

Maintaining or Enabling?

An Evaluation of a
Methadone Prescribing Service
in Dublin City

by Marie Lawless and Gemma Cox

(this report was written and compiled during 2000-2001)

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Executive Summary

Introduction

Widespread concern has been illustrated at both the high prevalence and incidence of HIV and hepatitis infections among injecting drug users. Studies on the mortality of drug users have suggested that such blood borne infections have the possibility of becoming an important cause of premature death among this population group (Crofts *et al*, 1993; Crofts and Aitken, 1997; Levine *et al*, 1995). The reduction of drug related risk behaviour has therefore become a key feature and in some cases, a primary objective of many interventions which are in operation today. In this regard, there is evidence to suggest that methadone treatment has the ability to reduce not only drug related mortality but also to improve an individuals personal health and social well-being (Farrell *et al*, 1994; Gossop *et al*, 1998).

The definition of what constitutes methadone treatment in addition to the content and structure of methadone programmes varies widely. The two major uses for methadone in most countries is for either detoxification or maintenance purposes. However the distinction between methadone maintenance and other forms of methadone intervention (i.e maintenance to abstinence) can be unclear and complex. Although each may maintain their own specific goals or duration, they are nevertheless based on the definitions afforded to them within their country of use (Farrell *et al*, 1996).

Methadone treatment has become the most used form of opioid substitution (WHO 1998) and also has been extensively evaluated world-wide (Ward *et al*, 1998). However, measuring the effectiveness of methadone treatment is highly dependent on the variety of goals with which it attempts to achieve. Very little is known about the effectiveness of methadone treatment within the Irish context despite being the most used maintenance option currently available for opiate dependent individuals. This study was therefore undertaken to examine the role which methadone plays within the lives of a cohort of opiate dependent individuals in Dublin City.

Research Objectives

The aim of the research was to undertake an evaluation of the methadone prescribing service within the Merchants Quay Ireland. In this regard, it attempted to measure the levels of effectiveness in terms of clients outcomes while undergoing methadone treatment. The objectives of the study are as follows;

- To research the international information available on the evaluation of methadone maintenance programmes;
- To fully define the services provided by the methadone prescribing service;
- To identify the indicators of positive effects for the prescribing service;
- To collect information on clients self-reported behaviour at first intervention and follow-up;
- To evaluate the effectiveness of the prescribing service provided by Merchants Quay Ireland.

Pieces of the Jigsaw

Data Collection

Both qualitative and quantitative research methodologies were employed at varying stages throughout the research study. Quantitative data included collecting information on clients socio-demographic details in addition to a range of outcome domains. This outcome data was collected by administering a known research instrument, the Opiate Treatment Index (OTI), to clients at two different time periods. This questionnaire was firstly administered to all clients who were registered on the methadone prescribing service at Merchants Quay Ireland in 1999 and then again administered to clients who remained on the programme eighteen months later (2001). The qualitative research concentrated on undertaking three focus groups. Two of these groups comprised of clients who were in receipt of methadone treatment, the majority of whom were receiving such treatment in Merchants Quay, while the third group consisted of staff members of the prescribing service.

Research Findings

Key findings include:

At Baseline

- Mean age of all clients was 30.6 years which is substantially higher than the mean age of all treatment contacts within the ERHA Area.
- Female clients were proportionately more likely to be aged between the years of 25 to 34 while male clients were proportionally more likely to be over the age of 35 years;
- Only 16% of clients reported living with another drug user;
- Twenty nine percent of clients left school prior to the legal school leaving age of 15 years with an additional 36% of clients leaving at 15 years;
- Only 16% of clients reported being in employment at the time of baseline interview;
- Over a half of clients (57%) reported having being in prison at some point in time;
- 94% had previously received some form of treatment for opiate dependence;
- The mean length of time in treatment was 3 years with female clients reporting a longer period of time in treatment than their male counterparts;
- The majority of clients reported heroin as their primary drug of choice on treatment entry;
- Nearly three in four of clients reported that they had shared injecting equipment at some time in the past;

At Follow-Up

- Follow-up rate of 55% was observed after an eighteen month period;
- The majority of clients who remained on the programme were male;
- Clients who remained on the programme demonstrated a shorter mean length of time in treatment at baseline interview than clients who had left the programme;
- Follow-up clients were also more likely to report living in the family home at first interview;
- Improvements in the extent of drug using risk behaviour among clients;
- Reduction in the quantity and frequency of both licit and illicit drug consumption;

- Increase in sexual risk behaviour among clients;
- Reduction within the frequency of criminal activities undertaken by clients;
- Improvements among clients in relation to social functioning;
- Health remained largely consistent over the follow-up period;
- Marked decrease within a range of psychiatric complaints especially with regards to reported levels of anxiety among clients.

Recommendations

Expand Opiate Treatment Options Available

- Prescribing injectable methadone could target those who are not inclined to attend a service offering oral methadone or otherwise could encourage those who may not consider treatment at all. It may also serve to attract users into treatment earlier in their drug using careers.
- *Prescribing buprenorphine* would relieve clients of the inconvenience of daily dosing and has demonstrated to be equally as effective as methadone in the management of opiate dependence in other European countries.
- Prescribing diamorphine (heroin) would attract individuals who are most at risk of HIV and other drug related harm into contact with drug services. The prescription of heroin in a regulated and supervised manner would also significantly reduce the levels of individuals experiencing fatal and non-fatal overdoses.

Review Prescribing and Dispensing Practices

- Dose should be jointly agreed between the client and the doctor and should be based on their individual treatment goals or outcomes.
- Clients in receipt of other prescribed medication apart from methadone must be regularly monitored and reviewed.
- Ensure flexibility within programme delivery and that sanctions appropriately reflect the nature of the behaviour complaint.
- Consideration should be given to implementing measures which would contribute towards reducing the stigma associated with methadone maintenance such as, hair analysis.

Develop Methadone Treatment Practices in accordance with Clients Needs

- Service delivery of methadone maintenance should incorporate interventions which can provide assistance to the client on a range of psychological, social, legal and psychiatric issues.
- Develop different models of care that respond to individuals at different phases of their methadone treatment.
- Undertake a thorough review of clients progress, especially for those who may be on long term maintenance, at various three month intervals in order to reflect on, and adjust if necessary, the treatment aims and goals of the programme.
- Provision of comprehensive support services for detoxification and aftercare to assist stable clients to withdraw successfully from treatment.

Promote the Social Inclusion of Drug Users

- Facilitate access and support participation in training, educational and employment opportunities for those who are maintained on methadone. In this regard, the provision of training to employers is necessary in order to increase levels of public awareness on drug use and related issues.
- Extend drug awareness training programmes to other health care professionals who may have contact with this client group. In doing so, these individuals would be equipped with the knowledge and skills to act as a resource within the community.
- Increase liaison between drug service providers and G.P based prescribing programmes which will help co-ordinate the provision and delivery of methadone treatment within different treatment settings and also influence a more comprehensive and targeted form of drug policy.

Undertake Further Research

- Determine the treatment needs of different opiate using population groups such as, youth, women and individuals with HIV etc.
- Examine the extent of cocaine use by concurrently dependent methadone treatment individuals.
- Develop guidelines on the clinical management of treating opiate use which would help to standardize and regulate varying prescribing practices as undertaken by the Department of Health in Scotland and Wales and the Department of Health and Social Services in Northern Ireland.

Introduction

1.1 Background to the Study

Methadone is currently regarded as the most widely used treatment modality for opioid dependence (Farrell *et al.*, 1994). It is based on the premise that the provision of oral methadone can reduce the risks associated with injecting among drug users, more specifically HIV and hepatitis B and C transmission. In addition, reduced criminality and an improvement in the general health and well being of injecting drug users have been documented across numerous countries (Ball and Ross, 1991; Farrell *et al.*, 1996).

To date, a limited amount of Irish research has been undertaken in relation to methadone prescribing programmes and practices. Research which has featured attendees of methadone programmes in Ireland has tended to focus on determining their levels of risk behaviour as a cohort of intravenous drug users or as members of the 'treated' drug using population (Dorman *et al.*, 1997; Smyth *et al.*, 1998). Although international research has highlighted the effectiveness of methadone maintenance as a treatment option, the assumption cannot be made that such a treatment option is effective within the Dublin context. In view of this, Merchants Quay Ireland received funding from the Combat Poverty Agency under the Research Grants Scheme to examine the effectiveness of the Methadone Prescribing Programme provided at Merchant's Quay.

1.2 Aims and Objectives of the Study

The aim of the research was to undertake an evaluation of the methadone prescribing service within the Merchant's Quay Ireland. In this regard, it attempted to measure the levels of effectiveness in terms of clients outcomes while undergoing methadone treatment. The objectives of the study were as follows;

- To research the international information available on the evaluation of methadone maintenance programmes;
- To fully define the services provided by the methadone prescribing service;
- To identify the indicators of positive effects for the prescribing service;
- To collect information on clients self-reported behaviour at first intervention and follow-up;
- To evaluate the effectiveness of the prescribing service provided by Merchants Quay Ireland.

1.3 Methadone Prescribing Service

The Methadone Prescribing Service is just one of the services provided under the Stabilisation Programme within Merchants Quay Ireland, which aims at providing bridging mechanisms that will facilitate the movement of clients from crisis drug use to a more stable lifestyle. The Prescribing Service has been in operation since 1996 and provides a methadone detoxification and maintenance option for clients of Merchants Quay Ireland from the immediate local area. In addition, the staff team provides one to one counselling for clients being treated by the G.P Other support in the form of pre-assessments, crisis mediation, information and referrals can also be provided by the staff members of the prescribing service.

1.3.1 Aims and Objectives

The methadone prescribing programme can be seen as one of the first steps in which clients move away from crisis drug use towards a more stable and less chaotic lifestyle. Reducing the harmful effects of continued drug use is one of the primary aims of the prescribing programme. **Table 1.1 and Table 1.2** further illustrates the aims and objectives of the G.P prescribing service.

TABLE 1.1 AIMS OF THE G.P PRESCRIBING SERVICE

- To reduce the risk of contracting HIV, hepatitis B and C
- To improve health status
- To improve social functioning

TABLE 1.2 OBJECTIVES OF THE G.P PRESCRIBING SERVICE

- To reduce or cease heroin use
- To reduce the Likelihood of injecting
- To reduce the sharing of injecting equipment
- To reduce involvement in criminal activity

1.3.2 Referral Procedure

Clients can be referred internally by other services within Merchants Quay Ireland or externally by other community drug groups or organisations. All clients referred must be from the Dublin 8 Area and be shown to be actively using heroin for 3 urine tests undertaken within a period of 10 days. Upon referral, an assessment is carried out between the potential client and a staff member from the Prescribing Programme. The G.P also undertakes an assessment with the client, with whom the final decision is made. Two clinics are held weekly, on Tuesday Morning and Thursday Afternoon. Clients are also encouraged to avail of the one to one counselling service attached to the Prescribing Programme.

1.4 Structure of the Report

Chapter Two will present a review of literature on methadone treatment. International literature on the effectiveness of methadone maintenance in addition to programme characteristics and client demographics of those in treatment programmes will be reviewed. Other opiate treatment options which are currently in operation across various countries will also be documented and compared against methadone treatment.

Chapter Three will illustrate the various research methodologies, which can be employed when evaluating the effectiveness of methadone maintenance treatment. It will also present the research method undertaken and research instruments which were administered for the purpose of this study.

Chapters Four, Five and Six will present and examine the research findings. *Chapter Four* will illustrate baseline data gathered from clients on the methadone prescribing programme in 1999, which will convey a profile of attendees attending a Dublin Inner City Methadone Programme. *Chapter Five* will demonstrate quantitative research findings from clients who remained on the programme at follow-up, eighteen months later. Scores from the Opiate Treatment Index (OTI) across a range of outcome domains will be presented for these two time periods. *Chapter Six* will present an analysis the qualitative data collected from the focus groups under a number of themes.

Finally, *Chapter Seven* will convey some of the main conclusions and recommendations.

Review of the Literature

2.1 Introduction

This chapter will present an overview of the available literature on methadone treatment which exists both nationally and internationally. Literature which focuses on measuring the effectiveness of methadone treatment is presented under various outcome domains in addition to outlining programme and client characteristics associated with methadone treatment. The use of methadone treatment as either a maintenance or detoxification option will also be examined. Finally, a comparative analysis between methadone and the use of other opiate replacement therapies will be included in an attempt to further determine the effectiveness of methadone vis a vis other forms of treatment modalities.

2.2 History of Methadone Maintenance

Methadone maintenance was originally conceived of by Dole and Nyswander in the 1960's. Introducing oral methadone as an alternative to injectable opiates, such as heroin, thereby reduced the health related problems associated with injecting. They claimed that high or 'blockage' daily doses of oral methadone removed the craving for heroin and blocked its euphoric effects. The aim of the Dole and Nyswander model of methadone maintenance was to administer the drug in such doses, so as to allow the individual to benefit from therapeutic and rehabilitative services, which were seen as an integral part of the overall treatment (Ward, *et al* 1992a). Today methadone maintenance treatment has been adopted world-wide. However, the majority of services have moved away from the model of treatment recommended by Dole and Nyswander. The treatment goals of many programmes have shifted from long-term maintenance towards achieving abstinence from all opiates including methadone, within a period of years (Farrell *et al* 1994). The average dose of methadone has also declined from the high blockage doses favoured by Dole and Nyswander to much lower doses (Ward *et al* 1992b). Furthermore, the extent of ancillary services provided in methadone maintenance programmes have also declined (Wilson, 1994).

As the majority of methadone maintenance programmes have deviated from Dole and Nyswander's model, it is difficult to draw strong conclusions about the effectiveness of methadone maintenance from the research and clinical literature. As programme variations differ in effectiveness, conclusions can only be drawn about the 'average' effectiveness of methadone maintenance (Ward *et al* 1992b). These variations in treatment outcomes have been addressed by discussing the characteristics of the programmes that appear to affect treatment outcome, namely, methadone dose, duration of treatment, and ancillary services. An additional complication in drawing conclusion about the effectiveness of methadone maintenance is the variety of goals that it may serve and the relative importance placed on each. For example, from the perspective of the community, the major treatment goals are reducing illicit drug use, criminal activity, and preventing the transmission of HIV. While from the perspective of the clients, important goals include improving their

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health, employment status, and personal relationships. Consequently, the goals of the service and the individual client may be similar but prioritized differently.

Nevertheless, there exists no other method of treatment for opiate addiction which is so universally associated with success as is long-term high dose methadone maintenance treatment. The majority of evaluation studies have demonstrated that methadone maintenance treatment produces significant reductions in levels of opiate use, offending and arrests, increases in levels of employment, and improvements in the general health of the clients. In this section some of the key pieces of research concerned with the effectiveness of methadone maintenance will be briefly reviewed. Thereafter, the main treatment outcome measures identified in the international literature will be examined.

2.3 Methadone Maintenance - The Irish Situation

Methadone maintenance was gradually introduced in Dublin in the late 1980's as a response to the increased levels of HIV transmission among IV drug users. Prior to this time period, methadone treatment was used primarily for detoxification purposes. In 1992 in response to the HIV epidemic, the first methadone maintenance treatment clinic was established and as drug use, in particular heroin use was steadily on the increase treatment clinics were established elsewhere. In 1993, the Minister for Health established an Expert Group comprising representatives of statutory drug treatment services, the Eastern Health Board, G.Ps and voluntary drug agencies. This groups remit was to consider and make recommendations on the prescribing of methadone; the registration of drug users and the licensing of general practitioners to treat drug users. As a result of its consultations, the group published the "Protocol for the Prescribing of Methadone" in 1993. Based on the information collected a methadone maintenance pilot project was established in 1996, which actively involved G.P's and pharmacists in the Eastern Health Board region. This methadone maintenance pilot project sought the selection of patients who had been stabilised in drug treatment centres being referred onto G.P's in their own area for the continuation of methadone treatment. In 1997, the Minister established a Review Group to consider the working relationships between the various agencies involved in drug treatment and to outline protocols for best practice in relation to methadone maintenance. This was followed in October 1998 by the introduction of a new protocol for the prescribing of methadone maintenance by the Department of Health.¹ The main points of this were as follows;

- The registration of all methadone maintenance clients on a central treatment list;
- The introduction of photo-identity cards for all clients in treatment;
- The registration and training of all G.Ps involved in the delivery of methadone maintenance treatment;
- An emphasis on community based service through the opening of new satellite clinics;
- The phasing out of Physeptone linctus and its replacement with methadone mixture of DTF 1mg/ml.

The above measures sought to reduce the problems of double prescribing and the resulting availability of methadone on the black market. It is argued that despite the introduction of these strict regulations there was an increase in the number of general practitioners and pharmacists involved in the prescribing and dispensing of methadone (Keenan *et al*, 1999). Table 2.1 illustrates the numbers of general practitioners and pharmacies participating in Irish methadone regulations both before and after the methadone protocol was introduced to regulate prescribing and dispensing of methadone*

While concern has been illustrated at the large numbers of opiate users who still remain outside of treatment, the numbers of individuals registered centrally who are in receipt of methadone treatment has continued to increase over the last few years. The number of heroin users in receipt of methadone at the beginning of August 2002 was approximately 6,000, compared with 4,332 at the end of 1999 and 3,610 in 1998. The National Drugs Strategy 2001-2008 "Building on Experience" has illustrated a commitment to increase the number of methadone places and to reduce waiting lists significantly.

Summary of history of methadone maintenance in Ireland derived from Farrell *et al* " Demand Reduction Interventions" in Overview of Drug Issues in Ireland (2001), Health Research Board: Dublin.

TABLE 2.1 INCREASE IN PARTICIPATING G.P'S AND
PHARMACIES FOLLOWING THE INTRODUCTION
OF THE METHADONE PROTOCOL 1998.

	1998	1999
General Practitioners:		
Within Eastern Health Board Area	82	111
Outside Eastern Health Board Area	10	28
TOTAL	92	139
Pharmacies:		
Within Eastern Health Board Area	88	150
Outside Eastern Health Board Area	0	37
TOTAL	88	187

* Source: Keenan et al (1999)

2.U Review of Methadone Maintenance Treatment Effectiveness

The evaluation of methadone maintenance effectiveness, presupposes a comparison treatment so that the impact of methadone maintenance can be compared with either a controlled condition or another intervention. Large scale investigations on treatment outcomes related to different treatment modalities have been conducted across both the United States and the U.K. For example in the United States, an early study by Ball *et al* (1988) compared the outcomes of clients who selected methadone maintenance treatment, therapeutic communities, and detoxification at 12 months post treatment. The comparison between methadone maintenance treatment and therapeutic communities failed to produce any significant differences between the two in terms of effectiveness. On the other hand, the results indicated that the methadone maintenance programmes produce better outcomes than the detox programmes when measured by reduction in opiate drug use and recorded convictions, during the past month. Ball and Ross (1991) also reported the results of a large-scale outcome study of methadone maintenance treatment involving 6 methadone maintenance programmes over a 3 year period, 1985 to 1987. The findings suggest that methadone maintenance had a dramatic impact on injecting drug use and crime among all clients who remained in treatment during the follow-up. Regarding illicit drug use, 36% of the clients had not injected since the first month on methadone maintenance, 22% had not injected for a year or more, and 13% had not injected in the past one to eleven months. In all 71% of the clients had not injected in the month prior to interview and the rate of injecting among the remaining 29% who had injected in the month prior to interview, were substantially less than before treatment.

Two other major U.S studies were the Drug Abuse Reporting System (DARP) and the Treatment Outcomes Prospective Study (TOPS) which have been regarded as national, multi-site longitudinal evaluation studies. The Drug Abuse Reporting Programme (DARP) was a large-scale treatment outcome study, of which the participating agencies represented the following treatment modalities; methadone maintenance, residential therapeutic communities, out-patients drug free treatment, and short term detox programmes. The outcome measures were drug use, crime, employment status, alcohol consumption, living situation, and further treatment episodes. Data was collected at entry, during treatment and at a number of follow up periods that focused on outcomes up to 12 years after treatment. Findings revealed that time spent in treatment was a major predictor of outcome with treatment periods of 90 days or longer being significantly associated with favourable outcomes especially in the case of methadone maintenance treatment (Simpson and Sells, 1982). In the TOPS - Treatment Outcome Prospective Study (1984 and 1989) - methadone maintenance illustrated the best retention rates of the three treatment modalities examined (i.e. therapeutic communities, out-patients drug free treatment and methadone maintenance). According to Hubbard *et al* (1989), clients in methadone maintenance were less likely than those in drug-free out-patients and therapeutic communities to drop-out of treatment; after 3 months 65% of the methadone maintenance clients remained in treatment whereas less than 40% of the out-patients and 44% of the residential clients remained in treatment for more than 3 months.

Pieces of the Jigsaw

Clients in methadone maintenance also substantially reduced their heroin use while in treatment, with less than 10% regularly using heroin after three months. Those clients who dropped out of treatment early on were more likely to continue regular heroin use (Ward *et al*, 1992b).

Similarly, the National Treatment Outcome Research Study (NTORS) undertaken in the U.K has presented favourable outcomes in relation to the provision of methadone treatment as an effective treatment modality. Gossop *et al* (2000) reported significant reductions in the use of all illicit drugs at follow-up for all those recruited to the methadone maintenance and detoxification modalities. More specifically, 59% of cases also illustrated substantial reductions in criminality as well as reduced physical and psychological symptoms.

Finally, three controlled trials of comprehensive methadone maintenance programmes produced similar results, all showing that maintenance was very effective in retaining people in treatment, in reducing opiate use and in reducing the rates of incarceration. For example, Vanichseni *et al* (1991) conducted a randomized controlled trial comparing 45 days of methadone detoxification with 45 days of methadone maintenance. Predictably there were major differences between the withdrawal and maintenance groups on both outcome measures - illicit heroin use as indicated by urinalysis and retention in treatment. Furthermore, the drop out rate by the end of the 45 day period was 66% in the withdrawal group and only 24% in the maintenance group, with the withdrawal group showing dropping out of treatment earlier than the maintenance group. In short, the odds of dropping out of treatment were six times higher among those on the methadone detox programme.

Taken together the aforementioned studies of methadone maintenance consistently show positive results over vastly different cultural contexts and over more than two decades of research. Moreover, the research indicates that methadone maintenance is vastly superior to other interventions on several measures.

2.5 Outcome Measures

Having examined the key pieces of research, a summary of the main outcome measures follows. Based on these findings, the main outcome measures for methadone maintenance treatment evaluation are examined.

2.5.1 Duration

Research indicates a strong association between retention in treatment and positive outcomes. The findings of the DARP research that is most quoted is the positive relationship between time spent in treatment and post-treatment performance. Longer stays in methadone maintenance were linked to increases in positive outcomes, such as illicit opiate use and risky injecting behaviour. There is no conclusive evidence regarding the optimum length of treatment but it has been suggested that 2-3 years of continuous methadone maintenance is more beneficial than shorter periods (Chaplehorn *et al*, 1993). Moreover, there is evidence that premature detoxification results in a return to heroin use in 80-90% of cases (Nadelmann, 1996).

2.5.2 Illicit Drug Use

Many regard complete abstinence from drug use as unobtainable and consider an overall reduction in drug use as being a measure of success (Bell *et al*, 1995). As indicated previously, the vast majority of early studies have consistently found a reasonably strong relationship between methadone treatment and a reduction or cessation in heroin use (Ball *et al*, 1988; Simpson *et al* 1982; Vanichseni, *et al* 1991). For example, Ball and Ross (1991) reported that opiate use markedly declined after admission to treatment and that by six months 77% has ceased using heroin and that after 4.5 years, 92% had stopped. Generally, research findings indicate that illicit opiate use declines with increased duration of methadone treatment (Ward *et al*, 1992b).

2.5.3 HIV Risk Behaviour

One of the main goals of methadone maintenance is to prevent the transmission of HIV and hepatitis, by minimising the risks of needle sharing. Although relatively few studies have investigated intravenous drug use as an outcome variable, the evidence suggests that entry into, and retention in methadone treatment greatly reduces the likelihood of injecting and thus the chances of sharing injecting equipment which could lead to the transmission of HIV (Darke *et al*, 1994). In one study, Schoenbaum *et al* (1989) found that there was an inverse relationship between total months of methadone treatment since 1987 and the presence of HIV antibodies. Novick

et al's (1990) study found that within a group of long-term stable clients who entered methadone maintenance before the spread of HIV, none were HIV positive even though 91% had been exposed to Hepatitis B

Klee *et al's* (1991) study compared three groups of injecting drug users; those on methadone maintenance for longer than 6 months, those who were on the treatment for shorter periods, and those who had received no treatment. They found differences between the groups in their recent sharing of injecting equipment. Thirty-nine percent of the non-agency group of long-term users had passed on their injecting equipment to others and 31% used others' equipment in the 2 weeks prior to the interview, compared with 12% and 9% of the agency group of long-term users. Only 3% of those on methadone maintenance over 6 months passed on their injecting equipment and only 2% received used injecting equipment in the last six months compared to 40% of the short-term treatment group.

Darke *et al* (1994) found that approximately 50% of the methadone maintained clients in their study had injected in the recall period. Those who continued to inject were more likely to be female, have a regular sexual partner who is an injecting drug user, and were also more likely to be poly-drug users. Wolk *et al* (1990) argued that programme staff need to recognise that even in the most effective methadone maintenance programme a quarter of the clients will continue to inject, albeit less frequently, and therefore sterile injecting equipment should be made available. It is worth noting that, to the author's knowledge, there is no evidence to suggest that methadone maintenance treatment influences the sexual practices of the service users

2.5.4 Health

Only a limited amount of research has been done in relation to health gains as a result of methadone maintenance, but there is evidence linking methadone treatment with improvements in general health problems and reduced incidence of depression (Hubbard *et al*, 1989). However, Ball and Ross (1991) found that methadone maintenance treatment did not lead to a decrease in the prevalence of psychiatric disorders among service users.

2.5.5 Criminal Activity

A vast amount of research has been carried out on the effects of methadone maintenance on criminal behaviour. However, as Wilson (1994) points out the question is whether it is appropriate to evaluate methadone maintenance treatment according to its effectiveness in reducing crime or illegal activity as it is primarily a medical treatment. Nevertheless, the relationship between methadone treatment and criminal activity has received a substantial amount of attention.

Most of the evidence points to a link between methadone maintenance and a marked reduction in crime (Ward *et al*, 1992b; Ball and Ross, 1991). For example, Bell *et al* (1992) examined the impact of methadone maintenance on official records of convictions (as opposed to self-reported crime). They found among those who enter treatment a reduction in the rates of drug offense convictions. This reduction, they concluded was a function of the length of time the individual stayed in treatment. Parker and Kerby (1996) compared the self-reported offending behaviour of drug users who were on methadone maintenance with those who were receiving no treatment. They found that those in the community sample (i.e. not on methadone maintenance) were more likely to get their money from theft, drug dealing, and prostitution, than those in treatment. Although in both sample groups few were employed, only 21% of those on methadone maintenance obtained some of their income from theft or fraud compared were 66% of those in the community sample,

2.5.6 Methadone Dosage

One of the fundamental questions concerning methadone treatment is what constitutes the optimum dosage. In theory, doses should be individually determined because of differences in metabolism, body weight and opiate tolerance. A proper maintenance dose is one at which narcotic craving is averted, without creating euphoria, sedation or analgesia for 24 to 36 hours. Findings from a number of studies have consistently indicated that higher doses of methadone are associated with higher retention rates. The link between higher doses of methadone and a reduction in illicit heroin use is another consistent finding (Ward, *et al* 1992b). However, reports on the dose required to reduce or stop heroin use have varied considerably. Generally studies have found that dose level is inversely related to heroin use; in that the higher the dose, the greater the

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reduction in the use of heroin. Ward *et al* (1992b) concluded that programmes with doses below 50 mg per day had higher drop-out rates, and that retention in treatment and reduced heroin use is achieved more effectively with doses above 60 mg. While the National Institute of Drug Abuse (NIDA) recommends a blockage dose of 60 to 80mg per day. This has been supported by Hartel *et al* (1995) study which found that clients maintained on less than 70mg/day of methadone were 100% more likely to use heroin during methadone maintenance treatment compared to clients maintained on 70mg or more a day.

2.6 Programme Characteristics

The available evidence indicates that programmes vary in their ability to retain people in treatment, and in their effectiveness in reducing levels of illicit drug use, and criminal activity while attending services. While the evidence is limited there is some indication that particular programme characteristics are associated with a range of positive outcomes (Farrell, *et al* 1994). However, many questions remain unanswered, for example, do aspects of the programme affect illicit drug use behaviour directly or do they affect retention and thus the duration of treatment.

According to Ball and Ross (1991) and Ball *et al* (1988) the most effective programmes in their study were characterized by the following features; having maintenance rather than abstinence as their primary goal; prescribing higher doses of methadone maintenance; having better quality and more intensive counselling services; having more medical services; retaining their clients in treatment; managing to achieve compliance in terms of regular attendance; having closer long-term relationships with their clients and; having low staff turnover rates. Similarly, Joe *et al* (1991) found that among methadone maintenance programmes those with flexible dosing policies, specialized personnel, frequent urine monitoring and a range of other comprehensive services were more likely to have higher client retention rates. McLellan *et al* (1993) in their randomized controlled study on the provision of psycho-social services among those in treatment for opioid dependence found that the group with the most ancillary services yielded the best outcome during the six month study period.

2.7 Client Characteristics

Dole and Nyswander (1965) established very stringent criteria for entry into methadone maintenance when they established the first methadone maintenance programme. To be considered suitable clients had to be at least 21 years old; dependent on opiates for at least 4 years and; have failed repeatedly in other forms of treatment for their opiate dependence. These criteria reflected specific causes of concern at the time about maintaining individuals in a drug dependent state, which were addressed by restricting methadone treatment to applicants considered to be untreatable by other methods.

Since then various forms of methadone maintenance have emerged and a range of admission criteria have been developed. Changing patterns of illicit drug use have also meant that excluding individuals who used drugs other than opiates has come to be seen as impractical in many countries. In recent years applicants for methadone maintenance are more likely to use a variety of illicit drugs. Accepting poly-drug users into methadone maintenance is problematic however, in that methadone replaces opiates but not other drugs. Furthermore, the continued use of other drugs may be considered unsafe in combination with methadone. For these reasons poly-drug use is still considered a reason for exclusion in some programmes while others are willing to accept such clients and interpret their poly-drug use as a reason for special attention (Hall *et al*, 1998).

Client attributes that have been associated with more effective treatment include; family involvement, older age of client, higher levels of education and being currently in employment. In short, clients with good psycho-social adjustment before treatment and with good social support are more likely to benefit. The attributes of clients that do least well are, youth, unemployment, extensive criminal careers, and poly-drug use, and psychiatric history. In Ball and Ross's (1991) study outcomes were influenced negatively by age at first use of heroin, length of drug using career, and use of cocaine before treatment, but the client characteristics had less impact than programme characteristics.

It should be noted that recent years have seen the development of low-threshold methadone programmes, which make oral methadone readily available with fewer conditions, and often with minimal ancillary services. While these programmes may not be as effective as the best full-service programmes in keeping

clients off heroin and away from criminal activity, they are more successful in establishing contact with illicit drug users who are fearful of the rigorous requirements and the intrusiveness of more comprehensive programmes (Nadelmann, 1996). Moreover, studies show that low-threshold clients reduce their drug use, and typically fare better than do illicit drug users not enrolled in any programme.

2.8 Methadone Maintenance Versus Methadone Detoxification

Methadone detoxification programmes provide supervised withdrawal from opiates so that the severity of withdrawal symptoms and serious medical complications are reduced to a minimum. The principle underlying detoxification programmes is that by substituting an opiate with, in most cases methadone, and reducing the dose over days to weeks, opiate withdrawal symptoms are controlled and made more acceptable to the individual (Ward *et al*, 1992a). The effectiveness of a detoxification programme depends on what the aims are believed to be. According to Mattick and Hall (1996) if detoxification is believed to achieve abstinence then the programmes are not effective. They argue that detoxification should not be regarded as a treatment for drug dependency per se, as studies have shown that people who have undergone detoxification are not less likely to relapse to drug use than those who have not (Dawe, *et al* 1991).

For example, Simpson *et al* (1982) on a six year follow-up found that methadone detoxification programmes had the worst outcome measures of all DARP treatment modalities. In that the detox group had the lowest percentage (12% compared with 18% to 21% in methadone maintenance, therapeutic communities and drug free programmes) of persons reporting abstinence. Moreover outpatients detoxification has a particularly low efficacy. Senay *et al* (1981) found that of 31 clients who received a 21 day detoxification none became abstinent. Lengthening the duration of methadone withdrawal improves outcomes only a little. Gossop *et al* (1986) found only a 17% success rate following a 56 day detox programme. While Dewe *et al* (1991) found no difference between a fixed 42 day schedule withdrawal period and a 70 day period; only 28% completed treatment and many continued to use heroin. Furthermore, Gossop *et al* (2001) in a comparative analysis of the different outcomes following two years in either methadone maintenance and methadone reduction treatments revealed that methadone reduction treatment processes were associated with poorer outcomes. Recognising the high relapse rate following withdrawal from opioids, Gerstein and Harwood (1990) argue that opioid detox should not be considered a treatment in its own right. It is recommended that individuals with opioid dependence must have some form of continuous treatment for at least three months post-detoxification.

Nevertheless many countries have adopted services that are based on the belief that methadone detoxification can bring about a lasting change in drug use, despite evidence to the contrary. Mattick and Hall (1996:97) argue that detoxification should be regarded as a process that aims to achieve "a *safe and humane withdrawal from a drug of dependence*", which is in itself a worthwhile aim. If this is to be seen as the primary aim of a detoxification programme the criteria for assessing the effectiveness of detox programmes should include completion rates, the severity of symptoms associated with withdrawal and medical complications (Gossop and Strang, 1991). However, detoxification programmes also serve other important purposes. It can provide a period of respite, and is often used as a prelude to more specific forms of drug-free treatment.

In short, detoxification should be regarded as a precursor to, or first stage of, treatment. It cannot alone be expected to lead to long term abstinence, or radical alterations in other outcome measures. Successful outcomes should include safety and minimal discomfort, the percentage of clients who complete the treatment, and the percentage going on to longer term treatments.

2.9 Methadone & Other Opioid Replacement Therapies

Literature has demonstrated the use of alternative opioid maintenance drugs other than methadone, such as buprenorphine, naltrexone, and LAAM across various European countries. Longer acting opioid maintenance drugs, such as buprenorphine, means that the frequency of dosing is reduced, thereby minimising the extent to which opioid maintenance can interfere with individuals routine lives. Buprenorphine, as a partial opioid agonist produces a milder effect than full opioid agonists such as heroin, morphine and methadone thereby maintaining a lower risk of overdose in addition to being easier from which to withdraw (Mattick *et al*, 1998).

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Studies have illustrated that orderly doses of buprenorphine is equally as effective as methadone in reducing heroin and other drug use (Ling *et al*, 1996) and retaining individuals in treatment (Strain *et al*, 1994). Johnson (2000) in his comparative study of different types of opiate treatment approaches illustrated the appropriateness of buprenorphine as an opiate treatment option. This clinical trial highlighted that buprenorphine can be as effective as LAMM or high-dose methadone, and that all three were more effective than low dose methadone. Similarly LAMM can be ingested less frequently than methadone with long term oral administration leading to a significant reduction in the use of opiates (Prendergast, 1995). Although it is used in the US as a treatment for opiate dependence it is currently not a licensed drug in the UK. In Ireland, LAMM is currently only used for detoxification purposes.

Heroin-assisted substitution treatment for opiate dependent drug users has attracted increasing attention in recent years. Criteria often cited to support the provision of this treatment include a long history of opiate use, poor participation in conventional treatment models and/or repeated treatment failures by clients. However a number of arguments have also been made which convey its limitations as a treatment option. Firstly, due to its short duration of action, frequent administration of the drug is required which can result in greater inconvenience for both client and service provider (Mattick *et al*, 1998). Secondly, in view of the shorter half-life of heroin in comparison to other longer acting opioids, concern over the extent to which clients can be stabilized on heroin has also been expressed. However, Ghodse *et al* (1995) has illustrated that clients can be adequately stabilized on heroin. Mattick *et al* (1998) also argue that injectable opiate treatment (IOT) in particular may result in continued injecting practices and therefore clients would be at continued risk of exposure to HIV and other viruses.

Despite these concerns, research has demonstrated the feasibility and efficacy of heroin-assisted substitution programmes (Perneger *et al*, 1998; Rehm *et al* 2001; Van Den Brink *et al*, 2002). In particular, the Swiss experience has conveyed that heroin-assisted substitution programmes as a treatment option, maintains a high rate of treatment retention with a large proportion of those who remain in treatment managing to go onto abstinence. Rehm *et al* (2001) in their overview of the results of 6 years of heroin-assisted treatment in Switzerland illustrated that of the 1969 clients who initially began the treatment, 70% of these remained on the programme for at least a year later with 50% remaining in treatment 2.5 years later. This study also conveyed that heroin assisted treatment had a positive effect on increasing motivation among clients to pursue additional treatment options as 60% of clients who were discharged left treatment to start another treatment, generally methadone maintenance or abstinence treatment. Rehm *et al* (2001) argues that the role of heroin assisted treatment should be considered within a broad range of treatments and also used to complement other treatment options.

2.10 Summary

Methadone maintenance treatment is regarded as the most researched of all treatment modalities, and numerous studies have clearly highlighted its effectiveness within randomized controlled studies. However its effectiveness is highly dependent on, and can be significantly reduced by deviating from specific treatment characteristics, such as, the provision of an adequate dose of methadone; strict rules and regulations etc. Furthermore, alternative opioid maintenance treatments, such as buprenorphine have illustrated an ability to reduce some of the less favourable features such as, the inconvenience associated with methadone maintenance treatment in addition to producing a range of similar outcomes to that of high dose methadone programmes. Despite this, research has indicated that methadone maintenance treatment attracts and retains more individuals than alternative treatment options and produces better outcomes among those who complete their treatment (Hall *et al*, 1998).

Research Methodology

3.1 Introduction

Measuring the effectiveness of any drug treatment modality is a complex task. It assumes a consensus on how outcomes are both defined and measured in addition to the impact of both client and programme characteristics on treatment outcomes. Nevertheless, the role of evaluation in determining the extent to which the specified aims and objectives are met is a necessary and integral part of service development. This chapter will therefore examine the different methods which are commonly applied in the evaluation of a drug treatment modality, such as, methadone. It will also illustrate the research design which was selected for the purpose of this research study and the employed research instruments.

3.2 Evaluating Methadone Treatment

Various methodologies can be employed in evaluative research. However it is argued that one of the main difficulties of evaluating methadone treatment has been the lack of comparability of research findings as there remains little consensus on the role of methadone treatment, and or how the treatment should be delivered (Bell, 1998). In addition, the use of different outcome variables means that comparisons of results between studies can prove difficult. The ideal evaluation of a methadone prescribing service is to employ an experimental method, by comparing a large group of drug users who are on methadone maintenance with a control group. This rigorous method assumes that a range of alternative conditions would be present if the individual had received a different treatment or no treatment at all. It has been argued that the benefits of controlled trials can be best provided by ensuring a large sample size, as failure to detect differences in effectiveness can be often attributed to the employment of a small sample (Hall *et al.*, 1998). However, questions on whether it is ethically acceptable to assign an individual to a particular form of treatment has also been debated. In addition, the importance of self-selection or a client's readiness to engage in treatment cannot be underestimated (Van Den Brink, 1999; 2003). Despite these concerns, the non application of experimental methods, or randomly controlled trials as they are sometimes termed, can limit the reliability of the conclusions conveyed.

Observational studies can also be employed in evaluating treatment outcomes, in which information is collected from individuals who have selected themselves into treatment as opposed to being randomly assigned to a particular treatment option (Hall *et al.*, 1998). A main advantage of an observational study is that it assesses treatment, as it is delivered as opposed to evaluating the treatment within an experimental situation (Bell, 1997). Both comparative studies (i.e where the outcomes are compared in individuals in different treatments) and pre-post studies (i.e before and after studies) are referred to as being the most commonly used observational methods. Pre-post studies refers to individuals been assessed at intake and again at some point after treatment, emphasising the effect of treatment as being the differences in a range of different domains between pre-treatment and post treatment. When demonstrating treatment effectiveness from pre-post studies, the relationship between length of time in treatment and positive outcomes is often examined. However, this has been criticised as representing a form of 'selection bias' as those with the best outcomes are the most likely to be retained in treatment (Hall *et al.*, 1998). Nevertheless, it is possible to control for length of time in

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treatment, so as to determine whether this relationship persists in addition to measuring specific characteristics such as, previous treatment, among those that did not remain in treatment.

In evaluating the effectiveness of methadone maintenance, outcome domains such as reductions of opioid drug use and involvement in criminal activity should also be accompanied by a measurement in the extent to which such treatment improves individuals' personal health and social well-being (Hall *et al.*, 1998). In this regard, the use of the multi-dimensional assessment instrument such as the Opiate Treatment Index (Darke *et al.*, 1992) has been highlighted as an instrument of demonstrated reliability and validity in assessing the status of individuals undergoing methadone maintenance. Darke *et al.*, (1992) maintain that the goals of methadone treatment are both numerous and diverse, and therefore its effectiveness should be evaluated according to a broad range of outcomes. Other quantitative scales have been used in evaluating methadone treatment to focus on specific outcome domains, such as the use of the SF-36 general health questionnaire as a measurement of the health status of heroin users at entry onto a methadone maintenance programme (Ryan and White, 1996).

3.3 Research Design

For the purpose of this study, the evaluation of the methadone prescribing service largely focused on collecting information from all clients who were on the Programme at MQI during a specified time period and then once again eighteen months later. In this regard, clients were not targeted within the early weeks of their treatment but rather at varying lengths of time in treatment, which was demonstrated on collection of the baseline data. Clients were informed that participation in the study would in no way impact on the service they were currently receiving. In evaluating the effectiveness of methadone treatment, the study employed the following research instruments;

- *Opiate Treatment Index (OTI)*- The OTI has been demonstrated as a highly reliable and valid research tool in the evaluation of opiate treatment. This questionnaire was administered to clients who participated on the methadone programme during the mid year of 1999 and again to those who had remained on the programme eighteen months later (2001).
- *Focus Groups*- Three focus groups were undertaken for the purpose of this study. Firstly, two focus groups were held with clients who were participating in the G.P prescribing programme at MQI but also those who were engaged in the Day Programmes within the Stabilisation Service and were receiving methadone elsewhere. Similarly, the second focus group was comprised of staff members both from the Prescribing Service and the Day Programmes. This allowed a more comprehensive discussion to emerge.

3.3.1 Opiate Treatment Index

The Opiate Treatment Index was originally developed by Darke *et al* in Australia in 1992 as a research tool for the evaluation of opiate treatment. Since then, the OTI has been validated for use in a range of methadone programmes (Adelekan *et al.*, 1996) and has proved to illustrate similar results whether administered by treatment staff or by independent researchers (Deering and Sellman, 1996). It consists of a standardised range of measures covering six main outcome domains which are; drug use, HIV risk taking behaviour, social functioning, criminality, health status and psychological adjustment. All questions relate to self-reported behaviour in the last month except for the questions in the *social functioning* section in which the information relates to the six months prior to interview. Each outcome domain provides a numerical score and the higher the score the greater the level of dysfunction.

The following section briefly describes each of the domains (Darke *et al.*, 1991);

- *Drug Use Scale*- Examines drug use scores in more detail by comparing the mean scores for the 11 categories of drugs.
- *The HIV Risk-Taking Behaviour Scale*- Measures the drug users HIV risk-taking behaviour in the past month prior to interview. Eleven questions covering injecting frequency, syringe sharing, cleaning/bleaching of injecting equipment, sexual activity and use of condoms. Each item attracts a score of 0-5, a higher score indicating a higher degree of risk taking. The total score ranges from 0-55. Separate sub-scale scores can be computed for injecting drug use and sexual behaviour.

- *The Social Functioning Scale*- Addresses twelve items of social adjustment (accommodation, employment, conflict), social support and the involvement of the individual in the drug culture in the six months prior to interview. Each item is scored on a scale of 0-4, with higher scores indicating higher levels of dysfunction. The total scores range between 0-48.
- *The Criminality Scale*- Focuses on the frequency of involvement in crime in the month prior to the interview. It covers four main crime areas (property crime, dealing, fraud and violent crime). Each item is scored on a scale of 0-4, the higher score indicating a higher level of criminal involvement. The total score on this scale ranges from 0-16.
- *The Health Scale*- Reflects the individuals health status in the month prior to interview. It contains 52 items, which represent symptoms in each of the major organ systems of the body as well as injecting related complaints. Each symptom is scored as 0 (absent) or 1 (present). Higher scores indicate poorer health.
- *The General Health Scale*- The 28-item General Health Questionnaire (GHQ-28) (Goldberg *et al*, 1972; 1978) is incorporated into the OTI to provide a global measure of the individuals current psychological adjustment. Each item is scored 0 or 1 based on the absence or presence of the symptom in the few weeks prior to the interview. The global scales range from 0-28, with higher scores indicating higher degrees of psychopathology. Scores ranging from 0-7 can be computed for each GHQ sub-scale (somatic symptoms, anxiety, social dysfunction and depression).

3.3.2 Focus Groups

Focus Groups have been documented as a valuable means of investigation in which groups norms and dynamics around specific issues can be explored (Morgan and Kreuger, 1993; Kitzinger, 1994; Powell and Single, 1996). In addition, it allows individual experiences and opinions to be generated through social interaction within the group. In this way, focus groups have been argued as been particularly suited to examining how different points of view of individuals are constructed and expressed (Barbour and Kitzinger, 1999). Within data collection techniques, where the use of focus groups may not be the primary research tool, they nevertheless can provide valuable information when combined with data from other sources (Michell, 1999). Combining focus groups with quantitative methods can be used not only in the early stages of the research project to develop and modify the questionnaire, but also can be used in the latter stages of the quantitative study. Barbour (1999) argues that focus groups can help clarify any unusual findings or further examine specific research topics. Kitzinger (1994b) also argues that focus groups can convey different ways of interpreting survey findings by examining respondents' answers to survey questions. In this regard, the use of focus groups following the administration of the Opiate Treatment Index (OTI) was deemed appropriate to further evaluate methadone treatment among a cohort of opiate users presenting at Merchants Quay Ireland.

As stated earlier, a focus group was firstly undertaken with clients of the Stabilisation Service who were in receipt of prescribed methadone either from the G.P in Merchant's Quay or attending a G.P elsewhere. The main topics that were discussed included the following;

- Impact of methadone as a substitution treatment;
- Methadone maintenance and risk behaviour;
- Relationship between service providers and the client;
- Use of counseling and/or other auxiliary services;
- The future role for methadone and/or other substitution drugs.

A focus group was also held with staff members of the prescribing service in addition to those members of the Day Programme which also cater for this client group under the services provided by the Stabilisation Service. The focus group largely followed the interview guide outlined below;

- Benefits/drawbacks of methadone treatment;
- Impact of length of time in treatment on positive outcomes;
- Impact of methadone maintenance on enabling clients to adequately work, live etc;

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- # Extent to which methadone maintenance programmes are reflective of, or tailored to individual needs;
- # Associate between patient dose and positive treatment outcomes;
- # Issue of benzodiazepine use among those maintained on methadone;
- # The administration and management of methadone treatment within a drug treatment setting;
- # The possible benefits of injectable methadone and other substitution drugs.

Information collated from both focus groups were divided into various themes, which are presented and discussed in Chapter Six of the Report.

3.4 Summary

This chapter has provided an overview of the methodological issues involved in evaluating the effectiveness of methadone treatment. It has conveyed that despite the fact that methadone treatment has been highly researched, standardised measurements used in evaluating the effectiveness of such treatment remain uncertain. Differing goals among methadone treatment programmes have contributed to this disparity among evaluative studies (Bell, 1998). Nevertheless, in evaluating its effectiveness, a multi-dimensional approach is recommended, in which various outcome domains, such as, health and well being, are included (Hall *et al*, 1998). This chapter has also described the data collection method involved in the study. An examination of both the research Method and research instruments have also been presented. The benefits of combining focus groups with quantitative methods have also been explored which provided the explanation for their use within this study.

Baseline Data

4.1 introduction

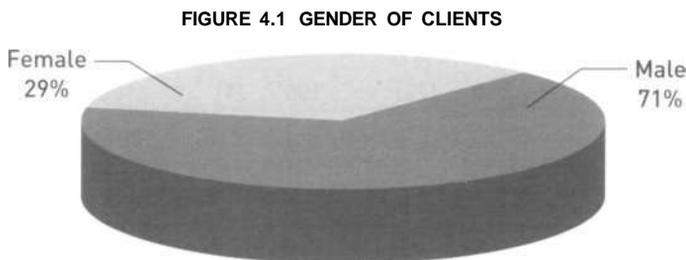
This chapter will present baseline data collected from all clients who were attending the G.P Prescribing Service in the summer of 1999. The information will be divided into two main categories. Firstly, clients socio-demographics characteristics, drug using histories and levels of current drug use will be examined in order to convey a profile of the attendees of the Prescribing Service ($n=31$). This refers to information, which is systemically collected each year by the Prescribing Team and is also provided to the Health Research Board and included within the National Drug Treatment Reporting System. Secondly, data will be presented on information obtained from the initial administration of the Opiate Treatment Index (OTI) to all clients ($n=29$).

4.2 Socio-demographic Characteristics

The following information in this section refers to 31 clients who were attending the G.P Prescribing Service within the summer months of 1999. All clients were receiving oral methadone, which was prescribed by the G.P in the Merchant's Quay Project and was then dispensed by a local pharmacy. All clients were also at that time were resident in the Dublin 8 area as this was a criteria for entry onto the methadone programme.

4.2.1 Gender

Figure 4.1 illustrates that over two thirds (71%) of the clients were male, with the female clients accounting for 29% of the population. The Health Research Board reports a similar high gender ratio among treated opiate drug users, in that 31% of all treatment contacts in the Eastern Health Board Area for 1998 were female increasing slightly to 33% in 1999 (O'Brien *et al*, 2002). Despite the fact that Merchants Quay does not actively recruit female clients, a consistent proportion of female clients have shown to access services across the years. For example, nearly 20% of all visits to the Health Promotion Unit in 2001 were female.



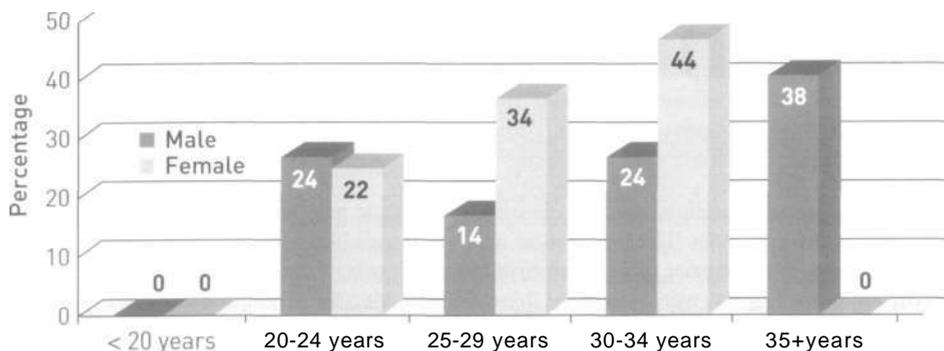
4.2.2 Age

The mean age of all clients was 30.6 years ($SD=7.1$). This figure is substantially higher than the mean age of all treatment contacts within the ERHA area. In 1999, the mean age of those in treatment was 26 years (mode=21 years) (O'Brien *et al*, 2002). It is also higher than the mean age reported by Cullen *et al* (2000) in

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a cross sectional survey of opiate users attending general practice for methadone maintenance in the Dublin Area (28 years). However, female participants reported being younger than their male counterparts with a mean age of 27.9 years (SD=4.1) compared with an average age of 31.7 years (SD= 7.8) for male clients. Figure 4.2 illustrates the age breakdown by gender. It highlights that female clients were proportionately more likely to be aged between the years 25 to 34 (78% v 62%), with male clients being proportionately more likely to be over the age of 35 years (38% v 22%).

FIGURE 4.2 AGE BY GENDER



4.2.3 Living Status

Table 4.1 conveys that a large proportion of clients reported living in their parental home or with their partner. Overall 39% of the clients were living in the parental home. This is relatively low when compared to data relating to those in treatment in the ERHA area in 1999 (62%) (O'Brien *et al.*, 2002). However, male clients were proportionately more likely to live in the family home (46%) while female clients were proportionately more likely to report living alone with children (45%).

TABLE 4.1 LIVING STATUS BY GENDER

Variable	Male		Female		Total	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Alone	18	(4)	11	(1)	16	(5)
Parents	46	(10)	22	(2)	39	(12)
Friends	4.5	(1)	-		3	(1)
Partner	27	(6)	22	(2)	26	(8)
Lone Parent	-	-	45	(4)	13	(4)
Other	4.5	(1)	-		3	(1)
Total	100	(22)	100	(9)	100	(31)

Furthermore, 16% (n=5) of clients reported living with a drug misuser. More specifically, 18% of male clients reported such living arrangements in comparison to 11% of female clients. These findings are in contrast to both national and international literature which suggests that female drug users are more likely to have greater involvement with other drug users than their male drug using counterparts, such as, sharing accommodation with an injecting drug user (Klee *et al.*, 1990; Cox *et al.*, 1999).

4.2.4 Level of Education

Table 4.2 illustrates the highest level of education obtained by clients. Overall 29% of clients left school prior to the legal school leaving age of 15 years with an additional 36% of clients leaving at 15 years. While there

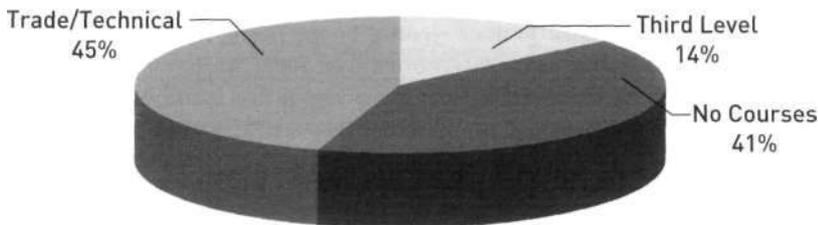
was no difference in the mean age left school (15 years) between male and female clients, 77% of male clients reported having reached secondary level in comparison to 56% of female clients.

TABLE 4.2 LEVEL OF EDUCATION BY GENDER

Variable	Male		Female		Total	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Primary	9	(2)	33	(3)	16	(5)
Secondary	82	(18)	56	(5)	74	(23)
Third	9	(2)	11	(1)	10	(3)
Total	100	(22)	100	(9)	100	(31)

In terms of post educational qualifications, Figure 4.3 illustrates that 41% of clients reported having received no post educational courses while 45% of clients reported having received trade or technical courses (e.g FAS) and 14% had progressed onto third level education.

FIGURE 4.3 POST-EDUCATIONAL COURSES UNDERTAKEN



4.2.5 Employment Status

Despite the strong economic climate which had emerged a few years prior to the period under investigation, nearly half of the clients nevertheless reported unemployment at the time of interview, as illustrated in Table 4.3. Only 16% of clients reported being in employment at the time of interview, this is somewhat lower than the reported levels of unemployment among those in treatment in 1999 (O'Brien *et al.*, 2002). Nearly one in six of the clients also reported participating in training programmes such as those provided by the National Training Agency, FAS.

TABLE 4.3 EMPLOYMENT STATUS BY GENDER

Variable	Male		Female		Total	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Employed	23	(5)	-		16	(5)
Unemployed	45.5	(10)	44	(4)	45	(14)
Fas/Training	18	(4)	11	(1)	16	(5)
Student	4.5	(1)	11	(1)	6.5	(2)
Unable to Work	4.5	(1)	11	(1)	6.5	(2)
Other	4.5	(1)	22	(2)	10	(3)
Total	100	(22)	100	(9)	100	(31)

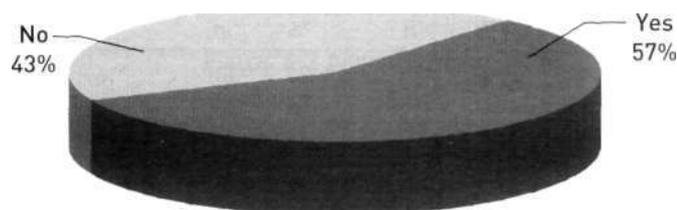
4.2.6 Experience of Imprisonment

Figure 4.4 illustrates that over a half of the clients (57%) reported having been in prison at some point in time. Males were significantly more likely to report having been to prison than their female counterparts with 73%

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of male clients reporting experience of previous imprisonment in comparison to 25% of female clients ($\chi^2=4.96$; $df=1$; $p<.05$). This finding supports both national and international research which illustrates that males account for a substantial proportion of the general prison population.

FIGURE 4.4 EXPERIENCE OF IMPRISONMENT



4.3 Drug Use

4.3.1 Age of First Drug Use

The overall mean age of first use of any drug was 16 years with a mean age of 19 years for first use of their primary drug. These figures are similar to those reported by the Health Research Board for all treatment contacts within the ERHA area for the year 1999 (O'Brien *et al*, 2002). As shown in Table 4.4 female clients were significantly more likely to report being older in the age of first use of both their primary drug (t -test=2.32; $df= 14.98$; $p<0.035$) and first use of any other drug (t -test=2.15; $df=9.16$; $p<0.05$). This is in contrast to an analysis of the drug using history of new syringe exchange attendees which reported a mean age of 17 years as age of first drug use with no significant gender differences (Cox and Lawless, 2000).

TABLE 4.4 AGE OF FIRST DRUG USE BY GENDER

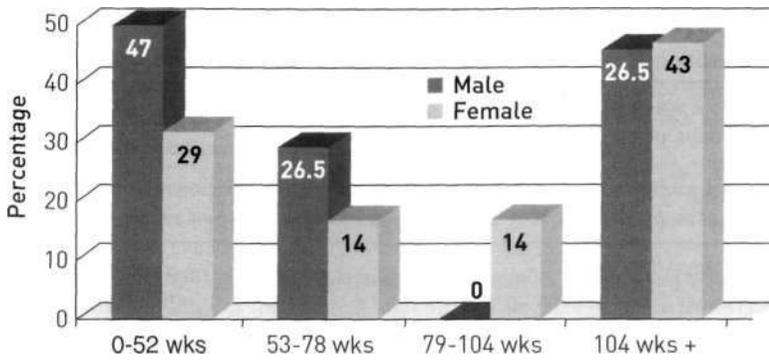
	Male Mean (SD)	Mean (SD) Female
Primary Drug	17.71 (3.036)	20.56 (3.10)
Any Drug	16.67 (2.75)	18.25 (4.40)

4.3.2 Length of Time in Treatment

The mean length of time in treatment for clients was 3 years. Forty one percent of clients reported being in their current type of treatment for less than a year while 31% of clients had being in methadone treatment for periods in excess of 2 years. In this regard, this client group had being exposed to varying amounts of treatment prior to the commencement of the research study. Nevertheless, research has highlighted that longer duration of methadone maintenance treatment has been associated with overall improvements in social functioning. For many patients, it is argued that more than two or three years of methadone maintenance treatment is necessary before significant behaviour change is likely to occur (American Psychiatric Association, 1994). Figure 4.5 highlights that female clients reported being in treatment for a longer period of time than their male counterparts. The mean length of time in treatment for male clients was 2.4 years in comparison to 4.3 years for female clients.

Furthermore, 94% of the clients had previously received treatment for opiate dependence. Previous treatment included maintenance and detoxification (outpatient and residential) Levels of contact with other drug centres were also very low with only 3.2% of clients reporting such contact. However over a half of the clients (52%) were availing of counselling offered by the Prescribing Service at Merchants Quay Ireland at the time of interview.

FIGURE 4.5 LENGTH OF TIME IN TREATMENT



4.3.3 Primary Drug Used on Treatment Entry

Table 4.5 illustrates heroin as the primary drug reported by clients for which he/she had sought treatment. Two clients also reported cocaine as their main drug used with a further client reporting the use of alcohol.

TABLE 4.5 PRIMARY DRUG BY GENDER

Variable	Male		Female		Total	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Heroin	91	(20)	89	(8)	90	(28)
Cocaine	4.5	(1)	11	(1)	7	(2)
Alcohol	4.5	(1)	-	-	3	(1)
Total	100	(22)	100	(9)	100	(31)

In terms of usual route of administration, the majority of clients reported injecting their primary drug (81%) with the remaining clients reporting smoking as their usual route (19%). Table 4.6 conveys the regular route of administration of their primary drug by gender. It highlights that male clients were proportionally more likely to report having injected their primary drug than their female counterparts. This may be due to the fact that female drug users often experience difficulties injecting and so may seek alternative routes of administration.

TABLE 4.6 ROUTE OF ADMINISTRATION BY GENDER

Variable	Male		Female		Total	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Inject	86	(19)	67	(6)	81	(25)
Smoke	14	(3)	33	(3)	19	(6)
Total	100	(22)	100	(9)	100	(31)

Frequency of use refers to the last 30 days before treatment contact. Table 4.7 below illustrates the frequency of use of their primary drug in the month prior to treatment contact. Over a half of the clients (52%) reported no use in the preceding month. Forty two percent of clients (*n*=12) reported using their drug once a week or less with only one client reporting daily use of their primary drug.

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TABLE 4.7 FREQUENCY OF USE BY GENDER

Variable	Male		Female		Total	
	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Once a week or less	43	(9)	37	(3)	42	(12)
2-6 days per week	5	(1)	-		3	(1)
Daily	5	(1)	-		3	(1)
No Use	47	(10)	63	(5)	52	(15)
Total	100	(22)	100	(8)	100	(29)

* Missing Observations = 2

4.3.4 Secondary Drug Used on Treatment Entry

Eighty one percent of clients also reported having had used a secondary drug in the period prior to treatment contact ($n=25$). As demonstrated by Table 4.8 below, the last secondary drug used was cannabis which was reported by 48% of those who were engaged in poly drug use. One fifth of these clients ($n=5$) reported the use of benzodiazepines with a further client reporting street Valium. Twelve percent of clients also reported the use of cocaine as their last secondary drug used.

TABLE 4.8 SECONDARY DRUG

Drug	Total	
	%	<i>n</i>
Cannabis	48	(12)
Benzodiazepines	20	(5)
Cocaine	12	(3)
Street Valium	4	(1)
Napps	4	(1)
Ecstasy	4	(1)
Speed	4	(1)
Heroin	4	(1)
Total	100	(25)

4.3.5 Drug Using Risk Behaviour

Clients were also asked whether or not they had ever injected. Eighty seven percent of clients reporting having injected at least once in the past ($n=27$). Furthermore, of those who had injected, nearly three in four of the clients had also reported having shared injecting equipment in the past (70%). Analysis revealed no association between having shared injecting equipment and sharing accommodation with an injecting drug user. Only 16% of those who had ever shared injecting equipment reported sharing accommodation with an injecting drug user. In terms of current injecting status of clients, only 26% ($n=8$) reported having injected in the past month, of whom none had shared injecting equipment.

4.4 Summary and Conclusions

This chapter examines the profile of clients who were participating in the methadone prescribing programme during 1999. As a cohort of the opiate drug using population, this study presented a profile which is broadly similar to other groups of opiate users. These results, when comparatively viewed against the study by Cox and Lawless (2000) on new attendees to MQI syringe exchange, were shown to be similar in terms of gender ratio; previous levels of imprisonment, living status, range of primary and secondary drugs of choice.

However, within this study the percentage of clients who reported previously injecting as their primary route was slightly lower, with clients also reporting more frequent weekly use than daily use as observed among the cohort of syringe attendees. This would suggest that preparation is often undertaken by the client for entry onto methadone treatment, in terms of reducing their frequency and level of drug taking. Within this study, similar to other studies, females were younger than their male counterparts and also reported having commenced their drug use at a later age (Geoghegan *et al.*, 1999). Female clients also reported a longer mean length of time in treatment of 4.3 years in comparison to 2.4 years for their male counterparts.

Eighty one percent of clients reported polydrug using patterns on entry to methadone treatment. It is argued that individuals who seek methadone maintenance are more likely to report using a wide range of illicit drugs apart from their use of opiates, in addition to a greater reliance on the use of other prescribed medication apart from methadone (Hall *et al.*, 1998). The fact that methadone replaces opiates and not other drugs can be problematic. The use of other drugs in combination with methadone increases concern over the safety of the treatment. The high use of benzodiazepines is well documented among both the treated and untreated opiate using population (Ball and Ross, 1991; Darke *et al.*, 1994c). In this study, 1 in 5 of the clients reported benzodiazepines as their secondary drug of choice in the month prior to treatment contact. Among methadone maintenance clients, Darke *et al.* (1994c) reported higher levels in that over a third of clients reported the use of benzodiazepine use in the month preceding interview. Regardless of the level of use, research has linked the use of benzodiazepines to a range of risk behaviours including; increased levels of needle sharing, higher levels of poly drug using behaviour, increased likelihood of injecting during methadone maintenance and overall poorer outcomes (Donoghoe *et al.*, 1992; Darke *et al.* 1994c). The continuation of benzodiazepine use with methadone treatment requires specific attention, as international research demonstrates that their use can place individuals at greater risk of both fatal and non fatal heroin overdose (Zador *et al.*, 1996). Furthermore, results of the baseline data included within this chapter, convey that nearly four in five of the clients reported having shared injecting equipment in the past This high level of injecting risk behaviour supports the view that methadone attracts those who are high risk of various blood borne infections and other injecting related complaints.

Follow-up Data

5.1 Introduction

This chapter presents an overview of the profile of clients who remained in receipt of methadone from the Prescribing Service at Merchants Quay Ireland following an eighteen month follow-up period. Firstly the profile of these clients will be illustrated by undertaking a comparative analysis on a range of baseline socio-demographic details with those who left the programme. Other follow-up information presented refers to the administration of the Opiate Treatment Index (OTI) once again to these clients who remained on the Prescribing Programme. This will feature both initial and follow-up scores across a range of outcome domains which are included within the Opiate Treatment Index (OTI).

5.2 Client Profile at Follow-Up

5.2.1 Follow-Up Rate

As illustrated in the previous chapter, baseline data was collected from 31 clients who were at that time in receipt of methadone maintenance at Merchants Quay Ireland. Following the eighteen-month follow-up period, 17 of these clients were found to be still in receipt of methadone, representing a 55% follow-up rate. This figure does not demonstrate the overall retention rate of the programme as during the period under investigation numerous clients had progressed in their treatment and were therefore transferred to locally based, general practitioner settings with a further client also accessing Merchants Quay Irelands' Residential Programme. These clients account for a further 16% of the initial population group indicating more favourable outcomes than the above follow-up figure would suggest. Other reasons for departure during the eighteen-month period are included within the table below.

TABLE 5.1 REASONS FOR DEPARTURE

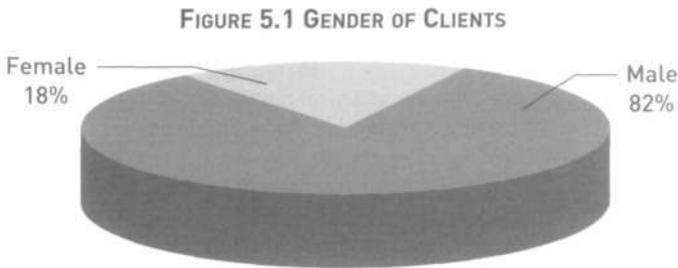
Reasons	Total	
	%	<i>n</i>
Progressed to G.P	29	(4)
Transferred to Other Treatment Centre	29	(4)
Ceased Attendance	21	(3)
Entry to MQI Residential Programme	7	(1)
Moved Out of Area	7	(1)
Deceased	7	(1)
Total	100	(14)

As illustrated in Table 5.1 above, 29% of clients were also transferred to other treatment centers. This action largely occurred as a result of clients emerging chaotic drug using behaviour which resulted in more intensive intervention and support programmes being sought by the Prescribing Team for these individuals.

5.2.2 Socio-Demographic Details

5.2.2.1 Gender

The majority of clients who remained on the Programme at follow-up were male (82%). This is in sharp contrast to the gender profile of those who had left their treatment or had being transferred to other treatment settings. The male to female gender ratio of these clients was approximately 3:2.



5.2.2.2 Age

Furthermore, data collected on clients' age at initial interview illustrated a lower mean age for those who remained on the programme than those who had left during the eighteen-month, follow-up period (29 yrs v 32 yrs). A larger proportion of clients under 30 years was also observed in the follow-up group (53% v 39%) as Table 5.2 below illustrates.

TABLE 5.2 AGE PROFILE BY GROUP

	Follow-Up Group		Non Follow-Up Group	
	%	<i>n</i>	%	<i>n</i>
Less than 25 years	29	(5)	15	(2)
26-30 years	24	(4)	24	(3)
31+ years	47	(8)	61	(9)
Total	100	(17)	100	(14)

5.2.2.3 Living Arrangements

In terms of living status of clients, those who remained on the Prescribing Programme were also proportionally more likely to have reported living in the family home at first interview or with other family members than those who had left the Programme (47% v 29%). This may suggest that the family household is a stabilising factor for these clients, or alternatively it may indicate a heightened need for this support by this client group. Furthermore, clients who were on the Programme at follow-up were also less likely to report having care for children.

Only 6% of clients reported living alone with children in comparison to 21% of their non-remaining counterparts. Nearly a quarter of the clients who remained on the programme were also more likely to report sharing accommodation with another drug user at first interview than their non remaining counterparts (24% v 7%).

5.2.2.4 Treatment Histories

The extent to which clients' length of time in treatment had an influence on their likelihood to remain on the MQI Prescribing Programme was also examined. Clients who remained on the programme demonstrated a shorter mean length of time in treatment at baseline interview than those who had left during the eighteen-

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month period. The mean length of time in treatment was 2.6 years in comparison to 3.4 years for their non-remaining counterparts. Table 5.3 below illustrates that no difference was found in mean age of first drug use or age of first use of primary drug for either groups. However, clients who had remained on the programme reported having commenced injecting at a slightly younger age than those who had left the programme (19 years v 20 years).

TABLE 5.3 AGE OF DRUG USE BY GROUP

Mean Age	Follow-Up Group	Non Follow-Up Group
Primary Drug	18.4	18.8
Any Drug	15.6	15.7
First IV	19	20

5.2.2.5 Employment/Training Opportunities

Nearly a half of the clients who remained on the Programme had reported to be in employment or were participating in various training opportunities at first interview (47%) in comparison to 14% of those clients who had left the programme. They were also proportionally more likely to have reached their secondary level education than their non remaining counterparts.

5.3 Opiate Treatment Index

As discussed in Chapter Three, the Opiate Treatment Index (OTI) consists of a standardised range of measures which covers six main outcome domains; drug use, HIV risk taking behaviour, social functioning, criminality, health status and psychological adjustment. All questions within each domain relate to self-reported behaviour in the last month except for the questions in the social functioning section in which the information relates to the six months prior to interview. Each outcome domain provides a numerical score and the higher the score the greater the level of dysfunction.

Table 5.4 below illustrates the results of the Opiate Treatment Index which was administered to participating clients at both initial interview and then eighteen months later.²

TABLE 5.4 CHANGES IN OPIATE TREATMENT INDEX SCORES

	Mean Opiate Treatment Index Score		
	All Clients	Follow-Up Clients	
	Initial (n=29)	Baseline (n=16)	Follow-Up (n=16)
HIV Risk	4.07	3.76	4.6
Crime	.43	.41	.00
Social Functioning	14.7	13.76	10.9
Health	12.90	11.53	11.4
GHQ	7.97	5.9	3.7

² Two clients failed to participate in the initial administration of the OTI instrument and among the follow-up group a further client refused. At the initial interview the OTI was administered by a staff member of the service (as part of academic course work). At follow-up a member of the research department conducted the interviews.

5.3.1 Drug Use

This domain examined clients drug using patterns over the four week period prior to interview, apart from their use of prescribed methadone which was not included. At the time of follow-up interview, clients were in receipt of an average dose of 70 mls daily (range 45 mls-90 mls). The mean score for the drug use scale remained largely unchanged among follow-up clients between baseline and at the eighteen month follow-up period.

Ward *et al* (1998) have argued that studies which have demonstrated the effectiveness of oral methadone have also illustrated that many continue to inject drugs, although at much reduced rates, in spite of treatment. For example, Gossop *et al* (1999) found that in the U.K about 10% of patients injected heroin daily, even after remaining in treatment for 2 years (Carnwath, 2001).

However, a reduction in the use of other drugs including cocaine, sedatives and alcohol have also been observed among methadone maintained individuals (Magura *et al*, 1991, Fairbank *et al*, 1993). In this study, a reduction in the use of alcohol was reported with the average consumption rate decreasing from 11.4 units to 8.17 units. Similarly, there was a decrease in the mean number of cigarettes smoked. Results convey that there was no change in the mean use of hallucinogens, inhalants, amphetamines or barbiturates. However in terms of tranquillisers, there was a slight increase with 38% of the clients reported such use at follow-up.

In terms of cocaine use, 25% of clients (n=4) reported having used cocaine at some point in time during the month prior to interview. Literature has demonstrated that the use of cocaine is widespread both among methadone maintenance admissions and among general methadone maintenance clients (Ball and Ross, 1991; Strain *et al*, 1993). Nonetheless, there is evidence which suggests that methadone maintenance treatment reduces the prevalence and frequency of cocaine use. For example, a study undertaken by Meandzija (1994) highlighted the total monthly cocaine use of methadone maintenance clients to be 60-70% less than their non-treated counterparts. Similar trends have been illustrated within this study, whereby two clients who had reported the use of cocaine as their secondary drug of choice on treatment entry, reported no such use at follow-up. Furthermore, one client had reduced their frequency of consumption from weekly use of cocaine on treatment entry to one episode of cocaine use as measured by the OTI drug use scale at follow-up.

5.3.2 HIV Risk

The mean score for the HIV risk scale also increased among follow-up clients between the two different time periods, rising from a mean score of 3.6 at baseline to 4.7 at follow-up interview. Increased levels of sexual risk behaviour among clients with low levels of reported condom use were documented. More specifically nearly 20% of clients reported no use of condoms when sexually active within the four weeks prior to interview, which may account for this increase. Research studies have shown high sexual risk taking behaviour among the drug using population, with results indicating that as drug users curtail their injecting risk behaviour, they continue to engage in high levels of sexual risk behaviour (McKeganey and Barnard, 1990; Frischer and Elliott, 1993).

5.3.3 Crime

Table 5.4 also demonstrates that the mean opiate treatment index score for crime had decreased among follow-up clients during the two time periods. As conveyed, the mean score for crime at baseline was .41 in comparison to .00 at follow-up. These figures includes a range of criminal activity including; property crime, dealing, fraud and crimes involving violence. At baseline, 35% (n=6) of follow-up clients reported having undertaken at least one episode of these activities in the month prior to interview. While at follow-up only 1 client reported having been involved in property crime during the previous four weeks. This supports international research which suggests that there exists a strong association between the provision of methadone maintenance and a reduction in criminal activities (Hall *et al*, 1998). According to Hall and his colleagues (1998), the rate of criminal activity approximately halves with each year that a client remains within methadone treatment.

5.3.4 Social Functioning

Social functioning scale consists of questions relating to various aspects of social functioning including housing, employment, family and relationships within the last six months. Similar decreases in mean scores

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reported by clients in the crime scale above, were observed in the social functioning scale. This scale illustrates a mean score of 13.76 among follow-up clients at baseline compared to 10.9 at follow-up interview. In this study, none of the clients reported being homeless at the time of interview, with only two clients having moved their accommodation within the six month period prior to follow-up. As each item is scored on a scale of 0-4, the total score range is 0-48. Within this study the score range was 3-25 which conveys a very high level of social functioning among this cohort.

5.3.5 Health

It is well researched that opiate dependency can result in very severe medical consequences. Not only are they at risk of a range of blood borne infections such as, hepatitis B, C and HIV and other injecting related complaints, but also tend to deter and under utilize health services adequately and receive essential health care (Brettle *et al*, 1990). On entry to methadone treatment programmes, it is widely recognized that clients may often display a poor health status (Ryan and White, 1996). The mean opiate treatment index score for health was 11.53 at baseline and 11.4 at follow-up. Individually profiled, clients were more likely to report experiencing a range of general physical health complaints which included energy loss, weight loss, trouble sleeping, and teeth problems. Cardio-respiratory issues also featured highly with 93% of clients reporting at least one complaint within this category. Three in four of the clients at follow-up also reported having had experienced at least one of the listed neurological complaints. It is also worth noting that various follow-up clients reported during the interview having either hepatitis C, and/or HIV which may account for a proportion of the symptoms and may therefore disguise the impact of the intervention on health outcomes. However, the extent of bloodborne infections among the client group did not feature within the health domain of the opiate treatment index questionnaire. Finally, none of the clients reported injecting related problems within the previous four weeks.

5.3.6 GHQ

Studies have demonstrated a strong association between poor psychiatric levels and the use of opiates. International studies demonstrates that drug users represent a highly at risk group in terms of mental health problems (Kokkevi and Stefanis, 1993), in particular anxiety and depression (Galanter *et al*, 1994). In studies specifically restricted to methadone maintenance, similar patterns of psychiatric diagnosis have been noted to exist for this group as for the opiate using population in general. Darke *et al* (1994) found high levels of psychological morbidity among a sample of opioid users who had been maintained on methadone for a period of 18 months (58%). While, Strain *et al* (1991) reported that among methadone maintained clients, 20% reported having experienced at least one episode of major depression. Within this study, changes in the opiate treatment index score for GHQ scale, decreased from a mean score of 5.9 at baseline to a score of 3.7 at follow-up. As illustrated in Table 5.5, changes were also observed across all GHQ subscales; somatic symptoms, anxiety, social dysfunction and depression among follow-up clients between the eighteen month time period.

TABLE 5.5 CHANGES IN MEAN GHQ SCORE BY GHQ SUBSCALES

	Mean Opiate Treatment Index Score		
	All Clients	Follow-Up Clients	
	Initial (n=29)	Baseline (n=16)	Follow-Up (n=16)
Somatic Symptoms	2.2	1.76	.00
Anxiety	2.97	2.29	.00
Social Dysfunction	1.4	.94	.00
Depression	1.3	.94	.00

Despite these changes the overall prevalence rates remained similar between the two time periods, although the severity of the symptoms had decreased. Over a half of the clients (56%) reported having experienced at least one of the somatic symptoms in the weeks prior to interview with nearly one in two clients reported symptoms of anxiety. Poor levels of social functioning was present among 25% of the clients with only 13% of clients reporting having had a depressive episode within this time period.

5.4 Summary and Conclusions

This chapter has examined the effectiveness of the Prescribing Programme by focusing on a range of variables at follow-up. The administration of a standardised research instrument, the Opiate Treatment Index at two different time periods also allowed a more comprehensive examination into treatment outcomes. Table 5.6 below illustrates a broad overview of these findings;

TABLE 5.6 SUMMARY OF KEY FINDINGS

- The majority of clients who remained on the programme were male;
- Clients who remained on the programme demonstrated a shorter mean length of time in treatment at baseline interview than clients who had left the programme;
- Follow-up clients were also more likely to report living in the family home at first interview;
- Improvements in the extent of drug using risk behaviour among clients;
- Reduction in the quantity and frequency of both licit and illicit drug consumption;
- Increase in sexual risk behaviour among clients;
- Reduction within the frequency of criminal activities undertaken by clients;
- Improvements among clients in relation to social functioning;
- Health remained largely consistent over the follow-up period;
- Marked decrease within a range of psychiatric complaints especially with regards to reported levels of anxiety among clients.

Furthermore, of those who remained at follow-up, one in two of the clients reported to be in employment or participating in training opportunities at baseline interview. This high level of employment or training participation among those who remained on the programme is consistent with other research studies which demonstrate that employment history and status at entry to treatment was associated with longer stays in treatment and better outcomes after leaving treatment (Hubbard *et al*, 1989). Other studies such as Ball and Ross (1991) study highlighted various client attributes that have been associated with more effective treatment outcomes which include; age, higher levels of education and currently in employment. However they concluded that the impact of various programme characteristics on favourable outcomes is far greater in comparison to the individual characteristics of clients.

Qualitative Data

6.1 Introduction

This section will present an analysis of the main themes that were conveyed throughout the focus groups. As illustrated in Chapter Three, three focus groups were undertaken for the purpose of the research study. Two focus groups were held with clients who were currently on methadone treatment. The participants of the first group were all in receipt of methadone from the G.P prescribing service at Merchants Quay Ireland, but attending structured day/training programmes elsewhere. The second group were receiving their methadone from various treatment centres or general practitioners in the locality but were attending the day programme in Merchants Quay Ireland. Finally, the third focus group comprised of staff members of the prescribing service in addition to workers of the day programmes within the Stabilisation Service. The information discussed within these focus groups is illustrated according to the following themes;

- *Key Players in Methadone Treatment*
- *Methadone Treatment and Integration*
- *Responding to Methadone*
- *Managing Methadone Treatment*
- *Methadone and Health*

6.2 Key Players in Methadone Treatment

6.2.1 Role of the G.P

The introduction of the methadone protocol in Ireland in 1998, meant a more structured decentralisation of drug treatment to various general practitioners. G.P's are required to provide an appropriate and acceptable level of treatment for their drug using clients. Numerous clients reported how the introduction of the methadone protocol had a significant impact on their treatment as the following client demonstrated;

I got transferred when the protocol came out from me G.P into here [Merchants Quay] and I find that I've come an awful lot because the G.P I was with wasn't supervising the women because he hadn't got a woman to supervise the urine, so I didn't give a shit ye know that way, so you 'djust come in and give him a urine and he wouldn't know if it was yours or not, do ye know what I mean, whereas comin 'down here knowing that you have to give a clean urine it kinda keeps ye on the straight. It's good in one sense and its bad in another sense, it varies on the person.

(Female client, 34 years)

Clients also reported the extent to which the methadone protocol meant that they were no longer being forced to pay out large amounts of money to their local doctor. The clients quotes below convey how their weekly

benefits were often used solely to finance their methadone treatment;

Like me whole book as a lone parent that used to go towards seeing the doctor and pay big to get your methadone, so it was a good idea to bring the doctors in cause like the doctors were making all the money out of it and were chargin' what they wanted. Then through that I got on to a FAS scheme and that keeps me goin' aswell.

(31 year-old female client)

I was on a G.P and the same thing the protocol came in I had to leave to come here, but I was only on disability I was getting paid every week I was paying the doctor £20 and then it was costing £50 to get it out of the chemist so that was £70, that's all I was getting, I was only getting £72, I was left with £2.

(Male client, 36 years)

Clients reported extreme variations in the prescribing practices of G.P's, as some may regard methadone treatment as purely an abstinence focused approach with others regarding it as drug substitution. Despite these diversities, it is more often the clinical aspect (i.e the prescribing, assessing and reviewing) of the intervention which denotes the G.P's involvement with the drug user.

Furthermore, while it is very often the structure and operational features of the medical setting which can deter individuals from seeking treatment for either their drug use or other health care issues, the G.P practice can in fact provide a suitable environment for the treatment of opiate use, especially among those maintained on methadone. A key advantage of G.P involvement in the treatment of opiate users is that it can 'normalise' opiate use by integrating drug treatment with mainstream medical services, thereby reducing the stigma involved. Attending a G.P practice can also prevent in some instances, the re-establishment of prior drug using networks, as the following client illustrates;

Goin' to a G.P surgery does help because your not comin 'into contact with people outside, because I see people comin'out of clinics and there s people ready to sell them tablets or whatever, I don't get that when I go to my doctor I just go into him_and ye have an appointment aswell, in clinics there are no appointments.

(31 year old female)

6.2.2 The Drug Treatment Centre

The medical intervention provided by the G.P can also be part of a multi-disciplinary process, as in the case of a drug treatment centre. Within a drug treatment setting, the level of G.P involvement is regarded as being highly dependent on the individual G.P. The following quote highlights one workers experience of the role of the G.P within the prescribing service of MQI;

The whole idea here would be, that we 're a team, and that the G.P is part of the team, I am a part of that team, and that we all have an input. But how successfully that works really depends on the G.P and where they are coming from, how much experience they have, how sympathetic they are to addiction and recovery.

(Male Full-time Worker)

This treatment environment recognises that drug users, in particular methadone maintained clients, may present with problems which require the expertise of more than one discipline. In other words, the majority of attendees to a drug treatment centre may also, at some point, request information or support in other areas of their lives apart from their drug treatment. The following quote highlights the holistic approach to methadone treatment which can exist within a drug treatment centre;

I have this girl called Sue, she s supposed to be there all the time but she s only there at times and you really have to try and catch her. I was just lucky the other day that I caught her. I was havin 'problems with the Corporation or whatever and I went in and went to go to her, and she said leave it with me do ye know and she worked it out with me social worker. Little things like

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that I'd go into her. If I was in a really depressing state I might go in and talk to her. It's good cause like there's a nurse there and if you have any problems, if you have abscesses or anything she'll help you with that. She'll make sure that you cure yourself like she'd bring you in every day until she fixes that up for you, you know.

(40 year-old mother of two)

The following quote illustrates one client's satisfaction with receiving her methadone treatment within a drug treatment centre. It also demonstrates the effectiveness of this environment in providing an integrated approach to drug treatment;

Well I was asked to go back to a G.P and I said no I was on a G.P and you took me off it so I'm not going back. Why should I go back. I'm not been smart I cried when I had to leave me G.P because I didn't know what Merchant's Quay was like. I was thinking that it was one of these places that you'd go in and everyone sitting around stoned out of their head. But it's kinda like a doctors surgery you just go in. I find that doctor very nice. I haven't had any problems yet not saying that I won't in the future. I think coming in here did me the world of good and even me G.P told me he should have sent me down here years ago now that's a compliment to Merchant's Quay anyway

(31 year-old male)

6.2.3 The Pharmacist

The local pharmacy is also a key player in the treatment of opiate use as it dispenses methadone. Varying reports on the level of satisfaction among methadone clients of their dispensing pharmacists were conveyed. The quotes below represent the positive views of clients who attend their pharmacist to collect their methadone on a "takeaway" basis;

My pharmacist is very good, I go in and she chats away to me and I feel very comfortable going into the chemist because they all make me feel well.

(28 year old male client)

I think the methadone is great now and I come down every Tuesday, do a urine, get me script, just go to the chemist and get me full bottle to do me for the week, I don't have to go up every day. I wouldn't be able to go up every day. I'm with the same chemist for years even before I started here, even when I was on with me doctor. If I had to go up to the chemist and drink it there, it'd be like I was after going 'back on somethin'. I can just go in with me script like any other customer and walk back out. I have no problems with it at all.

(Female client of 35 years)

One client who had reported negative experiences with their pharmacist in the past had also been at that time in receipt of supervised methadone. This may illustrate that the conditions (i.e type of prescription) under which the methadone is collected has an impact on clients' perception of their pharmacist. The quote below refers to this client's experience, which is followed with a possible explanation for such actions from a worker's perspective.

My chemist now is grand but I was in a chemist at one time it was horrible. You'd have to go in and hand in your script and then you'd have to go out hail, rain and snow and wait outside for maybe half an hour and then go back in.

(31 year-old female)

At times they will ask the person who has come to pick up their methadone to wait until they clear other customers out in the shop. The pharmacies say that they do this to protect the dignity of the person which is collecting the methadone. But sometimes the person who is collecting the methadone sees that as discrimination. It's a catch 22 situation you don't want to embarrass the person by giving it to them in front of a load of people and then you make

a show of them by keeping it to the end. Pharmacies differ, some of them are quite conscientious. Anybody new coming onto a clinic, their first day of methadone is taken supervised on the premises and that's to do away with stockpiling.

(35 year-old male worker)

The dispensing of methadone, particularly under supervised conditions, is often a highly visible and public practice which also openly discloses their drug using status. Although methadone treatment does not signify active drug use, the manner in which it can be administered and dispensed, further exacerbates the marginalisation already experienced by this group, as the following quotes demonstrate;

There s people there in the chemist and you 're sitting there waiting for your script and then you 're goin 'in behind the chemist. They're wondering why is she going in behind the chemist, they 're not stupid who isn 't stupid these days, everyone knows. Even if you 're on methadone they see you with a needle in your arm.

(29 year-old female client)

You know if you look at anything in the chemist you 're told to sit back there. Like you all have a chair in there, everybody knows believe it or not. The people out of the flats where we live in Oliver Bond, they know that if you 're sitting' in that seat you 're waitin' on your methadone. They know what it means, so everybody knows, so like its not discreet in any way.

(34 year-old female client)

Similarly, workers of the G.P prescribing programme stated that they heard reports from clients on different occasions, regarding the exposed manner in which methadone can be dispensed and difficulties which are encountered at their pharmacist. The following quote conveys such thoughts and also provides a way forward for minimising such difficulties;

I think to some extent the understanding among pharmacies could be increased. Some of the attitudes that you would hear are appalling, degrading. [.....] One of the chemists actually had a little section off where anyone can go in and get their methadone it's very simple, because very often they have to queue or they are ignored.

(Prescribing staff member)

Good communication between the staff members of the G.P prescribing service and the local pharmacies was noted and also considered to be of utmost importance in delivering an appropriate and acceptable service to their clients. The quote below highlights how this mutual relationship can exist;

Speaking of our clinic here, we actively liase with all the pharmacies and if we think there is something that they should know and vice versa we are in contact. They do play quite a role but I say that varies from pharmacies to pharmacies.

(Female staff member)

6.3 Methadone Treatment and Integration

6.3.1 Bridging the Gap

The transition from active drug use into methadone treatment can be an extremely difficult time for this client group. They are provided with an opportunity to modify existing drug using patterns. In doing so, they are attempting to change their life from one which has constantly revolved around and been devoted to sustaining their drug using behaviour. The need to bridge this gap by providing them with the means to develop new skills and opportunities is considered essential and is conveyed in the following quote by a staff member;

Being a chaotic drug user is a total full-time job. It's a very pressurised, stressful job that takes a large amount of ingenuity, intelligence with resources and time management. Then

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all of a sudden when you are giving someone their methadone you are actually making them redundant from that job. So unless you can actually provide an alternative job or an alternative package to fill that gap, you are only addressing 30% of the problem, if that. For instance, I think in recent times a lot of people on our methadone programme are working or training, because a couple of years ago the support wasn't there. So whether it is encouraging them into part-time employment, full-time employment, constructive day programmes, whatever. They are giving up their full-time job when they move from chaos to stabilisation, that is what really needs to be replaced at some point.

(Female full-time worker)

6.3.2 Training as Integration

Drug use is a chronic relapsing condition which can occur at any stage in the treatment process. Support strategies which not only focus on the immediate situation but also on improving the long-term social functioning of clients is necessary. Currently, the majority of methadone programmes incorporate vocational training, with the provision of drug treatment, in the form of structured day programmes. Clients who are on methadone maintenance report that structured day programmes or other training programmes such as those arranged by FAS, not only develop new or existing skills, but also provide a support mechanism which help in relapse management. These programmes, as illustrated in the following quotes, can relieve clients of the boredom which is commonly experienced while participating in a drug treatment option such as methadone maintenance.

I done a year of FAS in another place and this is me second year. I found the two of them great. The first one I benefited a lot. It's not that they trained me, but they helped me stay off. It helped me get through. When you 're tryin 'to come off drugs and you 've have nothin' to do and you 're bored, you tend to go to X and you just use like everybody else is, cause that's what your doin 'at that time. But if you 've something to get up for every mornin 'even if it's just a FAS course, it s somethin ' that keeps you together, do ye know what I mean.

(35 year-old female)

This is the first time I've ever been on a course. I enjoy gettin'up in the mornings and then when I get home I clean the place. When the little lad comes home from school I cook his dinner, then I probably sleep for an hour and get up and do odd jobs, even help the little lad with his homework. Like if I had the whole mornin 'with nothin 'to do it'd be difficult. I think this is great, I really enjoy it.

(41 year-old mother)

These programmes, through emphasising skills and learning activities, can also instill a normal routine for clients, and in doing so, help develop their personal independence and responsibility. For example, the quotes below demonstrate how this daily routine can prove beneficial within different aspects of the clients' lives;

I used to get out of bed at four or five in the day or if I was up early I'd go back to bed at twelve o'clock. Now Fm up about nine o'clock and stay up [...] It [FAS Course] gives you a routine, and ye know it helps you with your bills so ye won't get into debt, it helps you with everyday things.

(Client of a structured day programme)

When I'd used to see the rain in the mornings and I'd say to the little fella, "ah it's lashing rain ye needn 't go to school". He was missin' a lot of school but now if its snowing I get up every morning and go out to work [FAS Course], do ye know, so he s not missing school any more which I find fantastic.

(Female participant on a FAS programme)

6.3.3 Methadone and Employment

Combining methadone treatment with the working lives of clients is often difficult. The structure and routine which a methadone programme imposes on an individual can have implications in their work environments such as the need to inform employers of their drug using status. Although these difficulties may be envisaged to be fewer for those who attend their local general practitioners surgery (after-work surgeries etc), they nevertheless exist for the majority of clients whether in receipt of their methadone from a specialised drug clinic or from their G.P. This is highly evident in the following quotes by staff members;

The fact that a lot of G.P's have evening surgeries is a help, they can go when they are finished work. But I think even going to a G.P, saying to your employer once a week "I'm going to the G.P", eventually the employer is going to say to you well "look what's the story why do you have to go to the G.P so often ". But yeah it's slightly easier when you go to the G.P but there's still complications involved. Should they tell the employer, or do they keep it hidden from them. This can be stressful for them because they don 't know what is right for them to do. I would say the majority would try to keep it from their employer.

(Staff member of the G.P prescribing service)

The disadvantages are more around the practicalities about getting to doctors as opposed to issues about whether methadone would make you any more confident in your work. I mean certainly if somebody is generally stable on methadone there is no reason why they would be any less confident in their job than any one else. There is more of a difficulty around the prejudices and lack of knowledge out there and practicalities. How do you justify an hour or two at a G.P or clinic each week without someone eventually asking why.

(Female Worker of the G.P prescribing service)

This inconvenience of methadone treatment on clients training and/or work routines is often as a result of clients actively choosing to conceal their drug status to members of their work environment which at times can prove difficult to manage and disguise. The following quotes illustrate the heightened concern of clients when trying to combine methadone treatment with work or training opportunities.

It does interfere. Like I was sent on a work experience with the FAS to the X centre in a office doin' reception. Now I didn 't know what to say to them cause I had to leave on a Tuesday to come down here. I didn't want to let them know that I was on methadone ye know, or that I was a drug addict, so I just said that I was goin' to me counsellor rather than say where.

(Male client of 31 years)

If it's daily or weekly, no matter what you still have to go and see the doctor by Monday to Friday, you 're still goin' to see them, no matter what. It's still goin' to interfere. Sometimes it s okay if ye go and then they start askin' why do you have to go every week. They probably decide they can 't keep you on then.

(32 year old male client)

Moreover, the type of work which is undertaken by the client is highly dependent on their drug treatment status. Flexibility of the job is often chosen as an alternative to having to disclose their methadone maintained status as the following staff quote demonstrates;

// reduces the type of work they can do because of their methadone.... A lot of clients would have jobs that would facilitate coming and going. Like a lot of clients would do security type work or couriers. In that respect the type of work they do lessens the complications.

(Female staff member)

Clients' engagement in methadone treatment can also significantly reduce their equal access to employment. The lack of meaningful employment contributes to the [further] exclusion of individuals from mainstream

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society and also inhibits a drug user's progress. The following quote highlights the positive discrimination which can be commonly attached to methadone maintained clients when seeking employment and also illustrates the reason the client would disclose her drug status when seeking employment;

Some say that they aren't insured for ye if your on methadone, especially if you're doin' machinery work. Jesus Christ that's like driving a car, ye shouldn't be driving a car if your on methadone. But I mean methadone just stables you, I could understand if you drank three bottles of it all at once, but not if your on a daily dose of it.

INTERVIEWER: Would you feel you have to disclose that you're on methadone if you went for a job?

I'd feel you'd have to tell them cause I have the virus as well. Like to get a job, chef work, or any type of work that's there's a chance that you could cut yourself, you have to explain and at least make sure that the management knows what to do if something goes wrong. I would feel as though I have to tell them.

(34 year old female client)

In many instances, these clients also had negative experiences regarding previous employment, resulting in a loss of self-esteem and confidence, which in turn has impacted on their willingness towards seeking employment in the future. The following quote conveys how a highly motivated client is presently deterred from accessing employment based on prior experience;

The last time I had a mainstream job was in a restaurant. I was a manageress of a restaurant for 10 years. I started off as a dishwasher and worked my way up. I took time off to have me youngest, but then eh, went back to work and I was standin' in the restaurant at the till one night, and the rest of the people who were working there were behind me, and a person came in who knew I had the virus, and who also knew I was drug addict. Now he came with a party of about eight, walked right into the restaurant, seen me, stopped and blatantly stared at me and then turned around the whole party and left the restaurant and the people working with me said 'do you know that person?' Well I felt that high, like it took my confidence away for a long time even to stand in a public place like that again.

(Female client, 41 years)

6.3.4 Methadone and Improved Social Functioning

The impact of methadone treatment on improving the overall social well-being of clients was also conveyed throughout the research process. Numerous clients reported an increase in self-confidence in addition to a greater ability to communicate and interact with others. This is reflected in the following quote;

Since I started here I'm after coming on grand, like I'm after getting more confident in meself [...] you also get out there and meet other people. When I was on heroin I used to isolate myself away from everybody. You'd go back home after scoring and I'd be awake until four or five in the morning and be in bed until 3 or 4 in the day and not see anybody. I hadn't a life to be honest.

(Male client; 28 years)

For others, the provision of daily methadone meant that there was a significant cessation in the extent to which clients felt it necessary to undertake various criminal activities, such as shoplifting, to support their drug patterns. According to the client quote below, the reassurance of having a constant and regular supply of methadone when it is most needed such as in the morning, was reported to be of vast benefit for the individual;

Meself and that girl we shoplifted all the time to keep our habit, but we never robbed anybody. I know robbing is robbing but the way I used to look at it we weren't robbing from poor people or people like ourselves. Just to keep the habit going, we used to go into town in the morning and you'd be dying sick from not having anything. When you're sick you're off form and are watching around ye and you'd get paranoid and you'd be getting yourself

caught some times. But I don't need to do that anymore, I wouldn't be able to rob a thing now. At least now in the morning you can get up and get your phy [methadone] and I don't need to go out and shoplift. At that time I had to shoplift to get drugs or else I'd be sick for the whole day.

(33 year-old female)

6.4 Responding to Methadone

6.4.1 Motivations and Expectations

The following client refers to the introduction of the protocol as being a highly motivating factor in regards to his entry onto a methadone treatment programme and also highlights his satisfaction with this type of treatment;

With the brown phy I wouldn't take it, cause I didn't like it, but then when the green phy came I went on the programme. I've been on it for three or four years now and say in that with the methadone I think it has helped me more than anything else. I'm after savin'up and goin' on holidays 'cause like when I was on the drugs I never went anywhere. Like touch wood, I have no problems with it. It s doin' me good anyway ye know what I mean, the only thing is I can't sleep, probably I want more.

(Female client of the Prescribing Service)

Furthermore, the following staff quote illustrates that the majority of clients see methadone as a temporary substitute to help them get off heroin and therefore this is often their primary motivation in seeking methadone treatment;

It's not the ideal scenario. Everybody wants to be drug free but in the real world that's not the way it is, all these people are happy on methadone. When you see a client coming in and you ask them do you see yourself on methadone when you are sixty they all say 'no'. They are all giving themselves a bit of time to get stable and then they are going on to become drug free. That s what methadone does. It keeps them all stable, keeps out the chaos.

(Full-time staff member of the Prescribing Service)

However, the quotes below illustrate a different perspective. Those in receipt of methadone for numerous years, convey how their outlook with regards to methadone treatment has altered over the years, how they have replaced one addiction with another, and how their dependence on methadone can last as long, if not longer, than a clients addiction to heroin;

When I first got onto a maintenance of phy [methadone] I thought it was a God send and now twelve years later it was the sorriest thing I ever did.

(41 year old female)

There are some young people that are in the programme but really I can't understand young people going on it [methadone]. If I had known the way I am now, if I had of known that years ago, I wouldn't have gone on it.

(33 year old female client)

When I first went on methadone I thought it was a very good idea, I had already being addicted to heroin for about ten years, and when I got my methadone doctor I thought he had saved me life. I didn't have to go out to score anymore and to a point that was very true. But this is ten years later and I'm still on methadone....

(Female client of 35 years)

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6.4.2 Methadone and Dependence

The extent to which methadone treatment produces both physical and psychological dependence is severe. Long-term dependence on methadone most often impacts on a client's future detoxification process. In this study, clients reported a physical dependence on methadone which exhibited immediate withdrawal symptoms when their treatment was interrupted for any short period of time. The following clients demonstrate the extent to which methadone is a dominant feature of their lives and the impact of any delay in its consumption;

Everybody has a different reaction to it, I have gone a day without it but then the next day around half 11, 12 o'clock I feel the back of me legs, it'd be killing.

(Male client of the Prescribing Service)

If you do happen to go through a day without it, well for me personally, if I was to go a day without phy it would take me two or three days for me body to get back to normal. Omitting that one day takes a couple of days, because you feel it throughout the body.

(Female client; 31 years)

The notion of methadone maintenance as prolonging dependence on a drug is often weighed against and chosen for the benefits which can be derived from using that drug. For example, the following quote demonstrates how although this client envisages that she will be on methadone for the remainder of her life, she nevertheless views its impact as significant in maintaining her positive health status;

/ mean, like I was years fighting for methadone maintenance. In them days it was really hard to get maintenance. Now because I've been some many years on it and because also I have the virus now and me health problems, I have to have it. I wouldn't survive without it now, but I don't class it as gettin 'stoned on it or nothin' like it, it just keeps me as normal as can be, it's whatever normal is, you know what I mean. I'm on methadone for the rest of me life, obviously I still have the virus it'd be bad for my health if I came off it.

(Female client, 31 years)

Although methadone treatment has the ability to reduce the harm caused to both the individual and the community at large, it cannot, however, provide a 'solution' to all problems. There is a need to address the structural causes of drug use by examining the environment in which drug use occurs as the following quote conveys;

I suppose the more people you meet you realise that it's not as if they weren't on methadone their lives would be problem free. Drug use in a lot of cases is really just another symptom of an already dysfunctional, deprived, damaged environment. For instances, a lot of clients that we would encounter on methadone here or elsewhere, it s probably sad to say it will be the best quality of life that they have, because if they are on methadone like they are not collecting new charges in and out of prison, they might not have to engage in criminal damage or street work. I know a lot of them still do, but they don't have to engage in as much because they don't need as much money when they are on methadone. They can regulate their lifestyle their daily routine, have better family relationships, better care of their children. So its not as if really you take methadone away life is going to be wonderful unlimited possibilities and options out there. There isn't, sadly, and that's nothing to do with methadone and a lot of times it's not even due to their drug use, that was the story before they ever got involved in drugs.

(Male Worker of the Prescribing Service)

While methadone treatment is often seen as providing an opportunity to 'normalise' a persons life, by increasing health, social functioning and/or employment-training opportunities, clients however reported various restrictions on their ability to engage in some everyday activities. The reality of methadone maintenance is that it can create a dependence on methadone which might not facilitate each individual;

When you 're on methadone, you can't have a normal working life. If you 've to go to the doctor or the clinic once a week, or even if you 've got to go on your holidays or stay in someones house overnight, you have to make it sure always that you have your methadone, like it ties you down an awful lot.

(Female Client)

Yeah it interferes work wise and it interferes daily cause like if I go out and have two pints I fall asleep with methadone.

(Male Client; 28 years)

6.5 Managing Methadone Treatment

6.5.1 The Role of Counselling

The provision of counselling as an ancillary service to methadone maintenance has been noted as an important feature in determining positive treatment outcomes. Counselling can address various adjustment problems which have resulted from their previous long-term drug use. The role of counselling, therefore, is important for those individuals who want and need assistance at various stages in their drug treatment. The following client demonstrates how counselling has helped her with specific difficulties which were outside the realm of drug treatment;

I do I get counselling but its not to do with me phy its personal, family problems. . . . She's after gettin' me through a few patches with me kids, the woman I see across in X.

(Female client, mother of two)

This holistic approach was conveyed by another client who found their counsellor to be extremely helpful and co-operative on numerous occasions;

I had a girl from X, very good, and she knew I couldn 't get around [leg amputated]. If she knew I had to go for me methadone or whatever, she 'd link in. If I had problems with the corporation she 'd sort it out.

(Female client; 34 years)

This was reiterated by a staff member who highlighted that some individuals feel that this assistance is required at critical periods of their lives, for example, when they are preparing to undergo a detox;

Most people on the clinics are not interested in counselling until it comes to the time to detox or if they are having a specific problem. In general the people we have here are 95% quite stable at the moment. They are getting on with their lives and are not requesting other forms of support. But when it comes to detoxing or some other issue they might ask us. Generally they just want to get on with their lives and at times would even see us as meddling.

(Male staff member of the G.P Prescribing Service)

However in some instances, lower intervention programmes which do not require the individual to participate in counselling sessions are more attractive to the client. Counselling can further increase the inconvenience of methadone treatment and may not be of utmost benefit to the client.

It s difficult to do, like they are taking time out at least once a week to get in here to see a doctor and if you impose an hour s counselling aswell, that s doubling the hassle that they have. Most of them don 'tfeel they need it.

(Male Staff Member of the Prescribing Service)

It is also implying that if you are on methadone you automatically have a problem. You wouldn 't assume that someone on the street wants counselling so why should the person on methadone who is living a quite mainstream normal lifestyle want counselling.

(Female Worker of the Prescribing Service)

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Those clients who reported having had contact with a counsellor stated that they were extremely dissatisfied with the constant turnover of counsellors which was often observed while they were in treatment. Various clients conveyed the difficulties imposed on both themselves and their treatment process when an unfamiliar staff member assumes the position of the counsellor. Disclosing their feelings and anxieties to a new member can be difficult for the client, as the quotes below demonstrates;

Do you know what I think, I think they should stick to the one counsellor because what's the point of talkin 'to one counsellor and havin 'to explain everything again, very personal stuff, to another one when they leave. You feel like a bleedin ' eejit. It's very hard to go into a counsellor that you don't know and your sittin' down and they ask you all kinds. Like with me I have to suss out the person first before I start talkin'. I wouldn't like to go in and tell personal stuff to the likes of you and then you walkin' around knowin' it and end up talkin' 'to him [another participant]. I think they should actually have the one counsellor and stick to the one counsellor instead of goin ' one, two, three, four whatever.

(31 year -old female client)

/ don't have any support. I have no support whats so ever. I used to go to counselling in X and the girl left and passed a fella onto me. He was there all through the times that she was there and he knew me situation and he knew where I was coming from. He knew what was after happening to me, he knew everything, yet his attitude towards me was awful not like the other girl [....] I haven 't been there in...., it must be 8 months now. I used to love goin ' there every day havin a cup of tea, ye know what I mean, now I don't go up and I do miss it.

(35 year-old female client)

Same here, I had a girl [.....] but then this new woman stepped in and cut back on the staff and so she was taken off me, so that left me with literally nobody, so I have nobody, no counsellor, I have no one to talk to, nobody to express me feelings to.....

(Female mother of two)

6.5.2 Monitoring Drug Use

The use of urinalysis in methadone treatment programmes ensures that clients are ingesting the methadone they are being dispensed and also detects the use of other non-prescribed drugs. Monitoring drug use in methadone maintenance programmes, although considered important for clinical management and programme evaluation purposes, is nevertheless a very embarrassing process for the clients involved. The humiliation in having to be watched by staff members is very distressing for clients as the following quotes convey;

I find it degrading the way they literally stare at ye. There s some places that are very bad, like I don't mind if they are behind ye or beside ye or whatever. But there s one girl in X she just doesn 't take her eye off me, she s looking at everything I have to do and that embarrasses me.

(Female Methadone Maintained Client)

There has to be another way. They know that you 're not going to give a boogie, because you have no way of giving it. Because of me leg I have to get her to come in and close the door because I can't bend down, like it's really awkward for me and she stares and stares and that makes me more embarrassed and then I can't do it. Now I find that terrible and one of the times I came out and said "look I can't go " and she said "its okay you can come back later", and I say "I can't I have to go back to work" [FAS Course]. Me and her ended up having a fight over it. There should be a bit of flexibility. They won't hand over my script unless I give a urine but there's days that literally you cannot go and they should allow you for it.

(35 year-old female client)

This humiliation is similarly shared by the staff members, as workers reported its effect on themselves and also on staff-client relationships. The majority of workers believe that the use of urinalysis as the only available method of monitoring drug use is limited and that other options should be explored;

In terms of the urine specimen although it's degrading for the client it's also degrading for the worker. To come up with some other way of testing is really where it should go. The hair sample seems to be very accurate and very civilised, and there is probably a lot of people it would help because they can't do the urines supervised.

(Male staff member of the Prescribing Service)

Drug use doesn't have to be urine tested. I mean like now they can take saliva or hair, but it never seems to materialise. Why is it? Because they are too expensive? Numerous amounts of people affected by addiction would also have histories of things like sexual abuse and other issues and to ask a victim of that to come in and expose themselves to strangers when actually there is no need for it.

(Female full-time worker)

Nevertheless, it was indicated that although there may be disadvantages associated with urinalysis, workers viewed it as a necessary feature of the service in objectively measuring clients' drug use. Refusal to participate is often seen as clients' affirmation of a positive result as the following staff quotes maintain;

People do mess. You have people who have used but they say that they can't give a urine. If we didn't have this in place, you'd have numerous people saying that they can't give a urine where in actual fact the reading is that they had used.

(Male staff member)

I think it's only a small percentage of people who actually can't and the other people who can't, won't. I think that decision was made as a blanket approach. It is more than likely that a person is refusing to give an urine because it is dirty and unfortunately people are going to get caught up in that net who don't deserve it, that's the reality of it.

(Female full-time worker)

6.6 Methadone & Health

6.6.1 Health and Well-being

Methadone, when properly prescribed as long-term maintenance, has been found to be medically safe, with the overall health status of patients improving both during and following treatment (Hall *et al.*, 1998). However, various side-effects of methadone treatment have been documented which can for some be minor and transitory but for others be a constant feature of distress as the quotes below convey;

This day two years ago, I just got on phy [methadone] and from then on I still haven't got a proper nights sleep. It takes an awful long time for your sleep patterns to come back to any sort of normality. Like I only get about three or four nights at the moment that I call sleep. I'm kinda semi conscious throughout the night.

(Male methadone maintained client)

I can't even take my methadone I have to drink it with somethin' say yoghurt, ye know sip a little bit, because it upsets your stomach real easy. Then it just all comes back up and when it comes back up there's nothin' you can do about it.

(31 year-old female client)

Clients also expressed immense concern at the poor state of their teeth, which they felt was attributed to their continued use of methadone. The following female client refers to the fact that her teeth have got progressively

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worse since the introduction of a different type of methadone during the time of the protocol in 1998;

Ye know that green phy that came out, well they say there s no sugar in that. Well I never had a bad tooth on the brown phy but I think that green phy rots your teeth completely. I had teeth that were pearls, well they weren 't perfect and now they are just gone bad from the green phy. I blame the green phy because they were never like that when I was on the brown and I was on brown longer.

(Female client, 27 years)

Similarly the staff quote below affirms the notion that the majority of clients attending the methadone prescribing service experience various dental problems. However, according to this staff member, methadone use alone cannot be regarded as the primary cause of such problems, as the following quote illustrates;

Ninety percent of the people on our clinic have dental problems. Now they put it down to the methadone. But from what I've read about methadone is that if you practice proper dental hygiene methadone won't damage your teeth any more than a cup of coffee with a lot of sugar in it. They do often voice concerns about the state of their teeth and put it down to the methadone.

(Full-time staff member)

Another staff member also maintained that the various health complaints, including dental problems, which are commonly reported by methadone maintained clients may be attributed to their past drug using behaviour which was prior to their engagement in methadone treatment. Therefore, such complaints may be often highlighted during times of stability for the client;

/ think methadone stabilises all of that. Alot of the problems that are attributed to methadone like the teeth and various aliments are actually, because prior to the methadone all of those symptoms were either masked by heroin or just ignored because their lifestyle was so chaotic. Once you get stable your mind is a little bit clearer and the aliments come to light and they get blamed on the methadone but in actual fact they were pre-existing.

(Male worker of the Prescribing Service)

6.6.2 Methadone and other Prescribed Medication

High rates of benzodiazepine dependence have been observed among particular drug population groups, for example, the use of benzodiazepines by methadone maintenance clients (Ball and Ross, 1991; Darke *et al*, 1994). The often over prescribing of these drugs within the context of methadone maintenance is concerning. The staff quote below demonstrates the extent of the problem and the practicalities involved in reducing the use of benzodiazepines by this client group;

We have clients who are opiate stable but they are just as chaotic, just as strung out, just as messy on benzos. But their doctor wouldn 't actually put them on daily supervised or cut them down because methadone is not a substitute for benzos, it's not a substitute for alcohol, it's an opiate substitute. So you kind of wonder where the benefits of administering a prescribed opiate when they are strung out on tablets. It can be a very difficult one.

(Male staff member of the G.P Prescribing Service)

The widespread use of other prescribed medication such as benzodiazepines constitutes a major clinical problem. The fact that urinalysis only detects presence rather than the actual level of use of benzodiazepines can make it difficult to regulate;

There were instructions to G.P's not to prescribe benzos, that was a couple of years ago. A notice went around to all the G.P's not to, but it still happens. You don't know from a person s urine results whether they 're taking their prescribed benzo one or two a day or whether they are taking 21 or 22 a day just because it shows up as positive, it's qualitative

not quantitative. It's hard to keep a track of what someone is actually doing but benzo use is widespread whether it is prescribed or street.

(Full-time Worker of the Prescribing Service)

Some clients reported also using tranquillizers and/or anti-depressants in addition to their methadone;

Well I'm on anti-depressants with phy aswell and I don 'tfind it difficult and I'm also on Valium and dalmane frequently and I don 'tfind that one of them makes a difference to me methadone.

(31 year old female client)

The consequence of such polydrug use means that their drug treatment is far more complex than merely the treatment of opiate use. The result is that these clients have to cope with additional drug problems, as the following quotes demonstrate;

A lot of people are on benzos, but I'm not, I'm on sleeping tablets and I'm on valium as well. Over what happened me in hospital, like I was put on them through hospital, and I'm still on them now. That's another habit that I have to cope with.

(41 year-old female client)

Well 40 mis is fine for someone only using drugs, do you know what I mean, if somebody is on phy. But if somebody is constantly using drugs everyday like tablets aswell then that's a different story. Then you have two habits.

(Male client- 36 years of age)

6.6.3 Methadone Maintenance Treatment and HIV

Although methadone treatment aims to reduce the transmission of HIV and other drug related infections such as Hepatitis B and C, the reality is that clients will have been injecting for a number of years prior to presenting for treatment and may already have contracted these illnesses. Therefore, the effects of methadone use on other prescribed medication such as, triple therapy, was reported by clients to have an extremely negative effect, as the quotes below demonstrate;

The thing is that if you 're on other medication with methadone it makes a big difference, like triple therapy. [if you have the virus or even if you 're on anti-depressants it has a different effect on ye aswell].

(Female client with HIV virus)

I thought I had gone mad cause it was like I was a senile person. I was doin' things, like I could be found out in the middle of the road. I don't have any support or family. I'd be sitton' all night long rockin'in a chair, I don't do it now but that's what I used to. I've done triple therapy but I don't want to try it again.

(35 year-old female client)

Similarly the following client clearly ascribes her extreme behaviour patterns to the combination of methadone with her medication for HIV;

I couldn 't find a proper combination to work for me, I have gone through eleven of a possible seventeen, possible combinations to fight the virus, the AIDS virus. I've Hep C aswell, but taking the triple therapy on top of me phy the mixture or whatever just had a mad wild effect on me.

INTERVIEWER: In what way?

Ah, smashing glasses off the walls, lighting fires during the night thinking me daughter had lit the fire but it 'd be me done it. I wouldn 't know I 'd be doin' it. I 'd be puttin ' me mats out on the balcony.

(Female client- mother of two)

6.7 From Maintenance to Detox

6.7.1 Making the Transition

Often the first step for clients is to recognise they have been on methadone for a substantial length of time and have decided that its now time to address their total detoxification from all opiates. Numerous clients expressed a desire to move from maintenance to detoxification at some point in the future as the quotes below convey;

I do want to get off methadone. I don't want to be on that for the rest of me life, cause I wake up every morning and I'm sippin 'away on it. I'm glad I'm like that because it's givin 'me more potential then to get off it. Whereas if I just picked it up and knocked it back I wouldn 't think of it. It's turning me off it, the more I get turned off it the more I am determined to get off it.....

(Female 31 year-old client)

In terms of clinics I'm starting to want to be the first there, cause I'm getting embarrassed now because I haven 't takin 'gear in a long time. I'm actually getting embarrassed that I'm collecting me phy and drinkin' it.

(35 year-old male client)

Although the majority of clients reported that they would like to undergo a detox at some point in time, many of them felt ambivalent about making this move. They believe that in order to undergo a successful detox, they must be totally motivated in order to prevent relapse. Many of them expressed a concern that they would soon relapse to heroin use if they were unsure or unprepared at that time to undergo a detox;

If you want to get off methadone you goin ' to have to change your whole life and meet new people. Then when your old ones find out, your blanked straight away, say when you come out of X. I've seen so many people come out of X and their starting back to square one. A very good friend of mine came out and he was only out for two days and he OD and he s now dead.

(37 year-old female client)

Do you know the old sayin 'once a junkie always a junkie'? That's not true if you really want to get off it. I mean really want to get off it, you will get off it, but you really have to want it. There s no use goin ' into X and getting off and start again. Your wastin' time and whats the point of goin in.

(Male client, 31 years)

6.7.2 Perceived Withdrawal Methods

A major obstacle for opiate users wishing to become abstinent is the sickness caused by the withdrawal process itself. The distress and fear associated with a methadone withdrawal in particular can be considerable. The following client recalls her previous experience and states how she believes that "withdrawing" from heroin is simpler than that of methadone;

The way I see it, it s easier to get off gear than phy. Like I was try in ' to get off phy a few months ago and I went through awful sickness. It frightened thefuckin 'shit out of me, I was in bits.

(Female client 36 years)

Clients stated a range of methods which they would use to withdraw from methadone. Gradually reducing their methadone dose over a period of time was noted by clients as being a less feasible option due to the length of time involved in achieving this type of detox. Alternatively, clients reported a preference for a short term detox which could be undertaken in an expedient manner, as the following client quote conveys;

I think people that are on it a long time leave it to their own pace to come down off it. But I

think people that are only goin'on it [...] if I had my way all over again, I wouldn 't go on maintenance. I'd have a detox. I wouldn't prolong it every year. Then again I wasn 't as wise then as I am now. I was twenty one when I started on methadone and now I'm thirty four.

(34 year old client)

Another client reported a preference to undergo a heroin withdrawal as opposed to a methadone withdrawal. This was also stated as an immediate means to detoxify while at the same time ensuring that the sickness caused by the withdrawal process itself would be lessened;

Well I think if I was to come off phy I'd go back on the gear for two weeks and go through me sickness as a gear habit rather than as a phy habit. A gear habit will only last three days depending on what your takin' but for phy there's not a hope- it goes on for months and months.

(36 year-old female client)

Withdrawing from methadone is only one part of the process. Preventing lapse to previous drug using patterns is also considered essential. The impact of the external environment on re-establishing their drug use following a detox was recognised by the majority of clients. For instance, one client reported changing her area of residence prior to undergoing a detox;

I'd love to go through a detox and do X for six weeks then go through an aftercare for a month get it over and done with in ten weeks. I know the environment I'm in now, I'm too close for comfort. That's going to change within the next week and I'll be out of the way and I'll be out of everything. There s nothin ' to stop me there s nothin ' to slow me down.

(35 year-old female client)

6.7.3 Barriers Towards Detox

Although various clients reported feeling unprepared to go through the transition from maintenance to detox at the present time, others expressed an immediate desire to detoxify. However, these clients felt that a lack of interest and motivation on the part of their prescribing doctor was a main obstacle towards commencing this process, as the following quotes illustrates;

I'm at him and at him for over a year and he will not detox me. I'm was on 120 mis a day and I had to leave it in the cup. I've been trying to get it down for four years since I've gone back on it. I am just getting nowhere ye know.

(Female client, 35 years)

I have found that some G.P's are just not really interested in recovery because what they want is to give somebody the fixed amount every day and do not want any talk about detoxing. Because once they talk about detoxing it becomes a bit more complicated for the G.P and they have to sort out different issues.

(Male Worker of the G.P Prescribing Service)

One female client in particular, expressed great concern and regret over not being allowed to undergo a detox. Having had a serious health complaint in the past, she feels that her doctor believes that she is currently incapable of managing and persisting with a methadone detoxification. She maintains that she is ready to detoxify and assumes that the doctor is preventing her from doing so, as the following quote conveys;

Now I was off drugs for thirteen years and I went back after four. I found it very hard to get onto a clinic and when I did get on, they put me on for maintenance. I didn 't want maintenance I wanted a detox. Now unfortunately I had me leg amputated and I still wanted a detox, but my doctor would give no knowledge or anything of me having a detox. He wanted me on the methadone. Now to date I am takin 'the methadone. I think if you want a detox you should be allowed a detox. In my situation I'm not allowed a detox. I know me

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capabilities and I know what I'm capable off and I don't want to stay on phy for the rest of me life. With my doctor, he thinks I'm goin'to have a fall out because of me leg. He's not thinkin' about drugs or nothin' he thinks I'm goin' to have a reaction against me leg and that s why he s keeping me on the way I am.

(Female client, 35 years)

6.8 Summary and Conclusions

This chapter has presented an analysis of the qualitative data obtained from the various focus groups undertaken with both clients and staff of the methadone prescribing service. This information was presented under the following themes; methadone treatment and integration, responding to methadone, managing methadone treatment, methadone and health and finally, from maintenance to detox. Findings highlighted that although the provision of methadone treatment was regarded as a favourable treatment option, the delivery of this treatment modality was in need of review. Clients reported that the administration of methadone treatment in terms of, activities which further stigmatize the user, such as, urinalysis, dispensing of methadone etc should be reduced. Reducing the frequency of contact which is required of those on methadone maintenance was also put forward as a possible improvement on the current method thereby facilitating easier access and participation within training and employment opportunities. Although the qualitative data presented within this chapter has demonstrated the overall effectiveness of methadone maintenance as a treatment option, it must be noted that these benefits could also possibly be reported for any other opioid replacement therapy. As methadone is the only maintenance option available for opiate use in Ireland, such self-reported data does not facilitate an analysis of methadone treatment vis a vis other forms of treatment. Nevertheless it does provide an insight into the subjective experiences of methadone maintenance among a cohort of attendees to a prescribing programme which operates within a Dublin based drug service.

Conclusion and Recommendations

7.1 Conclusions

The treatment of opiate use does not begin and end with methadone. The stabilisation of individuals with methadone is merely one of the ways in which individuals can disengage themselves from active drug use towards a more stable drug using lifestyle. However, within Ireland there exists a tendency to reach out to as many injecting drug users as possible especially in the provision of methadone maintenance, which in turn has the possibility of resulting in less supervision and individualized care for each person in treatment.

This study has demonstrated the results of various research methodologies which were employed to examine the role of methadone maintenance within the Irish context, and more specifically within a Dublin based drug treatment centre. The Prescribing Programme of Merchants Quay Ireland, has illustrated the effectiveness of a multidisciplinary approach to the treatment of opiate use, in which both the expertise and skills of the treatment centre and the general practitioner are utilized, without exclusively emphasising one or the other. The benefits associated with this approach were reported by numerous clients within this study, especially among those who had prior experience of these service providers individually.

There is no doubt that methadone programmes can attract and retain large numbers of individuals. This, as Ball and Ross (1991) study had highlighted, is largely dependent on the manner in which the service is organized and delivered. However, the issue for concern, is the extent to which these programmes can cater for the needs and circumstances of all opiate users. In many European countries, the provision of methadone substitution reaches less than 20% of the total opiate using population (Farrell *et al*, 1996). A limited range of treatment modalities within which a reliance on one type of opiate replacement therapy is employed, caters little for the total drug using population. The way forward is to ensure that a broad approach is taken to both drug use and treatment making a range of options available for drug users at varying stages of their drug using career and treatment process.

7.2 Recommendations

Expand Opiate Treatment Options Available

The range of treatment options available for opiate drug users, and illicit drug users in general is currently very limited and are not very attractive for many drug users. Consideration should be given to the possibility of expanding the range of prescribing options which are currently available to opiate users in Ireland;

- *Prescribing injectable methadone* could target those who are not inclined to attend a service offering oral methadone or otherwise could encourage those who may not consider treatment at all. It may also serve to attract users into treatment earlier in their drug using careers.

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- *Prescribing buprenorphine* would relieve clients of the inconvenience of daily dosing and has demonstrated to be equally as effective as methadone in the management of opiate dependence in other European countries.
- *Prescribing diamorphine (heroin)* would attract individuals who are most at risk of HIV and other drug related harm into contact with drug services. The prescription of heroin in a regulated and supervised manner would also significantly reduce the levels of individuals experiencing fatal and non-fatal overdoses.

Review Prescribing and Dispensing Practices

The manner in which methadone is administered, can at times, openly disclose and stigmatise the drug using status of the individual. Although examples of best practice do exist, current practices could be improved upon by employing the following actions;

- Dose should be jointly agreed between the client and the doctor and should be based on their individual treatment goals or outcomes.
- Clients in receipt of other prescribed medication apart from methadone must be regularly monitored and reviewed.
- Ensure flexibility within programme delivery and that sanctions appropriately reflect the nature of the behaviour complaint.
- Consideration should be given to implementing measures which would contribute towards reducing the stigma associated with methadone maintenance such as, hair analysis.

Develop Methadone Treatment Practices in accordance with Clients Needs

Clients exhibit varying needs at different stages during their treatment. It is important therefore that all methadone programmes adopt a broad and holistic approach to service delivery which incorporates both medical and psychosocial components.

- Service delivery of methadone maintenance should incorporate interventions which can provide assistance to the client on a range of psychological, social, legal and psychiatric issues.
- Develop different models of care that respond to individuals at different phases of their methadone treatment.
- Undertake a thorough review of clients progress, especially for those who may be on long term maintenance, at various three month intervals, in order to reflect on, and adjust if necessary, the treatment aims and goals of the programme.
- Provision of comprehensive support services for detoxification and aftercare to assist stable clients to withdraw successfully from treatment.

Promote the Social Inclusion of Drug Users

In this study, clients reported that while they had ceased their injecting drug using practices and were currently maintained on methadone, they were nevertheless perceived by others to be just as chaotic. It is necessary therefore, to implement strategies which can help reduce the negative attitudes which prevail upon this population group.

- Facilitate access and support participation in training, educational and employment opportunities for those who are maintained on methadone. In this regard, the provision of training to employers is necessary in order to increase levels of public awareness on drug use and related issues.
- Extend drug awareness training programmes to other health care professionals who may have contact with this client group. In doing so, these individuals would be equipped with the knowledge and skills to act as a resource within the community.
- Increase liaison between drug service providers and G.P based prescribing programmes which will help co-ordinate the provision and delivery of methadone treatment within different treatment settings and also influence a more comprehensive and targeted form of drug policy.

Undertake Further Research

Methadone treatment remains very under-researched in Ireland despite the extent to which it is used and relied upon as a treatment option. The following represent some of the recommended areas for future research;

- Determine the treatment needs of different opiate using population groups such as, youth, women, and individuals with HIV etc.
- Examine the extent of cocaine use by concurrently dependent methadone treatment individuals.
- Develop guidelines on the clinical management of treating opiate use which would help to standardize and regulate varying prescribing practices as undertaken by the Department of Health in Scotland and Wales and the Department of Health and Social Services in Northern Ireland.³

³ These guidelines were initially developed to provide a framework rather than as a comprehensive manual for the treatment of drug use, based on a number of different sources. The most recent report (1999) can be located at www.doh.gov.uk/pub/docs/doh/dmfull.pdf

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