comprehensive. Also their social history, civil status, dependents and everything about drug use. If you are needle sharing and if you are using IV and injecting into your groin or your neck then that carries health risks that I need to be alert to. The obvious risk is HIV, but also strokes, septicaemia,... Education history and legal history also gets recorded, are they on probation, are they currently awaiting trial? Medical history, what illnesses have they had, are there any physical complaints they have at the moment, are they short of breath, are they feeling sick in any way. We counsel every patient about Hep. b and Hep c., we discuss HIV testing, but sometimes it might be better to approach it at a later date... (A)

**B) Influences on decisions about treatment?**

Institutional policies, multidisciplinary teams' opinions, the client's level of functioning and the clients' level of chaos, all emerged as factors. Experience of treatment outcome with similar clients was also noted as a factor influencing decisions. Assessors concept of a realistic plan (which implies highly subjective criteria) again based perhaps on outcome of past clients' treatment emerged.

"Well, first of all, it is not really my decision, I feed back this information to the clinical meeting, I guess that I am very much aware of the client I am seeing now in comparison with the clients I have seen in the past and what has

been the outcome with those. Sometimes, the criteria for different kinds of treatments vary greatly anyway. For example, now we haven't been able to get clients on a daily dispensing program recently, so we have taken clients on with GP's who in the past we would not have taken on because they were too chaotic, and which in the past we would not have taken on. It is on a probationary period, to see whether they are okay, and if it works out well then they will obviously stay. I think the main thing that determines the decision to take on is the levels of chaos in the client, very much bearing in mind that when clients are going to go to GP's they are not going to cause any problems, if they are going to disenchant GP's, they are going to say we find it too difficult to work with them, so we have to bear in mind that clients have to be fairly good at time-keeping and are going to behave in the waiting room and that sort of thing. There is also a category of clients who have problems that need more support than could be provided in that situation, for instance clients with mental health problems might not be suitable for that kind of treatment." (A)

"I think it has to be a realistic treatment plan. I would see a successful outcome of a treatment plan when a person would hopefully have made some changes. It would be naïve to expect that a person would succeed first time around. For this person, as he has been in treatment several times, it definitely lowers my expectations. I'd probably set goals which are not too



high. If I think it's not going to work, then it is up to me to make a decision as to what would be more useful." (C)

The medical practitioner as would be expected focused on physical factors in making treatment decisions.

"If someone is highly likely to be HIV + to me, if they seem high risk, say something like if they are symptomatic, if they share needles, and they are intoxicated... then its not the appropriate time to say, by the way, what about testing... that might be too frightening, so we deal with the acute. Also, are they using large amounts of drugs, are they using safely or injecting in the neck, this is not the person you would just give a script and see every fortnight for a key worker session, that is someone who might have a poor educational history, not aware of the health risks they are running anyway. One of the interesting things that has emerged from what we do is seeing for instance whether a person has ever been offered a vaccine, because a large number of these patients do not have GP's and many of them come from quite turbulent social backgrounds. They don't have even O' levels, so their lack of education could make them less aware, and secondly they don't have access to general practitioners, so they don't have access to information on those things. If you are aware that a patient never had access to information about safe using, for instance, then they might be more suitable for a program with methadone maintenance with slowly decreasing the dose." (C)

### **C) Client's and key-workers expectations about treatment**

Managing or "lowering" expectations of clients, resisting pressure from clients, reducing high or "unrealistic" expectations of clients, emerged as key factors.

"In a way, when I go to the clinical meeting, it is their decision, and that's a safeguard against feeling pressure through expectations from the client...

There is this thing that sometimes clients can have unreal expectations from what they can achieve from treatment, and I am not sure whether that's to do with their lack of experience with methadone treatment or whether they are not facing up to reality or whether they are pressured to come into treatment, I don't know...

Through experience my expectations are very low with clients. I don't think ... Well, my experience with clients' relapse, and not sticking to methadone and all that... they find it very difficult being clean, reducing... you know, so I think I have never experienced the ideal scenario, you know, sticking to the script, not using on top, reducing...it has never come to that... I have an expectation from someone who's on methadone because from my experience I think methadone is a useful thing in-so-far as there is often a definite change in someone if they go on to a methadone script after they have been using heroin regularly, often they appear to be better, it seems to be very stabilizing. I'm also aware that if they are not using on top it's a dramatic

change in their life style, so I would say I have certain expectations for fairly immediate improvements." (B)

"The type of detox patients might be looking for could be unrealistic. I saw someone last week, he was using 250 mg and he wanted to just go and have a ten day detox. I told him that he certainly could do that, but we needed to discuss whether that would be fine, it was a huge amount of drug to just detox like that, maybe it would be very hard to do, maybe he would be very uncomfortable. And if he then would go straight from the detox without anything organised, he would still be living with people who are drug using, and there might be many things that would make it difficult for him to remain drug free. If he failed, that might make him feel a failure, unable to deal with it, so perhaps there is a better way of beating the problem... I try to see what they are hoping for and what is likely to come out of the treatment they have chosen.

I think that one of the things we commonly make the mistake of, we want to decide what is best, we want them to do what we say. I fear that's a waste of time. Most patients have a good idea of what they want and what prevents us from looking at that is that we think that we know better, ha... and one of the commonest reasons why people want to detox is because they feel that there is so little availability of long-term prescription, and they want stability. I can't imagine anyone would say, yes, I will give you a prescription for the next twenty years, and they know that too. And because we as doctors feel



we can't possibly do so, people should be drug free, we make the decisions for them .....

I think we have an honest obligation to look at detox with patients, what do they want from it, and look at it realistically. Very often it is tempting for us to encourage people to detox because we want to believe that this patient will become drug free, and our treatment works. But I think we should focus on whether this detox is really what the patient possibly can achieve. For some people detox is exactly right, for others you might have more success by slowly decreasing their drug use first. Detox is very hard, and the impact of failing is profound, not only on the patient but on the doctor as well. The doctor becomes angry with the patient for failing. And then they get punished, because of the limited funding, the doctor will say, you had your chance..." (A)

A confusion between motivation and expectations of clients seem to emerge with a suggestion that 'motivational interviewing' should be used as a form of assessment of expectation.

"I suppose motivational interviewing would be a very good way of doing it (measuring expectations). Coming at it from different angles, mostly. Sometimes direct questioning. If they are clear about it, in some ways that makes it easier, as in some ways I think that for some that is the main reason and that they are deluding themselves that they want to come off. In terms



of harm reduction, yes, I think they could still benefit, but it seems important that is the reason they are doing it.

I think it could cause problems for both us and the doctor if the motivation is not clear. Obviously, during assessment the first thing I do is assessing the criteria of motivation, and perhaps look at doing some more work. For instance, sometimes we see clients who want a script and when they find out they will not get it today or tomorrow, they will go away and you don't get a chance to do more work with the person." (C)

Giving clients information on treatment as a way of managing expectations emerged as an intervention.

"I don't think I want more information, but very, very clear information. If someone would honestly say to me they want treatment for a court case then that is fine and I can work with that, as you know that when they are more stable you might have a chance to do some more work with them. Stability is really the ultimate realistic goal. Harm reduction is most important. If a person is injecting, if we get him a script, they might stop, which is definitely improvement, it gives you a foothold in to treatment. But what I think, in a sense we set this up for ourselves, because we expect them to come off their drugs and that is what they say, but in fact that isn't the truth half or even a quarter of the time. If you can find out what is really going on and it is honest, then we've got something to work on.

Yes, of course, for instance what happens in the DDU, there are strict rules,

you have got to be stable in three weeks, no drugs in urine,... And if the motivation is right that is fine, but if you haven't got it right, that's when it gets difficult for the client. Then they feel that they are not ready yet and treatment is failing, and they have the pressure of court cases, it is very frustrating... I mean, there is some change according to this Prochaska & DiClemente model, but most of the time it results in relapse. I think most of our clients are in a pre-contemplation stage, and they don't know it. They think they are going to change, but they are not. It is all about motivation really, we have got to be able to tease out their true motivations at assessment. Most people do not really know what they want, getting the script seems to be the only thing. We're not being judgmental, we're not saying no, they can't have a script, but perhaps the treatment we are offering is not the best solution. We really need to make the person see their real motivations for themselves, and that can be a long-winded process. Direct questions need to be asked, it is more positive for the person. We're not saying this is what you get and if you are not happy with that, out you go."

(C)

#### **D) Treatment outcome**

Lack of knowledge of outcome studies and outcome measurement emerged. Outcome measurement was felt as if it was some thing not connected to routine clinical work. The general expectations of outcome seem to be very low and this may be reflected in the views of outcome measurement.

"I think it's important that there is follow up and that treatment gets assessed and there are these indicators to say what is going on and the way to go forward, I think that's important, but I don't really know any outcome studies...

As I said, I don't have any real experience with outcome studies, so my views about it are quite theoretical... it's a good thing..." (B)

"Most of them are only interested in getting a script and getting the methadone. I don't think they have a sense of a long-term treatment outcome generally. Getting the script is foremost in their mind, getting it as soon as possible. And probably because they need to do it for some reason, like they have another court case pending or need to prove to somebody else that they are doing something. There is probably, whilst your assessing them, a point where they think that they really ought to make some changes, but getting the methadone script is most important, because of court cases or whatever." (C)

#### **E) Views about the PDOQ**

The ease of use of the PDOQ was highlighted, but it was contradicted by comments about its lack of sensitivity, limitations of its scope, its inability to get a fuller picture.

"Well, the work involved seems, it can be done quite quickly. It's very quantitative rather than qualitative, it might give you a rough picture of what's



happening to a client, there is no way to qualify answers really. There are only answers as yes and no, which makes it quite simplistic really. You could complete it in a few minutes... there is resistance to doing lengthier work..."

(B)

"Measures like the Plymouth are not really subtle enough to access all these layers. In a sense, it is a tool, it is a way of doing it with some definite markers and steps, but it doesn't really allow for the human element. People are vastly different. It is also a tool for psychologists. It is all very well us sitting here and saying they should be doing this or that, while they have been using for twenty years. Perhaps personality tests might be more useful..., psychological addiction is where it's really at, you could deal with physical addiction quite easily. We'd like to think that we address this in our treatment, but I'm not sure whether we really do. It all depends on the person who is working. Unless they get a lot of supervision and education..., some people don't agree with that, some even have philosophical arguments why you shouldn't do that. But there doesn't seem to be a common philosophy..."

**F) Alternative methods of measuring outcome**

The usefulness of an objective researcher evaluating outcome as an alternative method to proposed method was expressed. A multidisciplinary assessment and outcome measurement system to obtain a better picture also emerged as a suggestion.



"I would find it more useful if the researcher was to meet with the client at different stages, maybe at regular intervals, to see what they want, are they getting what they want, to get more information about that... and also to see after treatment, how are people doing after treatment, what were there views while they were receiving treatment, could it have been better,...

Rather than giving the clients set questions to answer or questionnaires to fill in, researchers could perhaps listen to the story the client has to tell, let the initiative come from the client, rather than looking at what the researcher wants to find, what's important for them ... The users voice is never really asked for ..." (B)

"A multi-disciplinary team is very good, and people with different skills, and then an assessment gets done, that would give a much better picture." (C)

#### **G) The need for an information system**

The need for an information system for the service for assessment and outcome measurement emerged. Differing views of its functions were expressed eg. to match clients to staff.

"Particularly in terms of matching key workers with clients. I mean, and this is not a criticism, people's approaches in terms of assessment are wildly different, there is no consistency, some work more psychologically, and in this sense it would be good to be able to look at clients and match them with

the best key worker for them." (C)

#### **H) The lack of direction of the service**

The importance of a coherent philosophy of treatment for assessment and outcome measurement was commented upon.

"I also feel that lack of direction in services is extremely important. Drug services almost sprang up here and there, and there is not really a sense of a unifying, common goal...." (A)

#### **I) Causes of drug use**

Childhood trauma and disruption are seen as common causes in the development of drug addiction. Therapy to resolve these issues are seen as real treatment.

"I accept there are common causes, one of the things I look at in social history is where they grew up. A huge number have been raised in children's homes, a huge number have a history of violence at home and sexual abuse, these are very common to our patients. Therefore, I feel that a lot of them self-medicate with their drug use to cover up psychological pain, whereas if psychotherapy was freely available, they might not have done so. It is also a catch-22 situation: psychotherapy could now be beneficial to address that emotional pain, but it is questionable whether they could benefit from therapy

while intoxicated. I would like to see that change..." (A)

## **J) The disease model and addiction**

Paradoxical views about the model that is assumed to underpin treatment in the unit emerged. The comments covered a whole range of models from biological, psychological, neuro-adaptational, psychoanalytical, to sociological models. This highlights the confusion that is around models that underpin treatment approaches.

"I would say it is a 'dis-ease model', but not for conventional reasons. What most people mean that there is something pathologically ill, or genetic or predisposition, which means people do not have any control over their use, I do not believe that about substance misuse. I see it as a disease process in the sense that the medical profession can do something to help the disease, and one of the main things we can do is to show our clients that they do have a power. I feel that one of the difficulties in working with substance misuse is that to a certain extent it is glamorised. One of the problems of medicalising substance misuse is that it is too easy to assume traditional medical power dynamics with the patient. We place far too much emphasis on our own self importance, which is 'de-skilling' to patients, as after two months we expect vast improvement, as if we are these God-like creatures who during an hour a week will convert your life from pain and distress to a drug-free existence. No, no, no ... you will make those changes, with all the help we can muster along the way, but I am not going to punish you for not completing your



treatment or for missing a session. Often, people are employed in this field to work without looking at their true qualifications, people who are perhaps good nurses but not specifically trained to counsel patients. There is no evidence whether an extensive amount of counselling even works in that sense, and yet we insist that it is part of the treatment program. Our patients say, what I would actually like is to be able to have a steady supply of methadone so I don't have to score eight times a day and inject eight times a day. I don't feel able to now investigate my reasons for using...

We have this odd double standard about patients. On the one hand, we say they are not socially skilled, badly educated, ...but then we provoke them with a punitive regime. One positive urine test and you're out, etc. And then they become angry and violent, and we say, you're not respecting the boundaries, and you're out again. Arguably a lot of patients started using because they wanted to escape such a harsh regime in their social context, and when they want to get away from it, we offer them exactly the same conditions... it's all wrong..." (A)

#### **4.4 Discussion**

The main findings of the study can be summarised as follows:

- i) The PDOQ is an instrument that can be used to measure outcome in a busy clinical service. It shows sensitivity to change. It is easy to administer and takes approximately 4 minutes to administer.

- ii) It was not possible to validate the PDOQ using a case note template. Negative correlations between case note scores and PDOQ was found. This cannot be taken as a reliable result because of the quality of the entries in the case notes and a lack of a predetermined framework for entries.
- iii) The PDOQ failed to be validated in relation to objective criteria of drug urinalysis.
- iv) Significant changes in outcome following treatment was measured by the PDOQ. These changes were in line with clinicians experience and confirms that the PDOQ is sensitive to change.
- v) The predictor measures used failed to predict outcome, with the exception of the RCQ pre-contemplation scale which predicted dropping out of treatment.
- vi) Relationships between the outcome measures were found which is of clinical and theoretical interest.
- vii) Staff, whilst finding the instrument easy to use and of practical use, showed ambivalence about using the PDOQ routinely, and about measuring outcome in general.

#### 4.4.1 The PDOQ

The results of the study supports the claims made by Hassard (1994) about the ease of use of the PDOQ and the time taken to administer it in busy clinical settings. The results support claims of its clinical acceptability and practical nature, compared to the OTI (Darke, et al., 1992). The results also support the claims of psychometric properties, in that it can measure change. The changes in the total outcome scores between initial assessment, six week, and three month assessments, are in keeping with general clinical impressions, and previous studies on similar populations (Finch et al., 1995). The highly significant changes in total outcome scores between the initial assessment and six week assessment is in keeping with the treatment goal of stabilisation following commencement of treatment. This supports the claims of high face validity of the instrument.

The present study failed to demonstrate the validity of the instrument against the objective measure of urinalysis results. Urinalysis, inspection of injection sites, and measures of physical health, are among the few non-reactive (objective) measures available to measure treatment outcome in this area (Ziebland and Rogers, 1994). Other measures relies on self-reports or observations by clinicians, both of which can be subject to bias. Validation against a hard measure such as urine test results would have lent credibility to a measure of clinical impression and observation such as the PDOQ. It can, nevertheless be argued that, urinalysis is a measure of drug use, which is one of seven outcome domains measured by the PDOQ. The maximum composite score of 20, has 3 drug use items. The majority of the PDOQ items



measure harm reduction and stability. The expectation of a reduction in drug use in opiate users within three months of commencing treatment may be seen by some clinicians as optimistic. On the other hand within services there is a strong expectation from patients to achieve this outcome. It is the policy of the service in which the study was carried out, that clients are expected to 'stabilise' and achieve a reduction in drug use within a six week period. This outcome is to be demonstrated by urine test results. It is also the policy of the service to progressively reduce the prescription of substitute opiates. The results of the study indicates that a progressive reduction of methadone prescription takes place, despite a lack of reduction in drug use. It appears that the PDOQ measures stabilisation being achieved by patients as a result of treatment, but not a reduction in drug use. The relevance of validation of a composite instrument by objective measures is questioned here.

The validation of the PDOQ with case note entries yielded paradoxical results. A significant relationship was found but it was in the opposite direction to what was expected. In the absence of an institutional framework (template) for outcome measurement within the service, following the initial assessment, entries in the case notes by clinicians, in general, focus on major events or changes. Subtle changes in the outcome domains over a three month period is unlikely to be recorded. The expectation that the PDOQ domains would be captured from the case notes, in the existing clinical culture, was not justified.

Further validation of the PDOQ, in addition to the measures used above, should be made against another validated instrument such as the OTI.



The feed-back from staff, clearly indicated that the use of the PDOQ was more acceptable than an outcome measurement framework based on the OTI (Chapter 3). In general they found it easy to use and practical. The lack of sensitivity of the measure, requiring all or nothing, yes/no, answers was commented upon by the majority of the staff participating in the study. Staff felt "frustrated" that one or two lapses in injecting or drug use, which seem a considerable improvement on a patients previous level of functioning could not be taken into consideration. Staff were expressing a preference for a rating scale. The problems involving the use of rating scales and the limitations of the ASI (Darke, et al., 1992; McLellan, et al., 1980) due to this factor was discussed in Chapter 1. The OTI, which was designed to overcome the problem, is seen by clinicians as being too elaborate and not practical to be used in busy clinical settings; on the other hand, a practical measure designed to meet clinical needs is seen as too insensitive. Perhaps, the two methods evaluated in this study represent two extreme positions and a more flexible measure needs to be developed.

Staff also made a number of suggestions to change to change the phraseology of the PDOQ. The addition of a number of other domains was also suggested. The results of the study provides sufficient information to further develop the measure.

Staff attitudes towards using the measure routinely, despite rating it as easy to use, showed a great deal of ambivalence. Attitudes towards outcome measurement in general were found to be very mixed. Unless staff see a positive benefit to their clinical work and patient care from routine outcome measurement, it is unlikely to be

adopted in clinical settings. This issue will be discussed further in Chapter 5. Incorporating an outcome measurement system, with an assessment system, in conjunction with a clinical information system, can be suggested as a possible way forward.

#### **4.4.2 Other outcome measures**

The use of urinalysis and case note analysis to validate the PDOQ was discussed above. The trends observed in these results are of interest in it self. These trends include increase in impure urine scores between six weeks and three months and no change in case note score during that period. These results paints an accurate picture of what goes on in treatment. These results have to be viewed in relation to the treatment objectives of the service. If clinicians were to get regular feed-back on these and trends in other outcome domains, on a regular basis in a graphical form, for example by a clinical information system, it could have the effect of clarifying treatment objectives and delivery.

The mean dose of methadone prescribed showed a decreasing trend between the initial dose and the subsequent measures. This is an expected trend and is consistent with the policy of the clinic. It was noted earlier that a corresponding reduction in illicit drug use was not achieved. This indicates that detoxification or progressive reduction in substitute prescription is the background treatment philosophy in the service. The expectation of the outcome of a reduction in illicit drug use is not supported by treatment outcome data from the USA, where it has been demonstrated that only

'maintenance' at an appropriately high level of substitute prescription achieves this outcome (Dole and Nyswander, 1965; Ward et al., 1992).

#### 4.4.3 Outcome predictor measures

The enigmatic result of this study was that none of the predictor measures used, with one exception, predicted outcome. On the face of it the results are counter to the hypothesis surrounding the various measures used. More detailed analysis of the results paints a different picture.

The Readiness to Change Questionnaire (Rollnick, et al., 1992) was developed to measure motivation for change with problem drinkers and was predictive with outcome. This questionnaire was adapted for use with drug users in this study. There are no published studies of use of this instrument with drug users. The results of the various scales in the RCQ showed expected trends, with most participants scoring higher on the contemplation and action stages than the pre-contemplation stage. The scores of the contemplation and action stages were similar and this is consistent with findings in a recent study with the alcohol version of the questionnaire (Budd and Rollnick, 1996). The result that a high pre-contemplation score predicted dropping out of treatment is a validation of that scale. The finding that contemplation and action scores did not predict better outcome in this study needs explaining. There are a number of possible explanations. One possibility is the questionable validity of the measure being adapted for use with an opiate using population. The relationship between motivation and treatment outcome, with this population may not be as



suggested by the stages of change model (Prochaska and DiClemente, 1985; Prochaska, et al., 1992).

It is possible that the results can be explained in terms of the primary focus of the measure when taken at entry into treatment. Motivation to change drug use is the primary focus. The significant changes in outcome measured by the PDOQ was in areas other than in drug use. The outcome of treatment in terms of a reduction in drug use was not achieved in the three month period of the study. The weak relationship between the contemplation and action scales, and the change measured by the PDOQ, will be entirely consistent with the predictions of the scales. The clients scoring high on the contemplation and action stages remaining in treatment compared to clients scoring high on the pre-contemplation scale can be interpreted as confirming the predictive validity of the RCQ. A significant reduction in drug use in three months after commencing treatment by opiate users may be viewed by some clinicians as an optimistic expectation. A longer period of follow-up is needed to establish whether motivation at commencement of treatment predicts the ultimate achievement of treatment goals in opiate users. The validity of the structure of the RCQ and the stages of change model has been recently questioned (Budd and Rollnick, 1996; Sutton, 1996). The pattern of correlations between the scales found in the study, with significant negative correlations between pre-contemplation and the other two scales, supports the structure of the measure. It can be argued that on the whole, the results of the study confirm the validity of the adaptation of the RCQ for use with opiate users.



It is assumed that a stage of change is relatively stable and will remain so throughout treatment. This assumption has been challenged by Sutton (1996) and Budd and Rollnick (1996) who argue that responses denoting a particular stage is not stable and that clients fluctuate along a continuum of motivation in terms of readiness to change. Further research is needed to establish the relationship between stages of change and treatment outcome in opiate users, particularly to establish the stability of the measure. The latter can be achieved by repeating the RCQ at follow-up intervals.

The severity of dependence measure was the other standardised measure used in the study. The result obtained showed that the scores were comparable with that of a London heroin using sample used to standardise the measure (Gossop, et al., 1995). There are no published studies linking the SDS measure with treatment outcome. It was hypothesised that higher SDS score to be negatively correlated with positive outcome. This was not supported by the findings of the study. The arguments regarding the focus of the assessment can be applied to explain this result. This measure focuses particularly on the dependence on drugs, and the outcome of treatment in the period under consideration did not achieve a reduction in drug use as measured by objective criteria of urine results.

Expectations of treatment have been found to be an important factor influencing outcome in areas in mental health. There has not been much investigation of this factor in relation to addiction treatment. The rationale and process of the development of an expectations questionnaire, and its psychometric properties was discussed in Chapter 2. The utility of such a measure is its predictive validity in

terms of outcome. This was tested in the present study. The results of the multiple regression analysis failed to show a significant link between this measure and outcome. The hypothesis that higher expectations scores will predict better outcome was not supported. The argument that the focus of the measure is on drug use cannot be used here since it has items on a broad range of outcome domains. Further research is needed to test the measure's validity over a longer period of time and its stability by repeating it at regular intervals. The relationship of this measure with other measures used is of interest and will be discussed in the next section.

The dissonance questionnaire is being developed to measure the severity of addiction from a psychological perspective, independent from the avoidance of withdrawal conceptualisation. It is based on the work done by Orford (1991) and was adapted for use with opiate users. The questionnaire is in early stages of its development and was used in the study as part of this process. A negative but significant relationship with outcome was hypothesised. The failure to show a significant relationship with outcome in the present study could be due to the properties of the measure or the sensitivity of the outcome measure. Further research is needed to establish the utility of this measure.

The relapse questionnaire was developed as a simple measure of self-efficacy based on Marlatt and Gordon's (1985) taxonomy of high risk situations. The participants in the study showed a mean confidence score of 50% which is not a high. The profile of the patient sample shows that they were a severely dependent sample who had a long history of drug use. Hence it can be expected that their confidence as to



the outcome of treatment was be very high. A 50% overall confidence level may not be high enough to be linked to positive outcome.

#### **4.4.4 The relationships between the outcome measures**

Correlational analysis between the measures showed a number of interesting relationships. These relationships are of theoretical interest in a number of conceptual spheres in the field of addictions.

The participants' responses to the Dissonance Questionnaire (DQ) and to the Severity of Dependence Scale (SDS) showed virtually no relationship (correlation coefficient =-.01). The DQ is based on a measure that was designed to measure psychological attachment to the addictive behaviour or degree of dependence from a psychological perspective (Orford, 1991) and the SDS was designed to measure 'the degree of psychological dependence' (Gossop et al., 1995). It can be argued that the SDS is based on the withdrawal relief model of dependence and that it has been validated against the SODQ, a measure based on the same model (Sutherland, et al., 1986) and that the DQ was designed to measure dependence from an alternative model of addiction. The finding can be interpreted as supporting the arguments for alternative conceptualisations of addiction: psychological dependence based on physical dependence and psychological dependence based on positive reward frameworks. On the other hand, with problem drinkers Orford (1991) found significant correlations with a version of the Dissonance Questionnaire and the Severity of Alcohol Dependence Scale (Stockwell et al., 1979). Orford (1991) also found deferential



correlations with different clusters of items in the Dissonance Questionnaire. The question whether findings from problem drinkers can be generalised for opiate users regarding alternative models of dependence needs to be answered. It is clear that this area needs further research and has the potential of extending our understanding of the nature of psychological dependence.

The SDS was significantly positively correlated with the EQ. This indicates that the higher the severity of dependence, the greater the expectations of treatment. This is in general consistent with clinical observations. The utility of both these measures is in its predictive validity. Nevertheless, this finding has some clinical implications that was picked up on by the qualitative interviews with staff. It appeared that staff anticipating this high expectation, intervene to manage those expectations, so in essence reduce expectations of treatment. It appears that staff were keen to establish 'realistic' expectations. This is in keeping with providing a community-based outpatient service, where the availability of drugs and negative social influences are predominant. It would be a different scenario in an inpatient or residential setting. It is possible to argue for the utility of the combination of the two measures in assessing patients for suitability for treatment in such settings. Predictive validity in terms of outcome in different settings needs to be established by further research.

Significant negative correlations were found between the DQ, the RQ, and the action scale of the RCQ. This relationship is consistent with the theoretical frameworks of the three measures. The DQ was designed as a measure of psychological attachment to the addictive behaviour. It can be expected that the higher the level of attachment,

the lower the level of self-efficacy to maintain changes regarding the addiction. The negative correlation with the action scale confirms the picture. This finding also points to a link between motivation and self-efficacy. The link between the two measures is further confirmed by the significant positive correlation found between the RQ and the action scale of the RCQ.

The changes in the predictor variables during the course of treatment may also throw further light on how these factors interact. Investigations are needed with these measures using them as both dependent and independent variables. This would undoubtedly expand our understanding of the process of treatment.

#### **4.4.5           The staff evaluation**

The results of the evaluation of the use of the PDOQ from a staff perspective have a number of important implications. The results clearly indicates that, compared to the OTI, the PDOQ is definitely more acceptable to staff, who in general found it practical and easy to use. Despite its ease of use the staff interviewed felt that given the choice they would not use it routinely. Most staff felt that the process of filling in a form, although it took less than 5 minutes to do so, was an added burden and did not see any real benefit for their work. The staff felt that outcome measurement was a demand that came from outside or it was for research purposes. They expressed a feeling that they had a sense of how their patients were progressing.

Clinical review meetings were thought to be the most beneficial method of tracking

progress to the staff and for the patient. Care planning was a process close to the clinical review process and this was seen as the best measure of outcome. An outside researcher Interviewing staff and patients was seen as an alternative method of measuring outcome.

Staff expressed a sense of inevitability that a system of outcome measurement would be imposed upon them from outside. There were only a few members of staff who expressed any enthusiasm for the process.

#### **4.4.6 Qualitative interviews**

A number of themes of specific and global importance emerged from the in-depth qualitative interviews. These will be discussed in the next chapter.

The results indicate that unless a clear shift in staff attitude is achieved, a system of outcome measurement (how ever simple and practical) will not be taken on aboard by staff. It is suggested that one of the main barriers to outcome measurement is the confusion regarding the philosophy of service provision discussed in Chapter 1. When there is confusion about the objectives of treatment, whether its aim is abstinence or harm reduction, it seems inevitable that staff feel resistant to look at the effects of their interventions. This issue will be discussed further in the next chapter.

One possible solution to make a framework of outcome measurement into part of routine work, may be its incorporation into a clinical information system with which



clinicians have to interact in their daily work. If such a system gives feedback about client progress by pressing a button, this is likely to be reinforcing to staff. This solution will also be explored further in the next chapter.

## **Chapter 5    General discussion**

### **5.1            Summary and implications of results**

The main aim of the project reported in this thesis was to investigate outcome measurement in the treatment of opiate addiction. Three studies, one reporting the development of an outcome predictor measure and two evaluating different outcome frameworks were, reported. All studies utilised a pluralistic methodology using both quantitative and qualitative approaches. The results and their implications were discussed in each study. This chapter links the findings of the three studies and looks at their wider implications.

The key findings of the studies can be outlined as follows:

- i)     The OTI was not suitable for use with a British population without modification.
- ii)    The OTI is not suitable for routine clinical use in busy clinical settings.
- iii)    The OTI is not acceptable to clinical staff as a routine measure.
- iv)    The OTI is best used as a research instrument.

- v) The PDOQ was accepted as suitable for routine clinical use as a practical measure.
- vi) The PDOQ is sensitive to change in measurement domains.
- vii) The claims made by the developers of the PDOQ are confirmed.
- viii) The PDOQ's lack of sensitivity was seen as its major limitation.
- ix) Despite the PDOQ's ease of use and general acceptability, staff expressed ambivalence about using it routinely.
- x) Staff perceptions and attitudes regarding outcome measurement is a major obstacle for implementation of routine outcome measurement. This needs to be further investigated and interventions with staff needs to be developed if outcome measurement in this area is to be taken further.
- xi) There was poor outcome regarding reduction of drug use.



- xii) There was general consensus regarding the outcome domains included in the two measures as relevant domains, with suggestions for further domains.
- xiii) Case reviews emerged as a method of outcome measurement preferred by staff.
- xiv) Case note analysis was not a reliable method of outcome measurement.
- xv) Computerised information systems are essential for maintaining a framework for assessment and outcome measurement.

The service in which the study was carried out can be considered to be fairly typical of a large inner city Drug Service in the U.K., hence the findings from this study could be generalised to similar services and smaller services in the country.

## **5.2 Assessment and outcome measurement**

The key factors influencing assessment and outcome measurement in the field of addictions were described in Chapter 1. They were, to reiterate, a) theories and models of addiction, b) goals of treatment, and c) aims of service provision. The findings from the studies in this volume needs to be discussed within the context of these factors.

### **5.2.1 Theories and models of addiction**

The results indicate that the service operated within a 'biopsychosocial' disease model. It appeared that within this umbrella there was considerable variation in how staff understood addiction and where the emphasis on treatment was placed. This was particularly evident in the in-depth qualitative interviews. Whilst the 'biopsychosocial' framework is 'holistic', and attempts to avoid reductionist formulations, it can also contribute to a lack of focus in the approach to treatment. This is in contrast to treatment centres such as 'concept houses' where there is a narrow focused or traditional disease model as a basis for treatment. The diversity of focus has implications for assessment and outcome measurement. In this and other similar services it may be necessary to outline the model, its assumptions and treatment objectives before a framework of assessment and outcome measurement is introduced. This would also enable individuals from different professions and different skills to state explicitly what they do and why they do it.

A staff participant alluded to this in a context of matching clients to staff, according to the skills the staff member possesses. This happens in services by default or by internal referral. The internal referral process may happen between different professions, but is rare within professions.

If the underlying model adopted by either a professional group or individual staff is made explicit, then the assessment process can take this on board. Under such circumstances outcome measures can be set accordingly. The motto here will be

'clarity of model leads to clarity of treatment objectives which leads to clarity of expected outcomes. The general ambivalence to outcome measurement that the results indicate may stem from the lack of clarity described above.

It can be recommended as an intervention that a clear statement regarding the underlying model of treatment provision (in this service the 'biopsychosocial' disease model) is made available to all staff and is introduced as an essential element in the induction of new staff. Staff placing different emphasis in their work within this framework for example physical health, relationship issues, psychological problems etc, should be encouraged to explicitly state their rationale for working in such a way and communicate this to other staff and clients. They may be even encouraged to defend their way of working. Similarly, if there are members of staff who subscribe to an entirely different model to the broad medical model then they should be asked to defend their approach. This is particularly relevant when recruiting new staff. If the model that underpins the service provision is made explicit, this can be stated when interviewing new staff and if a candidate has a different approach, questions can be asked as to how their approach may complement or conflict with treatment objectives of the service.

### **5.2.2 Goals of treatment**

Following on from the points made above, the next level down from the overall theory or model of treatment is the issue of goals of treatment. Within a model of treatment there is a possibility of a number of goals of treatment. These could be



categorical goals (abstinence vs harm reduction or abstinence vs reduction of use) temporal goals (short term, medium term and long term outcomes) or a combination of both. The importance of goals of treatment to outcome measurement was discussed in Chapter 1 and needs to be reiterated here. This is a fundamental factor in outcome measurement and although this is obvious, this fact is rarely made explicit in the outcome literature. Unless there is clarity as to the expected outcomes of treatment in relation to the goals of treatment, the criteria for measuring outcome cannot be set. The heterogeneity of outcome criteria reported in reviews (Charuvastra, et al., 1992; Ziebland and Rogers, 1994), can be attributed to lack of clarity on the goals of treatment. In the field of addictions, particularly in the treatment of opiate addiction, goals of treatment take a temporal perspective: treatment goals become short term, medium term and long term. If outcome measurement is to be relevant, then outcome criteria needs to be set according to these goals. The phases of care approach to the treatment of opiate addiction (Moolchan and Hoffman, 1994) is an example of temporal treatment goal approach. Nevertheless, outcome criteria for each phase of this approach are not clearly defined.

The results of the staff feed-back aspects of the studies clearly indicate that there is a great deal of confusion about the goals of treatment as well as the aims of service provision which will be discussed in the next section. Both direct and indirect statements refers to the lack of clarity surrounding the goals of treatment. It can be argued that reluctance of or resistance by staff with regard to measuring outcome is based on this fundamental issue. In the absence of a coherent explicit treatment goal statement from the service, individual members of staff are free to follow their own

goals for the treatment they provide. It can be argued that clients set the goals for their treatment and not the staff or the service. There is some strength in this argument, but on the other hand it can be pointed out that exactly the opposite is true.

Following assessment of clients it is staff who decide (according to the prevalent wisdom on levels of methadone prescription) how much substitute methadone a client should have: the client has little or no say in the matter. Clients often try to influence this situation by exaggerating the amount of street drugs they are using. Different members of staff with different emphasis on goals of treatment in the continuum between abstinence and harm reduction, would look for different outcomes. The results of the study shows that this is indeed the case. The results show that the majority of staff favour harm reduction as a treatment goal. The positive outcomes measured in the PDOQ with an increase in composite scores were largely made of indices of reducing drug related harm. The reduction of illicit drug use as measured by urine test results showed no change. At the same time the overall levels of prescribed methadone were reduced. This paradoxical situation sums up the confusion regarding treatment goals that prevails in the service. The progressive reduction in levels of prescribed methadone is the basis of detoxification which is the hallmark of abstinence orientated treatment. Increase in the levels of methadone until a level of stability is achieved and subsequently maintaining that level of prescription is the basis of methadone maintenance which is the hallmark of treatment aimed at harm reduction. It appears that the service policy or preset treatment programmes are implemented as if they were abstinence-oriented, whilst the majority of the staff feel their work is aimed at harm reduction. It is not surprising that the staff are reluctant to look at outcome in a systematic and objective way as this may require



them to confront a fundamental conflict in their work. A further study should survey staff in the service to find out what their preferred treatment goals are and their preferred way of working with their clients to achieve these goals. Clear statements on short term, medium term and long term goals, clear statements on each temporal band and expected outcome for each temporal band are recommended as an intervention following from the results of the study.

### **5.2.3 Aims of service provision**

This is the third factor effecting assessment and outcome. In Britain broad guidelines for treatment provision are laid out by Advisory Council on the Misuse of Drugs (ACMD) and the Department of Health (DoH) periodically. Overall national health targets set out by the DoH also encapsulate opiate users, for example reduction in sharing needles. Individual services make decisions within a national context as to what services or treatment they will provide. There has been some flexibility around what treatments, services would provide for drug users dependent on the demographical features of drug users in the area, the epidemiological picture, traditions of the particular service and the skills and expertise of the clinicians. In many services treatments provided for opiate users were a result of the pioneering zeal or vision of lead clinicians, usually a consultant psychiatrist. The internal market in the health service has in effect introduced restrictions to the flexibility of service provision to opiate users. The development of purchasing guidelines involved the purchaser (Health Authority) specifying what treatment for how many it is prepared to fund. Service development and the provision of a range of services have to take



place within the funds secured to provide services for drug users in the area. In some areas different services secure funding to provide different treatments to drug users. Each service has to decide on the range of treatments or services it provides for opiate users. Initial assessments are influenced by what treatments are available in the service, because information gathered is used to make clinical decisions regarding matching patients to the available treatment. This necessitates service specific assessments. Hence, general or national assessment instruments such as MAP (Gossop, 1996) may have limited utility. It was discussed in Chapter 1 that outcome measures have to be linked to assessment. If there is to be sensitive and relevant outcome measurement then it not only has to relate to treatment provided, but also to the approach to treatment of that particular service. The results of the studies have a number of implications for the issues covered in this section.

The nature of the service, its complexity and the stability of certain programmes of treatment indicated that the use of the OTI, although by far the more sensitive and comprehensive instrument, was still not feasible. The pressure from purchasers to see more patients limits the time available to carry out detailed outcome measurement. Staff who feel under pressure already invariably saw outcome measurement as an extra demand. The results indicate that in busy services like that where these studies were carried out, the use of the OTI or similar instrument in routine clinical work will not be appropriate. It may however, have a place in the evaluation of specific interventions if the outcome measurement is carried out by dedicated researchers.

The range of services provided and the perception of a general lack of clarity about the philosophy of treatment made staff feel that general outcome measurement was irrelevant and the most appropriate measure of outcome was individual case reviews. There was an ethos in the service of tailoring treatment to the individual patient; whilst this basic philosophy is not challenged, the resulting confusion or lack of focus as to what treatment an individual is receiving is questioned. The observed resistance to generic outcome measurement may be in part attributable to this factor. Finding standardised treatment or programme specific outcome measures is a possible solution to this problem.

#### **5.2.4 The framework of assessment and outcome measurement**

The evaluation of the OTI and the PDOQ was carried out by utilising the framework for outcome measurement suggested by Moos and Finney (1983), which was discussed in Chapter 1. Information is gathered in a preplanned manner from assessment to discharge, with periodic and systematic reviews or remeasurements. It was clear from the analysis of case reports that such a framework did not exist in the service. Aspects of such a framework did exist, which was the assessment component. This aspect was well developed and was functioning to fulfill requirements of clinical decision-making and other external information (Chapter 3). Components to measure outcome or review clients was clearly lacking. The validation of the PDOQ by corroborating the reported changes with case note entries was clearly not possible. In the absence of an infrastructure or framework, staff only record major changes or incidents and not subtle changes in the various outcome

domains. If the outcome domains were specified, say in case note sheets, this might prompt staff to comment on patients' performance in these areas. Comments by staff on both the OTI and PDOQ studies indicated that they found the specificity of the domains helpful. The staff also found the framework helpful in 'tracking progress'. The findings do indicate that an installation of such a framework will be acceptable to staff and will be used by staff. The installation of a framework and its assimilation into the daily routine of the service will of course be enormously enhanced by the adoption of a computerised clinical information system. This issue will be dealt with in the next section.

If a formal assessment outcome measurement framework is set up and it becomes integrated into the routine of the service, specific 'modules' relating to prediction of outcome (i.e. predictive measures) and programme or intervention-specific outcome measures could be added on where appropriate. This will give assessment and outcome measurement the flexibility that existing standard measures lack. This is clearly an avenue that measures for national use that are being developed (MAP) should explore.

### **5.3 Sensitivity of measures**

The sensitivity of outcome measures emerged as an important issue in the study. If outcome measures are to become part of a framework where the measures will be repeated at regular intervals, then the sensitivity of the measure becomes a major issue. The lack of sensitivity emerged as a major limitation of the PDOQ. Most



staff felt that the categorical (0 or 1) responses required by the PDOQ meant that reductions in target behaviours or small but significant improvements could not be taken into consideration. On the one hand, the simplicity, ease of use and practical nature of the PDOQ makes it immensely suitable for use as a repeated measure in an assessment and outcome measurement framework; whilst its lack of sensitivity essentially makes it unsuitable. This problem has to be resolved if the PDOQ is to be used routinely, and further work is required to increase its sensitivity. If this cannot be achieved clinicians may have to consider using a combination of measures for example selected scales of the OTI and PDOQ routinely. This may not be such a difficult task if the measures are incorporated into an information system.

#### **5.4 Clinical information systems**

The results of the studies clearly indicate that one of the reasons why systematic assessment linked to outcome measurement is not common in clinical settings (despite demands from health care purchasers and other government organizations) is the demand on resources such a process creates. Extra time spent on interviewing clients, time required to fill out and process detailed forms (scoring questionnaires) and the need to repeat the process at regular intervals are some of the extra demands that may be placed on resources. Clinicians clearly indicated their concerns regarding this. Rigorous, realistic and routine assessment and outcome measurement in clinical settings will only be possible if the modern technology we have at our disposal in the form of information systems is exploited for this purpose. Development of assessment and outcome measurement systems, if they are to be of clinical utility,

must go hand in hand with the development of information systems and integrating them to clinical settings.

It is possible to speculate that many of the problems regarding routine outcome measurement that have emerged from the two studies can be resolved if appropriate information systems are developed. Currently there are only a few information systems available that are specifically developed for substance misuse services and the outcome measurement modules within these systems are not well developed. In the literature, there is only one report of a service using a computerised information system to measure outcome routinely in Britain (Namgauds, 1995). The development of the system and its acceptance by staff leaves room for optimism. This is an area where more research is needed and more resources allocated for developmental work. The development of new measures should go hand-in-hand with development of information systems. Instant and regular feed-back on how a patient is doing (that could be provided to clinicians) would not only act as a reinforcer, but has the potential of directly improving care, by encouraging more rigid implementation of interventions.

## **5.5 Staff perspective**

The studies reported in Chapters 3 and 4 placed a great emphasis on the staff perspective in outcome measurement. This perspective is largely ignored in the literature on outcome measurement in the area (for example, Charuvastra, et al., 1992; Harrison, et al., 1991; Ziebland and Rogers, 1994). Hassard (1995) is one of

the few researchers in this area who has looked at outcome measurement from a staff perspective. The 'bottom up' approach that was taken in the development of the PDOQ, meant that it was driven from a staff perspective. This is a rare example in this area. It can be argued that this is a serious oversight by researchers in this field. The general lack of outcome measurement in addictions treatment may be attributed to this factor alone. Unless clinicians can be persuaded that there can be benefits to their work from outcome measurement, it is unlikely that a system of outcome measurement, however sophisticated it may be, will be adopted and complied with.

A number of variations of a theme of alienation of clinicians from the process of outcome measurement emerged from the qualitative aspects of the studies. "Outcome measurement is more relevant for research, not for routine clinical work"; "it is to do with financial considerations in the present climate - not about patient care"; "Outcome measurement is useful but it depends who we are measuring outcome for, is it for the clients or the purchasers?", are some examples of the theme of alienation. The perception that outcome measurement is purely a product of the internal market, where the pressure is generated by purchasers, was very much in evidence.

More research is needed on the staff perspective on outcome measurement. The findings of such research should contribute to the development of interventions to change attitudes and perception of staff regards outcome measurement. This work



needs to be done prior to implementation of outcome measurement frameworks to services.

## **5.6 Limitations of the studies**

The studies reported in this thesis are examples of applied clinical research. There are inherent difficulties and drawbacks in doing research in clinical settings. It is inevitable that numerous obstacles emerge in the way of progress of such work. This itself can be looked upon as enriching as well as contributing to the research, rather than a negative feature. Scientific research must eventually lead to practical utility. Findings from pure research often encounter limitations when it comes to application in clinical settings. In the in the three studies reported here, conflicts between research objectives or the "research agenda" and priorities driven by service need emerged and influenced the process of research. The best example of this was the service need to find a expedient solution to the problem of outcome measurement. Despite its comprehensive nature and the published reports of its psychometric properties (Darke, et al., 1992), pursuing the original objective of fully evaluating the OTI was not possible because of the constraints put on the project by conflicting service priorities. The priority from a research perspective would have been allocate resources to pursue the research objectives. The need in the service to find an expedient method of measuring treatment outcome, influenced the researcher to seek a and evaluate a measure that was a complete contrast to the OTI. The PDOQ can be placed at the opposite end of a spectrum of outcome measures in comparison to the OTI. The choice of the PDOQ was largely based on the claims of the relatively

short time it takes to be administered and the expedience of interviewing staff compared to interviewing patients. From a research point of view this can be seen as a major limitation in the study.

The tension between research and clinical practice agendas in it self is a subject of interest from a qualitative research perspective. The process of discovery and the factors that influence that process is largely ignored in a quantitative or positivist research perspective. Since the studies reported here intended to use pluralistic methodology, the failure of the researcher to keep a log of the research process can be seen as a major limitation of the studies. Researcher reflexivity suggested by Stevenson and Cooper (1997) as a means of bridging the gap or exploring the middle ground between quantitative and qualitative research could have been used here to describe the tension between research and practice agendas. If the researcher kept a log or a reflexive journal (Lincoln and Guba, 1985), it would have provided a narrative on the process of conducting the studies and how the conflicting priorities and tensions were resolved or accommodated, and would lend it self to external scrutiny. This would have helped to place the studies in context.

A number of alternative approaches could have been adopted in carrying out this research. One approach of resolving the service need vs research tension would have been to develop a service relevant outcome measurement instrument, taking into consideration recent development in the field. This alternative would have had greater resource implications and would have produced another measure into the field

with limitations of generalisability. Such a measure would also have limited utility in comparative outcome evaluation.

Another approach that could have been adopted was to use a parallel measure. This approach would have particularly enhanced the validation of the PDOQ. The ASI was used to cross-validate the OTI (Darke, et al., 1992). The choice of hard outcome measures selected for the study (Urinalysis and level of methadone) and case note analysis failed to unequivocally validate the PDOQ. Not using a parallel outcome measure in the validation process can be seen as a major limitation in the PDOQ study. Future validation of the PDOQ should take this into consideration.

Other limitations in each study are outlined below.

#### **A) Expectations measure**

The items of the expectations measure was developed from a qualitative study of expectations of methadone treatment (Dale, Jones and Power, 1992). The rationale used was to develop measures from client descriptions that would have salience with a clinical population. This method was preferred to a method whereby questionnaires are developed by generating a large number of items and then scaling the measure down by item analysis. The development of the measure may have benefited from using both approaches. There was confusion with regards to expectations of treatment and expectations of methadone. This is an unique problem dealing with opiate users where treatment may to some mean methadone. It may be necessary to



clearly differentiate between methadone and other aspects of treatment by clearly defining what is meant by treatment. This may explain the failure to find predictive validity of the instrument. Defining treatment in a service such as the one in which the study was carried out may not be an easy task. A client may receive a number of inputs from the service that may be seen as "treatment". These may include both chemical and psychological interventions. An input may not be discrete and clearly definable. For example, the milieu in which the treatment is carried out including the "atmosphere" in the waiting room can be seen as a treatment input that the client receives. Treatment that a client receives may not be stable or fixed and may have a dynamic quality dependant on the clients behaviour. A possible solution would be to give broad descriptions or vignettes of treatments such as counselling, group work and variable prescription of substitute drugs for the purpose of measuring expectations prior to such measures are taken. The number of participants used in testing the psychometric properties of the scale and the outcome study can also be seen as limitations. Future research on the measure should be carried out on larger samples. The validation of the expectations measure in terms of outcome is also limited by the fact that outcome was only looked at in a three month period. Longer-term follow up studies are needed to test predictive validity of such a measure. Further research into the construct of expectations as a predictor of outcome in addictions should look at different addictions. Comparative studies with the same measure may establish whether expectations of treatment of opiate addicts are different from treatment expectations of addiction to other drugs or problem drinkers.

## **B) Validation of the OTI**

The study involving the validation of the OTI was greatly limited by the small number of participants recruited for phase II of the study. The organisational changes within the service and the resulting de-stability of the treatment programmes meant that not only was intended evaluation of the two interim methadone programmes not possible, but sufficient number of participants could not be recruited to the study in general. This may be taken as a typical example of problems encountered in action research. The small numbers meant that it was not possible to validate the sensitivity to change of the OTI measures and carry out the intended validation of the predictor measures. The lack of British norms for the OTI is still an issue. The modification to the OTI that were made as a result of phase I of the study needs to be looked at to establish whether it has resulted in any changes to the psychometric properties of the OTI. This can only be done with a sufficiently large number of participants. The results of phases I and III of the study clearly indicated that the OTI was not suitable for use with a British population without modification. The failure of the present study to validate the measure with the changes means that this work needs to be done before it can be recommended for use with a British population. Given the practical difficulties of carrying out a validation of this measure in a single service, it is suggested that a consensus is reached by clinicians interested in using the OTI in Britain (Wilkes and Armstrong, 1996) with regard to the modifications, in consultation with the developers of the measure (Darke et al., 1991) and then carrying out a multi-centre small scale validation of the instrument so as to pool the data collected.



### **C) The PDOQ study**

This study too was limited by organisational difficulties within the service, although the intended number of participants were recruited to the study. The difficulties in the service meant that the recruitment phase took longer than intended and the follow-up period of the study had to be reduced from six to three months. A six month follow-up period may have clarified the sensitivity problem of the PDOQ and this enabled more firmer conclusions about the validity of the predictor measures.

Further validation work on the PDOQ should involve larger numbers and a longer follow-up period, ideally a year to 18 months.

The staff feed-back aspects of the study could be criticised on the grounds that staff may have shown reticence to express their views as the researcher was a senior member of staff working in the service. The results do not indicate a reticence on the part of the staff to express their feelings about outcome measurement. There are clearly no indications of socially desirable answers. Further investigation of staff views by using in-depth qualitative interviews carried out by an independent researcher can be taken as a step to address this limitation. There was no discordance between the views obtained by the two methods. Carrying out only three in-depth interviews can be criticised as resulting in a biased picture. Again the themes that emerged are consistent with those expressed in testing larger samples of staff. A larger study using this methodology with staff from different units is recommended to further investigate the staff perspective on outcome measurement.



The results of the studies indicate that outcome measurement in the treatment of opiate addiction is a field that is in an early stage of development. The studies reported have identified a number of issues and areas that need further investigation. It has also in a limited way contributed to the extension of knowledge regarding the two measures investigated and factors relating to outcome measurement and prediction. It is hoped that this would contribute to larger projects that are being carried out nationally for example the NTORS study (Gossop, 1996), particularly in the areas of sensitivity of measures and staff perspectives. It is clear that success of the introduction of any national measures, will largely be dependent on the compliance of clinicians. Much work is needed to prepare the ground for such implementations within services. This has to be an urgent priority. The predictor measures, although of limited utility in predicting outcome, revealed a number of interesting interrelationships that need to be investigated more closely. Further development of these measures and further investigation into how they operate has the potential of illuminating the 'process' of treatment and 'behaviour change'.

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## SECTION C

### 6.1 Background

During the last two decades psychology has experienced significant developments and a greater single contribution to the field of prevention and substance misuse (Parker, 1992). It has led the way towards changing the way of conceptualising health care from a disease-oriented approach to a global health-oriented approach. The contributions made by psychologists have not only had a strong influence in the workplace (for example, Grossop, 1987; Lambert, 1985; Sutherland and Robertson, 1989; Puchalska and DiClemente, 1988) but also upon the areas of prevention, education, training and research. Key examples of this include, assessment of anxiety (Grossop, et al., 1985; McLellan, et al., 1988; Sutherland, et al., 1987), the development of self-help materials (Miller, 1983), relapse prevention (Parker, 1985; Sutherland and Gordon, 1985) and controlled drinking (Glick, 1989; Sutherland and Gordon, 1989; Sobel and Sobel, 1979).

Examining the impact psychology has had in the field of drug use in the United Kingdom it is, at least, relatively easy to identify psychologists' impact on both the research and practice in the field (Sutherland, et al., 1991). This is apparent from several reports from the British Psychological Society (1982) regarding the prevention and treatment of drug use, psychology can play in the areas of (1) 1982, 1984, 1987).

## **Chapter 6    Development and evaluation of a new model of psychology service provision for drug users**

### **6.1            Background**

During the last two decades psychology, as a discipline, has undoubtedly made the greatest single contribution to the field of addiction and substance misuse (Orford, 1992). It has led the move towards changing the key conceptualisation within the field from a disease-orientated approach to a global 'biopsychosocial' approach. The contributions made by psychologists have not only had a major influence in the conceptual sphere (for example, Gossop, 1989; Orford, 1985; Heather and Robertson, 1985; Prochaska and DiClemente, 1983) but also span the areas of prevention, treatment, training and research. Key examples of this include, assessment of severity (Gossop, et al., 1995; McLellan, et al., 1980; Sutherland, et al., 1987), motivational interviewing (Miller, 1983), relapse prevention (Annis, 1986; Marlatt and Gordon, 1985) and controlled drinking (Booth, 1990; Heather and Robertson, 1985; Sobel and Sobel, 1976).

Considering the impact psychology has had in the field at large, in the United Kingdom at least, relatively few clinical psychologists appear to make the choice of working in the field (Sutherland, et al., 1992). This is despite two seminal reports from the British Psychological Society (BPS) outlining the potential contribution and roles psychologists can play in the area (BPS, 1984, 1989).



A recent survey in the West Midlands showed that out of a total of 188 qualified psychologists only 3.9 WTE (2%) worked in area of substance misuse (Sutherland, et al., 1992). A number of hypotheses might be put forward to explain this. The general negativism that exists about individual's with addiction problems as a result of mass media reports of addictions emerging from the skewed portrayal of addictive behaviours in the media colouring public attitude towards the field, could influence decisions of individuals from various professions to enter the field. Recruitment problems are similar for other professional groups including nursing, medical, social work and occupational therapy professions as well as for psychology. Higher grading, faster promotion and specialist status are some of the strategies that have been used by the professions to attract staff to work in this area.

Another factor that has undoubtedly deterred psychologists making the choice of working in the field is what might be called the 'generic worker' problem. Multidisciplinary teams developed an ethos of equality and a flattened hierarchy in the early 1980's. The introduction of multidisciplinary teams was a result of the acceptance of holistic care or the concept of treating the patient as a 'whole person', the application of a 'biopsychosocial' framework to patient care. In many areas, addictions being a good example, this was a move away from the disease or medical model of working. Nevertheless, the teams were largely led by the medical profession, usually a medical consultant. The vestiges of the old medical hierarchy undoubtedly prevailed resulting in a backlash (particularly by the nursing profession) aimed at flattening the hierarchy and shifting power. Perhaps some held the ideals of a democratic socialist model for running of the multidisciplinary teams. In Substance Misuse Services a strong culture of flattened hierarchy and generic 'drugs

worker' or 'alcohol worker' emerged: the power structure in some teams had changed. The focus of power had shifted from the medical to the nursing profession, the fact that the latter were the largest group in teams some times contributing to this. In non- NHS voluntary sector teams, inclusion of non-professionals in teams as drugs or alcohol workers also contributed to the consolidation of the generic worker culture. A paradoxical situation emerged where multidisciplinary teams (by definition offering different specialist skilled professional input to the patients) were unable to function as such, because of the demand to fulfill the generic function first. A relatively new and small professional group such as psychology with very specific skills found it particularly hard to make appropriate contributions to patient care and to develop within such an environment. Whilst other fields where psychologists skills were valued and sought after were opening up rapidly, and with no shortage of jobs, addiction services were less than attractive for psychologists to enter.

The third factor that may have contributed to clinical psychologists not choosing to work in addictions is the failure of the profession to promote this area in undergraduate psychology courses and postgraduate training courses. Psychologists who were working in the area are partially responsible for this. Despite the enormous contribution that was mentioned earlier made by psychologists in the field, the real potential for the application of the science of psychology in this area remains untapped. Unless this is communicated to students of psychology at undergraduate and postgraduate level by psychologists in this area who possess strategic thinking, this potential will be long time in being realised.



Clinical psychologists who worked in Substance Misuse Services have tended to work in isolation from each other and from other clinical psychologists. This appears to reflect the invisibility of the client group they were working with. Apart from small informal networks, attempts to form a stronger national network were not successful until 1993. Poor networking and organisation among clinical psychologists working in addictions can be suggested as another factor that has contributed to the failure of recruitment and development of the speciality within the profession in the United Kingdom. The Society for the Study of Addiction, the foremost grouping of professionals in the area, has a membership largely comprising of psychiatrists and physicians with a few notable academic psychologists as active members. The nursing profession formed the Association of Nurses in Substance Abuse (ANSA) which has been thriving for the past ten years. The latter has undoubtedly contributed to making the speciality more attractive to nurses and the development of skills and a knowledge base in addiction within the nursing profession.

### **6.1.2 The BPS Special Interest Group in Addictions (PSIGA)**

The future for clinical psychology in the area of addictions now looks more promising. A critical mass of enthusiastic clinical psychologists managed to form an informal network and work towards the formation of a special interest group within the Division of Clinical Psychology of BPS in 1994. It is encouraging that the newly formed Special Interest Group in Addictions (PSIGA) has, within a very short period of time acquired a membership of over 60 and has had a very successful first conference. This buoyancy of clinical psychologists in addictions has to be capitalised.



This group has its work cut out. There is a tremendous amount of work that can be done to address the gaps in the three areas mentioned above. Having a group of expert clinicians from the BPS to direct its media inquiries (particularly when there are sensationalised negative media reports) more pro-active promotion of the scope of the real nature of addictions and ways of getting the message across for example consultation to drama programmes and emphasising the scope of psychological input in this area.

The nature of multidisciplinary teams is changing at present to a more skills-based approach. In this period of transition the Special Interest Group can act as a resource body and a focus of support for those clinicians who are in the process of negotiating their roles in teams. This it-self is a critical function and the present paper provides a model for service provision that was developed in one of the foremost drug treatment centres in the country.

In the area of training the special interest group can provide a forum for educators or create a sub-committee that would advise the BPS and the universities in the development of curricula for undergraduate psychology courses and postgraduate training courses in clinical and counselling psychology. It can also advise the BPS Division of Clinical Psychology on Continuing Professional Development (CPD) needs in this area for qualified clinical psychologists.

In addition to filling the gaps in the areas mentioned above, having a Special Interest Group for psychologists in this area provides the opportunity to give co-ordinated responses to important government documents such as the recent "Tackling Drugs

Together" (1995) and also permits response to changes and new developments in the NHS. It can provide the forum for wide-ranging consultation on changes in the NHS and provide guidelines to its members and to relevant bodies within the NHS. Guidelines for Purchasing Clinical Psychology Services in Addictions (BPS, 1997) is an example of such a document, being prepared by the group and is expected to have a significant impact on shaping psychology service provision in this area.

There is a need for similar documents to be developed in the areas of clinical audit, clinical effectiveness, developments in conceptual models, directions for research and relationships with other disciplines. The present paper attempts to sketch an outline for future direction for work in the above areas.

### **6.1.3 The BPS and the Division of Clinical Psychology**

The British Psychological Society (BPS) is the professional body and umbrella organisation for psychologists in the UK. Its present structure consists of Divisions for professional groupings, for example Clinical, Occupational, and Educational, and the various functional demands on the organisation are carried out by groupings of voluntary elected officials, for example the professional affairs board and the scientific affairs board. There are few full time paid officials in the organisation. The special interest groups are linked to the various Divisions. The BPS has a part time advisor to the department of health.

In the field of addictions, professional bodies have produced excellent reports that have had considerable influence in the area. The report by the Royal College of

Psychiatrists on alcohol (Alcohol Our Favourite Drug, 1986), the report on drug use ('Drug Scenes', 1987) and the report by the Royal College of Physicians on alcohol use ('A Great and Growing Evil: the medical consequences of alcohol abuse, 1987). The BPS, although less influential, also produced two excellent reports entitled Alcohol Use (BPS, 1984) and Substance Misuse (BPS, 1989). These reports are now rather dated and it is perhaps time for the BPS to commission new reports in the area with the help of the special interest group. In this they may also have to look at its sister organisations in the USA the American Psychological Association (APA) and in Europe for guidance. It must also be stated that psychologists on the whole have been slow at adopting the recommendations of these reports, particularly the report on substance misuse.

The Management Advisory Service report (MAS, 1989) on clinical psychology was an important milestone for the profession and has to be mentioned in the context of BPS and DCP. This was a critical evaluation of the profession by independent management consultants commissioned by the Department of Health. This report not only gave a glowing endorsement of the profession and the contribution it has to make in the area of health care, it also provided a structure for clinical psychology input in health care settings by outlining levels of skills in psychological work. The model for psychology service provision in addictions presented in this paper is based on the MAS model of psychology service provision.



#### 6.1.4 The NHS context

It is difficult to present a developmental model of psychology service provision without a brief sketch of the changes that have taken place in the NHS during the past 17 years. The NHS reforms and the numerous organisational changes have had a considerable impact on how each profession provides patient care and particularly how professions relate to each other. Some of the problems of multidisciplinary teams and its effect on psychology service provision in the 80's were alluded to earlier on in this chapter.

Reorganisations continuing apace in many Trusts up and down the country, the relationships between the professions continue to be a critical factor in defining service provision or the role of a particular profession such as clinical psychology within a treatment setting. The internal market was introduced in 1989 and even the most fierce critic of the purchaser / provider split will acknowledge some positive aspects to it. Indeed the new Labour government have indicated that they will maintain aspects of the purchaser provider split. The contracting process can be argued to have many positive aspects to it and it has provided professions such as psychology with an opportunity to deliver its services more effectively. Service level agreements (SLA's) provided an excellent opportunity to specify what psychologists can do in a particular service and the volume of work it intends to carry out for example the number of patients to be seen (Ovretveit, 1992). In the case of Substances Misuse Services and other services where psychologists were immersed in the generic worker debate this provided an excellent opportunity to specify 'skills' and 'roles' within teams. The 'Quality' aspects of the contracting process also

offered a number of positive 'spin-offs' for psychology. Services needed to carry out systematic and regular service evaluations, audits and patient satisfaction surveys as part of standards demanded by purchasers. Psychologists acquire the skills and expertise to carry out these activities as part of their core training. In many services and teams these skills that psychologists possessed became much valued and sought after. Despite fears of the potential danger of purchasers deciding not to purchase psychology (for reasons for example of high cost), so far it appears to have had the opposite effect. The principle of multidisciplinary input appears to be carried out to the letter and so far it has had the effect of consolidating, and in some services expanding, psychology services. The contracting process with service level agreements also enables psychology to be provided as an independent service both within and without services and teams. The internal market also demanded that multidisciplinary teams were truly multidisciplinary, if one service was and another service competing for the contract was not, then the latter is less likely to get the contract.

## **6.2 The model developed at the Camden & Islington Drugs Service**

The Camden & Islington Drugs Service was opened in 1968 and was one of the first services of its kind in the country. It has pioneered many developments in service provision in the U.K. and its history parallels the history of treatment of drug users in the country. Situated in an inner city area in London it is also one of the largest services for substance users in the U.K. The current structure of the Drugs Service has four distinct sections to it:



- i) The Hampstead Road Centre (HRC) the main outpatient service which was previously the Drug Dependency Unit (DDU).
- ii) The Community Health and Drugs Service (CHADS) which is a community service concentrating mainly on shared care with G.P.'s,
- iii) The Primary Care Unit (PCU) which provides a G.P. facilities for drug users.
- iv) The Needle Exchange which focus mainly on reducing harm from intra-venous drug use.

The present chapter describes the development of a psychology service in the above service. It describes the principles, the theoretical underpinnings, the process of negotiation involved, and the evaluation of the service. It is presented in an generalised form and it is hoped that it would be useful for other Substance Misuse Services in the UK trying to develop or purchase clinical psychology services. The outline of the specification developed here for the purpose of service level agreements forms the basis of the specifications included in the Guidelines for Purchases Developed by the BPS Special Interest Group in Addictions (BPS, 1997).

### **6.2.1 Theoretical underpinnings**

In the field of addictions aetiological conceptualisations and much of treatment rationales are psychological. In the area of substance misuse, medical and chemical treatment such as detoxification, substitute prescription (with the exception of



maintenance treatment), antagonist treatment (for example, Antabuse, Naltraxone) and anti-depressant treatment are seen as a prelude to psychological interventions. Psychological interventions or therapies are seen as the mainstay of substance misuse treatment. This factor will be taken as the main tenet of the argument for clinical psychologists to play a more central role in substance misuse and addiction treatment services in this chapter. In the UK the goals of treatment for substance misuse have become much broader over the last decade or so compared to the traditional abstinence-only approach which appears to be still dominant in the USA. Alcohol treatment services have accommodated controlled drinking (Heather and Robertson, 1985; Sobel and Sobel, 1976). Drug treatment centres in varying degrees have accommodated the 'harm reduction' directive (ACMD, 1988, 1989) in the wake of the HIV epidemic. The Twelve Step movement (Wells, 1991) with its abstinence philosophy continues as a parallel and complementary service offering psychosocial help (while subscribing to a disease model) to the statutory and voluntary sector treatment centres. The move away from abstinence as the only goal has not reduced the emphasis on psychological treatments, on the contrary it has increased its scope. A recent report by the Task Force set up by the Department of Health to review treatment of drug users emphasised the importance of psychological factors in drug dependence and the need for structured counselling approaches..... (Task Force to Review Services for Drug Misusers, 1996).

### **6.2.3 The Management Advisory Service (MAS) report**

In the health service psychological work forms the main part of treatment offered to patients. A number of professionals, psychiatrists, physicians, general practitioners,

general nurses, psychiatric nurses, occupational therapists, psychotherapists, counsellors and psychologists to name a few carry out this work. The Man Power Advisory Group (MPAG) of the Department of Health which carried out an evaluation of psychological work in the health service, identified three levels at which psychological work was carried out.

**Level 1:** basic skills in establishing and maintaining relationships, simple and often intuitive techniques of counselling and stress management.

**Level 2:** undertaking circumscribed psychological activities e.g. behaviour modification - may be defined by protocol.

**Level 3:** a thorough understanding of varied and complex psychological theories and the ability to apply these to new problems to generate interventions.

The review concluded that almost all healthcare workers use level 1 and level 2 skills. Only psychologists as a professional group have level 3 skills as a result of their core training, compared to other professional groups in the NHS (MAS report on Clinical Psychology, 1989). It must be added here that individuals from other professional groups can develop level 3 skills by further training for example psychotherapy training, advanced training in counselling such as Diploma courses and Masters courses.

The MPAG review (MAS Report, 1989) describes psychologists working at three levels.

- i) Individual
- ii) Family
- iii) Organisational levels

The work would involve direct and indirect clinical work, consultation, supervision, input to multidisciplinary meetings, teaching and research. This forms the basis of any Job Description in a psychology department. Depending on the speciality, area of work or setting this can be elaborated to describe what psychologists can do (Harris and Wanigaratne, 1995).

#### **6.2.4 Models for interventions in addictions**

New conceptualisations and models with interventions for addiction problems have emerged in recent years. The step care approach (Sobel and Sobel, 1995) and matching hypothesis (Marlatt, 1995) have been particularly utilised in developing the model of intervention that underpins the service provision specification developed. The matching hypothesis is schematically presented as a spectrum of intervention responses in figure 6.1.



MODEL FOR INTERVENTIONS FOR ADDICTIONS

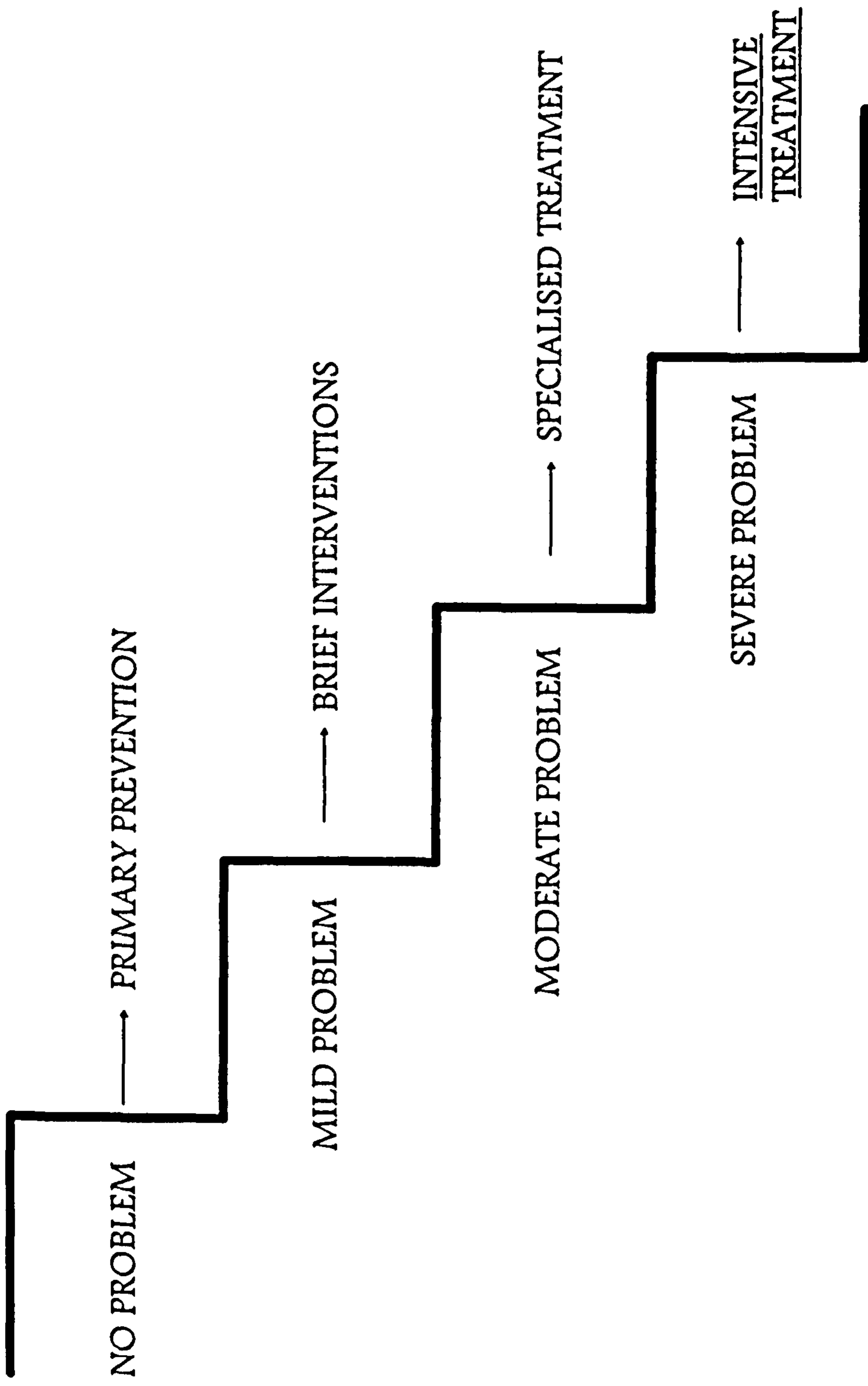


FIGURE 6.1 SPECTRUM OF INTERVENTION FOR SUBSTANCE MISUSE

STEPPED CARE MODEL FOR TREATMENT OF SUBSTANCE MISUSE PROBLEMS

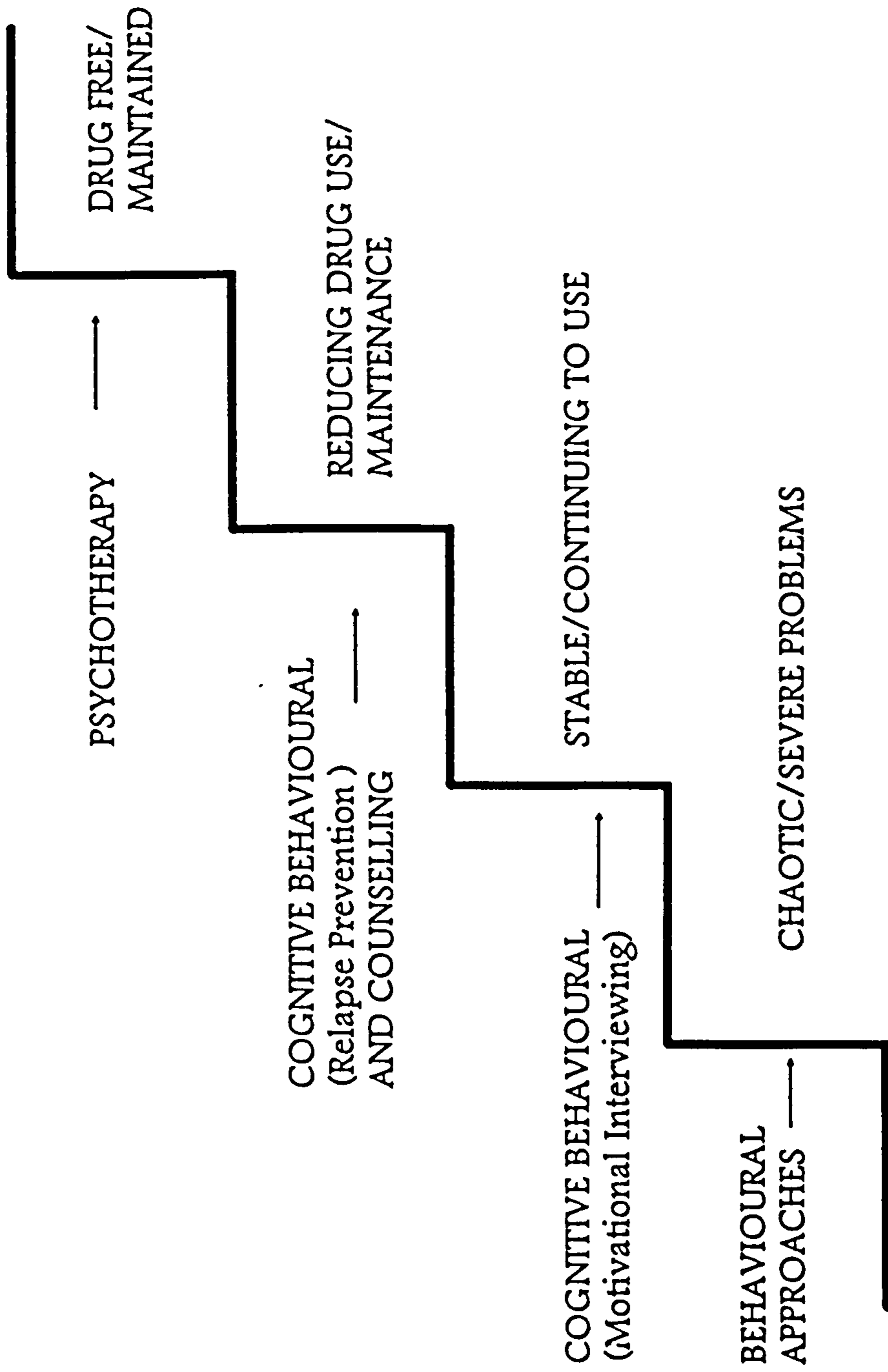


FIGURE 6.2 INTEGRATIVE STEPPED CARE MODEL

A stepped care model for treatment of substance misuse problems are schematically presented in figure 6.2. The steps in the above model could also overlap with the Stages of Change described by Prochaska and DiClemente (1983). However targeting treatment approaches in the above fashion (although appears to be obvious, simple and logical) is far from common practice in addiction treatment settings.

The tradition in many treatment settings for psychological interventions are underpinned by assumptions based on psychodynamic approaches. Abstinence or 'cure' from substance dependence was achieved through the therapeutic 'relationship' with the substance misuse worker or counsellor. Psychodynamic work, from this perspective was attempted from the entry point to a service (bottom of the gradient in figure 6.2). A critique of this approach will be presented later in this paper. It is sufficient to state here that the flexibility and targeting of interventions that the model presents above (figure 6.2) is not allowed for within the traditional approach.

#### **6.2.5 The Advisory Council on the Misuse of Drugs (ACMD) reports (1988, 1989)**

After the publication of the 1988 ACMD report, huge demands were placed on Drugs Services in Britain to increase the numbers receiving interventions. The threshold for entry into treatment had to be lowered and more flexible approaches had to be developed. The increasing awareness of the extent and consequences of alcohol problems has placed similar demands on Alcohol Services. The model



described above (figure 6.2) was developed and has evolved as a response to new demands, assimilating new theoretical developments in the field of addictions. The scope of this approach is immense. It can provide a framework for evaluation of interventions with discrete parameters for outcome measurement; it can provide the basis for effective utilisation of human resources within a treatment setting by using appropriate skills for appropriate levels of interventions; it can help set targets for professional skills development; it enables the provision of treatment choice and options for patients; it can set out clear parameters for assessment process; it can give clarity to multidisciplinary input to the service; it has major implication for research and audit.

The development and evaluation of a clinical psychology service in a busy London inner city Drugs Service based on the above models and the reports described above is presented below as a case study.

## **6.3 Development of the new model**

### **6.3.1 The process**

Initially a skeleton structure for ideal psychology service provision based on the models and reports described above and the perceived needs of the Drugs Service was developed. The psychology team had a number of brainstorming sessions to decide the content of the service specification. This was then translated into a draft specification that was worked upon by the psychology team and the head of mental health psychology who was the next line manager. The psychology team

met on a number of occasions to discuss the drafts and a final version of the service specification was agreed.

The head of the psychology team presented the final draft of the specification to the manager of the Drugs Service. The manager of the Drugs Service discussed the specification with the director of the Trust responsible for the Drugs Service and accepted the specification with few modifications. Both the manager and the director indicated that they would like the **Service Specification** translated to a **Service Level Agreement (SLA)**. The philosophy of the new psychology service, the specifications for the services (appendix C) and a SLA was presented to the Drugs Service management team, comprising of consultant psychiatrists, a senior nurse, co-ordinators of the various parts of the service and the head of psychology. The management team accepted the specifications on the basis that it would be reviewed after a year.

The members of the psychology team presented the philosophy of the service, the specifications and the outline of the SLA to the different teams within which they worked.

The psychology service was then delivered to the Drugs Services on the basis of the specification and the service level agreement for a period of a year prior to evaluation and review.

### **6.3.2 The philosophy of the new psychology service**

The philosophy of the new psychology service was outlined as follows:

- i) To provide a high quality clinical psychology service based on a broad theoretical perspective to both clients & staff of the Drugs Service.
- ii) To provide a service as an independent team within the Drugs Service.
- iii) The fundamental principle (and the basis of the specification) was psychologists moving away from doing generic work towards specialised work by providing an input to the service based on the unique core skills of psychologists.
- iv) Direct clinical work will be the major priority of this service and will include both assessment and treatment.
- v) The clients having the “choice” to receive psychological treatment is the fundamental basis of receiving interventions. This means that clients with a ‘key-worker’ and on substitute prescription provided by the service or a G.P. will decide to have psychological treatment with the full understanding that if he/she decides not to continue with the treatment, this will not jeopardise the prescription or the key-worker relationship. Similarly when treatment is terminated at the end of a contract with the psychologist, the client will continue with other inputs from the service.



- vi) This model of working means that only under exceptional circumstances would a psychologist 'key-work' and provide prescriptions for patients.
- vii) Psychological work should be clearly defined and separated from other inputs a client receives from the service.

### **6.3.3 The service specifications**

The structure and an outline of the service specifications are presented below, a more detailed description of specified activities in each category can be found in Appendix (C).

#### **A) Clinical service provision**

- i) Assessment
- ii) Treatment
- iii) Supervision
- iv) Consultation

#### **B) Service development**

#### **C) Research and evaluation**

#### **D) Teaching**

#### **E) Staffing levels**

**F) Quality of the service**

**6.3.4 Service level agreement**

The service level agreement based on the above specification is outlined in Table 6.1.

**Table 6.1 The level of clinical psychology service provision for Camden and Islington Drugs Service**

	Type of Activity	No. of Sessions	Description
1	Assessment	3	Multidisciplinary meetings
		2	Assessment for psychological
2	Treatment	10	Specific psychological interventions
3	Supervision	3	Clinical supervision
4	Consultation	1	
5	Service Development	1	General management
		1	Development of assessment systems
		2	Service for Stimulant users
6	Research & Service	2	Research
	Evaluation	1	Audit
7	Teaching	1	
8	Continuing Professional Development	3	
	Total	30	Sessions per week

## **6.4 Evaluation of the service**

The service was evaluated in the following six ways at the end of the review period of one year.

- i) Delivery of each aspect of the specification.
- ii) The quantity of referrals and the analysis of the types of referral.
- iii) Audit of waiting times and number of sessions for an assessment or episode of care.
- iv) Informal and formal feed-back from the co-ordinators of each part of the Drugs Service and management team.
- v) Feed-back from clients.
- vi) Job satisfaction of the psychologists.

### **6.4.1 Delivery of each aspect of the specification**

#### **A) Method**

This was carried out by an audit of the work done during the year and a review meeting of the psychology team.



## **B) Results**

The audit and the review of the work done revealed that the team had delivered on every aspect of the specification and exceeded the specification in many areas.

The only service not delivered was the input in the area of psychotherapy. This was due to the psychotherapist, who was part of the psychology team and provided 3 sessions, leaving the team. The number of referrals to psychology increased by 92%. The expansion of the psychology team during the year was also an outcome of the new service and also contributed to the increase in the referral rate.

Indirect clinical work in the form of consultations and supervision also had increased substantially the review process identified the need for careful audit of this work. Unlike referrals, this input was not clearly documented.

### **6.4.2 The quantity of referrals and the analysis of the types of referral**

#### **A) Method**

An audit was carried out on the referrals by analysing the referral forms and the referral book kept by the psychologists.

#### **B) Results**

The number of referrals to the psychology team had increased from 69 referrals in the previous year to 129 referrals.

The analysis of the referral according to the type of problem stated in the referral

form or letter is shown in Table 6.2. below.

**Table 6.2 Referral to the psychology service**

Type of problem	Percentage
Adjustment to HIV	2%
Aggression	10%
Anxiety	7%
Anxiety/Depression	6%
Behavioural difficulties	1%
Bulimia	1%
Depression	21%
Munchausen Syndrome	1%
Neurological Assessment	2%
Obsessive Compulsive Disorder	1%
Pain Management	1%
Paranoia	2%
Post Traumatic Stress Disorder	2%
Rape	2%
Relapse Prevention	20%
Self Harm	4%
Sexual Abuse	1%
Stimulant use	13%

The problem categories reveal the appropriateness of the referrals for psychological intervention and the utilisation of the skills of the psychologists.

#### **6.4.3 Audit of waiting times and number of sessions for an assessment or episode of care**

##### **A) Method**

The audit was carried out by devising a template (appendix C) and analysing the psychologists referral book and case notes according to the template.

## **B) Results**

- i) Waiting times (referral date to first appointment) = 14.6 days (range 1 - 28).**
- ii) Number of sessions for assessments = 3.6 sessions (range 1 - 7).**
- iii) Number of sessions for discrete interventions = 8.3 sessions (range 4 - 20).**

### **6.4.4 Informal and formal feed-back from the co-ordinators of each part of the Drugs Service and management team**

#### **A) Method**

A simple questionnaire was devised to obtain qualitative responses and sent to the co-ordinators of each part of the service and the head of the psychology service met with each of them to discuss the service (appendix C).

#### **B) Results**

The feed-back from the meetings is summarised as follows:

Very high satisfaction with service received from psychology in general.

Two out of the three parts of the service wanted more input from



psychology. In these parts of the service it was felt that the demands of the service was not met.

Co-ordinators of two parts of the service felt that there were tensions among other members of the multidisciplinary team about psychologists not doing generic work. This was not felt to be wholly unhealthy and it brought out issues in the service that needed to be addressed. It was clearly felt that there was a better use of psychology than in the old model.

The model of separation of psychological work from substitute prescribing work was having a positive knock-on effect on the service provision in the clinic as a whole. More key-workers were beginning to work behaviourally and were having brief monitoring sessions with patients, rather than longer 'counselling sessions', with patients who were thought to be not ready for psychological work.

In terms of changes to the psychology provision, the co-ordinators wanted psychologists to be based more within the different services rather than operate in a central manner across the services. This view was also combined with a call for more psychology sessions. The community arm of the service (CHADS) wanted psychologists to move away from the central site and provide a service from community settings (for example G.P. practices) and also take a lead in evaluating developments in the community for example 'G.P. shared care'.

Other comments from the co-ordinators included an appreciation of the feed-back received from the psychologists following assessments and about on going work. There was much positive feed-back about the usefulness of consultation with psychologists and the clinical supervision received from psychologists.

#### **6.4.5 Feed-back from clients**

##### **A) Method**

A patient satisfaction survey was carried out in the service and was led by members of the psychology team but did not include a specific question about the psychology service. Instead there was a general question about satisfaction with counselling received at the service.

The patient satisfaction information was obtained from clinical supervision, peer review meetings and from psychology team meetings.

##### **B) Results**

The single item in the general satisfaction survey carried out across the service showed a 73% satisfaction level (clients rating the service fair & excellent) with counselling. Not all clients participating in the survey would have been referred to a psychologist.

The anecdotal feed-back from clients directly to the psychologists and to their key workers indicated a high level of satisfaction with the sessions with psychologists. Clients appear to exercise choice to have sessions with psychologists by indicating that they wish not to continue with sessions or by dropping out. Some clients re-referred themselves after dropping out of treatment. The feed-back also indicated that, although it was very clearly explained to them that their Methadone prescription was not conditional upon continued attendance to see a psychologist, there was much anxiety about jeopardising their prescription. This indicated that old expectations of treatment may take some time to change.

#### **6.4.6 Job satisfaction of the psychologists**

##### **A) Method**

This information was obtained from clinical supervision sessions, peer review meetings and psychology team meetings.

##### **B) Results**

Qualitative information obtained revealed an increasing sense of job satisfaction among the psychology team. This centred around a number of factors:

- i) Clarity of role.
- ii) Ability to use core skills of a psychologist.



- iii) Not getting caught up in the trap of patients anxiety around prescriptions and working with patients motivated to work.
- iv) Freedom to use psychological skills at an appropriate level.
- v) Scope to take the lead or be involved in innovative developments.
- vi) Scope to carry out research and support research.
- vii) Increase in the consultation role.
- viii) Increase in the demand for supervision from different professions in the multidisciplinary teams.
- ix) Being valued for their input.

#### **6.4.7 Comments on the evaluation**

A wealth of qualitative and quantitative information was obtained from the evaluation that would clearly contribute to the further development of the service. Nevertheless a number of limitations and areas for improvement of the evaluation process were identified. Examples of these are:

Inclusion of questions on the psychology service in the patient satisfaction survey.

The audit work carried out can be seen as 'pre - audit' enabling the setting up of templates and standards for audit work in the future.

Anonymous survey of all staff about the psychology service may yield more accurate feed-back.

Patient feed-back could be obtained by methods such as a 'focus group' of patients seen by the psychologist run by an external facilitator.

#### **6.4.8 The annual report**

An annual report was produced with a summary of the evaluation of the service covering most of the above areas. This report covered details of the delivery of each item in the service specification. Copies of the report was distributed to members of the management team and staff of the Drugs Service.

#### **6.5 Discussion**

Changing ways that services are provided in treatment settings that have a history or a strong tradition is challenging. Approaching such a problem armed with conceptual models and clarity of priorities dictated by contemporary demands may prove to be advantages. The new model for clinical psychology service provision for the Drugs Service was developed by synthesising recent theoretical developments in psychology, professional developments in clinical psychology, National developments in health care provision and perceived demands of the

Drugs Service in particular. The approach was a 'holistic' or a 'systemic' one with the drug user and his/her family at the centre and with the Drugs Service as an organisation, the national context of substance misuse and service provision and the international context nested around them. If a 'systems' view is taken, then any change to part of the system has implications for the whole system (Bateson, 1979, Bor, et al., 1988). The model of service provision will be discussed here looking at its implications in a wider context.

The evaluation of the new model of service provision discussed above clearly indicated that it was an outstanding success in all of the parameters set for its evaluation. The immediate objectives for its development and the objectives of the service it was developed for appears to have been clearly met. It is perhaps more important to go beyond the immediate objectives to look at the wider context or the 'ripple effects'. Taking the view that services are co-evolutionary, the evolution of the psychology service should have knock on effects on the rest of the service. The feed-back from the evaluation process is crucial to analyse the impact in the wider context. Unfortunately getting a full picture necessitates going into the evaluation in great detail for which there is no scope here. Therefore a few areas are selected for discussion that are considered to be particularly significant. These are:

- i) the impact of the integrated step model for psychological interventions
- ii) development of interventions for stimulant users
- iii) development of the consultation role
- iv) the scope for research and evaluation



### **6.5.1 Impact of the step model for psychological interventions**

This model (figure 6.2) integrates recent theoretical developments in psychology and contemporary thinking in service provision for drug users. This model was used to underpin the direct and indirect clinical work in the service specification. This also provided the framework for assessment for psychological interventions. The 92% increase in referrals to psychology can be seen as the most salient endorsement of this model. The significant increase in consultations with psychologists regarding psychological work by other members of the multidisciplinary team is another indication of the impact of the model. The model appears to have given clarity to the service on targeting interventions and psychologists with their 'level 3' skills were taking a lead in the decision making process of providing psychological interventions within the service. The model suggests behavioural interventions for chaotic and unstable drug users and insight oriented work for abstinent or stable users. It is not uncommon to observe that in many treatment settings, insight and relationship based psychological interventions are attempted with this chaotic client group. This may account for many wasted therapy hours or loss of valuable service time. Traditionally, the model that underpinned psychological work with drug users was a psychodynamic one. Vestiges of this are still operational in services. The new model (figure 6. 2) gives scope for strategic use of different psychological models. Apart from the two indicators discussed above, the evaluation of the psychology service revealed a number of other indicators for the knock-on effect that the introduction of this model has had in the wider service. Greater increase in behavioural work and group work around behavioural change objectives, increase in the practice of

'minimal key-working' with chaotic clients by other members of the multidisciplinary team, an increase in uptake of supervision workshops on 'relapse prevention' and 'motivational interviewing', identification of training needs in the area of counselling by members of the multidisciplinary teams and enrolling in courses and overt expressions of possession or lack of skills in counselling are only some examples of this process. There is a clear indication that the introduction of the new model of psychology service provision has had the effect of moving the whole service to be more focussed on the psychological work they that they carry out. The adoption of this approach by other services in the country and its evaluation will confirm its generalisability and wider adoption as a model of service provision for Substance Misuse Services as a whole.

### **6.5.2 Development of intervention for stimulant users**

The pattern of referrals to the psychology service indicated that assessment and treatment of stimulant users made up the third largest category. This is a development that has a number of implications. Stimulant use in the U.K. is increasing with alarming trends (The National Audit of Drug Misuse in Britain: ISDD, 1992), creating an urgent need to develop services to meet this demand. The existing Drug Services are predominantly geared towards providing services for opiate users, with the focus on substitute prescribing. Despite the fact that a large proportion of patients treated are polydrug users, abusing benzodiazepines, stimulants and alcohol, the treatment focus centres around opiate use. Substitute prescription is not an accepted treatment option for stimulant use, although some services do prescribe amphetamines. Psychological interventions are the only



acceptable treatment for stimulant users. The service looked towards the psychologists to take a lead in developing services for stimulant users. In the specification this was made a major service development priority. A new programme was developed and evaluated during the period under review. This was followed by an eight session training programme for all staff in the service, run by psychologists. Assessment, treatment, consultation and supervision around the management of stimulant users has become a major area of activity for the psychology team. In the U.K. the demand to develop and provide services for stimulant users will be increasing rapidly and is an area where psychology has much to offer. Psychologists in substance misuse teams should capitalise on this in negotiating their roles. This should be an area which should be particularly highlighted in issuing guidelines for purchasers.

### **6.5.3 Development of the consultation role**

One of the most significant developments following the introduction of the new specification for the psychology service was the increase in the consultancy role of the psychologists. Areas where there were marked increases included: seeking advice and supervision on clinical matters; discussion of cases; consultations on research; evaluation and audit matters; consultations on professional and ethical issues; and management and service development issues. The clarity of role and explicit expressions of psychologists' skills may have contributed to the increased utilisation of psychologists skills in this manner. It has been suggested that the development of the 'consultants' role is of considerable importance for the future of the profession (Brunning et al., 1989; Campbell, et al., 1989). Taking into



consideration the number of psychologists working in the area of substance misuse, development of this role is crucial to maximise the impact of psychological interventions to the patient population. Being consulted about a patient, as in the case of clinical supervision, has implications in the areas of clinical and legal responsibility. Clarification of these issues are needed in a national context for further enhancement of this role.

## **6.6 Scope for research and evaluation**

During the period under review the psychologist's involvement in research activity in the service showed an enormous increase. Not only did other staff value psychologists' skills and expertise in this area, they appeared to utilise these skills very well. Psychologists in turn were able to stimulate research and audit activity in the service by providing back-up and support to other staff as well as taking the lead in a number of research areas. Within multidisciplinary teams psychologists are the only profession that have expertise in research and evaluation as part of their core skills. In the current climate these skills are much in demand and this provides another area where psychologists can obtain a clear role for themselves in teams. The research potential in the field of substance misuse is immense. Psychologists working in the area are in an unique position to exploit this and take a lead. The key areas of research in which psychologists have taken the lead in Camden & Islington can be taken as good examples these include: development of outcome measures, development of assessment instruments, compliance with treatment, evaluation of health promotion initiatives, evaluation of new treatment packages for example stimulant use, development and evaluation of information

systems, evaluation of new service developments, study of overlap between substance misuse problems and mental illness and gender differences in dependence.

In terms of future research, areas such as; neuropsychological assessment of substance misusers, cognitive behavioural treatments of borderline personality disorder (Linehan, 1993) and post traumatic stress disorder (Resick and Schnicke, 1993), study of early attachment patterns in substance misusers and application of new cognitive behavioral techniques for example Eye Movement Desensitisation and Reprocessing (Shapiro, 1995) offer much scope for psychologists to do applied clinical research.

## **6.7 Conclusions**

The model for the provision of a psychology service developed by integrating recent theoretical developments in psychology, national developments and service demands was shown to be effective in terms of overall better utilisation of psychology within the service, the general satisfaction with the psychology service and the job satisfaction of psychologists. Within an organisational context this has knock on effects in changing the clinical work and the relationships between the various professions and the general attitude towards research and the level of research activity. The positive evaluation of this model may suggest that it provides a good template to plan and develop psychology services in substance misuse settings.

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## SECTION D

### LITERATURE REVIEW



## **Chapter 7    The relationship between post traumatic stress disorder, borderline personality disorder and substance misuse**

### **7.1            Introduction**

This chapter aims to examine the definitions and diagnostic classifications of Post Traumatic Stress Disorder (PTSD), Borderline Personality Disorder (BPD) and substance misuse, and review the literature that describes a relationship between the three disorders. The central tenet of the argument presented in this chapter is that traumatic experience is the common aetiological factor in the three diagnostic categories discussed. The main moot point is whether they share a common pathological pathway or are they aspects of the same syndrome, 'a post traumatic syndrome'? Examining the literature as to how the diagnostic criteria for PTSD have evolved, is an essential first step. Hypothetical models that attempt to explain the links are presented. The implications of these models for treatment are also examined.

#### **7.1.1        Definitions**

Diagnostic or classification systems are not perfect and in general, they are dynamic and are in a state of evolution. This process is particularly salient in psychiatry. There are two major systems of classification in the world today: the World Health Organisation (WHO) International Classification of Diseases (ICD-10, 1992) of mental and behavioural disorders; and the American Diagnostic and Statistical Manual (DSM-IV, 1994). Whilst these two systems are becoming

closer to each other there are still important differences. The position of a particular disease or a syndrome in a classification system, could be as much to do with its natural history and the phenomenology as politics and majority opinions of committees that are appointed to decide on them. This gives rise to equivocal and controversial classifications and definitions. The three areas under consideration in this chapter particularly fall in the debatable fringe area. It is therefore necessary to outline the current definitions in both classification systems and also briefly sketch the evolution of the concepts within each system.

## **7.2 Post traumatic stress disorder (PTSD)**

### **7.2.1 ICD-10 (1992) definition**

PTSD is defined as a delayed and/or protracted response to a stressful event or situation (either short- or long-lasting) of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone (e.g. natural or man-made disaster, combat, serious accident, witnessing the violent death of others, or being the victim of torture, terrorism, rape, or other crime).

Typical symptoms include episodes of repeated reliving of the trauma in intrusive memories ("flashbacks") or dreams, occurring against the persisting background of a sense of "numbness" and emotional blunting, detachment from other people, unresponsiveness to surroundings, anhedonia, and avoidance of activities and situations reminiscent of the trauma. Commonly there is fear and avoidance of

cues that remind the sufferer of the original trauma. Rarely, there may be dramatic acute bursts of fear, panic or aggression triggered by stimuli arousing a sudden recollection and/or re-enactment of the trauma or of the original reaction to it.

There is usually a state of autonomic hyperarousal with hypervigilance, an enhanced startle reaction, and insomnia. Anxiety and depression are commonly associated with the above symptoms and signs, and suicidal ideation is not infrequent. Excessive use of alcohol or drugs may be a complicating factor.

The onset follows the trauma with a latency period which may range from a few weeks to months (but rarely exceeds 6 months). The course is fluctuating but recovery can be expected in the majority of cases. In a small proportion of patients the condition may show a chronic course over many years and a transition to an enduring personality change.

### **7.2.2 DSM-IV (1994) definition**

The DSM-IV definition of PTSD is contained in axis II within anxiety disorders. The definition is similar to that of ICD-10. To receive a diagnosis of PTSD an individual must have been exposed to a traumatic event and have at least six symptoms from seventeen symptom list, categorised in the following three clusters:



a) persistent re-experiencing the traumatic event, b) persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (avoidance and numbing reactions), and c) persistent symptoms of increased physiological arousal. In addition, the symptoms also must be present for at least a month for an individual to receive a diagnosis of PTSD. A detailed DSM-IV definition is included in Appendix (D).

### **7.2.3 PTSD, the evolution of the definitions and the concepts**

In the last 25 years there has been a proliferation of interest in traumatic stress syndromes, particularly in PTSD as a diagnostic category (Wilson, 1994). The recent history of the diagnostic category of PTSD in psychiatric literature can be traced back to the appearance of **Gross Stress Reaction (GSR)** in DSM-I (1952). GSR was under a classification of **Transient Situational Personality Disorders**:

"under conditions of great or unusual stress, a normal personality may utilize established patterns of reaction to deal with overwhelming fear. The patterns of such reactions differ from those of neurosis or psychosis chiefly with respect to clinical history, reversibility of reaction, and its transient character. .... When promptly and adequately treated, the condition may clear rapidly. It is also possible that the condition may progress to one of the neurotic reactions."

The criteria goes on to state that:

"This diagnosis is justified only in situations in which the individual has been exposed to severe physical demands or extreme emotional stress, such as in combat or in civilian catastrophe."

Wilson (1994) notes that there are several criteria implied by the narrative description of DSM-I. These are: a) the condition is an acute reaction to unusual stress that resolves quickly, b) if there are prolonged or persistent reactions, an alternative diagnosis was to be considered that includes psychosis, neurosis or character disorders, and c) the belief that rapid intervention facilitates recovery. The implication of prolonged disorder that may lead to neurosis and more importantly to character disorder (personality disorder) is of particular relevance to this chapter and will be discussed later.

The PTSD equivalent diagnostic category in DSM-II (1968) was **Adjustment Reaction of Adult Life**. The interest, reflected in the development of the criteria appears to have suffered a retrograde phase during the sixteen year period between DSM-I and DSM-II. The criteria just had three examples, a) an unwanted pregnancy accompanied by depression and hostility, b) a frightened soldier in combat and c) a prisoner facing execution in a death penalty case.

It is difficult to explain the retrograde phase of academic and clinical interest in trauma and its psychological sequelae during this period. It was not that this period in history was devoid of traumatic events. Commenting on the paucity of the diagnostic criteria in DSM-II Wilson (1994) states that .... "what makes this so peculiar is that by 1968 the cumulative historical events involving war, civil

violence, nuclear warfare, etc. produced more trauma, killing, mass destruction and death in a delimited time frame than at any prior time in recorded history".

DSM-III (1980) marked a dramatic development phase in the field. PTSD emerged as a separate diagnostic category, placed among the anxiety disorders. The rationale for this being that anxiety, emotional distress and physical disequilibrium are the primary affective reactions associated with traumatisation. DSM-III, whilst seeming to rediscover the DSM-I criteria, progressed from a narrative description to a distinct diagnosis system. To receive a diagnosis an individual has to manifest at least four symptoms from a cluster of twelve.

DSM-III made a number of advances on previous diagnostic descriptions. These include, a) clarifying the role of dissociative processes (for example, flashbacks, forms of enactment), b) magnitude of the stressor can generate traumatic reactions in almost everyone, c) the concept of a continuum of symptom severity and a continuum of pathological impact. The formal official recognition of PTSD as a mental disorder had a tremendous impact on the medical-legal sphere and most importantly caused a rapid proliferation research studies with different populations of trauma victims.

DSM-III-R (1987) revised the diagnostic criteria for PTSD, taking on board findings emerging from research and clinical work. The number of diagnostic symptoms were increased to seventeen and six symptoms from three major clusters were necessary to receive a diagnosis of PTSD. The clusters included, a) forms of re-experiencing the traumatic event, b) avoidance and numbing reactions, and c)



symptoms of increased physiological arousal. In addition the symptoms also required to be present for at least a month.

DSM-IV (1994) contained minor revisions to the above criteria and is presented above. DSM-IV also introduced a new category of Acute Stress Reaction to describe abnormal immediate reactions to trauma.

The future place of PTSD in the diagnostic system is the subject of intense debate. There are suggestions that PTSD be moved from the umbrella of anxiety disorders and placed in an axis of its own, as an environmentally caused disorder. New subtypes of PTSD are also beginning to be reported in the literature and it may no longer be possible to consider it to be a single condition (Daïen and Witztum, 1994; Neal, 1994; Rosser, 1995; Thrasher et al., 1994).

### **7.3 Type I and type II trauma**

The concept of type I and II trauma that has emerged from the intense research activity in the area of PTSD during the last decade, is of particular relevance to the arguments presented in this chapter. Studies on traumatised children have revealed that single event trauma (type I) and traumatic events that were experienced over a period of time eg. sexual and physical abuse (Type II) have differential consequences for PTSD manifestation and character changes (Cole and Putnam, 1992; Finkelhor, 1990; Terr, 1991). There is a vast literature emerging, that makes causal attributions to Type II trauma and a range of mental health disorders including, dissociative disorders, personality disorders and substance

misuse (Evans and Sullivan, 1995; Shapiro, 1995; Van der Kolk, et al., 1996; Wilson and Keane, 1997). The association of type II trauma in particular, with borderline personality disorder and substance dependence is explored later in this chapter.

#### **7.4 Personality Disorders**

The definition and diagnosis of personality disorders are relatively problematic and have undergone many changes in the evolution of diagnostic systems. This situation is summarised in the introduction to the section on personality disorders in ICD-10 as follows:

"In all current psychiatric classifications, disorders of adult personality include a variety of severe problems, whose solution requires information that can come only from extensive and time-consuming investigations. The difference between observations and interpretation becomes particularly troublesome when attempts are made to write detailed guidelines or diagnostic criteria for these disorders; and the number of criteria that must be fulfilled before a diagnosis is regarded as confirmed remains an unsolved problem in the light of present knowledge. Nevertheless, the attempts that have been made to specify guidelines and criteria for this category may help to demonstrate that a new approach to the description of personality disorders is required."

DSM-IV (1994) defines a Personality Disorder as an enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment.

## **7.5 Borderline Personality Disorder (BPD)**

The current ICD and DSM diagnostic systems differ in how they deal with BPD. Whilst DSM-IV (1994) provides a very clear definition and diagnostic guidelines on BPD, ICD-10 gives it a brief mention. ICD-10 places BPD as a sub category of 'emotionally unstable personality disorders'. It appears that scientific committees that decide on diagnostic classifications outside the USA have had doubts about existing evidence for BPD. The following quote from the introduction to ICD-10 sums up this position:

"After initial hesitation, a brief description of borderline personality disorder was finally included as a sub category of emotionally unstable personality disorder, again in the hope of stimulating investigations."

This situation has resulted in increased research activity and this trend is continuing. Some aspects of new research emerging in this area are reviewed in this chapter.



## **7.5.1 ICD-10 (1992) definition**

### **A) Borderline type**

Several of the characteristics of emotional instability are present; in addition, the patient's own self-image, aims, and internal preferences (including sexual) are often unclear or disturbed. There are usually chronic feelings of emptiness. A liability to become involved in intense and unstable relationships may cause repeated emotional crises and may be associated with excessive efforts to avoid abandonment and a series of suicidal threats or acts of self-harm (although these may occur without obvious precipitant).

### **B) Emotionally unstable personality disorder**

In order to place the definition of **borderline type** in context it is necessary to give a brief outline of the definition of Emotionally unstable personality disorder. A detailed definition is included in appendix (D).

A personality disorder in which there is a marked tendency to act impulsively without consideration of the consequences, together with affective instability. The ability to plan ahead may be minimal, and outbursts of intense anger may often lead to violence or "behavioural explosions"; these are easily precipitated when impulsive acts are criticised or thwarted by others.

### **7.5.2 DSM-IV (1994) definitions**

The essential feature of Borderline Personality Disorder is a pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity that begins by early adulthood and is present in a variety of contexts.

The diagnostic criteria in DSM-IV requires the individual to have five or more symptoms from nine clusters of characteristics. These include:

- i) Efforts to avoid real or imagined abandonment,
- ii) A pattern of unstable and intense interpersonal relationships characterised by alternating between extremes of idealisation and devaluation,
- iii) Identity disturbance,
- iv) Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge-eating),
- v) Recurrent suicidal behaviour,
- vi) Affective instability due to a marked reactivity of mood,
- vii) Chronic feelings of emptiness,

- viii) Inappropriate, intense anger or difficulty controlling anger,
- ix) Transient, stress-related paranoid ideation or severe dissociative symptoms.

A more detailed definition of BPD is given in Appendix (D).

### **7.5.3 Evolution of definition of BPD**

The term borderline personality disorder first appeared in the literature in the 1930's to describe a condition that was between (or on the border of) the dichotomous classification of psychosis and neurosis (Glover, 1932; Kernberg, 1975; Rickman, 1928; Stern, 1938; Schmideberg, 1947). The term initially referred to patients whose neurotic condition was thought to mask a psychosis and those with a tendency to react negatively to analytical therapy and become dramatically regressed or suicidal. Essentially it was seen as a transitory state. The current descriptions of the borderline personality disorder moves away from the 'transitory' to one of 'persistent instability' or 'stably unstable' (DSM-IV, 1994, DSM-III-R, 1987, Schmideberg, 1959). It is observed that under highly-structured and supportive conditions the BPD may not manifest it-self but when the individual is stressed they regress and demonstrate clear disturbances in their capacity to contain and manage feelings and impulses (Sederer and Thorbeck, 1990).

Three sub-categories of borderline patients are identified by Andrulonis, et al., (1982).



Group 1 History of acting out behaviour, drug and alcohol abuse, depression, family history of affective disorder, mainly female with onset in early adolescence.

Group 2 Significant head trauma, epilepsy or encephalitis.

Group 3 Severe hyperactivity, distractibility and learning difficulties.  
Mainly male.

This chapter essentially focusses on group 1, of the above categorisation. In this group the cluster of behaviour patterns of self harm, parasuicide and substance abuse and dependence have been observed by many writers (Greer and Lee, 1967; Linehan, 1981; Linehan and Shearin, 1988; Maris, 1981 Paerregaard, 1975; Stone, 1980, 1989; Widiger and Francis, 1989).

Linehan (1993) outlines four approaches to understanding the concept of BPD and highlights areas of overlap. The overlap of BPD symptomatology with affective and other diagnostic categories have led some as in the example of ICD-10 (1992) given above, to question the usefulness of the concept. One of the concept's strongest critics on the grounds of overlap is Theodore Millon (Millon, 1981, 1987a; Millon and Davis, 1996). Usefulness of labelling individuals "borderline" is questioned by some, who suggest the association of BPD with childhood sexual abuse and advance the same argument that is mooted in this chapter, that a label of a "post traumatic syndrome" would be more useful (Linehan, 1993). The

controversy whether BPD is a useful and valid diagnostic entity is set to continue and is a fertile area for future research.

## **7.6 Substance misuse**

In the area of substance misuse both diagnostic systems, by means of close consultation, have arrived at very similar definitions. They have moved away from a predominantly pharmacological model to a multi-factorial 'biopsychosocial' model. There are a few differences and they can be outlined as follows. ICD-10 uses the term psychoactive while DSM-IV does not use the term but specifies 11 different substance categories. ICD-10 use the term 'harmful use' instead of 'abuse' in DSM-IV.

Detailed descriptions of both ICD-10 and DSM-IV definitions of substance related disorders are given in Appendix (D). To avoid repetition a brief outline of the DSM-IV definitions of substance use disorders are given here. There are two substance use disorder categories in DSM-IV, substance abuse (harmful use) and substance dependence.

### **7.6.1 Substance abuse**

The criteria for the diagnosis of substance abuse are outlined below. A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:

- i) Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home,
- ii) Recurrent substance use in situations in which it is physically hazardous (eg., driving an automobile or operating a machine when impaired by substance use),
- iii) Recurrent substance-related legal problems,
- iv) continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance.

It is also required that the symptoms have never met the criteria for substance dependence (described below) for this class of substance.

### **7.6.2 Substance dependence**

Substance dependence or dependence syndrome is defined as a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

- i) Tolerance, a need for markedly increased amounts of the substance to achieve intoxication or desired effect;



- ii) Withdrawal syndrome manifested by either withdrawal from the specific substance or a closely related substance that is taken to relieve or avoid withdrawal symptoms;
- iii) The substance is often taken in larger amounts or over a longer period than was intended;
- iv) A persistent desire or unsuccessful efforts to cut down or control substance use;
- v) Spending a great deal of time in activities necessary to obtain the substance, or recovering from its effects;
- vi) Important social, occupational, or recreational activities are given up or reduced because of substance use;
- vii) The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance .

The above criteria are based on the description of the dependence syndrome by Edwards and Gross (1976) and is used by both systems of classification.

### **7.6.3 Evolution of the definition**

The concept of substance misuse has undergone considerable change over the last 100 years. It has evolved from a concept of moral failing to that of a complex syndrome. It is not within the scope of this chapter to explore the history of its evolution. There is a more detailed description in Chapter 1. The central debate in this area as to whether substance misuse is a biologically or environmentally determined problem is relevant here to this chapter. A causal link between trauma and the development of substance misuse problems will be explored in later sections.

### **7.7 Relationships between PTSD, BPD and substance misuse in the definitions**

The definitions of the disease categories outlined above have minimal reference to each other. In the ICD-10 definition of PTSD it refers to excessive use of alcohol as a complication. In the definitions of PTSD the key symptoms of avoidance phenomena and dissociation do not specifically mention substance misuse. The ICD-10 definition of PTSD refers to the possibility of transition to enduring personality change, with no direct reference to personality disorder. In the DSM-IV definition of BPD the fourth criterion of impulsivity refers to substance misuse as an example.

## **7.8 Substance misuse and personality disorder**

The evolution of the relationship between substance misuse and personality disorders per se in the American classification system is noteworthy. In DSM-I (1950's) alcohol use was encapsulated within sociopathic personality disorder, but DSM-II separates alcoholism from personality disorder and the multi-axial systems of DSM-III and DSM-IV (where personality disorders comprises axis two of the system) enables their association with other conditions to be more clearly recorded.

DSM-IV groups personality disorders into three subgroups. The 'Dramatic' grouping (cluster B) includes antisocial, borderline, histrionic and narcissistic personality disorders. It can be argued that the association between early trauma in the aetiology of these conditions and the association with substance misuse in the phenomenology of this group is stronger than with other clusters. The literature that explores the strengths of these relationships is sparse.

Millon and Davis (1996) in their review of personality disorders makes a brief reference to the association between BPD and substance misuse stating that:

"There is a strong association in contemporary society between borderline personality characteristics and heavy involvement in substance abuse. The association does not appear to be an intrinsic element of these two disorders, but appear to signify the borderline's desire to experience varied forms of reality and an effort to search for an identity that may give



structure to divergent impulses and confusions. Hence, borderlines are inclined to be abusers of many different substances, including alcohol, cocaine, speed and crack."

## **7.9 Psychoanalytic and historical perspectives that link PTSD, BPD and substance misuse**

The association of trauma with mental illness has been implied in historical writings through the centuries from Homer to Buddhist literature circa 500 BC. In modern psychiatry, the first systematic explorations of the relationships between trauma and psychiatric illness were conducted by Charcot in 1887 (Van der Kolk, Weisaeth and Van der Hart, 1996). Previous to that Briquet in 1859 made reference to the link between childhood histories of trauma and symptoms of hysteria (Brown et al., 1996) and sexual abuse of children was documented by Tardieu in 1878 (Van der Kolk, Weisaeth and Van der Hart, 1996).

The first conceptual model linking trauma with psychopathology was presented by Pierre Janet (1859 - 1947) a pupil of Charcot, in papers written in 1894 to 1896. His work on dissociative processes has been recently summarised as a three-stage model (Van der Hart et al., 1989) includes most of the characteristics of the current definition of PTSD. It also provides an environmentally-generated developmental model of psychopathology. Janet's contribution to modern psychiatry and psychology is described in two scholarly reviews by Ellenberger (1970) and by Van der Kolk and Van der Hart (1989).

The seminal work of Janet was eclipsed by the impact of Sigmund Freud (1856 - 1939) who announced his own work on the subject a year after Janet in 1895 with the publication of 'Studies on Hysteria' with Joseph Breuer. Freud's original view of neuroses was a post-traumatic paradigm known as 'Seduction Theory'. Freud stated that during childhood development there was a range of traumatic experiences or an emergency type of event that could be profoundly distressing to an individual and as a result of the degree of threat experienced to the ego, and the subsequent anxiety experienced. The victim typically used repression as an ego-defence to remove from awareness unpleasant memories and emotions of the traumatic event (Brett, 1993). Freud subsequently shifted his theory away from a post-traumatic paradigm to that centred around intra-psychic fantasy. Freud returned to the subject of traumatic neurosis in later work 'The Introductory Lectures on Psychoanalysis' (Freud, 1917) hinting that traumatic neurosis was very different from spontaneous neurosis and went on to clearly describe core PTSD symptom clusters listed in DSM-III-R (1987),(Wilson, 1994). Freud further elaborated his concepts on trauma in 'Beyond the Pleasure Principle' (Freud, 1928) referring to 'trauma' as '....excitations from outside which are powerful enough to break through the protective shield of the ego' (Brett and Ostroff, 1985). He outlined the concept of trauma as involving, a) an external stressor which overwhelms the normal ego functioning; b) a change in the steady state of the organism (ie., disequilibrium); c) a reduction of ego-defensive and coping capacity; and d) the problem of "mastery" in that other stressors can take on traumatic proportion. This clearly describes depletion of ego strength that can set up the possibility of long term PTSD or other mental illnesses.

Wilson (1994) notes that Freud seems to have grasped the essence of PTSD in the early part of the 20th Century and describes what happened in the interim period as a "kind of intellectual vacuum in which the collective clinical wisdom about psychic traumatization seem to have gone "underground" and evaporated by the time of DSM-II (1968)".

### **7.9.1 Psychoanalysis and substance misuse**

Psychoanalytic literature on substance misuse or addiction is sparse compared to literature on personality disorder, including BPD. Some writers have commented on the link between, trauma, addiction and BPD. Key contributions in this area are outlined below.

The classical psychoanalytic view is that addiction (largely substance misuse) is a perversion, associated with homosexuality and associated with masturbation.

Limentani (1986) states that addiction is associated with homosexuality in two ways; sexualisation of aggression towards female and maternal objects and similar process towards male and paternal objects. Based on the dynamics of wish fulfilment and the compulsion to repeat unconscious traumatic experience, masturbation in connection with taking drugs affords addicts who are non-obligatory homosexuals temporary relief from both the psychotic anxieties associated with the core complex and the dread of being homosexual (Hopper, 1995).

Glover (1932) notes that addiction is associated with very primitive or 'psychotic'



anxieties and, therefore, is intermediate between the perversions and the psychoses. He also notes that it is not uncommon among people with so-called 'borderline' disorders with paranoid and/or narcissistic colouration.

Addiction is also seen as associated with, if not actually a form of masturbation, by virtue of it being a displacement from or replacement of it. This view originates from Freud's comments (Nagera, 1971) that 'masturbation is the primary addiction and that other addictions ... are ..... a substitute and replacement for it' and that both addiction and masturbation is characterised by withdrawal into fantasy life.

### **Recent formulations**

The link between BPD and PTSD in terms of psychic processes is described with rare clarity by Kroll (1993) as follows:

"The PTSD / borderline person suffers first and foremost from a disorder of the stream of consciousness. More specifically, the PTSD / borderline person suffers from the inability to turn off a stream of consciousness that has become its own enemy, comprised of actual memories of traumatic events, distorted and fragmented memories, unwelcome somatic sensations, negative self-commentaries running like a tickertape through the mind, fantasised and feared elaborations from childhood of the abuse experiences, and concomitant strongly dysphoric moods of anxiety and anger. Much that the adult PTSD / borderline does .... is a response to, or an attempt to

terminate or modify, the intolerable presence of this stream of consciousness."

This phenomenological description not only captures the link between trauma and BPD but also substance misuse in these individuals: "... an attempt to terminate or modify, the intolerable presence of this stream of consciousness" .

Recent psychoanalytical theory of addiction syndrome proposed by Hopper (1995) suggests that the syndrome is associated with life trajectories that have occurred within the context of traumatogenic processes, the phases of which include social, cultural and political factors, encapsulation, traumatophilia, and masturbation as a form of self-soothing.

De Zulueta (1993) also states that the addiction syndrome originates within traumatogenic processes in which the elements of the traumatic situation are linked with early and later consequences of trauma, which in turn, become the components of traumatic situations for other people.

Theories about the traumatic origin of the addiction syndrome from a psychodynamic perspective, although a late addition, brings it in line with formulations from other perspectives and with the accumulating evidence. This appears to be a case of rediscovery. This is a radical departure from the traditional aetiological theories and opens the way for a new synthesis or a new integration of post traumatic syndromes, personality theories and substance misuse, which has exciting implications for interventions.

## **7.10 Review of recent literature linking PTSD, BPD and substance misuse**

A computerised search of the literature linking PTSD, BPD and substance misuse, using them as key words, yielded 21 papers. These were publications listed in Medline and PsychLit between January 1990 and December 1996. There were 9 articles linking PTSD, BPD and substance misuse. There were 11 articles linking PTSD and substance misuse and there was 1 article BPD and substance misuse. In addition, recent review articles on each of the diagnostic categories were also included in this review.

The following template was used to analyse the literature:

- i) Relationships in phenomenological descriptions and Co-occurrence
- ii) Relationships in aetiology and aetiological hypothesis
- iii) Relationships in treatment approaches

### **7.10.1 Relationships in phenomenological descriptions and co-occurrence**

Few studies have linked borderline personality disorder to chronic post traumatic stress disorder where there are, as with individuals with substance misuse diagnosis, common clinical features. The common features include, affect



dysregulation and intolerance, hyperactivity and irritability, chronic dysphoria and depression, subjective 'deadness and emptiness' risk-taking, impulsive and self-destructive behaviours and substance use and abuse (Kardiner, 1941; Van der Kolk, 1987).

Rosser (1995) notes that "if the 'trauma' criterion is removed from the DSM-III-R definition of PTSD, the definition becomes almost identical to that of BPD". This is the clearest statement on the relationship between the two diagnostic categories to be made by a leading figure in British academic psychiatry.

Sederer and Thorbeck (1990) describes the features of BPD and substance misuse as follows:

"Mood, behaviour, self-image, cognition and interpersonal relationships are subject to this instability. The stress may come in the form of disappointment, loss, absence of routine and structure, influence of substances or a psychotherapeutic transference storm. This inability to contain stress is a phenomenon frequently observed in clinical populations receiving treatment for substance misuse problems."

Sederer and Thorbeck (1990) clearly outlines the questions, what they describe as, "rarely asked in the literature" as follows:

- i) Is this is just a phenomenon of co-morbidity a complete overlap in the population and a failure to diagnose both conditions simultaneously?

- ii) Is there a partial overlap and a complex relationship between these conditions?
- iii) Are they are very separate phenomena that may have similar features?

Studies showing co-occurrence of PTSD and substance misuse are accumulating.

In a screened national sample of women in the USA, Duncan et al., (1996) found that women who reported serious physical assault in childhood had significantly high prevalence rates and lifetime histories of PTSD and substance misuse.

Similar associations of PTSD and substance abuse are reported in Vietnam veterans; (Bremner, et al., 1996), delinquent boys; (Rigs et al., 1996), peers of adolescent suicide victims; (Brent at al., 1995).

Ellason, et al., (1996) found that in a sample of 106 patients admitted to a chemical dependency treatment unit, 66% reported a history of physical or sexual abuse during childhood, 26% met diagnostic criteria for PTSD. Brown et al., (1995) in a study of treatment seeking substance users found that 25% had current PTSD symptomatology. In both the above studies and in a growing number of studies, substance abuse have been linked with childhood sexual and physical abuse (for example, Finkelhor, 1990, 1984, 1979; Harrison, et al., 1989; Hernandez, 1990; Ladwig and Andersen, 1989; Riggs et al., 1990; Swett, et al., 1991).

McClellan, et al., (1995) found in a retrospective review of all youth treated over a 5-year period in a tertiary care psychiatric hospital that those with histories of

sexual abuse had significantly higher rates of PTSD, substance abuse disorders, BPD and dissociative symptoms than those with no history of sexual abuse.

Saxe et al., (1993) in an investigation into the prevalence of dissociative disorders in psychiatric inpatients found that patients who met DSM-III criteria for dissociative disorder had significantly higher rates of childhood trauma, major depression, PTSD, substance abuse and BPD than comparison groups.

The above examples are no means an exhaustive list of the collection of studies showing co-occurrence of PTSD, BPD and substance misuse. These studies can be criticised, with the exception of a few, that most of them looked within the samples they investigated for specific disease entities and that other conditions that may also have been present have been overlooked. This criticism is particularly relevant in the development of explanatory models.

#### **7.10.2 Theoretical models to Describe the link between PTSD, BPD and substance misuse**

The aetiology of PTSD compared to the other two diagnostic categories in this chapter is fairly clear cut. The mediating factors that causes some individuals to develop symptoms is less clear. Whilst single incident traumas (Type 1) leading to the syndrome can be mapped to the syndrome, the effects of multiple incident traumas (type 2) such as prolonged physical and sexual abuse in children, effects of abusive relationships or exposure to combat situations is less straight-forward and is open to questioning. The high incidence of violence and abuse in the



histories of substance dependence and borderline personality disordered patients has led some authors to question whether these diagnostic categories are both aspects of a chronic post traumatic stress syndrome (Herman, 1987; Herman, Perry & Van der Kolk, 1989).

This formulation is fairly new; the concept that trauma is at the root of psychopathology as was discussed earlier is not new. It appears that in the history of abnormal psychology and psychiatry this factor has been rediscovered at regular intervals.

The proponents of the trauma hypothesis argue that early childhood trauma is causal in the genesis of borderline pathology as well as chronic PTSD. It can be then argued that if they are not closely-related overlapping conditions, then they are aspects of the same condition. In other words, is borderline personality disorder an aspect of a post traumatic stress syndrome? Despite it being a recent formulation empirical evidence to support the trauma theory is growing (Bryer, et al., 1987; Herman, 1987, 1981; Herman, Perry and Van der Kolk, 1989; Masson, 1984).

The overlap in incidence observes can be schematically represented as shown in figure 7.1. Two possibilities, a) all three conditions overlapping in a way that some individuals will have all three conditions, two conditions or only having one of the conditions; b) All individuals with BPD and substance misuse having PTSD and

some having all three. It is possible to include disorders such as dissociative disorder, which may also have some overlap in incidence in the second schema, assuming that it could also be part of a post-traumatic syndrome.

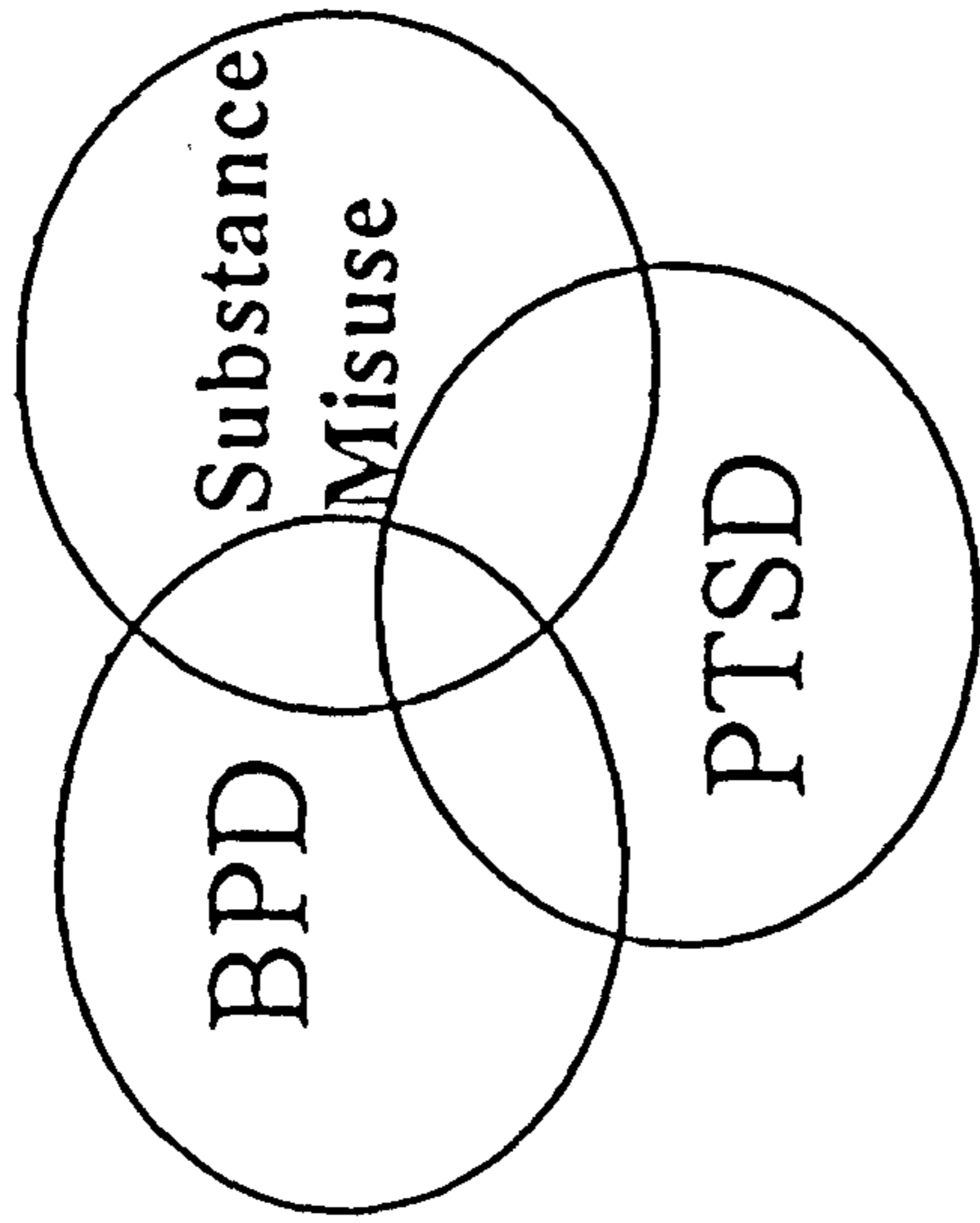
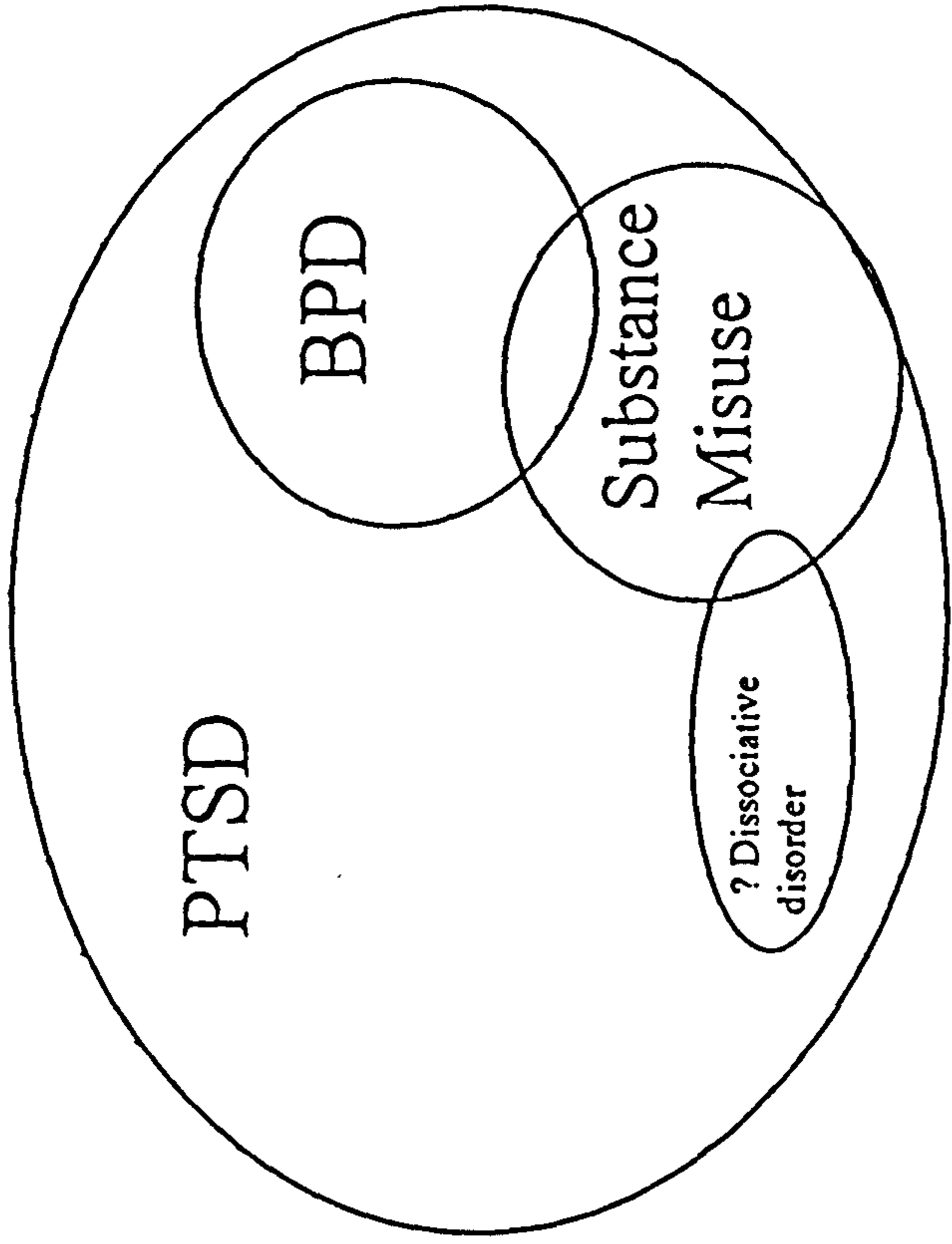
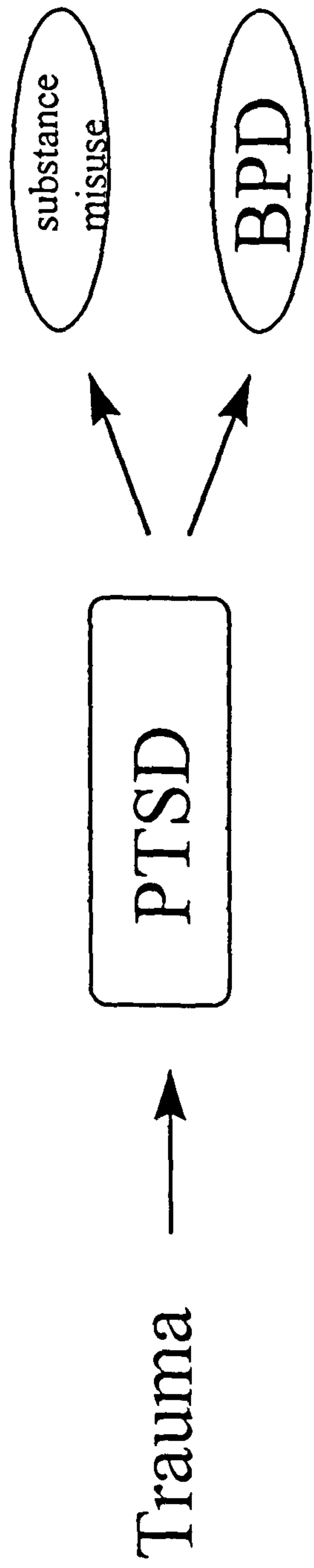


Figure 7.1 Schematic representations of possible relationships between the diagnostic categories of PTSD, BPD and substance misuse



Single aetiology hypothesis



Multiple aetiology hypothesis

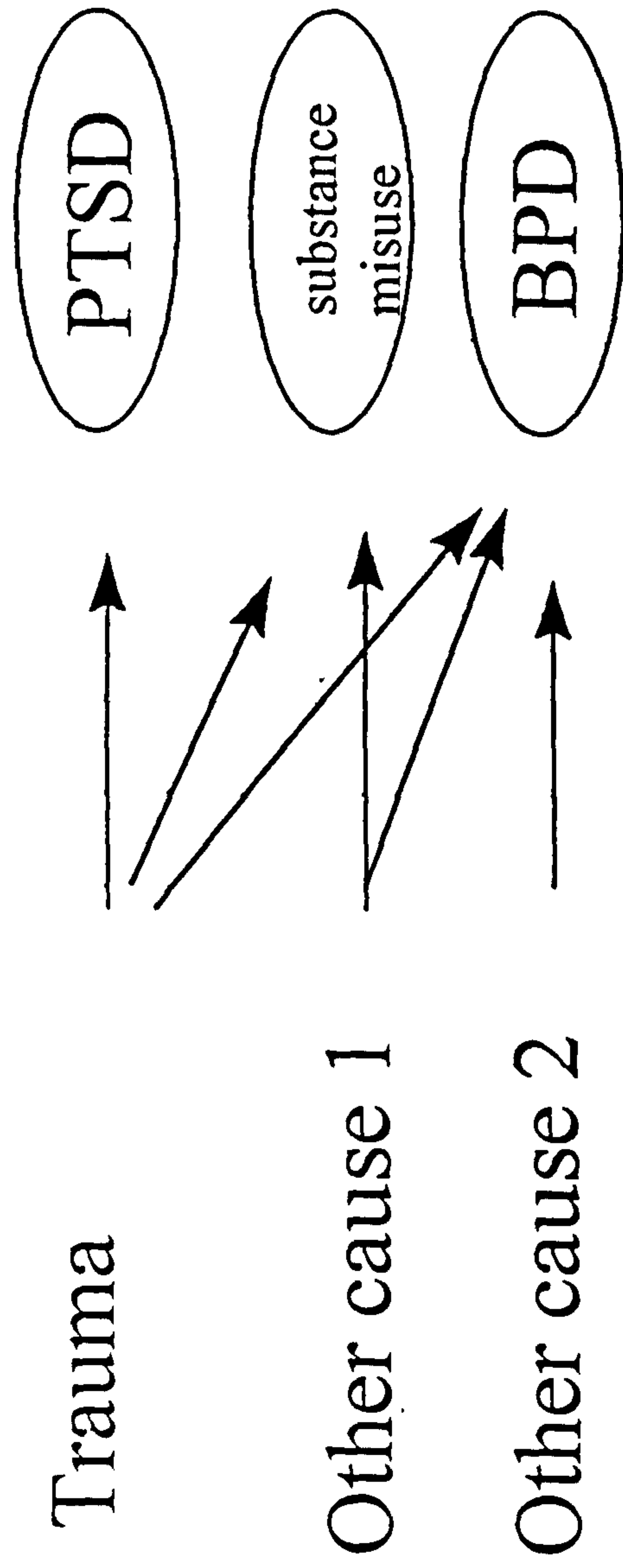


Figure 7.2 Schematic representation of single factor and multiple factor aetiological hypotheses for the development of PTSD, BPD and substance misuse disorder

The schematic diagram (figure 7.2) describes two aetiological hypothesis that can be generated by examining the literature. A **single aetiological hypothesis** with traumatic experience resulting in PTSD that subsequently gives rise to BPD or substance misuse, or both, and a **multiple aetiological hypothesis** that allows for trauma as well as other causes resulting in the development of BPD and substance misuse.

### **7.11 Implications for treatment**

Aetiological theories dictate treatment approaches. The implications for assessment, treatment and prevention work, if a model for a relationship between the three conditions is established, are immense. Yet very little work seems to have taken place in doing so. This is surprising in that clarification of the associations has direct implications for interventions.

Examination of the literature on treatment also exposes a number of paradoxes. Psychodynamic approaches were generally considered to be the treatment of choice or the only treatment for personality disorders, particularly borderline personality disorder whereas the literature clearly shows a reluctance from a psychodynamic perspective to treat substance misuse problems (Hopper, 1995).

In the area of PTSD most of the available published treatment studies have utilised cognitive behavioural therapy (Van der Kolk, et al., 1996). Despite this fact, Blake (1993) notes that most clinicians treating traumatized patients continue to practice psychodynamic therapy. This is another paradoxical situation in the area.

Few studies that have examined the efficacy of psychodynamic therapies, have failed to show significant symptom reduction (Lindy, 1987; Van der Kolk, et al., 1996).

It can be argued that historically, the differences in approaches to treatment have prevented the establishment of links between the conditions. New developments in treatment approaches, notably cognitive behavioural approaches, are beginning to break down traditional boundaries to reveal the associations and commonalties.

### **7.11.1 Treatment approaches to BPD**

**Dialectical behaviour Therapy (DBT)** developed by Linehan (1993) for BPD is a cognitive behavioural approach that also places emphasis on the therapeutic relationship. Developed from within a biosocial theoretical framework, DBT focusses on the contradictions inherent in the borderline psychopathology. It is hypothesised that the patient is stuck with extreme polarities of opposing feelings, thoughts and behaviours and is unable to make the move to their synthesis. DBT has four categories of treatment strategies: 1) dialectical strategies (therapeutic relationship, modelling dialectical responses; 2) core strategies (problem solving, validation); 3) stylistic strategies (reciprocal & irreverent communication); and 4) case management strategies. This comprehensive approach, with theoretically based structures that incorporates firm boundaries and 'acceptance' derived from Buddhist philosophy, enables strategic systematic intervention with aspects of BPD from emotional dysregulation to behavioural dysregulation that includes substance misuse. Aspects of the approach that involves understanding the past enables



work on traumatic past experiences (eg. sexual abuse) to be undertaken within the therapeutic contract. This comprehensive treatment approach has the potential to work with trauma-based formulations of BPD and substance dependence. This approach, which is relatively new, is yet to be widely used in addiction and other treatment settings outside the USA (Williams, 1996).

A number of cognitive therapy approaches have also emerged recently that have expanded the scope of treatment of 'difficult patients', the banner under which personality disordered patients are generally described. **Schema Focused Therapy (SFT)** developed by Young (Young, 1983; Young, 1990; Young and Klosko, 1993). Young's approach differs from the standard cognitive therapy model in that it assumes extremely stable and enduring patterns of thinking that he terms 'Early Maladaptive Schemas' (EMS). These schemas, which are said to develop in childhood, are assumed to result in maladaptive behaviour patterns, that reinforce them. Young (1993) has identified sixteen early maladaptive schemas that he places in five categories: a) disconnection and rejection; b) impaired autonomy and performance; c) impaired limits; d) other-directedness and e) over-vigilance and inhibition. The therapy process involves identification and modification of EMS. Young's theory, although not fitting a single trauma aetiological theory of BPD, allows for Type II traumas to play a part in the process of formation of EMS.

Beck, Freeman, et al., (1990) have also developed a treatment approach for BPD based on the standard model of cognitive therapy. Their approach focusses on developing a working relationship, decreasing dichotomous thinking, increasing

control over emotions, improving impulse control, strengthening the client's sense of identity and addressing assumptions.

### **7.11.2 Treatment approaches to substance misuse**

It is beyond the scope of this paper to summarise treatment approaches to substance misuse. The focus in general is placed on substance abuse it-self and strategies of impulse control. Self-help forms the major psychosocial interventions in the area, whilst substitute prescription forms the major pharmacological approach. Cognitive behavioural interventions largely focus on initiation and maintenance of change in relation to substance misuse for example, Miller and Rollnick, 1991, and Marlatt and Gordon, 1985. Traditional psychodynamic approaches, as alluded to earlier shows a reluctance to work with substance abusers, yet paradoxically much of the psychological work in this area takes place under the psychodynamic banner. A more detailed description of treatment approaches to substance misuse can be found in Chapter 1.

### **7.11.3 Treatment approaches for PTSD**

Despite the history of psychodynamic approaches in the treatment of symptoms attributed to be resulting from trauma as referred to above, since the appearance of PTSD as a diagnostic category in 1980 all specific interventions developed in this area have been based on cognitive behavioural theory. There is only scope here to outline key developments in the area. The key elements of the cognitive behavioural approach involves evoking the 'fear memory' (traumatic event) and

applying principles of exposure therapy in the light of new information. The theory behind the approach is that PTSD occurs because of the individual's inability to process traumatic experience adequately (Foa, et al., 1989b).

**Prolonged Exposure (PE) therapy** (Fairbank et al., 1983; Foa and Riggs, 1993; Johnson, et al., 1982; Schindler, 1980); **Systematic Desensitization (SD)** (Brom et al., 1989; Frank and Stewart, 1983; Muse, 1986; Peniston, 1986; Turner, 1979); **Stress Inoculation Training (SIT)** (Foa, et al., 1991; Kilpatrick, et al., 1982; Meichenbaum, 1974; Resick, et al., 1988); **Anxiety Management Training (AMT)** (Frank et al., 1988; Turner and Frank, 1981; Vernon and Kilpatrick, 1983); **Cognitive Processing Therapy (CPT)** which has elements of SIT and AMT (Resick and Schnicke, 1993) and **Implosion Therapy** (Johnson et al., 1982; Keane, et al., 1989), have all shown to be effective in reducing PTSD symptoms.

A new technique, **Eye Movement Desensitization and Reprocessing (EMDR)** developed by Shapiro (1989; 1995) can be seen as a further elaboration of exposure therapy. The technique involves the patient having to imagine a scene from the trauma, at the same time focusing on the accompanying thoughts and feelings, and track the therapist's moving finger. The sequence is repeated until the client no longer reports anxiety. The client is subsequently instructed to adopt more positive (coping) cognitions whilst imagining the traumatic scene. The procedure is indeed more elaborate than this simple description and is more an integrated therapy approach than a technique. EMDR was initially developed as an approach to deal with single event (Type I) traumas; nevertheless its reported



use with patients with histories of type II traumas (Shapiro, 1993) and those suffering from dissociative disorders, opens up the possibility of using a trauma-focussed therapy approach to work with individuals with BPD and substance misuse. This would be a new synthesis and example of the utility of a trauma-based model for BPD and substance misuse.

There is a proliferation of studies evaluating the efficacy of EMDR. At present the evidence for the efficacy of EMDR is considered to be equivocal (Rothbaum and Foa, 1996).

It should be noted here that the approaches described above (apart from in vivo implosion) all involve evoking traumatic memories and reprocessing them repeatedly. It has been argued that this is also one of the basic principle of psychodynamic therapy, although the techniques and structures differ (Lindy, 1989, 1996; Lindy, et al., 1995). This can be seen as yet another paradox that the periodic amnesia for trauma as a root cause of psychopathology has produced in the world of therapy.

## **7.12 Conclusions**

A review of the literature of PTSD, BPD and substance misuse reveals a picture that is yet to come into focus. The old Indian metaphor of the six blind men and the elephant, where each person felt different parts of the elephant and arrived at different conclusions is an apt one to describe the literature. The complete picture is yet to be grasped. The phenomenological and prevalence studies show

significant co-occurrence or overlap between these categories. These associations have been noted throughout the recent history of psychiatry. Few studies have attempted to link these categories or produce models to explain the link. The theory that trauma could be at the root of psychopathology, as noted earlier has been discovered, forgotten and rediscovered periodically (Van der Kolk et al., 1996).

The hypothesis that this review raises ie. that BPD and substance misuse are part of a post traumatic syndrome, needs to be tested. If such a model is accepted the emphasis on treatment of both substance misuse and BPD could change to from that of a covert to trauma focussed one to an overt one.

This would have obvious implications for assessment and treatment provision. It could also help to break down the prevalent barriers in treatment conceptualisation and the paradoxes alluded to above. The striking overlap between cognitive behavioural therapies and traditional psychodynamic therapies in this area is beginning to be noted by clinicians (Williams, 1996). This could indeed lead to a new synthesis enabling integration of different treatment modalities used strategically to help individuals with BPD and substance misuse problems.

Further research into applications of trauma-based treatments in these areas, as well as aetiological and epidemiological research is needed to obtain the 'full picture'. This will be a fertile territory for clinicians working in substance misuse areas as well as in mental health settings, to do treatment research.

The current knowledge of three diagnostic categories show an undeniable overlap between them. The extent of this overlap can only be determined by specific research designed to answer this specific question. Large scale epidemiological studies are needed establish this. Researchers also need to ask the question as to what other diagnostic categories overlap with PTSD, BPD and substance misuse, for example, dissociative disorders. The knowledge of the extent of overlap between associated diagnostic categories will contribute to the development of more precise models to explain the relationship. Such models will be of considerable help in developing interventions.

Further research is needed to firmly establish the trauma-based aetiological theory for the diagnostic categories discussed in this chapter, although this evidence is growing. If an alternative 'multiple aetiology' theory is to be established, then these factors must be clearly identified. Factors such as 'patterns of attachment' have been implicated in the aetiology of BPD and substance misuse (Fonagy, 1996). If these factors singularly lead to the development of the disorders or they act cumulatively with traumatic experiences needs to be determined. Models need to be developed that could predict the severity of the resulting disorders, according to the extent of the contributory factors. This provides fertile ground for future research.

Natural and man-made disasters and catastrophes, and the current state of knowledge on PTSD have led to the establishment of 'Trauma Centres' in many parts of the world to treat victims of trauma. These centres also provide the opportunity to extend our knowledge of the psychological sequelae of trauma.



These centres enable longitudinal research to be carried out trauma victims, both children and adults. Longitudinal research could not only answer the questions raised above, but more importantly, inform us of the mediating factors that may prevent the development of PTSD and other disorders. Knowledge that can lead to preventive intervention could have implications to the whole field of mental health.

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APPENDICES



## Appendix A

### Measures

## Appendix A (i)

### EXPECTATIONS QUESTIONNAIRE

Below are a number of expectations that people have had about drug treatment programmes. Please indicate how likely you think they are to happen to you.

1. **The treatment programme will help me to reduce my drug use.**

Not at all likely				Very likely
1	2	3	4	5

2. **The treatment programme will help me feel more in control.**

Not at all likely				Very likely
1	2	3	4	5

3. **The treatment programme will help me avoid feeling sick.**

Not at all likely				Very likely
1	2	3	4	5

4. **The treatment programme will keep me straight and functioning.**

Not at all likely				Very likely
1	2	3	4	5

5. **The treatment programme will help me to be safer and healthier.**

Not at all likely				Very likely
1	2	3	4	5

**6. The treatment programme will help me to have less legal problems.**

Not at all likely				Very likely
1	2	3	4	5

**7. The treatment programme will help me to inject less.**

Not at all likely				Very likely
1	2	3	4	5

**8. The treatment programme will help me to save money.**

Not at all likely				Very likely
1	2	3	4	5

**9. The treatment programme will help me with relationship problems.**

Not at all likely				Very likely
1	2	3	4	5

**10. The treatment programmes will help me with psychological problems.**

Not at all likely				Very likely
1	2	3	4	5

**11. The treatment programme will help me with child care problems.**

Not at all likely				Very likely
1	2	3	4	5



## Appendix A (ii)

### Revised instructions to the OTI

#### **Section 1: drug use**

Information is collected regarding the last three days of drug use for each drug category. It is important to note that use on the day of interview is not recorded, as it is not an example of a full day's use.

Unlike alcohol, quantities of illicit drugs are not standardized. In the OTI, each drug class is scored differently. It is very important that we all use the same system of scoring. The units of measurement for each drug category are presented below.

#### **Heroin**

The unit of measurement is the number of injections (hits) or the number of smokes or snorts the client had on the day in question.

#### **Other opiates**

score injected substances as for heroin.

In the case of those taken orally, the OTI scores the number of use episodes for that day. in the case of liquid preparations, try to elicit the number of times the client took the preparation, not the number of bottles drunk. [If the client drank 2 bottles in 4 episodes, then the score would be 4].

In the case of tablets, try to determine how many times that day the client took them. [20 tablets taken 10 at a time on 2 occasions would result in a score of 2]

#### **Cannabis**

The unit of measurement is the number of joints or bongos the client had on the day in question.

#### **Amphetamines**

The unit of measurement is the number of hits, snorts etc. the client had on the day in question.

#### **Cocaine**

The unit of measurement is the number of hits, snorts etc. the client had on the day in question.

#### **Tranquilizers**

The unit of measurement is the number of pills the client had on the day in question.

#### **Barbiturates**

The unit of measurement is the number of pills the client had on the day in question.

#### **Hallucinogens**

The unit of measurement is the number of tabs, trips etc. the client had on the day in question.

#### **Inhalants**

The unit of measurement is the number of sniffs the client had on the day in question.

**Tobacco**

The unit of measurement is the number of cigarettes smoked on the day in question.

**Alcohol**

The unit of measurement is the number of standard drinks the client had on the use day. A standard drink may be defined as 120 ml wine, 285 ml beer, or 30 ml spirits.

**For all drug classes:**

When asking about the recent days of use, write down the day and how many days before the previous use day it was, e.g.

*Last use ?* Friday

*How much ?* 1 hit

*Time before ?* Monday (4 days before), ( $t1=4$  days,  $q1=1$  hit).

$$Q=q1+q2/t1+t2.$$

**Section 2: HIV risk-taking behaviour****a) Needle use section**

Questions 2, 3, & 4 ask about sharing needles.

record the number of times sharing has occurred whether the needle has been cleaned before re-use or not.

it is important to stress that sharing refers to any other person, including partners.

Questions 5 & 6 ask about re-using.

Re-using refers to borrowing from another person or re-using your own needles.

**b) Sexual behaviour section**

All questions refer to penetrative sex. Do not include oral sex or lesbian sex.

Question 9 refers to 'casual partners', this means anyone who is not a regular partner and not a paying client. If the person being interviewed has had sex with prostitutes then they are regarded as casual partners.

**Question 10: Paid sex**

Being 'paid for sex' refers to any instance where a client has exchanged sex for money or for drugs.

**Question 11: Anal sex.**

For this question, count instances of both active and passive anal sex, both with and without a condom.

**Section 3: Social Functioning.****Question 1:**

Include jail, refuges etc. as places of residence.

**Question 3.**

Include under the term full-time work anyone whose usual employment is permanent part-time.

Questions 4, 5, & 6 ask about conflict. This refers to arguments, disputes, "hassles generally" etc. In the case of questions 4 & 5, if the person has no family/partner or has not been in contact with them for the past six months, then circle N/A and score the item as 0. In the case of question 6, if the person has no friends, then circle N/A and score the item as 4. This is because it indicates absence of any social support.

**Question 7:**

Close friends would be defined as people the person feels they can rely on. If they have a sexual partner, they are included in the estimate.

**Question 11:**

Include both sexual partners and housemates etc.

**Question 12:**

This refers to acquaintances as well as close friends.

#### **Section 4: Criminality**

The questions are quite straightforward. It is important to stress that you are not asking about number of arrests but rather numbers of times each type of crime has been committed. Record both frequency and type of crime. Again, it should be stressed that all this information will be completely confidential.

#### **Section 5: Health**

Note that all questions refer to 'the last month' except those on gynecological problems, which ask about 'the last few months'.

#### **Section 6: Psychological adjustment (GHQ)**

This section is given for self-completion.



## Appendix A (iii)

### General assessment instrument incorporating the OTI

Dear Colleague,

Thank you for agreeing to participate in this pilot evaluation of the New service-wide Assessment/outcome evaluation form.

The form aims to provide the framework for an initial assessment, to collect information to make treatment decisions, to formulate care plans, to facilitate brief case presentations, to enable outcome evaluation and collect relevant data for the Home Office and Regional databases.

The form is also envisaged as the template for data entry to the Drugs Service Information System when it arrives. This means that the pages of the form will be identical to the data structure on the computer screen.

The basic information needed for completing the Home Office and Regional database forms are contained in the first three pages and are highlighted (shaded) for your convenience.

The rest of the items are a combination of items from existing drugs service assessment forms, the Opiate Treatment Index (OTI) which is becoming established as the standard outcome measurement instrument in the area and psychological scales of predictive utility. The latter (General Health Questionnaire, Severity of Addiction Scale and the Motivational Questionnaire) is to be given to the client for self completion, preferably at the first interview.

There is a summary form to facilitate clinical decision making and presentation of the client at clinical meetings.

Each time you assess a new client please use this new form and also complete the evaluation questionnaire and write down any comments suggestions you may have. Your feed-back is vital for shaping the assessment process for the service, particularly tailoring it to fit the different parts of the service.

Please return the completed form with your comments to me as soon as you feel you have collected sufficient information on each patient. Please feel free to contact me if you need clarification or you want to discuss any aspect of this project.

Many thanks

Shamil Wanigaratne



**CAMDEN & ISLINGTON**  
 Community Health Services NHS Trust  
*Your Partner for Health*

**CAMDEN AND ISLINGTON DRUGS SERVICE**

**ASSESSMENT FOR TREATMENT AND OUTCOME MEASUREMENT**

**This interview schedule comprises:**

1. Treatment History
2. Drug use
3. Prescribing plan
4. Injecting
5. Sexual behaviour
6. Criminal activity
7. Social functioning
8. Psychological adjustment (GHQ)

PLEASE TRY TO COMPLETE ALL OF THESE SCALES WITHIN ONE WEEK OF COMMENCEMENT OF TREATMENT. INSTRUCTIONS FOR COMPLETION ARE INCLUDED WITH EACH SCALE.

IF YOU HAVE ANY PROBLEMS RELATING TO THESE FORMS PLEASE CONTACT SHAMIL WANIGARATNE, HEAD OF CLINICAL PSYCHOLOGY OR ANGELA BYRNE, RESEARCH CO-ORDINATOR.

ASSESSED BY:.....

DATE:

**TREATMENT HISTORY**

<b>ARE YOU CURRENTLY IN AN OPIOID TREATMENT?</b>		<b>YES</b>	<b>NO</b>
<b>WHAT SORT OF TREATMENT ARE YOU IN?</b>			
NO PREVIOUS TREATMENT		METHADONE	DETOXIFICATION
DRUG FREE COUNSELLING		THERAPEUTIC COMM.	N.A.
NON-METHADONE TREATMENT			
<b>HOW LONG HAVE YOU BEEN IN OPIOID TREATMENT?</b>		<b>YEARS</b>	<b>MONTHS</b>
<b>HOW MANY TIMES HAVE YOU PREVIOUSLY BEEN IN AN OPIATE TREATMENT?</b>			
<b>WHAT SORT OF TREATMENT HAVE YOU PREVIOUSLY BEEN IN?</b>			
NO PREVIOUS TREATMENT		METHADONE	DETOXIFICATION
DRUG FREE COUNSELLING		THERAPEUTIC COMM.	N.A.
NON-METHADONE TREATMENT			
<b>WHAT WAS THE OUTCOME OF PREVIOUS TREATMENT ?</b>			
<b>WHY ARE YOU SEEKING TREATMENT NOW ?</b>			
<b>DRUG RELATED CONTACT IN THE LAST SIX MONTHS</b>			
NONE		A & E	DRUG TEAM/CLINIC*
GP		SOCIAL SERVICES	PSYCHIATRIST
VOLUNTARY DRUG AGENCY		PROBATION	PRIVATE DOCTOR



**DRUG USE**

First, I'm going to ask you some questions about your use of drugs. I want to emphasise that the information you give me is completely confidential.

*NB: For all categories, if the client responds that their last use of the drug was more than a month ago, score zero for that category. Do not include use on the day of the interview. Please try to record use in terms of the specific units of measurement given for each drug.*

IS THE PERSON DRUG FREE?	YES	NO	IF YES, HOW LONG?				
	HEROIN Hits, smokes or snorts	OTHER * OPIATES/OPIOIDES Episodes of use	CANNABIS Joints Pipes	AMPHETAMINES Hits, snorts etc	COCAINE Hits, smokes or snorts	CRACK Rocks	
DRUG NAME UNIT OF MEASUREMENT (number of..)							
MAIN DRUG? (NUMBER 1-5)							
WAS THIS PRESCRIBED OR NOT? (YES/NO/BOTH)							
HOW OFTEN ? (TIMES PER DAY/WEEK/MONTH)							
ON WHAT DAY DID YOU LAST USE?							
HOW MANY TIMES DID YOU TAKE IT ON THAT DAY?							
ON WHAT DAY BEFORE THAT DID YOU USE?							
HOW MANY TIMES DID YOU TAKE ON THAT DAY?							
AND WHEN WAS THE DAY BEFORE THAT?							
HOW MUCH (QUANTITY OR COST OF A SESSION)							
ROUTE							
DURATION OF THIS DRUG EPISODE?							
NUMBER OF DRUG FREE PERIODS							
DURATION OF DRUG FREE PERIODS							
AGE OF FIRST USE							
AGE ADDICTED FROM							
$Q = q1 + q2 \div t1 + t2$							
* INCLUDE STREET METHADONE, MORPHINE, PETHIDINE, CODEINE. DO NOT INCLUDE LEGALLY OBTAINED METHADONE							



**DRUG USE (CONTINUED)**

Use this section for any category of drug not covered by previous sections.

DRUG NAME (SPECIFY) UNIT OF MEASUREMENT (SPECIFY)					
WAS THIS PRESCRIBED OR NOT? (YES/NO/BOTH)					
HOW OFTEN ? (TIMES PER DAY/WEEK/MONTH)					
ON WHAT DAY DID YOU LAST USE?					
HOW MANY TIMES DID YOU TAKE IT ON THAT DAY?					
ON WHAT DAY BEFORE THAT DID YOU USE?					
HOW MANY TIMES DID YOU TAKE ON THAT DAY?					
AND WHEN WAS THE DAY BEFORE THAT?					
HOW MUCH (QUANTITY OR COST OF A SESSION)					
ROUTE					
DURATION OF THIS DRUG EPISODE?					
NUMBER OF DRUG FREE PERIODS					
DURATION OF DRUG FREE PERIODS					
AGE OF FIRST USE					
AGE ADDICTED FROM					
$Q=q1+q2+t1+t2$					

**DRUG USE (CONTINUED)**

DRUG NAME UNIT OF MEASUREMENT (number of...)	TRANX Pills	BARBITURATES Pills	HALLUCINOGENS Tabs, trips etc*	INHALENTS Sniffs	TOBACCO Cigarettes
MAIN DRUG? (NUMBER 1-5)					
WAS THIS PRESCRIBED OR NOT? (YES/NO/BOTH)					
HOW OFTEN ? (TIMES PER DAY/WEEK/MONTH)					
ON WHAT DAY DID YOU LAST USE?					
HOW MANY TIMES DID YOU TAKE IT ON THAT DAY?					
ON WHAT DAY BEFORE THAT DID YOU USE?					
HOW MANY TIMES DID YOU TAKE ON THAT DAY?					
AND WHEN WAS THE DAY BEFORE THAT?					
HOW MUCH (QUANTITY OR COST OF A SESSION)					
ROUTE					
DURATION OF THIS DRUG EPISODE?					
NUMBER OF DRUG FREE PERIODS					
DURATION OF DRUG FREE PERIODS					
AGE OF FIRST USE					
AGE ADDICTED FROM					
$Q=q1+q2+t1+t2$					
* INCLUDE LSD/ACID/ECSTASY/MAGIC MUSHROOMS					



## ALCOHOL

ON WHAT DAY DID YOU LAST DRINK ALCOHOL?					
HOW MUCH ALCOHOL DID YOU DRINK ON THAT DAY?	WINE	SPIRITS	BEER	FORTIFIED WINE	OTHER
NO OF UNITS CONSUMED					
ON WHICH DAY BEFORE THAT DID YOU DRINK ALCOHOL?					
HOW MUCH ALCOHOL DID YOU DRINK ON THAT DAY?	WINE	SPIRITS	BEER	FORTIFIED WINE	OTHER
NO OF UNITS CONSUMED					
AND WHEN WAS THE DAY BEFORE THAT?					
Q = q1 + q2 + t1 + t2					

POLYDRUG TOTAL	
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## INJECTING

**NB:** When asking about sharing needles, record the number of times sharing has occurred whether the needle shared has been cleaned before re-use or not.

It is important to stress that sharing refers to any other person, including partners.

How many times have you injected in the last month?	None		0
	Once a week or less		1
	More than once a week, less than once a day		2
	Once a day		3
	2-3 times a day		4
	More than 3 times a day		5

Have you ever injected	Yes		No	
------------------------	-----	--	----	--

How many times have you used a needle after someone else had already used it?	None		0
	Once		1
	Twice		2
	3 - 5 times		3
	6 - 10 times		4
	More than 10 times		5

How many different people have used a needle before you in the last month?	None		0
	1 person		1
	2 people		2
	3 - 5 people		3
	6 - 10 people		4
	More than 10 people		5

How many times in the last month has someone used a needle after you have used it?	None		0
	Once		1
	Twice		2
	3 - 5 times		3
	6 - 10 times		4
	More than 10 times		5

Have you ever shared a needle?	Yes		No	
--------------------------------	-----	--	----	--



How often in the last month have you cleaned needles before re-using them? *	Doesn't re-use		0	Sometimes		3
	Every time		1	Rarely		4
	Often		2	Never		5

Before using needles again, how often in the last month did you use bleach to clean them?*	Doesn't re-use		0	Sometimes		3
	Every time		1	Rarely		4
	Often		2	Never		5

Reasons for injecting	Cost effective		Availability IV Equip	
	Buzz		Other	
	Peer Pressure		Not known	

When last injected	
When did you last share?	
Injection sites	

\* Re-using refers both to borrowing from another person and re-using own needles

DRUG RISK SCORE	
SEXUAL RISK SCORE	
TOTAL SCORE	

### SEXUAL BEHAVIOUR

These questions are about your recent sexual behaviour. I emphasise again that any information you give is completely confidential. Some of the following questions are quite personal and you do not have to answer any question you feel uncomfortable about.

Have you been sexually active in the last month?

YES	NO
-----	----

How many people have you had sex with in the last month?	1 person		1
	2 people		2
	3 - 5 people		3
	6 - 10 people		4
	More than 10 people		5
Do you have a regular partner/partners	YES Male/Female ?	NO	
How often have you used condoms when having sex with your regular partner(s) in the last month?	Every time		1
	Often		2
	Sometimes		3
	Rarely		4
	Never		5
Have you had any casual partners in the last month?	YES M/F ?	NO	
How often have you used condoms when having sex with casual partners in the last month?	Every time		1
	Often		2
	Sometimes		3
	Rarely		4
	Never		5
Have you had to have sex in exchange for money or drugs in the last month?	YES M/F ?	NO	



**Text cut off in original**



How often have you used condoms when you have had sex in the last month? been paid for sex in the last month?	Often		2
	Sometimes		3
	Rarely		4
	Never		5
Have you had anal sex in the last in the last month?		YES	NO

How many times have you had anal sex in the last month?	Once		1
	Twice		2
	3 - 5 times		3
	6 - 10 times		4
	More than 10 times		5

## SOCIAL

These next few questions concern the social aspects of your life (things like jobs, friends etc)

How many different places have you lived over the last 6 months?

One		0	Four		3
Two		1	Five or more		4
Three		2			

How much of the last six months have you been unemployed?

All of the time		4	Some of the time		1
Most of the time		3	None of the time		0
Half of the time		2			

How many different jobs have you had in the last 6 months?

One		0	Four or more		3
Two		1	None		4
Three		2			

How often in the last six months have you had conflict with your relatives?

Very often		4	Rarely		1
Often		3	Never		0
Sometimes		2	N/A		

How often in the last six months have you had conflict with your partner?

Very often		4	Rarely		1
Often		3	Never		0
Sometimes		2	N/A		

How often in the last six months have you had conflict with your friends?

Very often		4	Rarely		1
Often		3	Never		0
Sometimes		2	N/A		

About how many close friends would you estimate that you have (include partner)?

None		4	Three		1
One		3	Four or more		0
Two		2			

When you are having problems are you satisfied with the support you get from your friends?

Very satisfied		0	Not satisfied		3
Satisfied		1	Very unsatisfied		4



Reasonably OK		2	
---------------	--	---	--

About how often do you see your friends?

Very often		0	Rarely		3
Often		1	Never		4
Sometimes		2	N/A		

How many of the people you hang around with now have you known for more than six months?

None		4	More than half		1
Less than half		3	All of them		0
About half		2	N/A		

How much of the last six months have you been living with anyone who uses heroin?

All of the time		4	Some of the time		1
Most of the time		3	None of the time		0
Half of the time		2			

How many of the people you hang around with now are users (include partner)?

None		0	More than half		3
Less than half		1	All of them		4
About half		2			

SOCIAL FUNCTIONING	
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## CRIME

In this section I am interested in any ways that you may have had to finance your using. Any information you give here is completely confidential and you do not have to answer any question if you feel uncomfortable about it.

NB: It is important to stress that you are not asking about number of arrests but rather number of times each type of crime might have been committed.

Are you currently facing charges?	Yes		No	
-----------------------------------	-----	--	----	--

Current legal status	
----------------------	--

### Property Crime

How often, on average, during the last month have you committed a property crime?

No property crime		0	More than once a week		3
Less than once a week		1	Daily		4
Once a week		2			

Tick types of crime committed

Break & Enter		Stolen car		Robbery	
Receiving stolen goods		Shoplifting		Other (Specify)	
Stolen prescriptions pad					

### Dealing

How often, on average, during the last month have you sold drugs to someone?

No drug dealing		0	More than once a week		3
Less than once a week		1	Daily		4
Once a week		2			



Tick types of drugs dealt

Heroin	<input type="checkbox"/>	Speed	<input type="checkbox"/>	Tranquillisers	<input type="checkbox"/>
Marijuana	<input type="checkbox"/>	Hallucinogens	<input type="checkbox"/>	Other (Specify)	<input type="checkbox"/>
Cocaine	<input type="checkbox"/>	Barbiturates	<input type="checkbox"/>		

Fraud

How often, on average, during the last month have you committed a fraud?

No fraud	<input type="checkbox"/>	0	More than once a week	<input type="checkbox"/>	3
Less than once a week	<input type="checkbox"/>	1	Daily	<input type="checkbox"/>	4
Once a week	<input type="checkbox"/>	2			

Tick types of fraud committed

Forging cheques	<input type="checkbox"/>	Credit Card	<input type="checkbox"/>	Other (Specify)	<input type="checkbox"/>
Forging Prescriptions	<input type="checkbox"/>	Social Security	<input type="checkbox"/>		

Crimes involving violence

How often, on average, during the last month have you committed a crime involving violence?

No violent crime	<input type="checkbox"/>	0	More than once a week	<input type="checkbox"/>	3
Less than once a week	<input type="checkbox"/>	1	Daily	<input type="checkbox"/>	4
Once a week	<input type="checkbox"/>	2			

Tick types of violent crime committed

Assault	<input type="checkbox"/>	Murder	<input type="checkbox"/>	Other (Specify)	<input type="checkbox"/>
Violent robbery	<input type="checkbox"/>	Manslaughter	<input type="checkbox"/>		
Armed robbery	<input type="checkbox"/>	Rape	<input type="checkbox"/>		

CRIME SCORE	<input type="text"/>
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## HEALTH

Answer yes if you have had any of the following problems in the last month

GENERAL		INJECTION RELATED PROBLEMS		CARDIO/RESPIRATORY	
Fatigue/Energy Loss		Overdose		Persistent Cough	
Poor Appetite		Abscesses/Infection		Coughing up phelgm	
Weight Loss/Underweight		Dirty Hit(made feel sick)		Coughing up blood	
Trouble sleeping		Prominent Scarring/Bruising		Wheezing	
Fever		Difficulty Injecting		Sore Throat	
Night Sweats		GENITO-URINARY		Shortness of Breath	
Swollen Glands		Painful Urination		Chest Pains	
Jaundice		Loss of Sex Urge		Heart Flutters/Racing	
Bleeding Easily		Discharge from Penis/Vagina		Swollen Ankles	
Bruising Easily		Rash on/around Penis/Vagina			
Teeth Problems		GYNAECOLOGICAL (Women Only)			
Eye/Vision Troubles		in the last few months			
Ear/Hearing Troubles		Irregular Period			
Cuts needing stitches		Miscarriage			
NEUROLOGICAL		MUSCULO-SKELETAL			
Headaches		Joint Pains/Stiffness			
Blackouts		Broken Bones			
Tremors		Muscle Pain			
Numbness/Tingling		GASTRO INTESTINAL			
Dizziness		Nausea			
Fits/Seizures		Vomiting			
Difficulty Walking		Stomach Pains			
Head Injury		Constipation			
Forgetting Things		Diarrhoea			

TOTAL SCORE	
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# GENERAL HEALTH QUESTIONNAIRE

Please read this carefully:

I should like to know if you have had any medical complaints and how your health has been in general over the past few weeks. Please answer ALL the questions on the following pages simply by circling the answer that you think most nearly applies to you. Remember that we want to know about present and recent complaints and those that you had in the past.

## HAVE YOU RECENTLY:

1. Been feeling well and in good health?

BETTER THAN USUAL	SAME AS USUAL	WORSE THAN USUAL	MUCH WORSE THAN USUAL
-------------------	---------------	------------------	-----------------------

2. Been feeling in need of a pick me up?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

3. Been feeling run down and out of sorts?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

4. Felt that you are ill?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

5. Been getting any pains in your head?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

6. Been getting a feeling of tightness or pressure in your head?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

7. Been having hot or cold spells?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

8. Lost much sleep over worry?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

9. Had difficulty in staying asleep once you are off?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------



10. Felt constantly under strain?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

11. Been getting edgy and bad tempered?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

12. Been getting scared or panicky for no good reason?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

13. Found everything getting on top of you?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

14. Been feeling nervous and strung up all the time?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

15. Been managing to keep busy and occupied?

MORE SO THAN USUAL	SAME AS USUAL	RATHER LESS THAN USUAL	MUCH LESS THAN USUAL
--------------------	---------------	------------------------	----------------------

16. Been taking longer over the things you do?

QUICKER THAN USUAL	SAME AS USUAL	LONGER THAN USUAL	MUCH LONGER THAN USUAL
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17. Felt on the whole you were doing things well?

BETTER THAN USUAL	ABOUT THE SAME	LESS WELL THAN USUAL	MUCH LESS WELL
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18. Been satisfied with the way you've carried out your task?

MORE SATISFIED	ABOUT THE SAME	LESS THAN USUAL	MUCH LESS SATISFIED
----------------	----------------	-----------------	---------------------

19. Felt that you are playing useful part in things?

MORE SO THAN USUAL	SAME AS USUAL	LESS USEFUL THAN USUAL	MUCH LESS USEFUL
--------------------	---------------	------------------------	------------------

20. Felt capable of making decisions about things?

MORE SO THAN USUAL	SAME AS USUAL	LESS SO THAN USUAL	MUCH LESS CAPABLE
--------------------	---------------	--------------------	-------------------

21. Been able to enjoy your normal day to day activities?

MORE SO THAN USUAL	SAME AS USUAL	LESS SO THAN USUAL	MUCH LESS THAN USUAL
--------------------	---------------	--------------------	----------------------

22. Been thinking of yourself as a worthless person?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

23. Felt that life is entirely hopeless?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

24. Felt that life is not worth living?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

25. Thought of the possibility that you might do away with yourself?

DEFINITELY NOT	I DON'T THINK SO	HAS CROSSED MY MIND	DEFINITELY HAVE
----------------	------------------	---------------------	-----------------

26. Found at times that you couldn't do anything because your nerves were so bad?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

27. Found yourself wishing you were dead and away from it all?

DEFINITELY NOT	I DON'T THINK SO	HAS CROSSED MY MIND	DEFINITELY HAVE
----------------	------------------	---------------------	-----------------

28. Found that the idea of taking your own life kept coming into your mind?

NOT AT ALL	NO MORE THAN USUAL	RATHER MORE THAN USUAL	MUCH MORE THAN USUAL
------------	--------------------	------------------------	----------------------

### GHQ SUMMARY DATA

A	B	C	D	TOTAL

### General Comments on Health

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## Appendix A (iv)

### RELAPSE QUESTIONNAIRE

#### Instructions

Suppose you have made positive changes with regard to your drug taking please rate how confident you feel at present in your ability to maintain these changes in the following situations.

1. If you are Feeling "low" (depressed, lonely, frustrated, angry, etc)

Very confident					Not at all confident	
100%	80%	60%	40%	20%	0%	

2. If you have had a "row" (argument, verbally abused, physical fight, etc)

Very confident					Not at all confident	
100%	80%	60%	40%	20%	0%	

3. If someone offers you drugs or puts you under pressure to use drugs (pressure from a dealer, another user, friend, etc)

Very confident					Not at all confident	
100%	80%	60%	40%	20%	0%	

4. If you find yourself in a situation where others are using drugs

Very confident					Not at all confident	
100%	80%	60%	40%	20%	0%	

5. If you are feeling good or feel like celebrating

Very confident					Not at all confident	
100%	80%	60%	40%	20%	0%	

6. If you are feeling physically ill

Very confident					Not at all confident	
100%	80%	60%	40%	20%	0%	

7. If you feel like proving to your self that you no longer have a drug problem

Very confident					Not at all confident	
100%	80%	60%	40%	20%	0%	



Appendix A (v)

DISSONANCE QUESTIONNAIRE

Please circle the most appropriate number stating your agreement or disagreement with the following statements in terms of feelings about your own drug use during the past week.

1. I feel guilty about the amount of drugs I use.

Agree Strongly							Disagree Strongly
	7	6	5	4	3	2	1

2. I feel criticised because of my drug use.

Agree Strongly							Disagree Strongly
	7	6	5	4	3	2	1

3. I can hardly ever say no if drugs are offered to me.

Agree Strongly							Disagree Strongly
	7	6	5	4	3	2	1

4. When I am not using I hardly ever give it a thought.

Agree Strongly							Disagree Strongly
	7	6	5	4	3	2	1

5. Sometimes my whole being seem to crave for drugs.

Agree Strongly							Disagree Strongly
	7	6	5	4	3	2	1

6. I enjoy using drugs.

Agree Strongly							Disagree Strongly
	7	6	5	4	3	2	1

7. When I use drugs I often feel like prolonging the effect by using more or taking another drug.

Agree Strongly Disagree Strongly

7 6 5 4 3 2 1

8. I am not at all dependent on drugs.

Agree Strongly Disagree Strongly

7 6 5 4 3 2 1

9. When I use I seem to do so without thinking of the consequences.

Agree Strongly Disagree Strongly

7 6 5 4 3 2 1

10. Drug taking always takes second place to other things in my life.

Agree Strongly Disagree Strongly

7 6 5 4 3 2 1

11. My using is always a social thing.

Agree Strongly Disagree Strongly

7 6 5 4 3 2 1

12. I don't think I need to change my drug taking habits.

Agree Strongly Disagree Strongly

7 6 5 4 3 2 1

13. When I am using I always think about the next fix.

Agree Strongly Disagree Strongly

7 6 5 4 3 2 1

14. I am some one who would compulsively take any drug available.

	Agree Strongly						Disagree Strongly
	7	6	5	4	3	2	1

15. I feel I am addicted to drugs.

	Agree Strongly						Disagree Strongly
	7	6	5	4	3	2	1

16. Drug taking is too much of a problem for me to be able to handle it on my own.

	Agree Strongly						Disagree Strongly
	7	6	5	4	3	2	1

17. I think the way I use drugs is within normal social limits.

	Agree Strongly						Disagree Strongly
	7	6	5	4	3	2	1

18. I often find myself taking drugs against my better judgement.

	Agree Strongly						Disagree Strongly
	7	6	5	4	3	2	1

19. My drug taking makes me very depressed.

	Agree Strongly						Disagree Strongly
	7	6	5	4	3	2	1

20. I always know when to stop when I am using drugs.

	Agree Strongly						Disagree Strongly
	7	6	5	4	3	2	1



21. I often want drugs badly but I never feel I could pawn possessions, steal, borrow or do any thing illegal to get drugs.

Agree Strongly						Disagree Strongly
	7	6	5	4	3	2 1

22. I can control my drug taking depending on what I am doing or who I am with.

Agree Strongly						Disagree Strongly
	7	6	5	4	3	2 1

23. It never really worries me if I don't know when I will be having my next fix.

Agree Strongly						Disagree Strongly
	7	6	5	4	3	2 1

24. My drug taking is hardly ever uncontrolled.

Agree Strongly						Disagree Strongly
	7	6	5	4	3	2 1

Appendix A (v)

Readiness to Change Questionnaire

**CHANGE QUESTIONNAIRE**

The following questionnaire is designed to identify how you *personally* feel about your using right now. Please read each of the questions below carefully, and then decide whether you agree or disagree with the statements. Please circle the answer of your choice to each question. Your answers are completely private and confidential.

		Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree	Official use only
1	I don't think I use too much.	1	2	3	4	5	P
2	I'm trying to use less than I used to.	1	2	3	4	5	A
3	I enjoy my using, but sometimes I use too much.	1	2	3	4	5	C
4	Sometimes I think I should cut down on my using.	1	2	3	4	5	C
5	It's a waste of time thinking about my using.	1	2	3	4	5	P
6	I have just recently changed my using habits.	1	2	3	4	5	A
7	Anyone can talk about wanting to do something about using, but I am actually doing something about it.	1	2	3	4	5	A
8	I am at the stage where I should think about using less drugs.	1	2	3	4	5	C
9	My using is a problem sometimes.	1	2	3	4	5	C
10	There is no need for me to think about changing my using.	1	2	3	4	5	P
11	I am actually changing my using habits right now.	1	2	3	4	5	A
12	Using less drugs would be pointless for me.	1	2	3	4	5	P

## Appendix A (vi)

### SEVERITY OF DEPENDENCE SCALE

#### Instructions

*Please think of your drug use during a typical recent period of using when you answer these questions.*

*Please answer by circling one response only.*

1. Did you think that your drug use was out of control?

NEVER OR ALMOST NEVER	SOMETIMES	OFTEN	ALWAYS OR NEARLY ALWAYS
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2. Did the prospect of missing a dose make you very anxious or worried?

NEVER OR ALMOST NEVER	SOMETIMES	OFTEN	ALWAYS OR NEARLY ALWAYS
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3. Did you worry about your drug use?

NEVER OR ALMOST NEVER	SOMETIMES	OFTEN	ALWAYS OR NEARLY ALWAYS
-----------------------------	-----------	-------	-------------------------------

4. Did you wish you could stop?

NEVER OR ALMOST NEVER	SOMETIMES	OFTEN	ALWAYS OR NEARLY ALWAYS
-----------------------------	-----------	-------	-------------------------------

5. How difficult would you find it to stop or go without drugs?

IMPOSSIBLE	VERY DIFFICULT	QUITE DIFFICULT	NOT DIFFICULT
------------	----------------	-----------------	---------------



Appendix A (viii)

<b>PLYMOUTH DRUG OUTCOME QUESTIONNAIRE</b>		NAME:		
		No.		
		DATE:		
		STAFF INITIALS:		
Improvement, or absence of risk, is indicated by an increase in score. Since we wish to assess the client's position at a particular time, the questions are in the present tense, or refer to the previous three months. Please see list of definitions overleaf.				
SCORE=	PDOQ CHECKLIST		11. Is the client's drug use legal? If not using drugs or YES =	1
	Assessed & Closed			
Is the score entered in the notes?  YES / NO	Assessed - wait list		12. Has the client stopped use of their main illegal drug in the past 3 months? If not using drugs or YES =	1
	Assessed - case open			
	Review No:		13. Has the client's drug use decreased to acceptable social limits in the preceding 3 months? If not using drugs or YES=	1
	Reviewed & Closed			
1.	Has the client kept all appointments in the preceding 3 months? YES=	1	14. Is the client's accommodation secure? YES=	1
2.	Is the client now registered with the GP? YES=	1	15. Has the client stayed at the same address for the past 3 months? YES=	1
3.	Does the client report the GP as helpful? YES=	1	16. Has the client held a job, training in the past 3 months? (includes full-time child care) YES=	1
4.	Does the client appear healthy? YES=	1	17. Does the client now hold a job or training? (includes full-time child care) YES=	1
5.	Has the client avoided any drug related medical problems in the proceeding 3 months? YES=	1	18. Does the client use condoms, or is in a stable monogamous long-term relationship ('married' in some sense) or not having sexual relations? YES=	1
6.	Is the client committing any drug related crime now? NO=	1	19. Does the client know how HIV is transmitted? YES=	1
7.	Has the client been in drug related legal trouble in the past three months? NO=	1	20. Are the client's personal relationships good or improved in the past 3 months? YES=	1
8.	Does the client inject drugs? If never injected or has stopped = OR if is injecting score 0	1	<b>PLYMOUTH COMMUNITY DRUG SERVICE:</b>  <b>25 WYNDHAM SQUARE PLYMOUTH PL1 5EG</b>  <b>TEL: (01752) 254103</b>  © 1993	
9.	Does the client share injecting equipment? If the client has stopped injecting or never shared or has stopped sharing = OR if client is sharing score 0	1		
10.	Does the client use clean injecting equipment? If the client is not injecting, or does clean = OR if the client is not clearing, score 0	1		



## PDOQ: PLYMOUTH DRUG OUTCOME QUESTIONNAIRE

### DEFINITIONS

**CLIENT** - Any service user with a drug related problem

**KEYWORKER** - A member of staff specifically allocated to deliver a service to a client on caseload who will be principally responsible for supervising the care offered to that client whilst in treatment.

**DRUG RELATED MEDICAL PROBLEMS** - Medical problems which arise as a direct result of drug taking e.g. abscesses, thrombophlebitis, overdose, septicaemia etc.

**DRUG RELATED CRIME** - Any crime which is committed principally to procure drugs, e.g. chemist break-ins, prescription forgery, burglary and theft. This should also include prostitution where prostitution would not normally be undertaken if there were no drug problems for that individual.

**DRUG RELATED LEGAL TROUBLE** - Any legal proceedings arising from drug related crime (as above).

**LEGAL DRUG USE** - Any drug use which is not illicit e.g. prescribed drugs where those drugs are prescribed to that particular individual, legally available drugs such as alcohol and "over the counter" medicines.

**MAIN ILLEGAL DRUG** - The main drug which a client reports having difficulty with.

**"ACCEPTABLE SOCIAL LIMITS" OF DRUG USE** - Where there is a cessation of problematic drug use. Therefore, where a client's drug use is limited to "normal" or acceptable use, or total abstinence e.g. social drinking within safe limits. Intermittent use of cannabis on a social basis is also included as 'acceptable' in this definition.

**SECURE ACCOMMODATION** - Where the client defines his or her accommodation as secure.

### GUIDANCE NOTES

The questionnaire should be completed by the keyworker ideally in collaboration with the client or as soon after as is practical. If there is any disagreement or discrepancy in reporting between these two people the view of the keyworker will be paramount. All questions will be validated by objective evidence when that is available e.g. urine tests.

The questionnaire will be helpful to keep clients "on track" with their treatment goals. It becomes implicit at regular intervals that we wish to see steady improvement whilst they are in treatment with the service.

The questionnaire must be completed at the beginning of treatment and at the end of treatment. It should also be repeated at three monthly intervals during treatment until that case is closed.

Each time the questionnaire is carried out with a client it should be noted by date on the inside flap of the clients keyworker file. It is the responsibility of the keyworker to ensure that this questionnaire is carried out as outlined. Assessment PDOQ to be recorded on assessment form on front sheet.



## Appendix A (ix)

### TEMPLATE FOR CASE NOTE ANALYSIS

Name/Study number ..... Date: .....

Period 6 week/ 3 months / 6 months

Frequency of attendance .....

Number of attendance .....

Frequency of Methadone dispensing .....

Level of Methadone prescription .....

**Recording of:**

- Needle sharing            Yes/No (Yes = 1 / No = 0)
- Injecting                Yes/No
- Unsafe sex               Yes /No
- Using on top             Yes/No
- Reduction in drug use   Yes/No
- Legal problems          Yes/ No
- Improvement in personal relationships yes/NO
- Criminal behaviour     Yes / No
- Employment              Yes / No (yes = 0, No = 1)
- Secure accommodation   Yes /No
- Health problems        Yes / No                    "
- Drug related health problems Yes/No

Other .....

**Urine Analysis**

Test dates									
DRUG	+	-	+	-	+	-	+	-	Ave
Opiates									
Methadone									
cocaine									
Amphetamines									



CASE NOTE TEMPLATE FRONT SHEET

NAME: ..... d.o.b. ....

M/F: ..... Ethnic Origin: .....

Amount of use: .....

Method of use: .....

Age of first use: .....

Age addicted from: .....

Accommodation: .....

Employment: .....

Children: .....

Other drugs

Tobacco .....

Alcohol .....

Crack .....

Traquilizer .....

Cannabis .....

Amphetamines .....

Hallucinogens .....

Staff opinions questionnaire - OTI study

Evaluation Questionnaire

Name:.....

Date.....

Name of client ..... D.O.B. ....

1) Approximate time taken to complete the assessment

Dates of assessment

Time taken

1)

2)

3)

4)

2) Aspects or items you found most difficult and why ? (please rate most difficult 1, 2, etc.)

3) What aspects of the form was most helpful ? (please rate 1, 2, 3, etc)

4) What changes to the assessment do you recommend?

## Appendix A (xi)

### Plymouth Drug Outcome Questionnaire Evaluation Form

Name: .....

Years of experience working with drug users: .....

Number of clients in case load .....

1) Ease of administration  
How easy was it to use the questionnaire?

2) Time taken: on average .....

3) How difficult was it to answer the questions?

4) Do you think this questionnaire will be useful for your work?

4a) Can you rate its usefulness

Very useful 5 4 3 2 1 Not at all useful

4b) Can you rate your satisfaction with it

Very Satisfied 5 4 3 2 1 Not at all satisfied

5) Would you use it routinely in your work?

6) What aspects were most helpful?

7) What aspects were most unhelpful?



- 8) What changes would you recommend to the questionnaire?
- 9) Any other comments about the questionnaire and its use
- 10) What do you think about outcome measurement?
- 11) In what areas do you think is important to measure outcome?
- 12) Can you suggest an alternative method of measuring outcome

## Appendix B

### Ethical Information

## Appendix B (i)

### Participant information from the OTI study

UNIVERSITY COLLEGE LONDON MEDICAL SCHOOL

DEPARTMENT OF PSYCHIATRY

Wolfson Building  
Riding House Street  
London W1N 8AA

Fax 0171 323 1459

Tel

**UCL**  
MEDICAL  
SCHOOL

#### Information Sheet

Dr Angela Byrne

Ms Sarah Davidson

We are researchers working for University of London Medical School. We are conducting a study of the methadone programmes and we are asking all new clients to take part. In order to see how effective the programmes are, it is important to talk to clients at various stages of treatment and we would be very grateful for your help at this time.

If you agree to take part, we will ask you to fill out some questionnaires and we will also need to see you in person to ask you some more detailed questions. Each session will take about an hour.

We would also like to contact people after they have been on the programmes for 6 weeks, 3 months and 6 months to ask them the same questions in order to see how the programme is affecting different aspects of their lives.

You do not have to take part in this study if you do not want to. If you decide to take part you may withdraw at any time without having to give a reason. Your decision whether to take part or not will not affect your care and management in any way.

We want to assure you that, if you take part, any information given will be completely confidential and nobody else will have access to it.

If you agree to take part, you will receive £10 worth of vouchers, from whichever shop you choose (or a phonecard). You will be given a £5 voucher after 6 weeks and another £5 voucher after 6 months.

You can choose the time and date of your first session now by asking to see the message book for Angela and Sarah held at the front desk.

If you have any doubts or questions about the study, please do not hesitate to contact us. Thank you for your co-operation.

Yours sincerely

  
Dr Angela Byrne / Ms Sarah Davidson

Head of Department and Chairman of the Board of Psychiatry Professor A Newman  
Departmental Administration Ms J White

Deputy Head of Department Professor C Katona

Unit Directors: Attentional Intelligence Dr D Farrow, Child & Adolescent Psychiatry Professor H Zeman, Clinical Anthropology Professor R Littlewood  
Cognitive Behaviour Therapy Dr E Clark, Developmental Psychopathology Professor P Hobson, Forensic Psychiatry Dr H Kennedy, Health Psychology  
Professor A Newman, Medical Sociology Dr G Szmber, Molecular Psychiatry Dr H Goodwin, Neuropsychiatry Dr M Robertson, Psychiatry of the Elderly  
Professor C Katona, Psychotherapy Dr J Doolan, Quality of Life Research Professor R Kessler, Social & Community Psychiatry Dr S Stanfield, Stress  
Management Dr J Doolan, Substance Use & Abuse Dr J Doolan, Trauma Dr J Doolan



Informed consent form OTI study

**EVALUATION OF THE LOW-THRESHOLD METHADONE PROGRAMME  
AND THE DAILY DISPENSING PROGRAMME.**

***CONSENT FORM***

*Angela Byrne and Sarah Davidson*

Please read the statement below and if you agree with it, please sign your name in the space provided.

"I have been informed about the nature of this study and have been given the opportunity to ask about it.

I understand that I am free to withdraw from this study at any time, without giving a reason and that it will not affect my treatment in any way.

I agree to take part in the study."

Signed .....

Date. . . . .

## Appendix B (iii)

### Participant information from the PDOQ study

#### Assessment & Outcome Project Information Sheet

We are carrying out a study to try and improve the way in which you are assessed when you come in for treatment and the way in which your progress is measured once you are in treatment.

You would be helping us a great deal if you would participate in the study. All that you would be required to do is to fill out five brief questionnaires that would take approximately 20 minutes.

When you fill out the questionnaires please put them in the envelope provided, seal it and place them in the box provided.

At any stage you can decide not to participate in the study. If you decide not to participate all you have to do is to return the questionnaires blank.

Your answers to the questionnaires will be only seen by a researcher. The staff who will assess you or your key worker if you are taken in for treatment will not see your answers. As part of the study the researcher will scan your clinic notes and make a record of your routine investigations including your urine analysis.

Your decision to participate or not participate in the study will not in any way influence your treatment at the clinic. The decisions whether to accept you for treatment or the type of treatment offered will be based entirely on the assessment interview and the opinions of the clinical team.

Your help in this study will be very much appreciated.

Informed consent form PDOQ study

**INFORMED CONSENT FORM**

I understand the purpose of the study and agree to participate in it.

I understand that participation in the study will not in any way influence the treatment I receive from the Camden & Islington Drugs Service.

I understand that my responses will be entirely confidential from the clinicians who might be involved in my care.

I understand that I can at any time withdraw my participation in the study.

..... date: .....

Signature

.....  
Name





**CAMDEN & ISLINGTON**  
Community Health Services NHS Trust  
*Your Partner for Health*

**LOCAL RESEARCH ETHICS COMMITTEE**

**Vezey Strong Building, 112 Hampstead Road, London NW1 2LT**  
**Tel: 0171 530 3055 Fax: 0171 530 3056**

26 February, 1996

Ms Shamil Wanigaratne  
Head of Psychology, Substance Misuse Services  
Camden & Islington Substance Misuse Services  
Vezey Strong Building  
112 Hampstead Road

Dear Mr Wanigaratne

Application No: 96/07

Title: Assessment and outcome measurement in the treatment of opiate addiction

Thank you for your letter of 20 February enclosing the amended patient information sheet which now informs subjects that their notes would be examined and urine analysed as part of the study. This is now acceptable to the Local Research Ethics Committee and I am pleased to say approval can be given to this project. Please note that the following conditions of approval apply:

- It is the responsibility of the investigators to ensure that all associated staff including nursing staff are informed of research projects and are told that they have the approval of the Ethics Committee.
- If data are to be stored on a computer in such a way as to make it possible to identify individuals then the project must be registered under the Data Protection Act 1984. Please consult your department data protection officer for advice.
- The Committee must receive immediate notification of any adverse or unforeseen circumstances arising out of the trial.
- The Committee must receive notification: a) when the study is complete; b) if it fails to start or is abandoned; c) if the investigator/s change and d) if any amendments to the study are made.

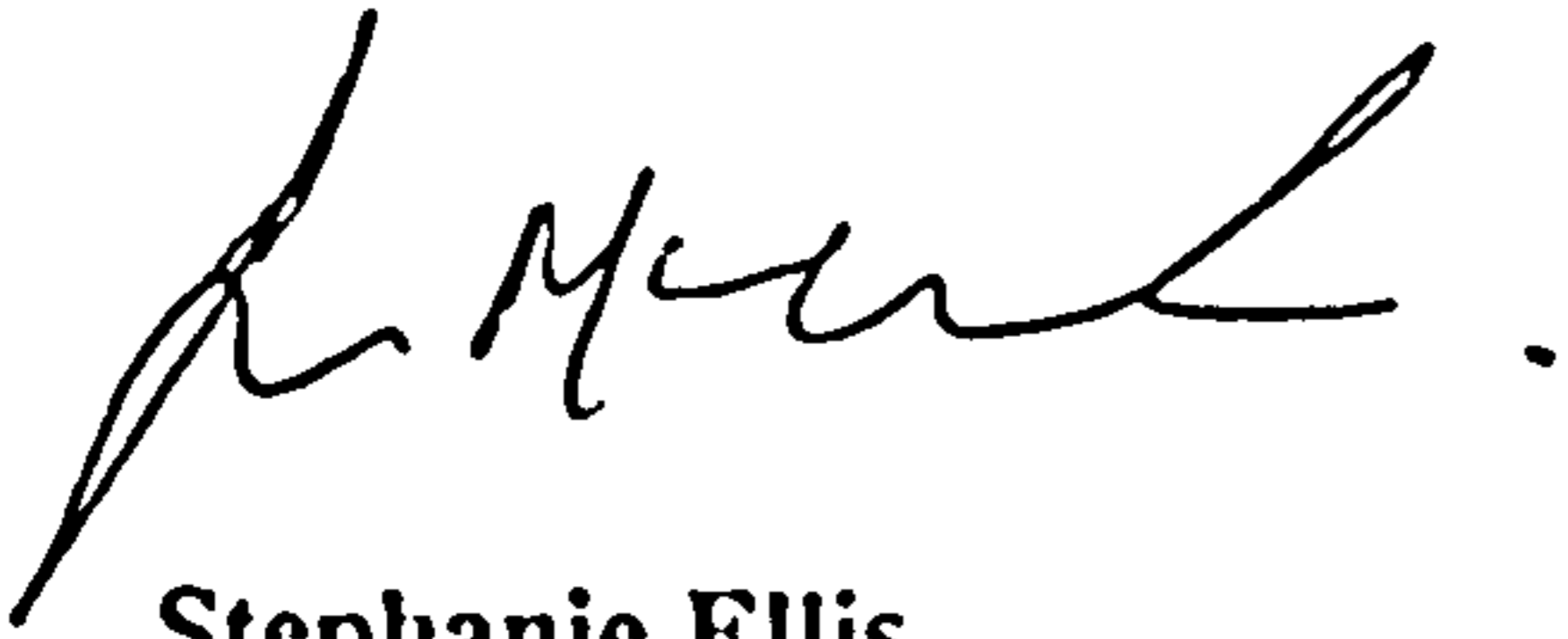
.../Page 2



Mr Wanigaratne  
26 February 1996  
Page 2

With best wishes.

Yours sincerely

A handwritten signature in black ink, appearing to read 'S. Ellis', written in a cursive style.

*S.P.*

**Stephanie Ellis**  
**Chairperson**

## Appendix C

### Case study



## Appendix C (i)

### Service specifications

<p style="text-align: center;"><b>PSYCHOLOGY SERVICES TO CAMDEN &amp; ISLINGTON DRUG SERVICES</b></p>
---------------------------------------------------------------------------------------------------------------

As of 1st April 1993 this is a statement of the clinical psychology service provided to the Camden and Islington Drugs Service and will be subject to full review in April 1994. In view of current developments in the Drugs Service it will also be reviewed in October 1993. The service will be provided at the Hampstead Road Centre, the Needle Exchange and at community settings as appropriate.

#### 1. SERVICES TO BE PROVIDED

##### 1.1 Clinical Service Provision

###### 1.1.1 Assessment

Contribute to the multi-disciplinary assessment of drug users and help develop assessment procedures and systems within the drugs service.

###### 1.1.2 Treatment

Psychological treatment including Interventions on a range of theoretical models including cognitive/behavioral, Psychodynamic and Systemic approaches. Service will be provided to individuals, couples, families or groups as appropriate.

Contribute to multi-disciplinary treatment programmes.

Post-qualification psychologist will undertake some general drug work which may involve scripting (max. 5 caseload).

###### 1.1.3 Designated psychologist to participate in clinical and business meetings of Client Services, CHADS and the Needle Exchange as appropriate.

##### 1.2 Supervision

- 1.2.1 Group Clinical Supervision.
  - 1.2.2 Individual Clinical Supervision.
  - 1.2.3 Ongoing supervision workshops on relapse prevention work.
  - 1.2.4 Ongoing supervision workshops on motivational interviewing.
  - 1.2.5 Supervision workshops on Assessment.
- 1.3 Consultation
- 1.3.1 Provision for consultation and advice in psychological interventions to all staff in drug service.
  - 1.3.2 Provide a consultation service to other agencies, including non-statutory agencies supported by the Trust.
2. SERVICE DEVELOPMENT
- 2.1 Head of Adult Mental Health psychology to participate in Drug Service Policy Group.
  - 2.2 Co-ordinator of Drug Service Psychology to participate in Drug Service management meetings as appropriate.
  - 2.3 Co-ordination of Drug Service Psychology or designated psychologist to participate in Drug Service Information Strategy Group.
  - 2.4 Participate in Information System Project Team.
  - 2.5 Contribute towards developing new psychological interventions in the area based on theoretical developments and evaluate such developments.
  - 2.6 Contribute to the development of assessment within the service.
  - 2.7 Participate in Ethnic Minority and Substance Use Forum.
  - 2.8 Participate in appropriate working parties including:
    - (a) Developing services for Cocaine users.
    - (b) Systematic Care Planning.
    - (c) Client Information and Contract formulation.
3. RESEARCH AND SERVICE EVALUATION
- 3.1 Co-ordinator of Drug Service Psychology to participate in the Drug Service Research Co-ordination Group.

3.2 To complete work undertaken on the following research and evaluation projects:

- (a) Intake Group
- (b) Camden Neighbourhood Drop-In
- (c) Hepatitis B Compliance Study
- (d) Condom use and uptake among IVDU's study
- (e) Long term users drop-in
- (f) Prevalence of Ecstasy use in the adolescent community: prevention and treatment

3.3 Co-ordinator of Drug Service Psychology to participate in the Service Clinical Audit Group.

3.4 All psychologists to contribute to general audit work in the Drug Service.

#### 4. TEACHING

4.1 CONTRIBUTE TO THE ACADEMIC MEETING PROGRAMME OF THE DRUG SERVICE.

4.2 Contribute to multidisciplinary training programme both within and without the Drugs Service.

4.3 Contribute towards teaching research and audit methods to staff within the Drugs Service.

#### 5. STAFFING LEVELS

5.1 The above services of management were to be provided by a range of psychology staff with total sessions, at present, of 1.8 w.f.e.

#### 6. QUALITY OF SERVICE

The service will be provided by qualified clinical psychologists or clinical psychology trainees under the supervision of qualified clinical psychologists. The services provided will be monitored and subject to the formal quality assurance procedures operating within the Trust psychology services. Psychologists in the Drugs Service will participate in the supervision and Continuing Professional Development systems of the Trust Psychology Service.

Psychologists will also contribute to the quality assurance systems and procedures within the drug dependence service.



Service level agreement

CLINICAL PSYCHOLOGY SESSIONAL COMMITMENTS

CURRENT W.T.E. = 3.0  
 VACANT W.T.E. = 0.3  
 TOTAL W.T.E. = 3.3

NAME	DESCRIPTION	NO OF SESSIONS
(10 SESSIONS)	SERVICE WIDE (MANAGEMENT MEETINGS, INFORMATION SYSTEM, SERVICE DEVELOPMENT, AUDIT GROUP, RESEARCH GROUP, ASSESSMENT GROUP, ETHNIC MINORITIES SERVICE WIDE (CLINICAL, SUPERVISION & CONSULTATION) CHADS CLINICAL CHADS (BUSINESS & CLINICAL MEETINGS) PSYCHOLOGY BUSINESS, SUPERVISION AND TEACHING SPECIAL INTEREST SESSION HIV/AIDS RESEARCH GROUP AND CPD	2 2 2 1 1 1 1
(10 SESSIONS)	SERVICE WIDE (CLINICAL) HRC (CLINICAL) HRC (BUSINESS & CLINICAL MEETINGS) SERVICE DEVELOPMENT PSYCHOLOGY BUSINESS, RESEARCH, TEACHING, AND SUPERVISION CPD	1 4 1 2 1 1
(10 SESSIONS)	HRC (CLINICAL) CHADS (CLINICAL) NEEDLE EXCHANGE SERVICE DEVELOPMENT RESEARCH CPD	4 2 1 1 1 1

PSYCHOTHERAPY (3 Sessions vacant)

Service Wide (clinical) =  
 Service Wide (supervision) =  
 Teaching =



## Sessional Commitments

1.	Assessment	:	3	sessions to multi-disciplinary
		:	2	sessions to assessment for psychological treatment
2.	Treatment	:	10	sessions for general psychological treatment
3.	Supervision	:	3	sessions for supervision
4.	Consultation	:	1	session for consultation
5.	Service Development	:	1	session contribution to general management
		:	1	session contribution to development of assessment systems
		:	2	session contribution to stimulant use
6.	Research and Service Evaluation	:	2	session contribution to research
		:	1	session contribution to audit
7	Teaching	:	1	session contribution to teaching
8.	CPD	:	3	sessions not to be included

total: 30 (inc CPD)





Appendix C (iv)

Template for staff interviews



Dear .....

Re: Evaluation of the Psychology Service

It is an year since the new psychology service provision was implemented. I will be having brief formal meetings with you to discuss the service. I would be most helpful if you could consider the following areas when you prepare to give me feedback on the service:

- 1) General satisfaction with the service.
- 2) Is the psychology input meeting the needs of your service?
- 3) Your views on psychologists providing a specific input as opposed to a generic role.
- 4) Limitations of the service.
- 5) How it can be further developed.

Please make a note of any other comments you may have. I look forward to meeting you with you.

Many thanks

Shamil Wanigaratne  
Head of Clinical Psychology



Rabbi JULIA NEUBERGER: Chairman  
LOUIS SMIDT: Chief Executive

## Appendix D

### Diagnostic definitions

## Post Traumatic Stress Disorder (PTSD)

### Current definitions

#### ICD 10 Definition

##### F43.1 Post-traumatic stress disorder

This arises as a delayed and/or protracted response to a stressful event or situation (either short- or long-lasting) of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone (e.g. natural or man-made disaster, combat, serious accident, witnessing the violent death of others, or being the victim of torture, terrorism, rape, or other crime).

Predisposing factors such as personality traits (e.g. compulsive, asthenic) or previous history of neurotic illness may lower the threshold for the development of the syndrome or aggravate its course, but they are neither necessary nor sufficient to explain its occurrence.

Typical symptoms include episodes of repeated reliving of the trauma in intrusive memories ("flashbacks") or dreams, occurring against the persisting background of a sense of "numbness" and emotional blunting, detachment from other people, unresponsiveness to surroundings, anhedonia, and avoidance of activities and situations F43.2 reminiscent of the trauma. Commonly there is fear and avoidance of cues that remind the sufferer of the original trauma. Rarely, there may be dramatic, acute bursts of fear, panic or aggression, triggered by stimuli arousing a sudden recollection and/or re-enactment of the trauma or of the original reaction to it.

There is usually a state of autonomic hyperarousal with hypervigilance, an enhanced startle reaction, and insomnia. Anxiety and depression are commonly associated with the above symptoms and signs, and suicidal ideation is not infrequent. Excessive use of alcohol or drugs may be a complicating factor.

The onset follows the trauma with a latency period which may range from a few weeks to months (but rarely exceeds 6 months). The course is fluctuating but recovery can be expected in the majority of cases. In a small proportion of patients the condition may show a chronic course over many years and a transition to an enduring personality change (see F62.0).

### DSM IV Definitions

#### 309.81 Posttraumatic Stress Disorder

##### Diagnostic criteria for 309.81

A. The person has been exposed to a traumatic event in which both of the following were present:  
(1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.

(2) the person's response involved intense fear, helplessness, or horror. Note: In children, this may be expressed instead by disorganised or agitated behaviour.

B. The traumatic event is persistently re-experienced in one (or more) of the following ways:  
(1) recurrent and intrusive distressing recollections of the event including images, thoughts, or perceptions. Note: in young children, repetitive play may occur in which themes or aspects of the trauma are expressed.

(2) recurrent distressing dreams of the event. Note: In children, there may be frightening dreams without recognisable content.

(3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). Note: In young children, trauma-specific re-enactment may occur.

(4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

(5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

(1) efforts to avoid thoughts, feelings, or conversations associated with the trauma

(2) efforts to avoid activities, places, or people that arouse recollections of the trauma

(3) inability to recall an important aspect of the trauma

(4) markedly diminished interest or participation in significant activities

(5) feeling of detachment or estrangement from others.

(6) restricted range of affect (e.g., unable to have loving feelings)

(7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

(1) difficulty falling or staying asleep

(2) irritability or outburst of anger

(3) difficulty concentrating

(4) hypervigilance



(5) exaggerated startle response

E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if:

Acute: if duration of symptoms is less than 3 months

Chronic: if duration of symptoms is 3 months or more

Specify if:

With Delayed Onset: if onset of symptoms is at least 6 months after the stressor.

## Personality Disorders

### ICD 10

The concept of a personality disorder encapsulates the following: behaviour patterns which tend to be persistent and are the expression of an individual's characteristic lifestyle and mode of relating to self and others

Some of these conditions and patterns of behaviour emerge early in the course of individual development, as a result of both constitutional factors and social experience, while others are acquired later in life.

These types of condition comprise deeply ingrained and enduring behaviour patterns, manifesting themselves as inflexible responses to a broad range of personal and social situations. They represent either extreme or significant deviations from the way the average individual in a given culture perceives, thinks, feels, and particularly relates to others. Such behaviour patterns tend to be stable and to encompass multiple domains of behaviour and psychological functioning. They are frequently, but not always, associated with various degrees of subjective distress and problems in social functioning and performance.

### F60.3 Emotionally unstable personality disorder

A personality disorder in which there is a marked tendency to act impulsively without consideration of the consequences, together with affective instability. The ability to plan ahead may be minimal, and outbursts of intense anger may often lead to violence or "behavioural explosions"; these are easily precipitated when impulsive acts are criticised or thwarted by others. Two variants of this personality disorder are specified, and both share this general theme of impulsiveness and lack of self-control.

### F60.30 Impulsive type

The predominant characteristics are emotional instability and lack of impulse control. Outbursts of violence or threatening behaviour are common, particularly in response to criticism by others.

### F60 F69 DISORDERS OF ADULT PERSONALITY AND BEHAVIOUR

Includes: explosive and aggressive personality (disorder)

Excludes: dissocial personality disorder (F60.2)

Includes: borderline personality (disorder)

### F60.31 Borderline type

Several of the characteristics of emotional instability are present; in addition, the patient's own self-image, aims, and internal preferences (including sexual) are often unclear or disturbed. There are usually chronic feelings of emptiness. A liability to become involved in intense and unstable relationships may cause repeated emotional crises and may be associated with excessive efforts to avoid abandonment and a series of suicidal threats or acts of self-harm (although these may occur without obvious precipitants).

## DSM IV Definitions

### Diagnostic Features

The essential feature of Borderline Personality Disorder is a pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity that begins by early adulthood and is present in a variety of contexts.

### Diagnostic criteria for 301.83 Borderline Personality Disorder

A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

(1) frantic efforts to avoid real or imagined abandonment. Note: Do not include suicidal or self-mutilating behaviour covered in Criterion 5.

(2) a pattern of unstable and intense interpersonal relationships characterised by alternating between extremes of idealisation and devaluation

(3) identity disturbance: markedly and persistently unstable self-image or sense of self

(4) impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating). Note: Do not include suicidal or self-mutilating behaviour covered in Criterion 5.

(5) recurrent suicidal behaviour, gestures, or threats, or self-mutilating behavior

(6) affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days)



- (7) chronic feelings of emptiness
- (8) inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights)
- (9) transient, stress-related paranoid ideation or severe dissociative symptoms

## Substance Misuse

### F10-F19 DISORDERS DUE TO PSYCHOACTIVE SUBSTANCE USE

#### Harmful use

A pattern of psychoactive substance use that is causing damage to health. The damage may be physical. (as in case of hepatitis from the self-administration of injected drugs) or mental (e.g. episodes of depressive disorder secondary to heavy consumption of alcohol).

#### Diagnostic guidelines

The diagnosis requires that actual damage should have been caused to the mental or physical health of the user.

Harmful patterns of use are often criticised by others and frequently associated with adverse social consequences of various kinds. The fact that a pattern of use or a particular substance is disapproved of by another person or by the culture, or may have led to socially negative consequences such as arrest or marital arguments is not in itself evidence of harmful use.

#### Flx.2 Dependence syndrome

A cluster of physiological, behavioural, and cognitive phenomena in which the use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviours that once had greater value. A central descriptive characteristic of the dependence syndrome is the desire (often strong, sometimes overpowering) to take psychoactive drugs (which may or may not have been medically prescribed), alcohol, or tobacco. There may be evidence that return to substance use after a period of abstinence leads to a more rapid reappearance of other features of the syndrome than occurs with nondependent individuals.

#### Diagnostic guidelines

A definite diagnosis of dependence should usually be made only if three or more of the following have been experienced or exhibited at some time during the previous year:

- (a) a strong desire or sense of compulsion to take the substance; (b) difficulties in controlling substance-taking behaviour in terms of its onset, termination, or levels of use;
- (c) a physiological withdrawal state (see Flx.3 and Flx.4) when substance use has ceased or been reduced, as evidenced by: the characteristic withdrawal syndrome for the substance; or use of the same (or a closely related) substance with the intention of relieving or avoiding withdrawal symptoms; (d) evidence of tolerance, such that increased doses of the psychoactive substance are required in order to achieve effects originally produced by lower doses (clear examples of this are found in alcohol- and opiate-dependent individuals who may take daily doses sufficient to incapacitate or kill non-tolerant users); (e) progressive neglect of alternative pleasures or interests because of psychoactive substance use, increased amount of time necessary to obtain or take the substance or to recover from its effects; (f) persisting with substance use despite clear evidence of overtly harmful consequences, such as harm to the liver through excessive drinking, depressive mood states consequent to periods of heavy substance use, or drug-related impairment of cognitive functioning; efforts should be made to determine that the user was actually, or could be expected to be, aware of the nature and extent of the harm.

Narrowing of the personal repertoire of patterns of psychoactive substance use has also been described as a characteristic feature (e.g. a tendency to drink alcoholic drinks in the same way on weekdays and weekends, regardless of social constraints that determine appropriate drinking behaviour).

It is an essential characteristic of the dependence syndrome that either psychoactive substance taking or a desire to take a particular substance should be present; the subjective awareness of compulsion to use drugs is most commonly seen during attempts to stop or control substance use. This diagnostic requirement would exclude, for instance, surgical patients given opioid drugs for the relief of pain, who may show signs of an opioid withdrawal state when drugs are not given but who have no desire to continue taking drugs.

The dependence syndrome may be present for a specific substance (e.g. tobacco or diazepam), for a class of substances (e.g. opioid drugs), or for a wider range of different substances (as for those individuals who feel a sense of compulsion regularly to use whatever drugs are available and who show distress, agitation, and/or physical signs of a withdrawal state upon abstinence). The diagnosis of the dependence syndrome may be further specified by the following five-character codes:

- Flx.20 Currently abstinent
- Flx.21 Currently abstinent, but in a protected environment (e.g. in hospital, in a therapeutic community, in prison, etc.)
- Flx.22 Currently on a clinically supervised maintenance or replacement regime [controlled dependence] (e.g. with methadone; nicotine gum or nicotine patch)
- Flx.23 Currently abstinent, but receiving treatment with aversive or blocking drugs (e.g. naltrexone or disulfiram)
- Flx.24 Currently using the substance (active dependence)
- Flx.25 Continuous use
- Flx.26 Episodic use [dipsomania]

#### DSM IV Definitions

The Substance-Related Disorders include disorders related to the taking of a drug of abuse (including alcohol), to the side effects of a medication, and to toxin exposure.



The Substance-Related Disorders are divided into two groups: the Substance Use Disorders (Substance Dependence and Substance Abuse) and the Substance-Induced Disorders (Substance Intoxication, Substance Withdrawal, Substance-Induced Delirium, Substance-Induced Persisting Dementia, Substance-Induced Persisting Amnesic Disorder, Substance-Induced Psychotic Disorder, Substance-Induced Mood Disorder, Substance-Induced Anxiety Disorder, Substance-Induced Sexual Dysfunction, and Substance-Induced Sleep Disorder).

#### Criteria for Substance Dependence

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

- (1) tolerance, as defined by either of the following:
  - a) a need for markedly increased amounts of the substance to achieve intoxication or desired effect
  - markedly diminished effect with continued use of the same amount of the substance
- (2) withdrawal, as manifested by either of the following:
  - (a) the characteristic withdrawal syndrome for the substance (refer to Criteria A and B of the criteria sets for Withdrawal from the specific substances)
  - (b) the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms
- (3) the substance is often taken in larger amounts or over a longer period than was intended
- (4) there is a persistent desire or unsuccessful efforts to cut down or control substance use
- (5) a great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects
- (6) important social, occupational, or recreational activities are given up or reduced because of substance use
- (7) the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption)

Specify if:

With Physiological Dependence: evidence of tolerance or withdrawal (i.e., either Item 1 or 2 is present)

Without Physiological Dependence: no evidence of tolerance or withdrawal (i.e., neither Item 1 nor 2 is present)

Course specifiers (see text for definitions):

Early Full Remission

Early Partial Remission Sustained Full Remission Sustained Partial Remission On Agonist Therapy In a Controlled Environment

#### Substance Abuse

##### Criteria for Substance Abuse

A.

A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:

- (1) recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)
- (2) recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use)
- (3) recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct)
- (4) continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights)

B. The symptoms have never met the criteria for Substance Dependence for this class of substance.