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Australian Prevalence and Estimation of Treatment Study: NSW Report

NDARC Technical Report No. 127

AUSTRALIAN PREVALENCE AND ESTIMATION OF TREATMENT STUDY: NEW SOUTH WALES REPORT

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EXECUTIVE SUMMARY

Treatment for heroin dependence has a number of important benefits for both the individual and the broader community (Gowing et al., 2001). Little is currently known about heroin users' reasons for entering and leaving treatment or barriers to treatment.

This study reports on the New South Wales arm of the Australian Prevalence and Estimation of Treatment (APET) study. The specific objectives of the NSW arm were to:

- examine the different methods used by heroin users to reduce or cease their heroin use;
- examine drug treatment utilisation of heroin users in Sydney;
- examines factors associated with having ever been in different treatment modes;
- investigate reasons for heroin users entering and leaving treatment; and
- determine barriers to entering treatment.

The study was a cross-sectional survey of heroin users in Sydney. Participants were recruited through needle and syringe programs, methadone clinics and snowballing. Those who were 16 years or older, proficient in English, used heroin at least once a month in the last six months or were in methadone maintenance treatment (MMT) were eligible to participate. All participants received $20 as contribution to travel.

Three hundred and ninety-nine participants were interviewed. They had a mean age of 31 years, 62% were male and 78% were born in Australia. Participants had used a mean of 3.5 drug classes, with heroin being the main drug used (98%) and injected (95%).

Sixty percent of the sample reported being hepatitis C positive and 56% reported a history of incarceration. Fifteen percent of participants had been administered naloxone by an ambulance officer following a heroin overdose in the preceding 12 months.

Three-hundred-and-fifty-eight (90%) participants had ever attempted to reduce their heroin use and 303 (76%) did so without help: 79% ceased any use of drugs (cold turkey); 51% self-medicated, typically with benzodiazepines and 49% moved away from the drug using scene/friends (geographical).

Formal treatment was received by 332 participants (83%). The most common treatment received was methadone maintenance treatment (65%). Other treatments received were counselling (28%), inpatient detoxification (24%), outpatient detoxification (24%), residential rehabilitation (23%) and naltrexone (including use in rapid and ultra rapid opioid detoxification 5%). After controlling for other variables, factors independently associated with having ever been in treatment were a score above four on the SDS and being hepatitis C positive.

The main reasons for entering heroin treatment were similar across the different treatment modes: wanting to stop using heroin and sick of (heroin using) lifestyle. A change of lifestyle and abstinence were the most commonly reported treatment goals. However, abstinence was achieved in fewer than half the cases for all treatment modes and MMT was the only treatment where a change of lifestyle was achieved by more than half those who identified it as a goal. The most commonly reported reason for leaving treatment was because the participants believed the treatment was not working.

The majority (57%) of participants reported being satisfied with MMT (20% reported being dissatisfied). A third (36%) reported problems with their prescriber; the most common reason being takeaway restrictions (15%), which was more likely to be reported by the current MMT group. Problems with the program were reported by 39% of participants, these included travel (19%) and opening hours (17%). Problems with methadone were reported by 45%, of which side-effects were the most commonly reported (24%). Participants reported the main changes they would like to see were MMT were reduced or no fees (33%) and more takeaway doses (29%).

A third of participants reported having sought help for heroin use but were unable to obtain any (barrier to treatment). Barriers to treatment were most commonly reported for MMT and inpatient detoxification, both of which were identified by a quarter of those who experienced barriers. The most commonly reported barrier was a lack of treatment places being available. Not being able to meet entry criteria and the cost associated with treatment were reported by a minority. Those who had previously been in treatment were more likely to report a barrier to treatment.

Heroin users seek treatment for a variety of reasons, largely associated with lifestyle changes. Reasons for seeking treatment were similar for different treatment modes. Many of the barriers to treatment reported by participants may be overcome through improved treatment service planning.

1. INTRODUCTION

There are an estimated 174 000 dependent heroin users in Australia, almost half of whom are in New South Wales (Hall et al., 2000). Heroin dependence can result in a range of problems both for the individual through involvement in criminal activities, impaired daily functioning and health, and for the broader community through increased levels of crime and public disorder (Hall et al., 1999). Research has shown that treatment for heroin dependence has a number of important benefits for both the individual and the broader community (Gowing et al., 2001). Therefore, an increase in the number of dependent heroin users engaged in treatment is desirable.

Treatment options for heroin dependence in New South Wales are: inpatient and outpatient detoxification, residential rehabilitation, pharmacotherapies, namely methadone maintenance treatment (MMT), naltrexone maintenance and buprenorphine; and drug and alcohol counselling through a variety of professional and charitable organisations. A number of self-help groups exist for people wanting to cease heroin use, such as Narcotics Anonymous.

Despite the range of treatments for opiate dependence, little is known about how dependent heroin users enter and leave treatment services. However, a large proportion of heroin users have attempted to reduce their drug use. A study of Sydney injecting drug users found that 90 percent of 219 participants reported wanting to change their drug use, of whom, 86 percent reported attempting to on the last occasion the decision to change was made (Rutter et al., 1996). Similar proportions were reported in the national results of the study (Loxley et al., 1995).

Despite this desire for change, only a small proportion of heroin users are in treatment at any one time (Hall, 1995). Furthermore little is known about the way dependent heroin users utilise treatment services, including factors which influence movement into and out of treatment or the types of treatment utilised (for a further discussion see Dietze et al., 2002).

1.1 Drug treatment services in NSW

The treatment services available for heroin dependent people in NSW include methadone maintenance, inpatient and outpatient detoxification programs, counselling and rehabilitations services. The number of places available for the treatment of heroin dependence increased in NSW following the 1999 Drug Summit (New South Wales Government, 1999). Drug treatment services have been expanded, including improvements to the methadone program, with a total $93 million being provided over four years. New pharmacotherapies have also been introduced: buprenorphine for maintenance and detoxification and naltrexone for maintenance only. Both of which can be provided through GPs, though accreditation is required for buprenorphine prescribing.

Data on the extent of services available for heroin dependence in NSW come from two main sources: the NSW Health Pharmaceutical Services Branch (PBS), which records the number of people on a methadone program and, the NSW data obtained from the 2001 Clients of Treatment Service Agencies (COTSA) census (Shand & Mattick, 2002b).

As at 2 May 2001 (COTSA census date), two months after the completion of data collection for the NSW arm of this study, there were 14 965 persons in the NSW methadone program (Shand & Mattick, 2002b). In NSW, methadone is generally prescribed through a specialist public clinic or privately through either clinics or private practices, by general practitioners or psychiatrists. At 2 May 2001 the majority (70%) of methadone treatment was prescribed through private practices (Table 1.1).

Table 1.1: Profile of methadone prescribers at May 2001

Prescriber	%
Public	20
Private	70
Private/public	0.7
Corrections	10

Source: COTSA 2001

The 2001 COTSA census was conducted in May 2001. The census provided data on the types of treatment services for those with opioid dependence. The data, however, is limited to those receiving MMT plus counselling only – those receiving MMT only were excluded (Table 1.2). Also excluded are those who received treatment other than methadone from general practitioners or other health care workers who were not part of a drug and alcohol agency. The COTSA data for NSW suggest that males were more likely than females to utilise residential services and to be unemployed (Table 1.2).

Table 1.2: Profile of IDUs receiving treatment for opioid dependence in the COTSA census* (excludes MMT) in NSW

	Males (n= 489)	**Females (n=302)**
Mean age in years (SD, range)	32 (8.09, 14-57)	30 (7.91, 16-58)
Type of service provided	%	%
Residential treatment**	34	23
Methadone & counselling	26	32
Counselling	16	23
Employment status		
Workforce or home duties	18	28
Unemployed	69	48
Pensioner	10	19

*Unpublished COTSA data

**Includes therapeutic communities, residential rehabilitation or other residential treatment

1.2 The Australian Prevalence and Estimation of Treatment Study

The Australian Prevalence and Estimation of Treatment (APET) study was designed to provide information on drug treatment utilisation by dependent heroin users with a view to informing potential demand for new pharmacotherapies. This study reports on the New South Wales arm of the study, the national study is reported by Dietze et al. (2002). The specific objectives of the NSW arm were to:

- examine the different methods used by heroin users to reduce or cease their heroin use;
- examine drug treatment utilisation of heroin users in Sydney;
- examines factors associated with having ever been in different treatment modes;
- investigate reasons for heroin users entering and leaving treatment; and
- determine barriers to treatment.

2. METHODS

2.1 Sampling frame

This cross-sectional study of heroin users in Sydney recruited participants through needle and syringe programs (NSP), methadone clinics and via snowballing (word-of-mouth). NSPs were located in the three largest drug markets in Sydney (Kings Cross, Cabramatta and Redfern). The methadone clinics were located in Campbelltown and Kings Cross. Snowballing took place via the IDUs recruited through NSPs, a researcher working with IDUs in South West Sydney, a halfway house for itinerant IDUs in inner city Sydney and a peer interviewer working in the Blue Mountains area on the outskirts of Sydney. Seven interviewers were trained to administer the questionnaire.

2.2 Selection criteria

Selection criteria were regular use of heroin by using any route of administration. Regular heroin use was defined as reporting heroin use at least once a month in the past six months. Participants needed to be 16 years or older and proficient in the English language. Participation was voluntary and required informed consent. Interviews typically took approximately 45 minutes to one hour to complete. All participants were reimbursed $20 for travel expenses.

2.3 Outcome measures

The questionnaire covered demographic characteristics, drug use history, treatment history, blood-borne viral infections and related discrimination. The Severity of Dependence Scale (SDS) was used to assess heroin dependence and a cut off of four (or more) was used to determine dependence (Gossop et al., 1995). Participants were asked detailed questions about their five most recent drug treatment experiences.

All treatment modes were included, though the main treatment modes were methadone maintenance treatment (MMT), drug and alcohol counselling (any model), residential rehabilitation programs (programs for three months or more), including therapeutic communities and naltrexone treatment, those who underwent ultra rapid opioid detoxification prior to commencement of naltrexone maintenance are included in the naltrexone category. Buprenorphine was not registered at the time of data collection, but was included if participants had been involved in a trial. Although detoxification cannot be considered a stand-alone treatment (Mattick & Hall, 1993), for the purposes of this study detoxification regimes, both in and out patient models, have been included as treatments.

Participants who reported ever receiving treatment were asked about their motivations for entering treatment and their treatment goals. Definitions of treatment motivation responses are given in Table 2.1 and those for treatment goals are given in Table 2.2.

Interviews were conducted between October 2000 and March 2001 in a variety of settings, including drug treatment agencies, NSPs, cafes, in the street, a halfway house and at the National Drug and Alcohol Research Centre (NDARC).

Table 2.1: Response definitions for treatment entry motivation

Response	Definition
Sick of lifestyle	No longer wanting to be part of the heroin using lifestyle.
Wanted to stop using	Wanted to stop using heroin.
Wanted a smaller habit	Wanted to reduce (but not stop) heroin use.
Family	Any reason associated with family, including partners, children and gaining access to children and /or custody thereof. Also includes pressure from parents and other family members to enter treatment.
Money	Any reason associated with financial issues, typically the cost of sustaining a heroin dependent lifestyle.
Health problems	Any health related problems including those related to hepatitis C, HIV, overdose, general health and mental health.
Legal reasons	Any problems associated with the law, includes pressure from police, court appearances etc.
Time out	Wanted a break in heroin use and the associated lifestyle.
Work /education	Demands of work or education and other related issues.
Problems with supply	Being unable or experiencing difficulties in procuring heroin.
Peer pressure	Pressure from friends and other peers.

Table 2.2: Response definitions for treatment goals

Response	Definition
Change of lifestyle	To change current lifestyle associated with heroin use.
Abstinence	To cease heroin use completely.
Stability	To obtain stability in their life.
Control over drug use	To be able to control amount and frequency of heroin use.
Better health	Improve health or maintain existing (good) health.
Control over finances	To control /improve financial situation.
Family /friends	Any goal associated with friend family, includes improving /maintaining relationships and maintaining /gaining access to children and /or custody thereof.
Get out of illicit drug scene	Cease involvement with the illicit drug scene.
Reduce legal problems	Includes reducing criminal activity, reducing contact with law enforcement and avoiding prison.
Smaller habit	Wanted to reduce (but not stop) heroin use.
Time out	To have a break from heroin use

2.4 Statistical analysis

All analyses were conducted using SPSS for Windows (version 10.0.7). Continuous data were analysed using *t* tests. Where data were highly skewed the Mann-Whitney U statistic used and medians reported. Categorical data were analysed using χ^2 test. Multivariate logistic regression was used for factors significantly ($p \leq 0.05$) associated with treatment utilisation on univariate analysis using the χ^2 test, or factors which were considered to be *a priori* predictors of treatment entry.

2.5 Ethics approval

The study was approved by four institutional ethics committees: University of New South Wales Human Research Ethics Committee, Central Sydney Area Health Service Ethics Review Committee, South Western Sydney Area Health Service Research Ethics Committee, and South Eastern Sydney Area Health Service Research Ethics Committee.

3. RESULTS I: SAMPLE CHARACTERISTICS

3.1 Demographic characteristics of the sample

The sample consisted of 399 participants, of whom 249 (62%) were male, 147 (37%) were female and three (1%) were transgender. As there were only three transgender people in the study, these were excluded from gender analysis.

The mean age of participants was 31 years (range 17-58, SD 7.99). Males were significantly older than females (32 vs 29 years, t= 3.137, p<0.002).

The majority of participants were born in Australia (78%). Smaller proportions were born in Britain or Ireland (5%), New Zealand (6%) and South East Asia (4%). Sixty-nine participants (17%) identified as Aboriginal and Torres Strait Islanders (ATSI).

The majority (81%) of participants had attended secondary school and 42 (11%) participants had a tertiary education, with 16 (4%) completing a university degree. Thirty-four (9%) participants had completed primary school only.

The majority of the sample was unemployed (58%) or on a pension (27%). Of the 59 (15%) employed participants, only 14 were in full-time employment (4% of the total sample).

Participants most commonly reported renting with others (33%) or living with parents (21%). A notable proportion (10%) reported being homeless (Figure 3.1)

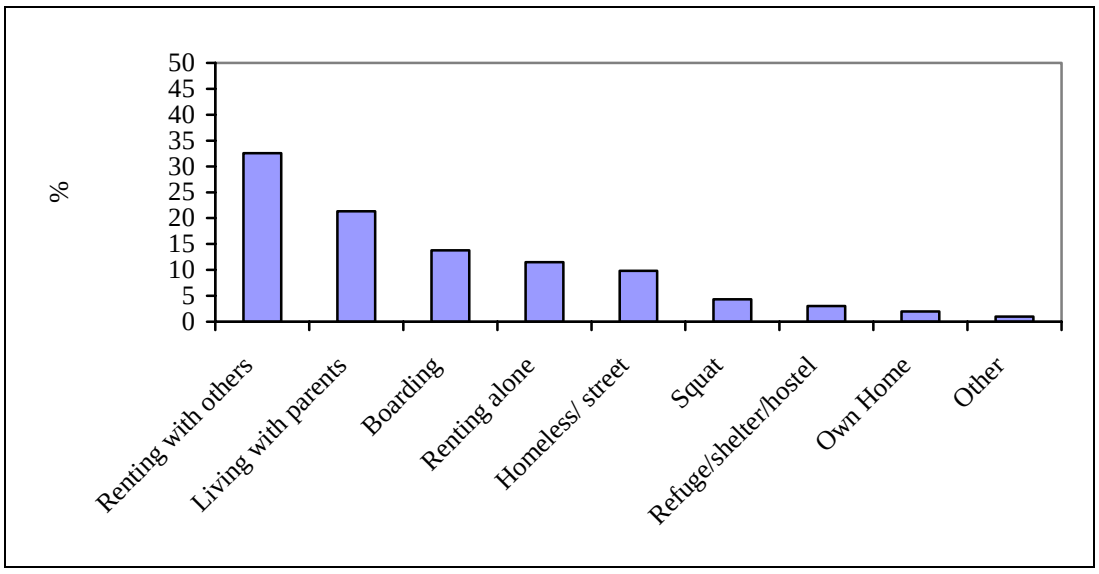

Figure 3.1: Participants' living arrangements

3.2 History of heroin use among participants

The mean age of first heroin use was 19 years (range 9-43 years, SD 6.0; males 19 years and females 20 years). While heroin was commonly first administered by injection (65%), over a third (35%) used non-parenteral routes of administration on initiation of heroin use. More than a quarter (n=112) of participants first used heroin by chasing the drug

and seven percent (n=28) first used heroin by either snorting or other routes of administration. Among those who did not initiate heroin use by injection, the mean age of first heroin injection was 21 years (SD 6.33, range 13-43 years).

3.3 Initiation to injecting drug use

Participants were most commonly taught to inject by a friend (63%), females were more likely to have been initiated by a friend than males (68% vs 53%, OR 1.89, 95%CI: 1.24, 2.88; Table 3.1). Females were significantly more likely than males to report being taught to inject by a partner (21% vs 4%, OR 5.10, 95%CI: 2.53, 10.31). The 'other' category was mainly 'self'.

Table 3.1: Participants' relationship to those who taught them to inject

Taught to inject by:	Total % (n= 399)	Males % (n= 249)	Females % (n= 146)	*P*
Friend	63	68	53	.004
Sibling	6	6	6	ns
Partner	11	4	21	.001
Parent	2	1	4	.09
Other relative	6	6	6	ns
Other	10	10	10	ns

Forty percent of participants reported that they had taught a median of three people (range: 1 – 200) to inject drugs. In the preceding year 46% had taught a median of two (range: 1 – 50) to inject.

3.4 Drug use behaviour in the 12 months preceding interview

The main drug classes used by participants in the last 12 months were heroin (98%), cannabis (64%), cocaine (62%), amphetamines (45%), methadone (38%), MDMA (16%), benzodiazepines (11%), hallucinogens (7%) and steroids (1%). The mean number of drug classes used in that period was 3.5 (SD 1.56, range 0-9), with a mean of 2 (SD 1.8, range 0-6) being injected.

Heroin was the drug injected (95%) most widely in the preceding 12 months. Similarly, heroin was the commonly reported drug of choice used (77%) and injected (83%) during this period. Those participants who had used heroin in the month preceding interview (n=359) had done so on a median of 60 occasions (range: 1-900).

3.5 Heroin expenditure

Sixty-nine participants had purchased heroin the day before the interview, the median amount spent was $70 (range $3-$900). There were 328 (82%) participants who had purchased heroin during the preceding week, with the median total spent being $500 (range $4 - $7000).

3.6 Injecting related risk taking behaviour

Using injecting paraphernalia (including needles and syringes) after another person was reported by 53% of participants, with spoons (43%) being the most commonly reported item borrowed in the month preceding interview (Figure 3.2). Only 34 participants (9%) reported having used a needle or syringe after someone else in the past month. Of those who did report using a needle or syringe after another person the mean number of times in the past month was 2.24 (SD 2.5, range: 1-12). Less than half (41%) of the sample had reused their own needle or syringe. The mean number of different injections with the same needle or syringe was 6.35 (SD 11.35, range: 1-100).

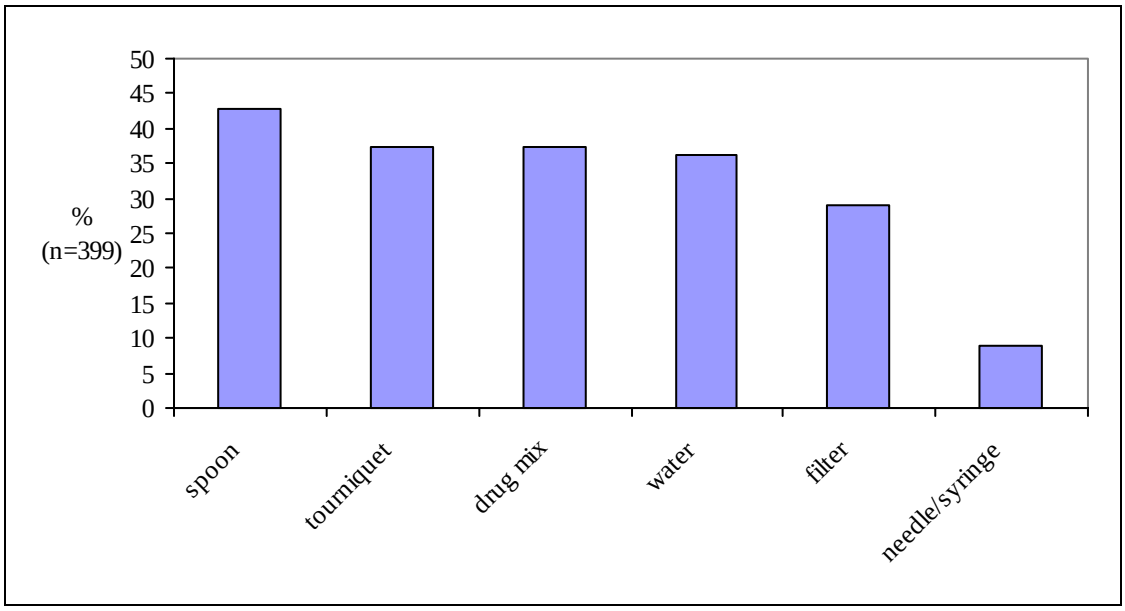

Figure 3.2: Injecting equipment shared by participants in the last month

3.7 Obtaining injecting equipment

The majority of participants (83%) usually obtained new injecting equipment from needle and syringe programs (NSP), with only three percent relying on pharmacies, one percent relying on other IDUs, and less than one percent usually obtaining sterile injecting equipment from a hospital.

3.8 Hepatitis C testing and self-reported status

The majority (92%) of participants reported having been tested for hepatitis C infection, with the last test having been conducted a median of 19 weeks prior to interview (range: 1 – 572 weeks). Of the 367 participants who had been tested for hepatitis C, 235 (64%) reported being positive, 117 (32%) reported being negative and a further 19 (5%) did not know their result. Thus, 60% of the entire sample believed themselves to be hepatitis C positive.

3.9 Prison history and criminal activity

A history of incarceration was reported by 56% of the 399 participants, 73% of whom were male. Males were more likely to report a history of incarceration than females (72% vs 43%, OR 3.54, 95% CI 2.30, 5.46). During the preceding 12 months 19% of participants had been arrested and 9% incarcerated on a drug charge. The most common charges were possession (88%) or use (81%).

3.10 Overdose

Sixty (15%) participants had overdosed and been administered naloxone by an ambulance officer in last 12 months. The median number of times this occurred was one (range 1-30).

3.11 Heroin dependence

The mean heroin SDS score was 9.8 (SD 3.47, range: 0-15). Using a cut-off mark of four or more, 95% of participants were heroin dependent.

4. RESULTS II: REDUCING HEROIN USE

Three hundred and fifty eight participants (88%) reported having attempted to stop or to reduce the amount of heroin they use at some time. There was no difference in terms of age or gender between those who had attempted to reduce heroin use and those who had not (Table 4.1). However, those reporting never attempting to reduce heroin use had a significantly lower mean SDS score (8, SD 4.24 vs 10, SD 3.33, $t_{396} = 3.07$, p= 0.015) and significantly fewer years of heroin use (8.9, SD 6.63 vs 12.0, SD 7.85, $t_{379} = 2.42$, p< 0.02).

Table 4.1: Those who have and have not attempted to reduce/stop heroin use

	Attempted to reduce heroin use (n=358)	No attempts to reduce heroin use (n=41)	*P*
Mean age in years (SD)	31 (8.02)	30 (7.83)	ns
%Males	63	66	ns
Mean SDS score (SD)	10 (3.33)	8 (4.24)	.015
Mean years of heroin use (SD)	12 (7.85)	9 (6.63)	.016

4.1. Self help for reducing heroin use

Three hundred and three participants (76%) reported having ever tried to reduce or stop using heroin without any help. The most common reason given for reducing the use of heroin was 'sick of lifestyle' (Figure 4.1).

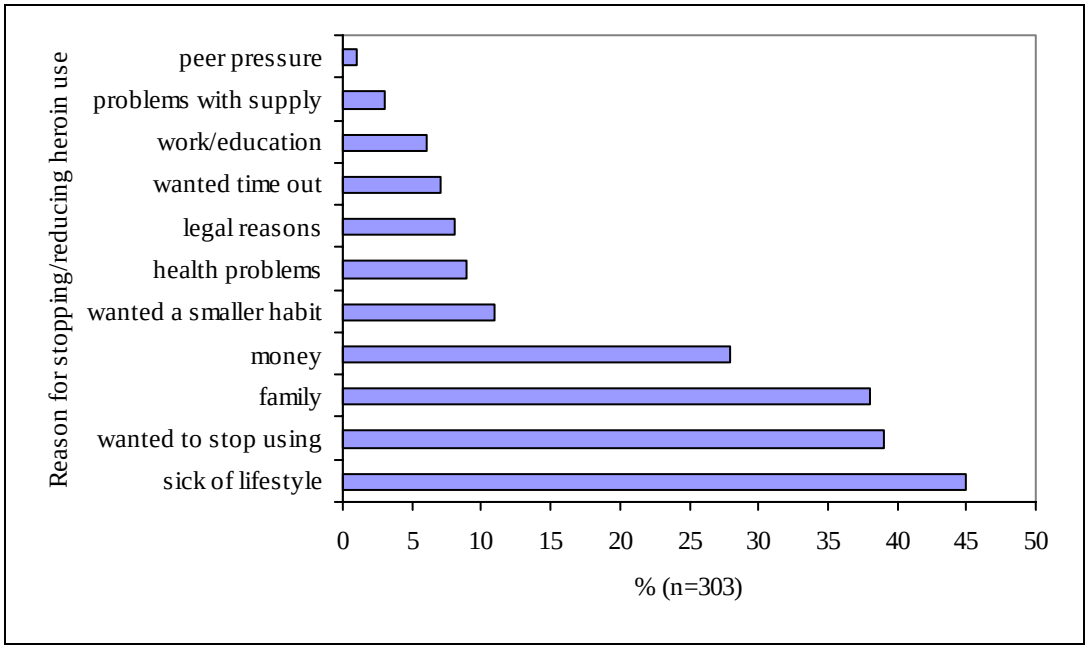

Figure 4.1: Reasons for reducing or stopping heroin use (goals)

Participants were also asked what they wanted to get out of ceasing (or reducing) their heroin use and more than half the sample identified a need for a change of lifestyle (Figure 4.2). Other reasons were related to children, family and employment/ education. Two participants reported wanting 'to get a better effect from the drug'.

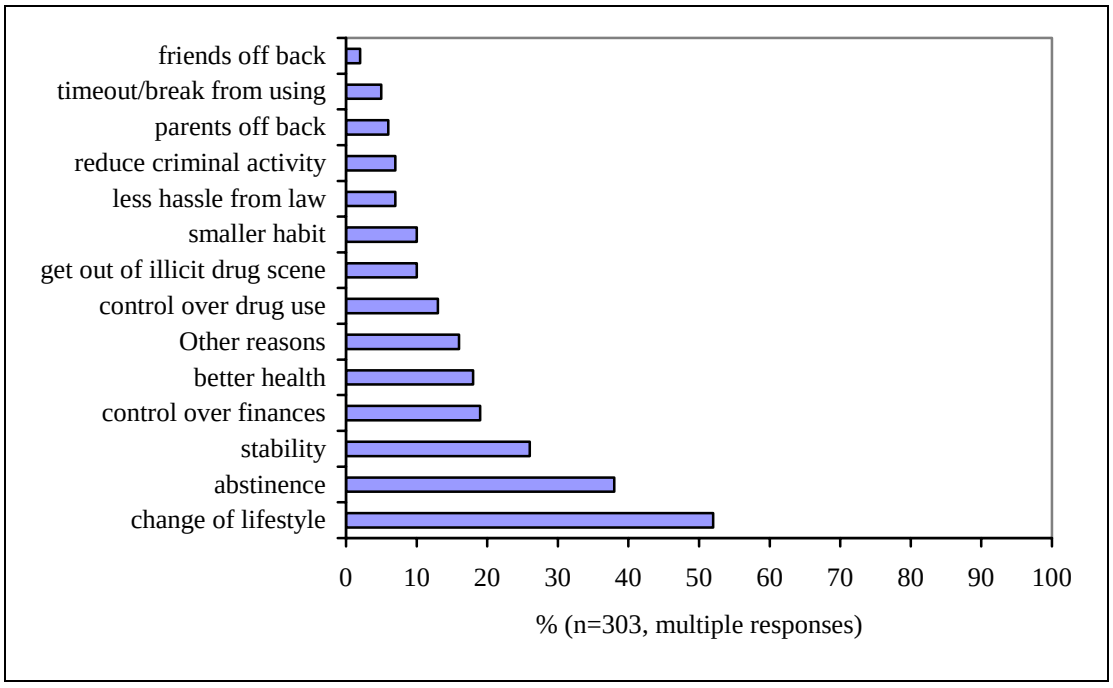

Figure 4.2: What participants want from reducing heroin use

Participants who reported having tried to reduce heroin use without anyone's help had done so by either going 'cold turkey' (not using drugs) or cutting down (79%), self medication (51%) or doing a 'geographical', that is moving away from drug scene/using friends (49%). For many participants these methods had been attempted on numerous

occasions. The median number of times ever and in the last 12 months participants had attempted to reduce their heroin use by 'cold turkey', self-medication and 'geographicals' are shown below (Table 4.2). Of those who had been on 'geographicals', 86 had moved from the city to the country, 51 had moved interstate, 17 had moved within a city, seven went overseas, two had moved within a suburb, two had moved to Sydney from elsewhere and two did not give details.

Table 4.2: Methods used by participants' to reduce/stop using heroin

	Cold Turkey	Self-medication	Geographical
Median months since 1st attempt (range)	36 (0.25-366)	30 (0.5-366)	48 (0.25-480)
Median number of attempts (range)	4 (1 – 3000)	5 (1 – 500)	2 (1 – 100)
Median attempts in last 12 months (range)	1 (0 – 100)	1 (0 – 100)	0 (0 – 20)

Participants had used a variety of drugs to assist their self-medicated withdrawal, most of which were benzodiazepines (Figure 4.3). Of those who had been on 'a geographical' 74 participants had also used other drugs to assist them.

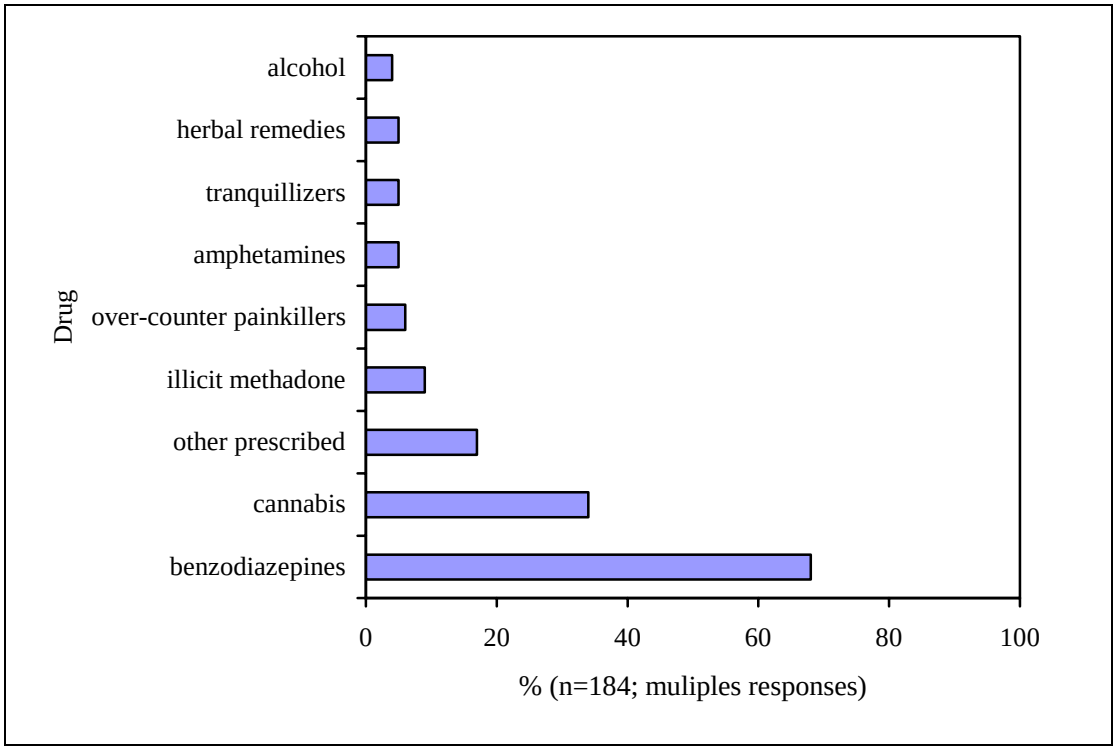

Figure 4.3: Drugs used to self-medicate (last occasion)

4.2 Non-professional help sought

Of the 358 participants who ever attempted to reduce their use of heroin, 265 (74%) had sought help from a variety of non-professional sources such as family (51%), friends

(36%), narcotics anonymous (NA; 38%) or other self help groups (7%; Table 4.3). The latter included church and community groups, groups in prison and other groups often attached to existing treatment services. Family support was the most recent source of non-professional help and had been sought on a median of one occasion in the preceding 12 months (range 0-216).

Table 4.3: Use of non-professional sources of help to reduce/stop heroin use

n=265	Friends (36%)	Family (51%)	NA (38%)	Other self-help group (7%)
Median weeks since 1st sought help (range)	144 (1-1344)	96 (1–1300)	192(2-1104)	168 (8-960)
Median times help sought in last 12 months (range)	1 (0-40)	1 (0-216)	0 (0-100)	1 (0-52)

Support was the most common type of help wanted by those who sought help from friends and family, followed by advice and money (Figure 4.4). Other types of help sought from friends and family included accommodation, access to other drugs and someone to look after the children.

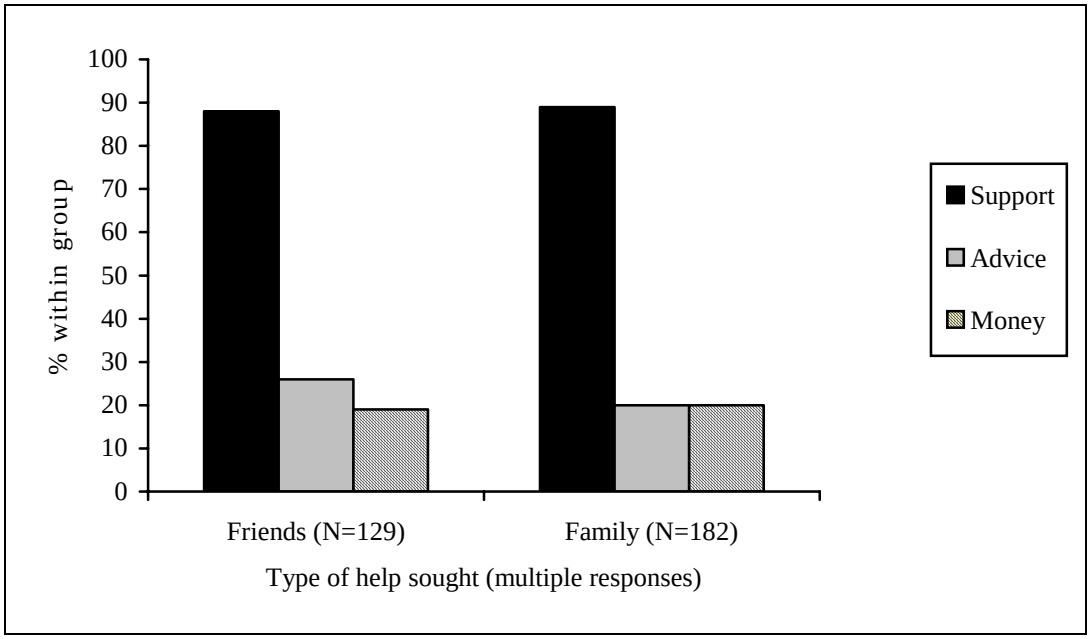

Figure 4.4: Help sought from friends and family

4.3 Professional help sought

Of the 358 participants who reported having attempted to reduce their heroin use, 335 (94%) had sought professional help. General practitioners (GPs) were the most commonly reported source of help sought (71%), followed by non-residential treatment agencies (52%) and residential rehabilitation units (18%; Figure 4.5).

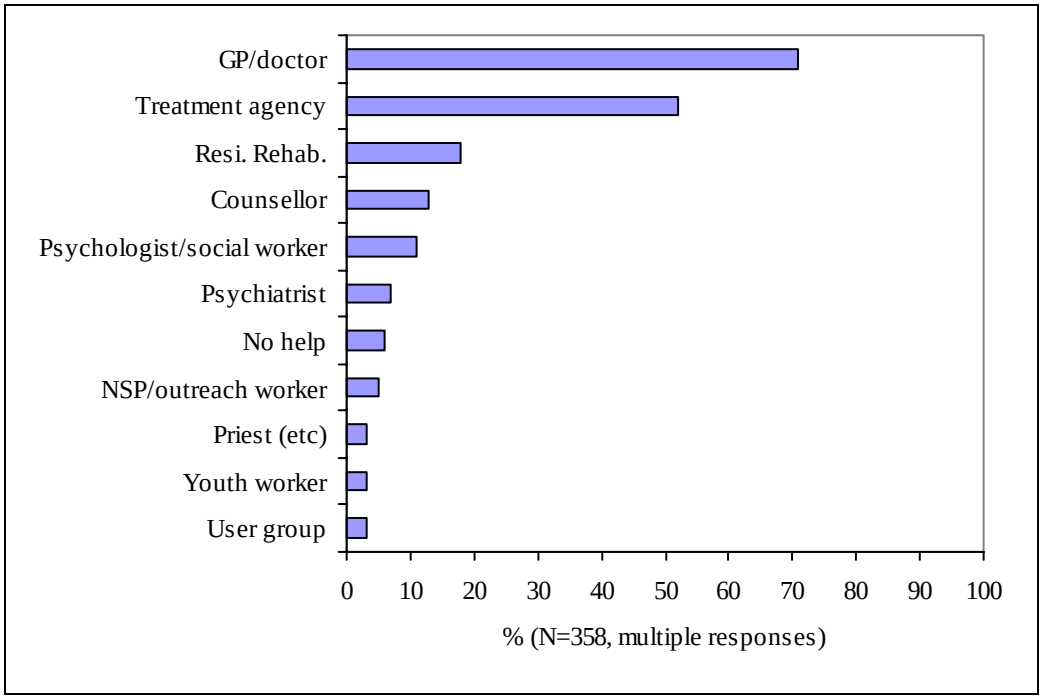

Figure 4.5: Professional help sought to stop/reduce heroin use

GPs and treatment agencies were used by participants for a range of services, the most common of which was methadone maintenance treatment (Table 4.4). Some heroin users sought medications from GPs, usually benzodiazepines, to assist in self-detoxification (unsupervised), although this accounted for only a very small proportion of the types of help received (6%). Psychiatrists were also used by a small number of participants (24 participants) and provided a range of services, of which counselling was the most common.

Table 4.4: Services provided by GPs and agencies to treat heroin use

Treatment received (%)	General Practitioners n=256	Treatment Agencies n=186
Methadone	70	53
Counselling	9	15
Inpatient detox	-	53
Home /outpatient detox.	31	10
Residential rehabilitation	-	25
Naltrexone	4	4
Referral	10	1

Formal treatment for heroin use was undergone by 332 participants (83%) and 71% had undergone treatment in the preceding 12 months. In order to determine factors independently associated with receiving treatment, a multiple logistic regression was conducted. The variables entered into the model were those listed in Table 4.5.

The regression equation revealed that those with an SDS score of four or above were five and half times more likely to have been in treatment for heroin use than those who

scored less than four (OR 5.51, 95%CI: 1.90-15.96), and those who reported to be hepatitis C positive were more than two and half times more likely to have ever been in treatment for heroin use than who were hepatitis C negative.

Table 4.5: Characteristics of those who have ever been in treatment for heroin use using multivariate logistic regression.

Characteristic	No. participants	% Ever in treatment	Adjusted odds ratio	95% CI	*P*
Age					
≤24	95	74	1.0		
25-29	86	84	1.54	0.36 - 2.46	.30
30-34	86	88	1.77	0.72 - 4.38	.22
35+	116	86	1.90	0.80 - 4.50	.14
Sex					
Males	249	82	1.0		
Females	146	86	1.63	0.85 - 3.16	.15
Country of birth					
Australia	312	84	1.0		
Other	85	82	1.16	0.55 - 2.42	.70
ATSI status					
ATSI	69	81	1.0		
Non-ATSI	330	84	1.72	0.76 - 3.88	.19
SDS score					
<4	21	62	1.0		
≥4	377	85	5.51	1.90 - 15.96	.002
Years of heroin use					
<3	34	68	1.0		
3-5	74	70	0.94	0.36 - 2.46	.90
6+	273	89	2.19	0.85 - 5.61	.10
Prison history					
Never	152	80	1.0		
Ever	245	86	1.07	0.56 – 2.05	.84
HCV status					
Negative	164	74	1.0		
Positive	235	90	2.71	1.46 - 5.06	.002

A wide variety of treatment modalities were accessed, with MMT and counselling being the most commonly reported (Figure 4.6). These proportions did not change greatly when those currently on a methadone program were excluded from the analysis (Table 4.7).

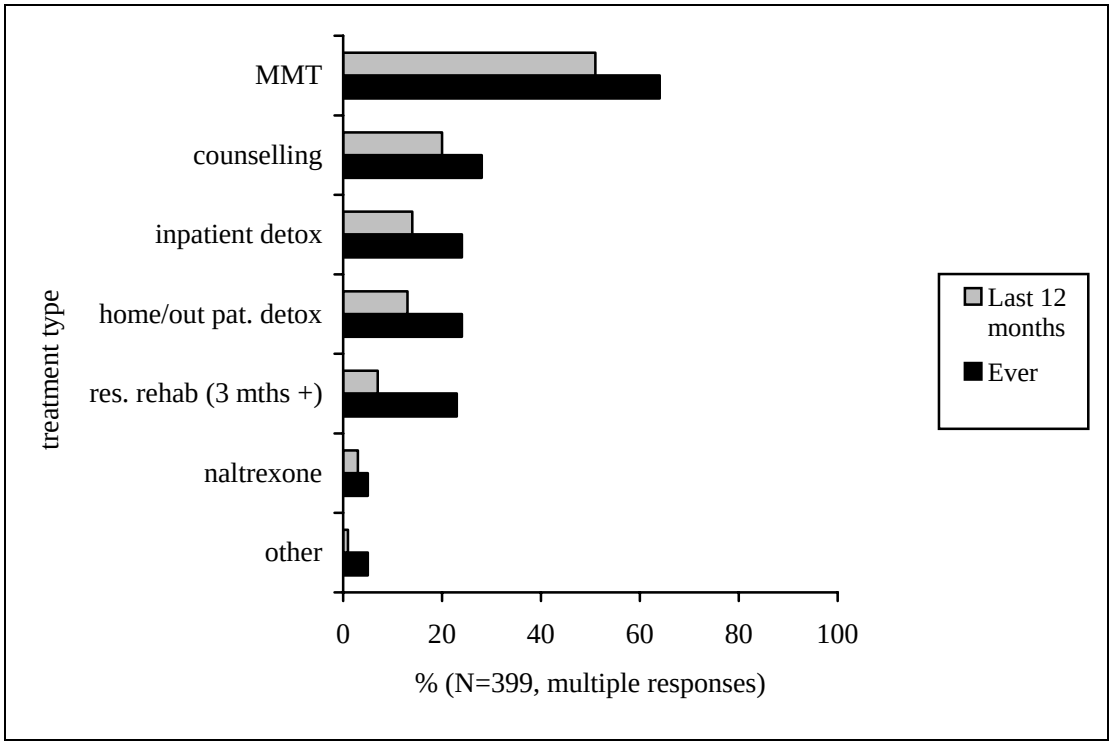

Figure 4.6: Types of treatment ever used and used in last 12 months (total sample)

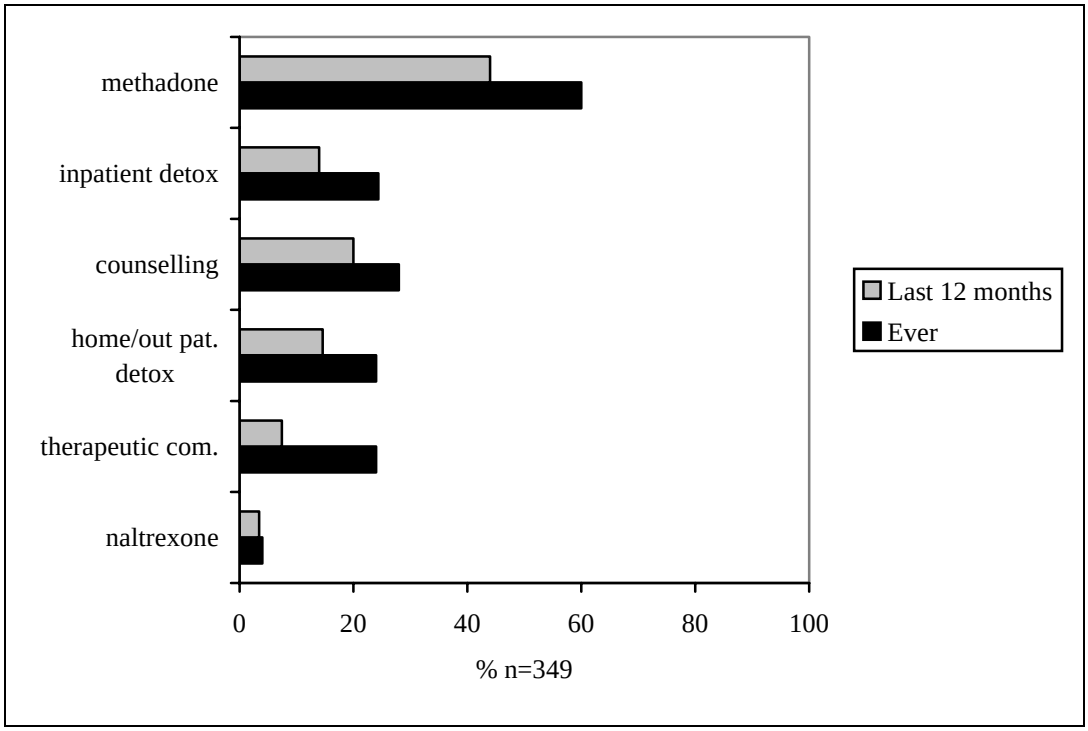

Figure 4.7: Types of treatment ever used and used in last 12 months: methadone clinic sample excluded

5. RESULTS III: DRUG TREATMENT EXPERIENCE

5.1 Methadone maintenance treatment (MMT)

Almost two thirds (259) of participants had been in methadone maintenance treatment (MMT) at some time. One hundred and fifty three were on MMT at the time of interview, and 103 had previously been on the program. Independent variables associated with having ever been on MMT were determined using multiple logistic regression, the variables entered into the model are shown in Table 5.1.

Females were significantly more likely than males to have ever been in MMT (OR 1.86, 95%CI: 1.09, 3.17). Those who were aged between 30 and 34 years (OR 2.71, 95%CI: 1.31, 5.60) and those aged 35 years or more (OR 2.86, 95%CI: 1.44, 5.86) were more than twice as likely to have ever been on MMT than those aged 24 years or less. Similarly, those who had used heroin for six years or more were two and half times more likely to have ever been in MMT compare to those who had been using heroin for three years or less (OR 2.59, 95%CI: 1.10, 6.02). Those who reported being HCV positive were also two and half times more likely to have ever been in MMT than those who reported being HCV negative (OR 2.52, 95%CI: 1.56, 4.06).

Table 5.1: Characteristics of those who have ever been in MMT using multivariate logistic regression

Characteristic	No. participants	% Ever in MMT	Adjusted odds ratio	95% CI	*P*
Age					
≤24	95	47	1.0		
25-29	86	59	1.39	0.73 - 2.67	.321
30-34	86	76	2.71	1.31 - 5.60	.007
35+	116	75	2.86	1.44 - 5.68	.003
Sex					
Males	249	61	1.0		
Females	146	70	1.86	1.09 - 3.17	.023
Country of birth					
Other	85	54	1.0		
Australia	212	68	1.69	0.95 - 3.01	.074
ATSI status					
ATSI	69	65	1.0		
Non-ATSI	330	65	1.71	0.89 - 3.30	.110
SDS score					
<4	21	57			
≥4	377	65	2.18	0.78 – 6.09	.137
Years of heroin use					
<3	34	38	1.0		
3-5	74	49	1.47	0.59 – 3.67	.413
6+	273	73	2.57	1.10 – 6.02	.029
Prison history					
Ever	245	67	1.0		
Never	152	62	1.01	0.60 – 1.70	.983
HCV status					
Negative	164	49	1.0		
Positive	235	76	2.52	1.56 – 4.06	<.001

The most recent or current episode of MMT was provided through a specialist clinic (142, 56%). However, those currently in MMT were more likely to be receiving their treatment through a GP than those previously in MMT (55% v 29%, OR 2.96, 95%CI: 1.74, 5.04).

5.1.1 Satisfaction with MMT

Participants rated how satisfied they were with the methadone program. The majority (148, 58%) of participants reported being either very happy or happy with the methadone program and a further 56 participants reported that they were neutral. One fifth of participants ever in MMT reported being unhappy or very unhappy with the service provided. Those currently in MMT were more likely to report satisfaction (either very happy or happy) with MMT compared to those previously in MMT (67% vs 41%, OR 2.99, 95%CI: 1.79, 5.01; Figure 5.1).

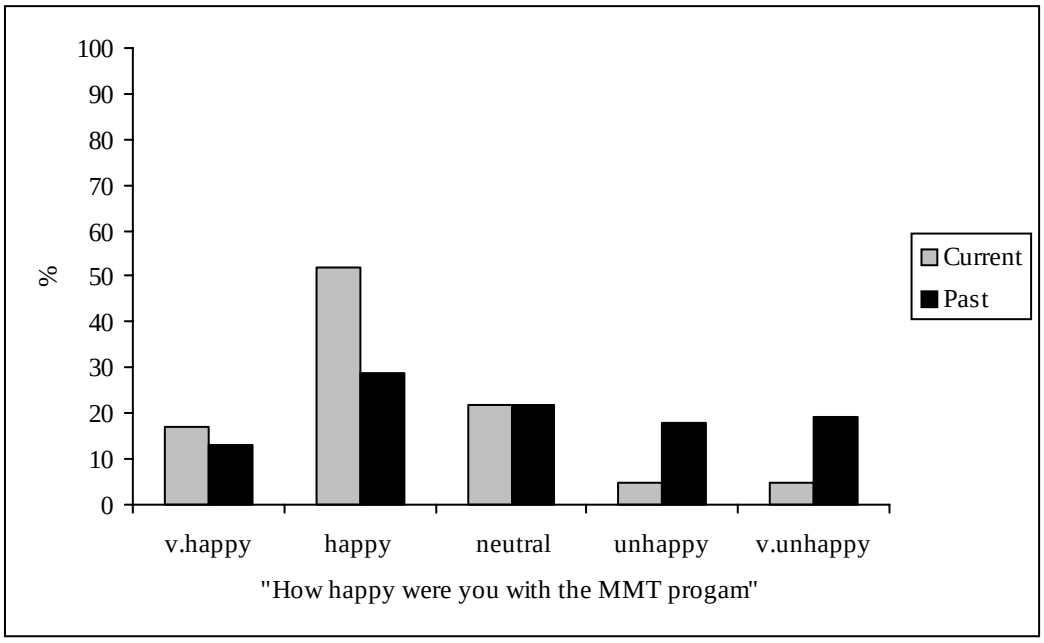

Figure 5.1: Participants satisfaction ratings with the methadone program

Those who had ever been in MMT were asked to identify any problems they had with their methadone prescriber, dispensing or methadone itself. Two thirds of participants (66%) identified at least one problem with one or more of these aspects of MMT. Participants born outside Australia were more likely to report a problem than those born in Australia (80% vs 63%, OR 2.44, 95%CI 1.12, 5.33); and those who have never been to prison (76% vs 61%, OR 1.98, 95%CI 1.12, 3.48) were more likely to have reported a problem than those who had not. Older participants were also slightly more likely to report having a problem with MMT than younger participants (33 years vs 31 years, t_{246} = 2.02, p=0.049). There were no differences between those reporting a problem with MMT in terms of past or current enrolment in a program, gender, ATSI status or hepatitis C status.

Ninety-two participants (36%) who had been on MMT identified a problem with their methadone prescriber. The most frequently identified problem was with takeaway restrictions (15%), either in terms of difficulty in getting takeaways (13%) or no option for emergency takeaways (4%); followed by inadequate opening hours (13%; Figure 5.2).

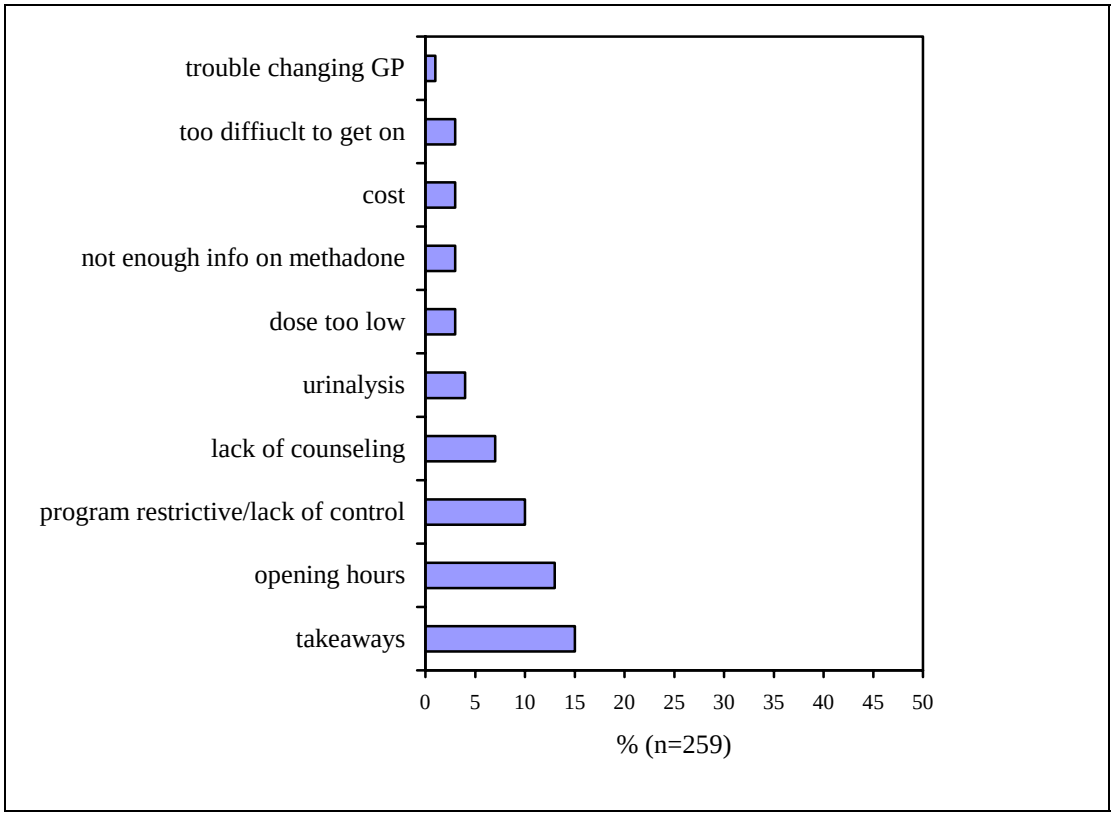

Figure 5.2: Problems participants identified with MMT prescriber

Although the proportion of those reporting any one problem was small there were some differences between those currently on MMT (current MMT) and those previously on MMT (previous MMT). The current MMT group were more likely to report a problem with takeaways compared to the previous MMT group (19% v 10%, OR 2.21, 95%CI: 1.03, 4.76). However, the current MMT group were less likely to report feeling a lack of control over the program or restricted by it (5% v 17%, OR 0.27, 95%CI: 0.11, 0.66); and receiving too little information on methadone (1% v 6%, OR 0.10, 95%CI: 0.01, 0.88). There were no other statistically discernible differences between the two groups.

Participants were also asked what the main problems with methadone dispensing were; 101 (39%) participants identified at least one problem. The most commonly reported problems were travel to the pharmacy or clinic (19%) and inadequate opening hours (17%; Figure 5.3). The only difference between the current and previous MMT groups was with the program being too restrictive, with those currently in MMT less likely to report this than those not currently in treatment (4% v 15%, OR 0.24, 95%CI 0.09, 0.63).

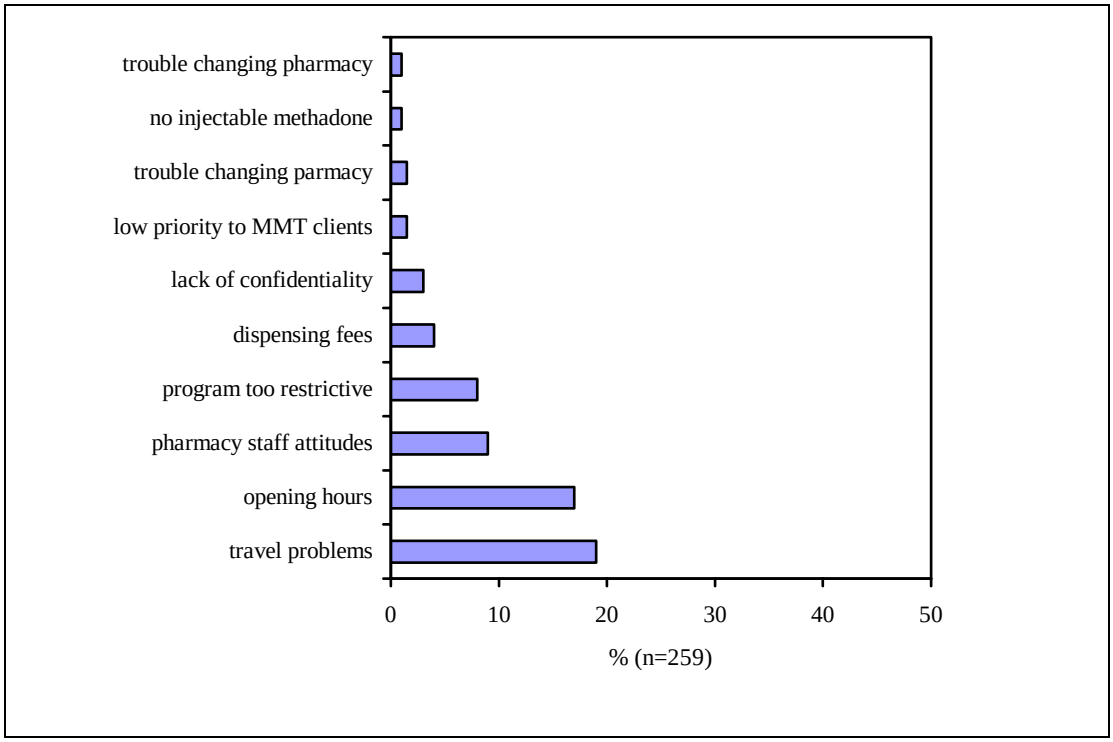

Figure 5.3: Problems participants identified with methadone dispensing

Participants were asked what problems they had with regard to methadone itself; 118 (45%) identified at least one problem with methadone. Ninety-four (36%) participants reported side effects and eight percent reported that the dose was too low (Figure 5.4). The current MMT group was less likely to report the methadone dose being too low as a problem compared to those previously in MMT (3% v15%, OR 0.18, 95%CI 0.07, 0.52). There were no other differences.

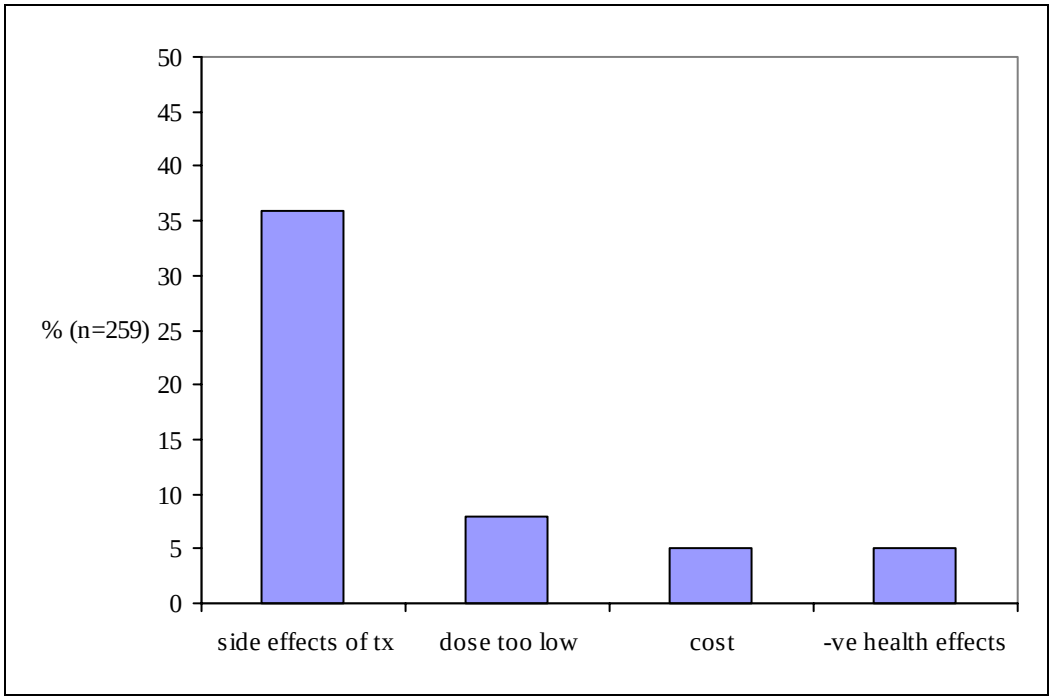

Figure 5.4: Problems participants identified with methadone

Participants were asked how important the cost of methadone is/was to them. More than a third (37%) of participants reported that cost was unimportant and that "they would have paid as much as they could afford" (Figure 5.5). There were no differences between the current MMT group and the previous MMT group. However, it is worthy of note that while the majority of participants reported being prepared to pay as much as they could afford for MMT, many of those participants commented that they should not have to pay for MMT and this is reflected below in the changes to MMT section (5.1.2).

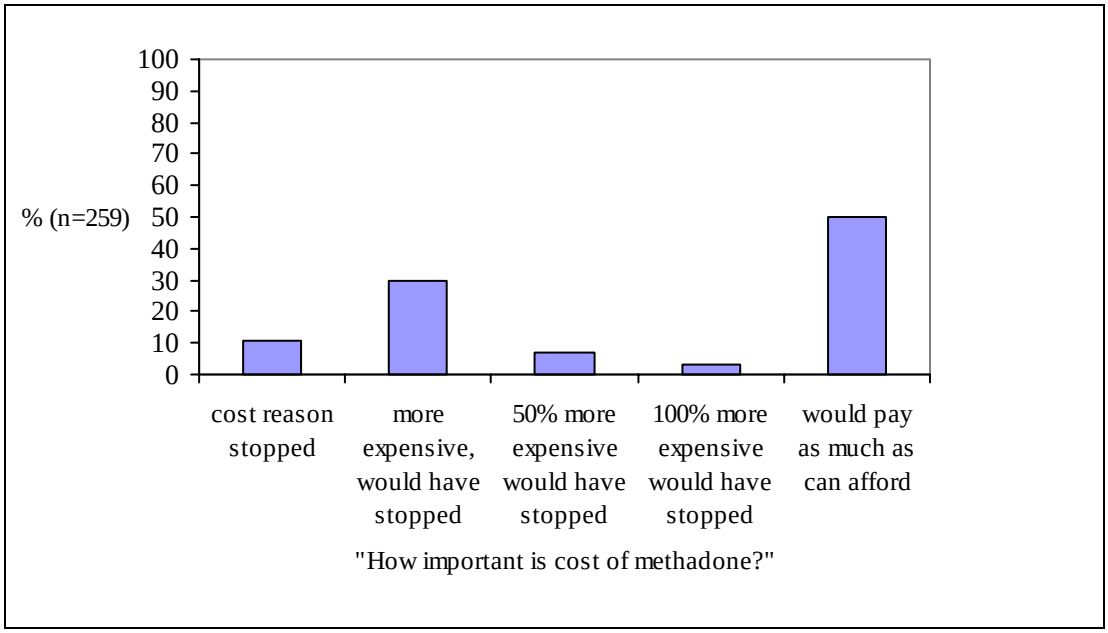

Figure 5.5: Importance of cost of MMT to participants

5.1.2 Changes to MMT

Participants who had ever been in MMT were asked how they would like to see the program changed; 208 (81%) participants identified an area where they would like to see MMT changed. Participants most commonly reported wanting no associated costs with MMT (35%), more takeaways and (29%) and longer opening hours (22%; Figure 5.6).

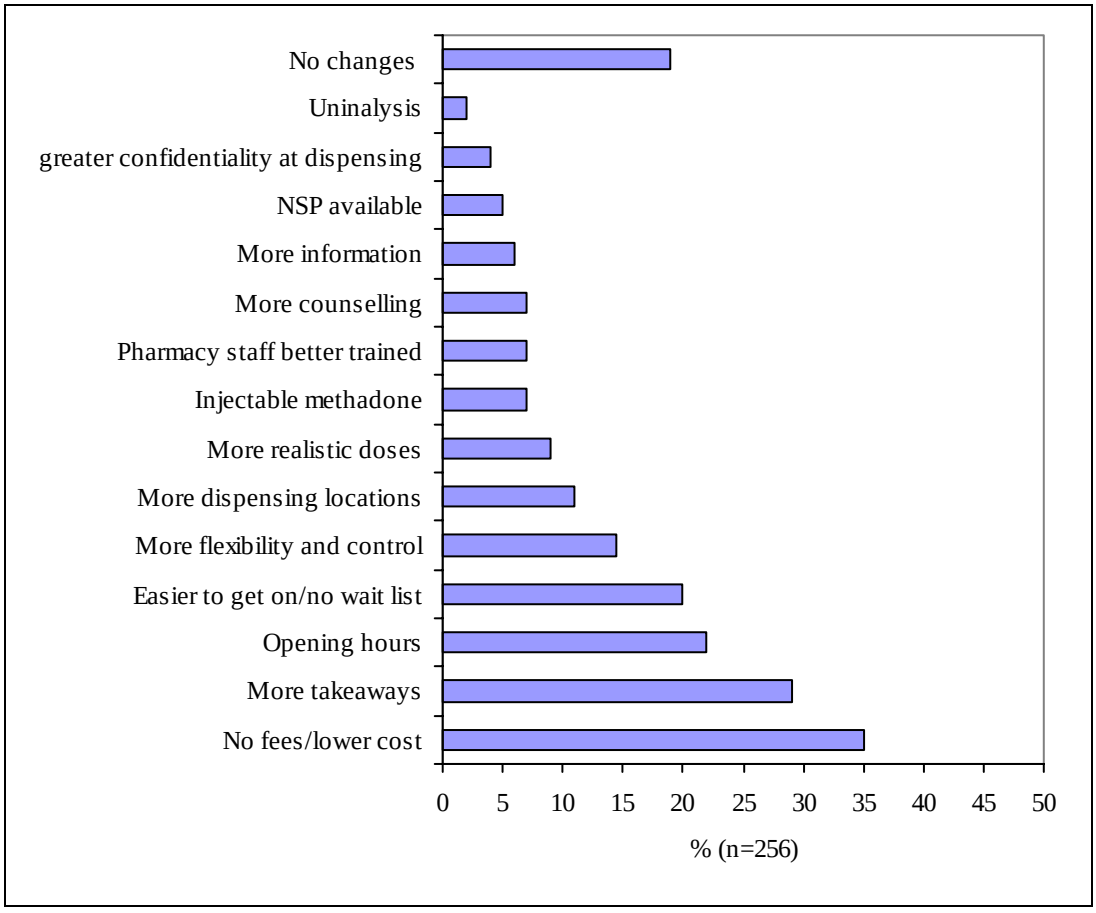

Figure 5.6: Changes participants would like to see to MMT

The previous MMT group was more likely than the current MMT group to want changes regarding access to the program (easier to get on/no waiting list; 32% v 19%, OR 2.01, 95%CI 1.06, 3.83) and want 'more realistic doses' compared to the current MMT group (17% v 8%, OR 2.45, 95%CI 1.03, 5.81). However, the current MMT group were more likely than the previous MMT group to report wanting more takeaways available (46% v 21%, OR 3.16, 95%CI 1.68, 5.93).

Of the 259 participants who had ever been on MMT, 256 answered specific questions with regard to their most recent treatment episode. Responses are examined in the following section.

Participants' first episode of MMT commenced a median of 192 weeks prior to interview (range 2-960). Participants had entered MMT a mean of two times (SD1.52, range 1-11) and 60% were still receiving MMT treatment, for whom the median length of time in treatment was 49 weeks (range: 0.6 - 491).

Only 40% of participants paid for their MMT, the median cost of MMT was $42 (range: 1-490) per week for those who did pay. Three quarters of participants (n=190) received MMT through a public clinic. For those who paid, the median cost of MMT was $36 (range: 1-60) per week through a public clinic and $42 per week (range: 7-490) through a private clinic, the difference was not significant (Mann-Whitney U = 676).

5.1.3 Reasons for commencing MMT

Wanting to cease heroin use (54%) and the associated lifestyle ('sick of the lifestyle', 41%) were the most commonly reported reasons for entering MMT (Figure 5.7). 'Other' responses (not shown in Figure 5.7) include using methadone as a 'back-up' if heroin is unobtainable, pain relief and peer pressure.

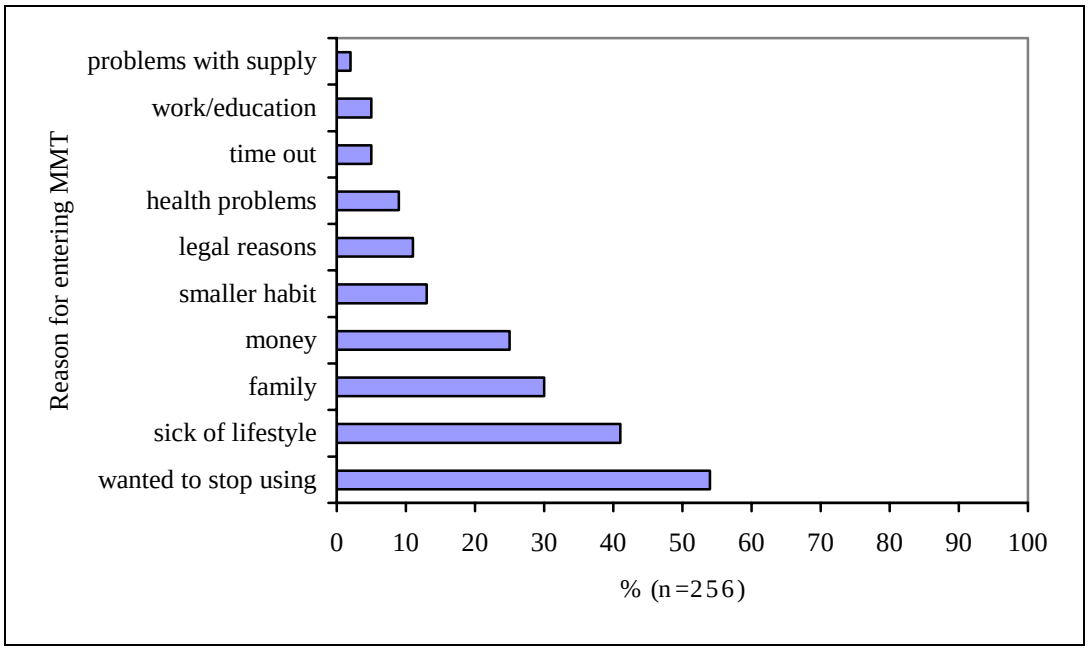

Figure 5.7: Reasons for entering MMT

5.1.4 MMT treatment goals

Participants were asked what they had wanted to achieve by entering MMT and whether this had occurred (Figure 5.8). Concordance between the desired goal and actual achievement was highest for stability (70%), smaller habit (66%) and control over drug use (62%). Concordance was lowest for 'getting out of the drug scene' (30%) abstinence (39%) and control over finances (42%). More than 50% concordance was recorded for all other categories (Figure 5.8).

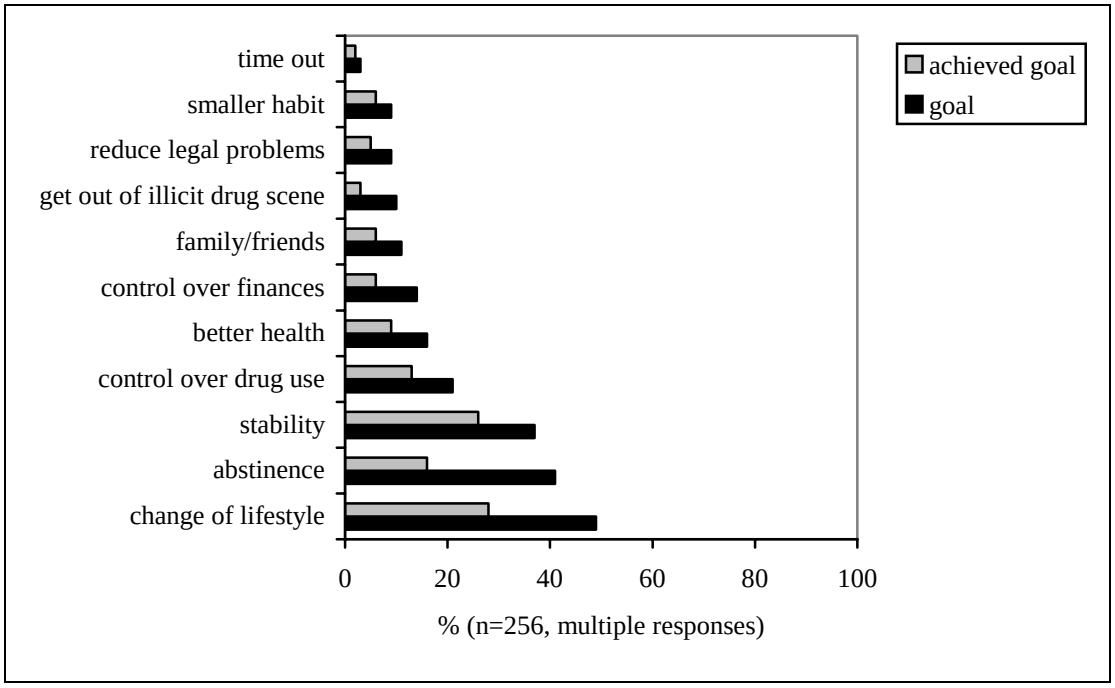

Figure 5.8: Treatment goals and achievements for MMT

5.1.5 Reasons for ceasing MMT

Ninety-eight participants were no longer in treatment at the time of interview. The most common reasons given for leaving MMT were because treatment 'was not working' (25%) and side effects (22%; Figure 5.9). A range of other responses not listed in Figure 5.9 included relocated to another area (5%), perceived negative health effects from being on MMT (4%) and on MMT in jail and being released (4%). Three participants reported 'completing' the program, two had achieved their own goals and a further two participants reported being discharged from the program. Only one participant left MMT to move to another treatment program.

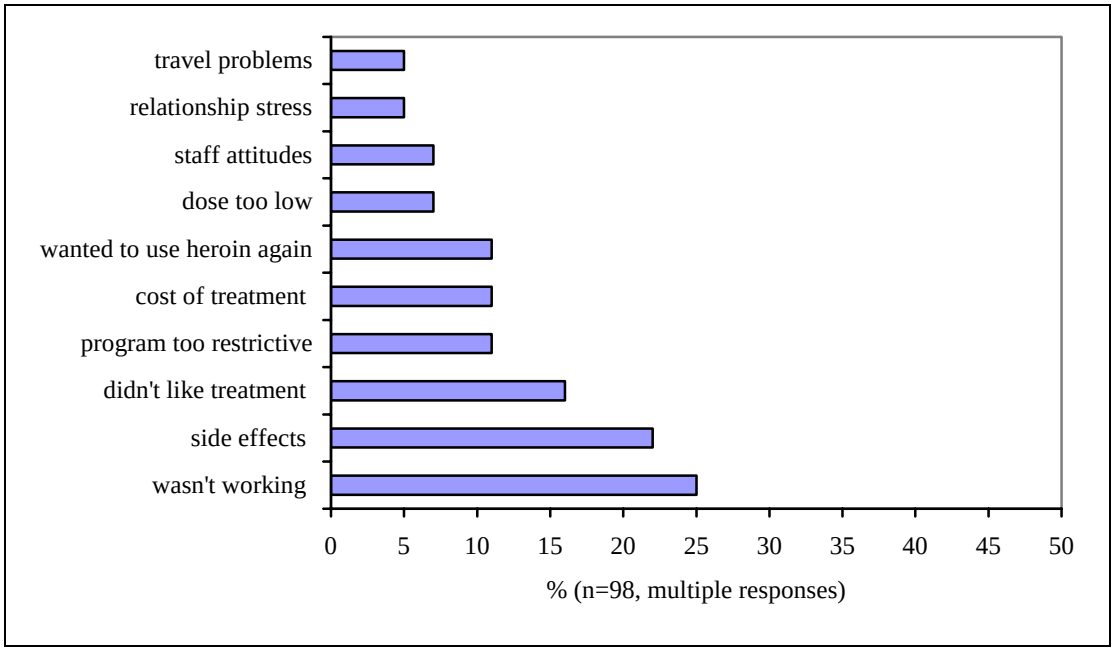

Figure 5.9: Reasons for ceasing MMT

5.1.6 Other treatments

Of the 259 participants who had ever received MMT 61% had received other treatments for their heroin use at some time and these are shown in Table 5.2.

Table 5.2: Other treatments received by those who had received MMT

Treatment	% (n=259)
Counselling	33
Inpatient detoxification	28
Outpatient detoxification	23
Residential Rehabilitation	27
Naltrexone	4

5.2 Counselling

One hundred and eleven participants (28%) had received counselling for their heroin use, 78 (20%) had received counselling in the 12 months preceding interview. In order to determine sample characteristics independently associated with counselling, a multiple logistic regression was conducted, the variables entered are those listed in Table 5.3. The regression analysis revealed that females were more likely than males to have been in counselling (OR 1.88, 95%CI 1.07 – 3.02). Those born in Australia were also more likely to receive counselling compared to those who were not (OR 2.20, 95% CI=1.12, 4.30). There were no other factors independently associated with counselling (Table 5.3).

Table 5.3: Characteristics of those who have ever received counselling for heroin use using multivariate logistic regression

Characteristic	No. participants	% Ever in counselling	Adjusted odds ratio	95% CI	*P*
Age					
≤24	95	30	1.0		
25-29	86	23	0.69	0.34 – 1.42	.315
30-34	86	28	0.83	0.40 – 1.72	.614
35+	116	30	0.99	0.51 – 1.97	.995
Sex					
Males	249	23	1.0		
Females	146	36	1.80	1.07 – 3.02	.027
Country of birth					
Other	85	15	1.0		
Australia	312	31	2.20	1.12 – 4.30	.022
ATSI status					
ATSI	330	28	1.0		
Non-ATSI	69	28	1.39	0.73 – 2.67	.319
SDS score					
<4	21	19	1.0		
≥4	377	28	2.23	0.61 – 8.30	.220
Years of heroin use					
<3	34	18	1.0		
3-5	74	24	1.75	0.56 – 5.45	.338
6+	273	30	2.28	0.78 – 6.67	.132
Prison history					
Ever	245	25	1.0		
Never	152	32	1.23	0.73 – 2.07	.430
HCV status					
Negative	164	22	1.0		
Positive	235	32	1.63	0.73 – 2.67	.064

Of the 111 participants who ever received counselling 105 answered specific questions regarding their experience of counselling. Participants who reported ever receiving counselling for heroin use, commenced their most recent counselling episode a median of 192 weeks (3.7 years) prior to interview (range 4-24). Participants who had received counselling for their heroin use had been in counselling a median of four times (range 1-100). Forty-four percent of those who had received counselling were still receiving counselling. The majority (94%) of participants who received counselling did not pay for it. The median cost was $80 (range: 10-380). For others the majority (90%) of the counselling services received were provided through the public system.

5.2.1 Reasons for commencing counselling

The most commonly reported reason for entering counselling was to cease heroin use (56%), followed by dissatisfaction with lifestyle ('sick of lifestyle' 43%; Figure 5.10). Other reasons not shown in Figure 5.10 included advice and support (4%) and assistance with staying in other treatment programs such as MMT (3%).

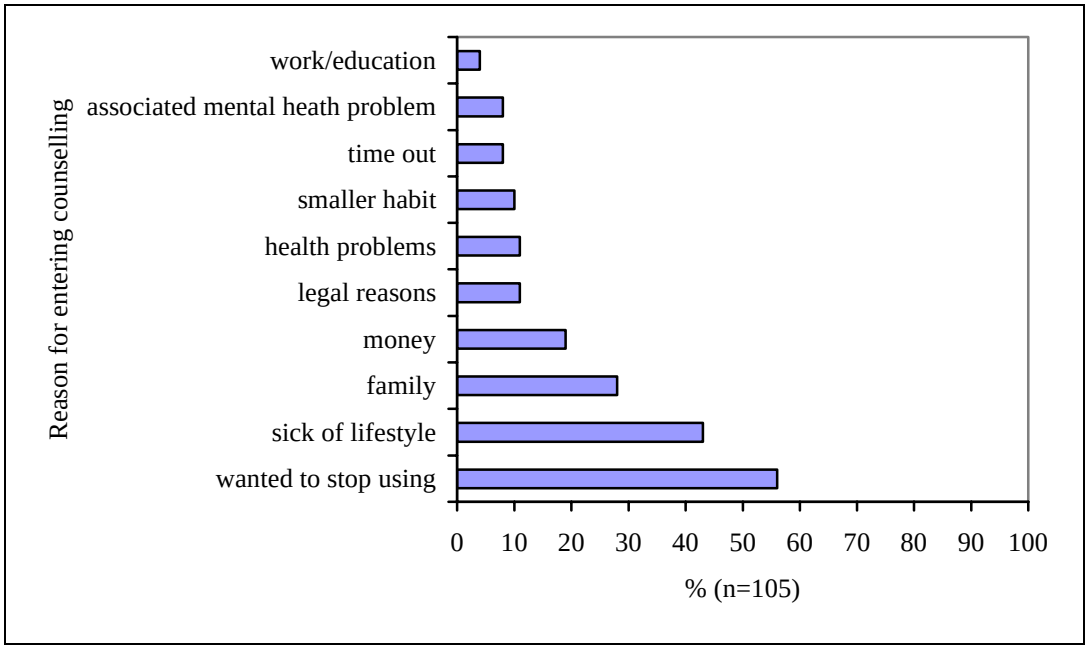

Figure 5.10: Reasons for entering counselling

5.2.2 Counselling treatment goals

Participants were asked what they wanted to achieve from counselling and whether that had been achieved (for a period at least). Only a small proportion of participants had achieved their goal by attending counselling (Figure 5.11). 'Control over drug use' (13/21) and 'smaller habit' (7/11) were the only categories were concordance between the desired and actual achievement occurred by more than half of participants.

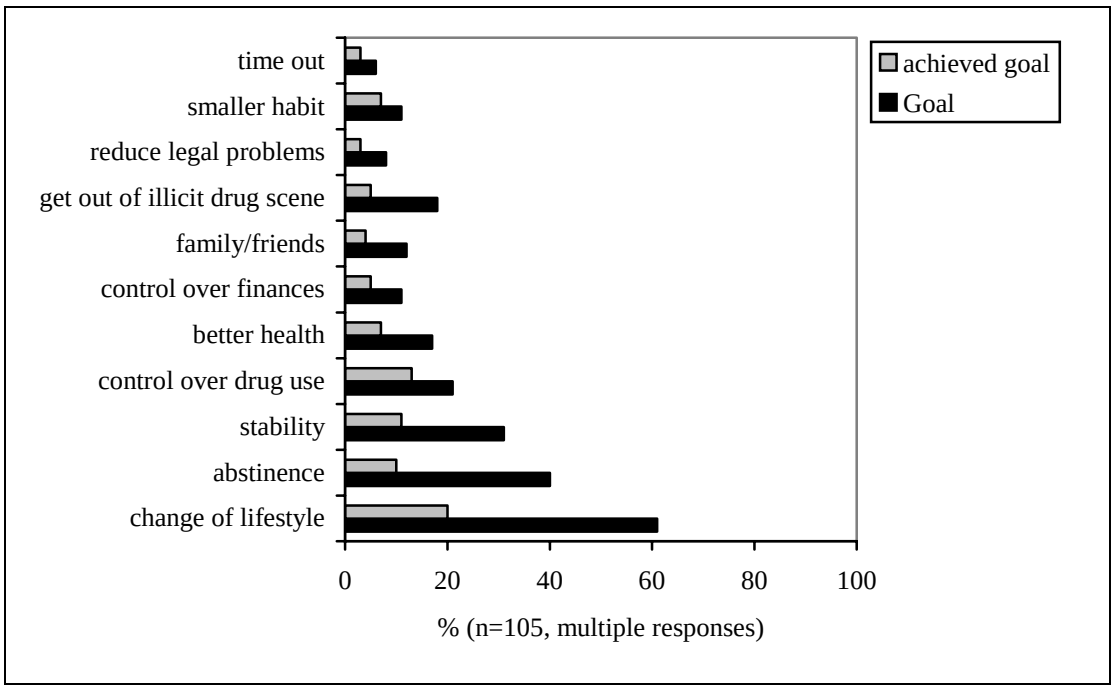

Figure 5.11: Treatment goals and achievements for counselling

5.2.3 Reasons for ceasing counselling

Fifty-nine (56%) of those who had ever received counselling for heroin use had ceased the treatment. The most commonly reported reason for cessation was due to the program 'not working' (23%; Figure 5.12). Three (5%) participants reported the reason they stopped was because their counsellor left. Other responses, not included in Figure 5.12 were 'just taking time out' (3.5%) and travel problems (3.5%).

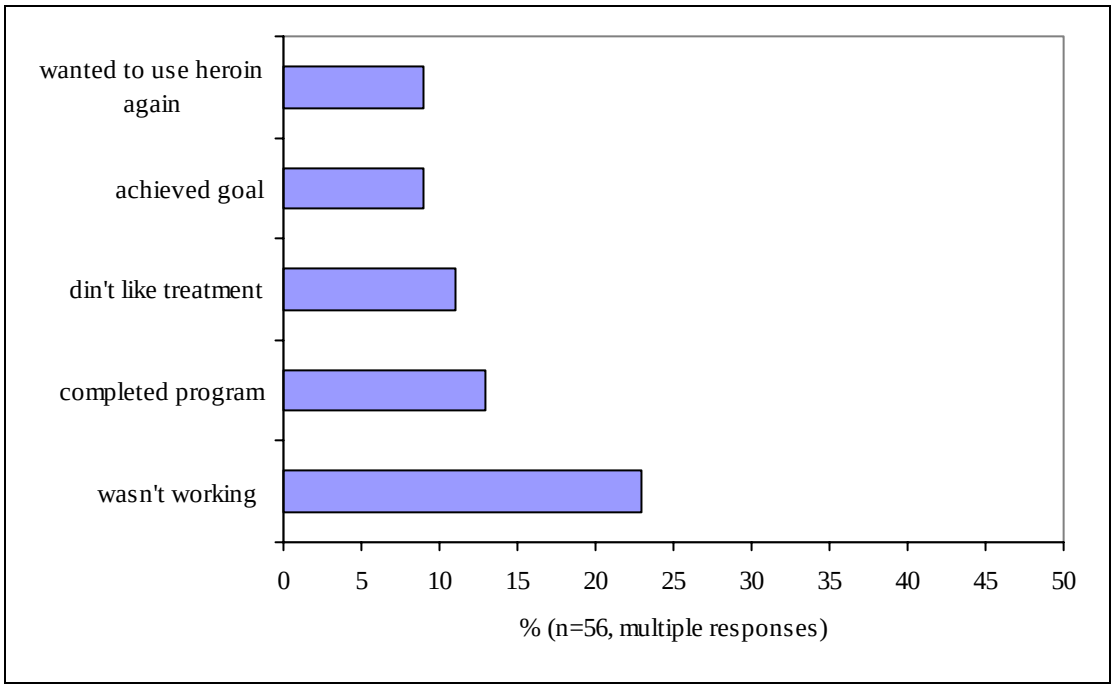

Figure 5.12: Reasons for leaving counselling

5.2.4 Other treatments

Of the 105 participants who had received counselling, 91% had received other treatments for their heroin use (Table 5.4). Counselling reported in this section does not include that received in rehabilitation programs. It does, however include counselling received in conjunction with MMT.

Table 5.4: Other treatments received by those who had received counselling

Treatment	% (n=111)
MMT	81
Inpatient detoxification	38
Outpatient detoxification	36
Residential Rehabilitation	37
Naltrexone	8

5.3 Inpatient detoxification

Ninety-six participants (24%) had received inpatient detoxification services and 53 (13%) had done so in the preceding 12 months. A multiple logistic regression was conducted to determine factors independently associated with having ever been in an inpatient detoxification program. Variables entered into the model were those listed in Table 5.5.

The regression model revealed differences between the two groups in terms of HCV status and ATSI status. Those who had been in inpatient detoxification were more likely to be HCV positive on self report compared to those who had never been in inpatient detoxification (OR 2.46, 95% CI: 1.42, 4.27) and more likely to be Aboriginal or Torres Strait Islander (OR 2.51, 95% CI: 1.42, 4.23).

Table 5.5: Characteristics of those who have ever been in inpatient detoxification for heroin use using multivariate logistic regression

Characteristic	No. participants	% Ever in inpat. detox	Adjusted odds ratio	95% CI	*P*
Age					
≤24	95	22	1.0		
25-29	86	24	1.00	0.48 – 2.09	.998
30-34	86	26	1.09	0.51 – 2.33	.831
35+	116	28	1.12	0.54 – 2.30	.769
Sex					
Males	249	25	1.0		
Females	146	24	1.22	0.71 – 2.11	.475
Country of birth					
Other	85	22	1.0		
Australia	312	25	1.15	0.62 – 2.13	.652
ATSI status					
ATSI	330	15	1.0		
Non-ATSI	69	26	2.51	1.42 – 4.23	.019
SDS score					
<4	21	19	1.0		
≥4	377	25	1.29	0.39 – 4.21	.676
Years of heroin use					
<3	34	6	1.0		
3-5	74	24	4.02	0.85 – 19.02	.079
6+	273	28	4.16	0.93 – 18.66	.063
Prison history					
Ever	245	26	1.0		
Never	152	22	0.88	0.51 – 1.52	.656
HCV status					
Negative	164	14	1.0		
Positive	235	32	2.46	1.42 – 4.27	.001

Ninety participants answered specific questions on their experience of inpatient detoxification. Those who had been in inpatient detoxification had been a median of three times (range 1-120), and first entered a median of 3.7 years (range 4 weeks to 22 years) prior to interview.

For the majority of participants the most recent admission to detoxification was in a public facility (91%), and was free of charge (75%). Those who paid for inpatient detoxification, paid a median of $100 (range: $60 to $8000) the last time they received the service.

5.3.1 Reasons for commencing inpatient detoxification

The most frequently reported reason for entering inpatient detoxification was to stop using heroin (59%) and 'sick of lifestyle' (48%; Figure 5.13). Two participants reported entering detoxification due to problems with supply of heroin.

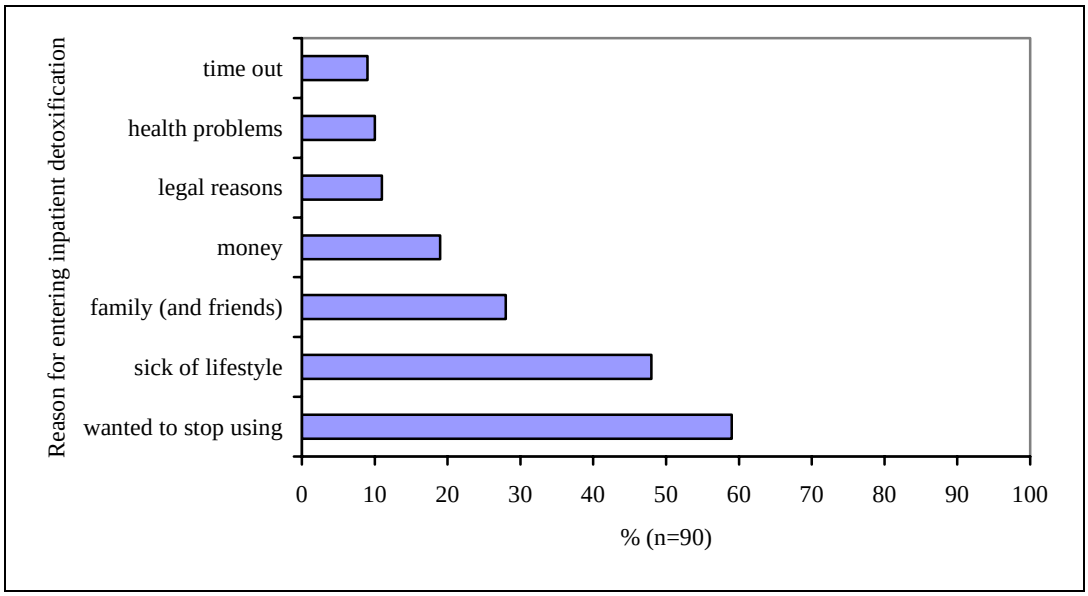

Figure 5.13: Reasons for entering inpatient detoxification

5.3.2 Inpatient detoxification treatment goals

Participants identified a range of goals they wanted to achieve by entering inpatient detoxification (Figure 5.14), the most common of which was abstinence (52%) and change of lifestyle (50%). Participants also reported whether they achieved these goals; there was little concordance between what participants wanted to achieve by entering detoxification and what they actually achieved (Figure 5.14). Less than a third of those who identified abstinence as gaol were able to achieve this for any time following discharge. Concordance was greatest for those who sought a reduction in legal problems (6/12).

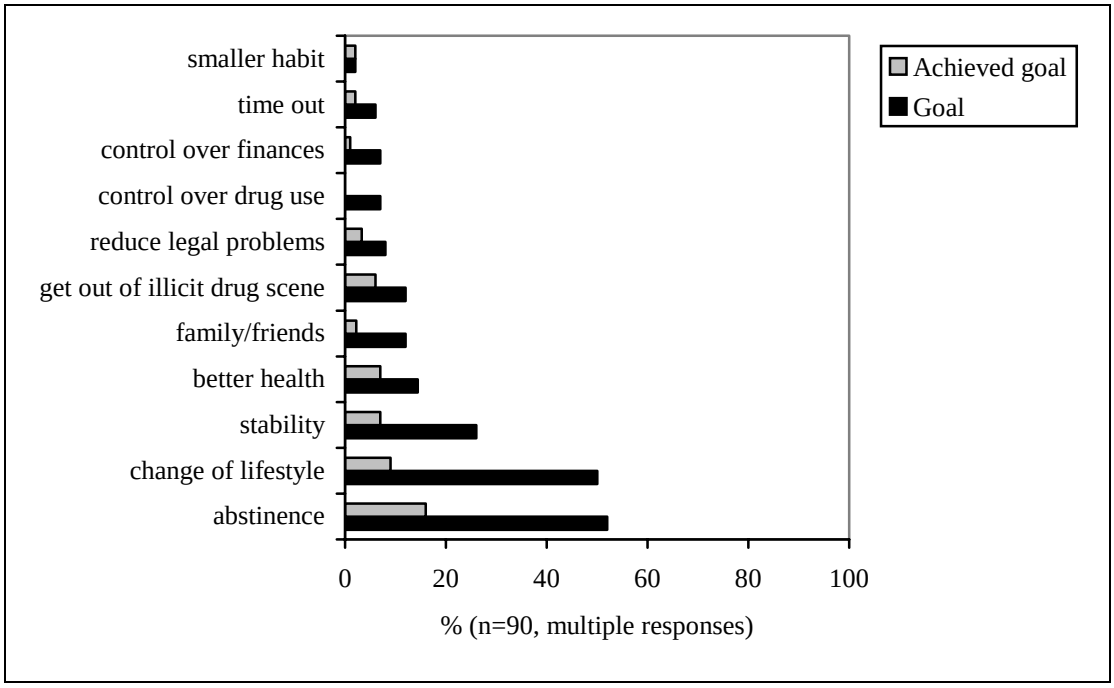

Figure 5.14: Treatment goals and achievements for inpatient detoxification

5.3.3 Reasons for ceasing inpatient detoxification

Wanting to recommence heroin use (19%) or not liking the treatment (16%) were the main reason given for leaving detoxification or for returning to heroin use once the program was completed (Figure 5.15).

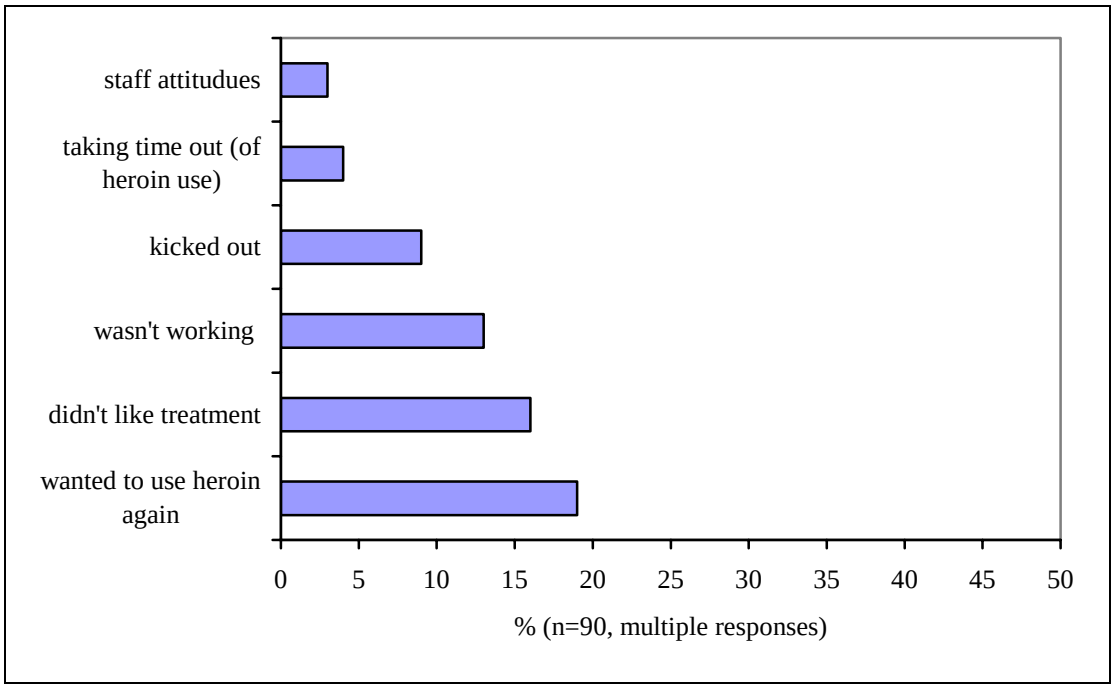

Figure 5.15: Reasons for recommencing heroin use following detoxification

5.3.4 Other treatments

The majority (90%) of those who had ever entered inpatient detoxification had also received other treatments for heroin use at some time, the most common of which was MMT (83%; Figure 5.6).

Table 5.6: Other treatments received by those who had been in inpatient detoxification

Treatment	% (n=97)
MMT	83
Counselling	54
Outpatient detoxification	59
Residential Rehabilitation	49
Naltrexone	8

5.4 Outpatient detoxification

Outpatient (or home) detoxification services were received by 96 (29%) participants who reported ever receiving treatment and 54 participants had received treatment in the preceding 12 months. Characteristics of those who received outpatient detoxification and those who did not are shown in Table 5.7. In order to determine differences between the two groups, a multivariate logistic regression was carried out. Variables entered are those listed in Table 5.7. After controlling for other variables, the only difference between the two groups was in terms of ATSI status; those who were non ATSI were more than two and half times more likely to have ever received outpatient detoxification than ATSI participants (OR 2.64, 95% CI: 1.10, 6.29).

Table 5.7: Characteristics of those who have ever received outpatient detoxification for heroin use using multivariate logistic regression

Characteristic	No. participants	% Ever in outpat. detox	Adjusted odds ratio	95% CI	*P*
Age					
≤24	95	30	1.0		
25-29	86	26	0.96	0.48 – 1.93	.913
30-34	86	26	0.90	0.23 – 1.89	.776
35+	116	16	0.61	0.29 – 1.29	.195
Sex					
Males	249	23	1.0		
Females	146	25	1.27	0.73 – 2.20	.404
Country of birth					
Other	85	29	1.0		
Australia	312	23	0.71	0.40 – 1.27	.244
ATSI status					
ATSI	330	13	1.0		
Non-ATSI	69	26	2.64	1.10 – 6.29	.029
SDS score					
<4	21	14	1.0		
≥4	377	25	2.68	0.57 – 12.49	.210
Years of heroin use					
<3	34	32	1.0		
3-5	74	30	0.68	0.27 – 1.73	.420
6+	273	21	0.48	0.20 – 1.14	.097
Prison history					
Ever	245	24	1.0		
Never	152	24	0.79	0.45 – 1.38	.404
HCV status					
Negative	164	23	1.0		
Positive	235	25	1.45	0.84 – 2.48	.180

Of the 96 participants who had ever had outpatient detoxification services, 90 answered detailed questions regarding their experience(s). Outpatient detoxification had been received a median of three times (SD 1-60) and was first received a median of 96 weeks prior to interview (range: 2-960). Six participants (7%) were engaged in an outpatient/ home detoxification program at the time of interview.

The majority (80%) received outpatient detoxification through a public service, though much of this was likely to be through bulk billing general practitioners. The last time outpatient detoxification was received, the median cost was $20 (range: 3-6000).

5.4.1 Reasons for commencing outpatient detoxification

Participants identified a range of reasons for entering an outpatient detoxification program (Figure 5.16). The most commonly reported reasons were 'wanted to stop using heroin' (61%) and 'sick of lifestyle' (41%).

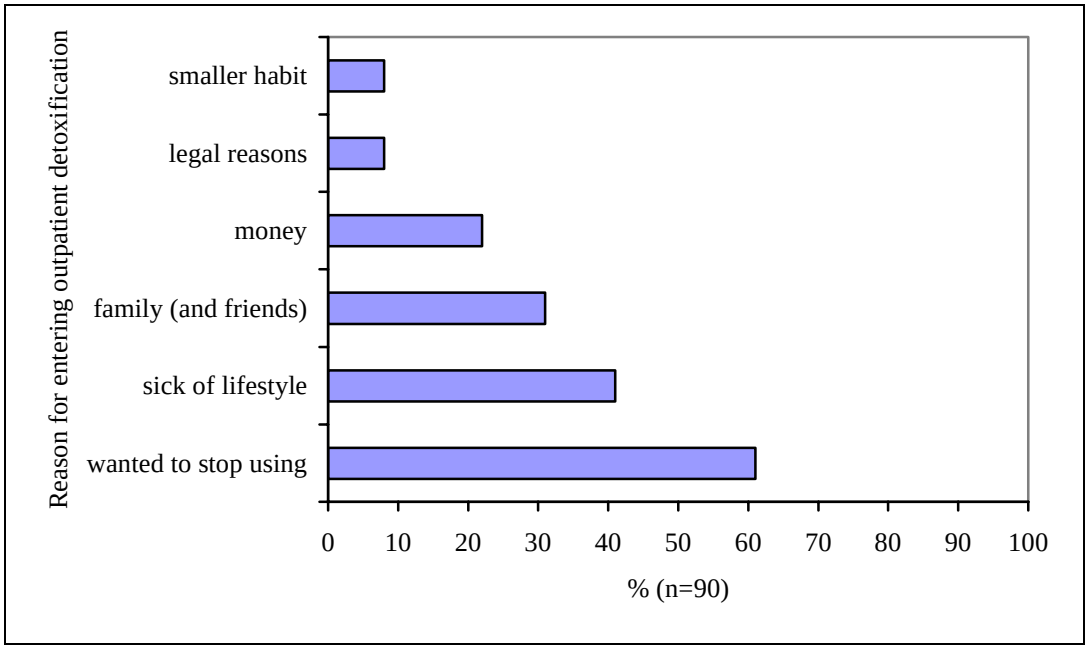

Figure 5.16: Reasons for entering outpatient detoxification

5.4.2 Outpatient detoxification treatment goals

Participants identified a range of goals they hoped to achieve by entering outpatient detoxification (Figure 5.17), the most common of which was a change of lifestyle (60%) and abstinence (52%). Participants also reported whether treatment goals were achieved (Figure 5.17). Concordance between the goals and actual achievements was very low (Figure 5.17); less than a third of those who identified change of lifestyle and only a fifth who identified abstinence achieved these goals. No category listed in Figure 5.17 reached 50 percent concordance.

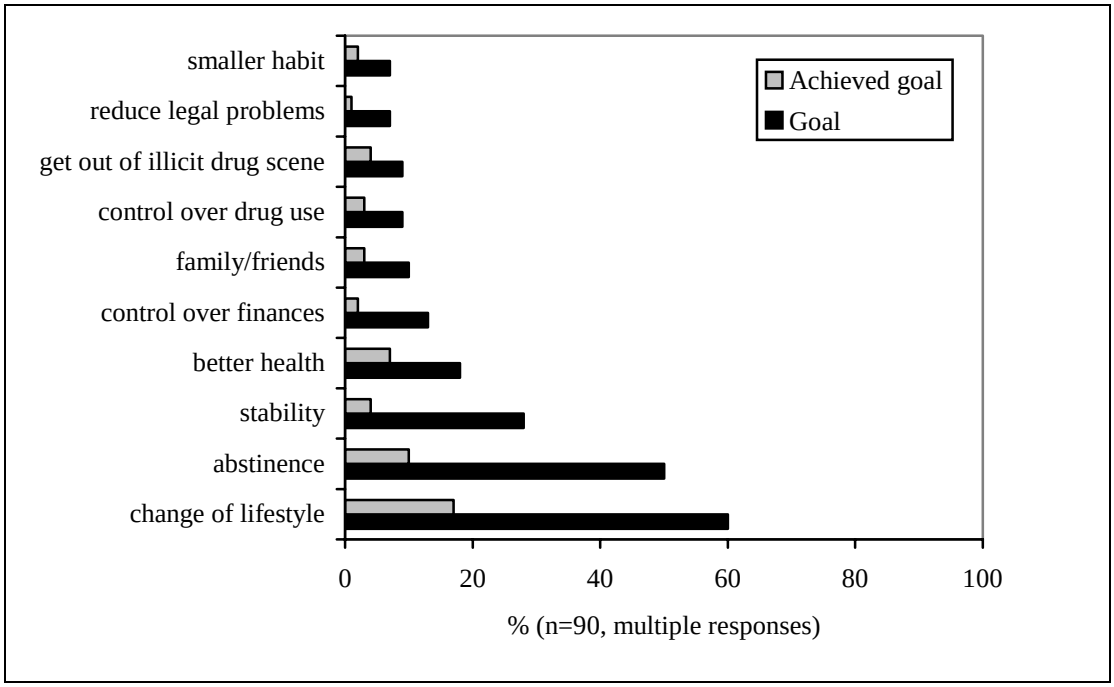

Figure 5.17: Treatment goals and achievements for outpatient detoxification

5.4.3 Reasons for ceasing outpatient detoxification

The most commonly reported reasons for recommencing heroin use was because the treatment was not working (20%), wanting to use heroin again (20%) and disliking the treatment (11%). Only four (4%) participants reported that they had stopped detoxification or returned to heroin use because they had achieved their goal.

5.4.4 Other treatments

The majority (90%) of those who had ever entered inpatient detoxification had also received other treatments for heroin use at some time, the most common of which was MMT (83%). Conversely, naltrexone had only been received by nine percent of patients who were ever in outpatient treatment (Table 5.8).

Table 5.8: Other treatments received by those who had received outpatient detoxification

Treatment	% (n=97)
MMT	69
Counselling	48
Inpatient detoxification	42
Residential Rehabilitation	38
Naltrexone	9

5.5 Residential rehabilitation

Ninety-six participants (24%) had ever been in residential rehabilitation (three months or more) for their heroin use and 29 had done so in the preceding 12 months. In order to determine differences between those who had received residential rehabilitation and those who had not a logistic regression was carried out. Variables entered into the equation are given in Table 5.9.

Variables independently associated with ever having been in residential rehabilitation were HCV status, ATSI status and prison history. Those who had ever been in residential rehabilitation were more likely to be HCV positive on self-report than those who had not (OR 2.21, 95% CI: 1.24, 3.92). The non-ATSI participants were also more likely to have been in residential rehabilitation than the ATSI participants (OR 2.53, 95% CI: 1.03, 4.92) and those who had a history of incarceration were more likely to have ever been in residential rehabilitation than those who had not (OR 1.85, 95% CI: 1.02, 3.35). There were no other significant differences (Table 5.9).

Table 5.9: Characteristics of those who have ever been in residential rehabilitation for heroin use using multivariate logistic regression

Characteristic	No. participants	% Ever in resi. rehab	Adjusted odds ratio	95% CI	*P*
Age					
≤24	95	18	1.0		
25-29	86	21	1.04	0.47 – 2.29	.920
30-34	86	27	1.36	0.61 – 3.04	.454
35+	116	28	1.61	0.75 – 3.46	.225
Sex					
Males	249	24	1.0		
Females	146	24	1.52	0.85 – 2.71	.154
Country of birth					
Other	85	22	1.0		
Australia	312	24	1.11	0.58 – 2.12	.745
ATSI status					
ATSI	330	15	1.0		
Non-ATSI	69	21	2.25	1.03 – 4.92	.041
SDS score					
<4	21	9	1.0		
≥4	377	25	6.88	0.86 – 54.77	.068
Years of heroin use					
<3	34	3	1.0		
3-5	74	23	7.78	0.96 – 63.26	.055
6+	273	26	6.40	0.82 – 49.80	.076
Prison history					
Never	152	17	1.0		
Ever	245	29	1.85	1.02 – 3.35	.043
HCV status					
Negative	164	13	1.0		
Positive	235	32	2.21	1.24 – 3.92	.007

Of the 96 participants who had ever been in residential rehabilitation, 88 answered detailed questions regarding their experience(s). Participants had been to residential rehabilitation a median of two times (range: 1-30) and had first entered a median of 192 weeks prior to interview (range: 4 weeks to 19 years). Only one participant reported currently being in residential rehabilitation.

Fifty-two (59%) participants reported paying for residential rehabilitation, the median amount paid was $137.50 per week (range 1-825) the last time they were rehabilitation. The majority (68%) had been in public services.

5.5.1 Reasons for commencing residential rehabilitation

As with other treatments, wanting to stop using heroin (57%) and being 'sick of the lifestyle' (55%) were the main reasons given for entering residential rehabilitation (Figure 5.18).

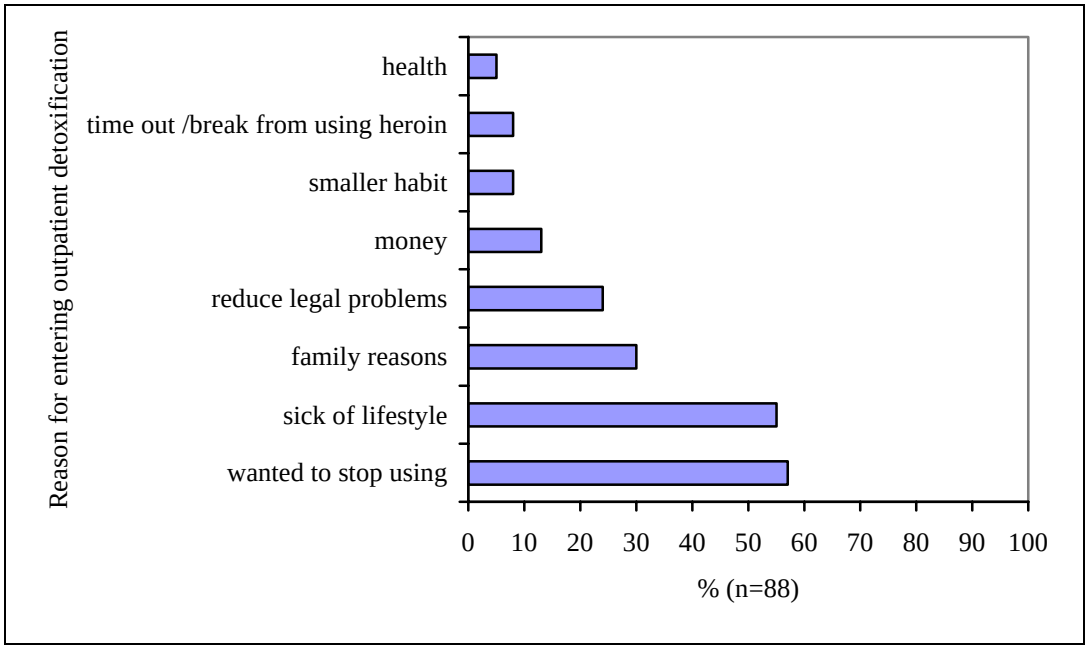

Figure 5.18: Reasons for entering residential rehabilitation

5.5.2 Residential rehabilitation treatment goals

Participants identified a range of goals they hoped to achieve by entering residential rehabilitation (Figure 5.19). As with outpatient detoxification, the most common reasons identified were 'change of lifestyle' (53%) and abstinence (47%). There was limited concordance between goals and actual achievements (Figure 5.19); less than a fifth of those who identified change of lifestyle and abstinence achieved their goal. Health (9/17), smaller habit (4/7) and 'timeout' (4/7) were the only categories that reached 50 percent or more concordance.

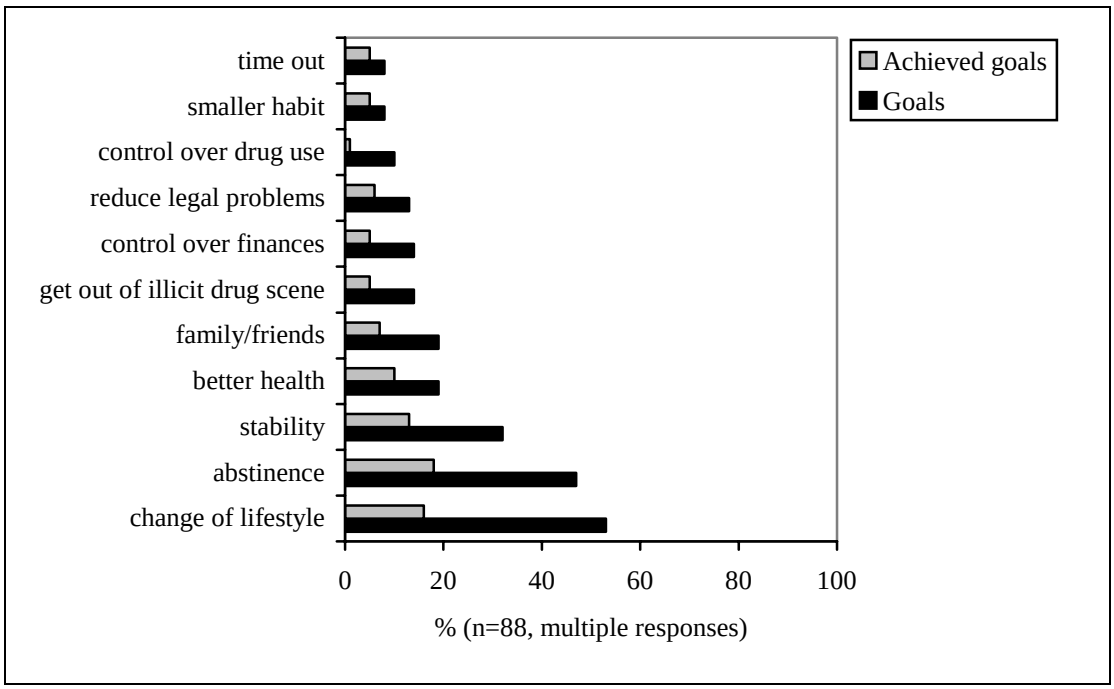

Figure 5.19: Treatment goals and achievements for residential rehabilitation

5.5.3 Reasons for ceasing residential rehabilitation

The most commonly reported reasons for recommencing heroin use after residential rehabilitation were because participants thought the program was not working (16%) or because they were expelled from the program (16%). Six (7%) participants left residential rehabilitation because they wanted to resume heroin use, and four (5%) thought the program was too restrictive. Only two (2%) participants left because they had achieved their goal.

5.5.4 Other treatment

Of the 96 participants who had ever been in residential rehabilitation, 87 (91%) had also received other treatments for heroin use at some time. MMT was the most commonly reported other treatment program (79%) by those who had ever been in residential rehabilitation. Not surprisingly, naltrexone was the least likely reported treatment - received by only seven participants (Table 5.10).

Table 5.10: Other treatments received by those who had been in residential rehabilitation

Treatment	% (n=96)
MMT	79
Inpatient detoxification	49
Counselling	46
Outpatient detoxification	38
Inpatient detoxification	7

5.6 Naltrexone treatment

Only nineteen participants reported ever being on a naltrexone program. The mean age of these participants was 28 years (SD 6.01), 60% of whom were male. Fifteen participants (80%) were born in Australia. Almost all (95%) reported heroin as their main drug, with a mean of eight years (SD 4.66) of use. The mean SDS score for the group was 11(SD 3.0). Ten (53%) were HCV positive on self-report and nine (47%) had a history of incarceration. The small number reporting naltrexone treatment precluded comparative analyses.

The median number of times participants had received naltrexone treatment was one (range 1-5), and they had done so a median of 96 weeks (range 4-192) prior to interview. Two participants reported currently being on a naltrexone program.

Ten (53%) participants did not pay for the treatment. Those who did pay reported paying a median of $3500 (range 200-9000). Ten participants (53%) received naltrexone through a private clinic.

5.6.1 Reasons for commencing naltrexone and treatment goals

The reasons participants identified for entering naltrexone treatment were to 'stop using heroin' (80%), 'sick of' heroin using lifestyle (53%), and for reasons associated with family (47%) and money (16%). Participants most commonly reported 'change of lifestyle' (68%), abstinence (63%) and stability (42%) as goals they wanted to achieved by entering naltrexone. There was little concordance between these goals and what participants actually achieved: only 32% reported abstinence for a period following treatment entry, and 16% each reported a change of lifestyle or stability.

5.6.2 Reasons for ceasing treatment

The most commonly reported reason for leaving naltrexone was a desire to use heroin again (26%). Treatment side effects were reported by two (11%) participants as was program completion. Only one participant reported that he/she ceased treatment because he/she had achieved their goal.

5.5.3 Other treatments

Only one participant who had received naltrexone had not received any other treatment. Ten participants (53%) had been in MMT and only 16% had received inpatient detoxification (Table 5.11). It is worthy of note that 16 (84%) of participants had undergone ultra rapid opioid detoxification.

Table 5.11: Other treatments received by those who had received naltrexone

Treatment	% (n=19)
MMT	53
Outpatient detoxification	47
Residential Rehabilitation	37
Counselling	42
Inpatient detoxification	16

5.7 Treatment relationships

There were a number of relationships between having been in the different treatment modes: those who had ever been in MMT were significantly more likely to have also ever been in counselling compared to those who had not (35% vs 15%, OR 3.02, 95%CI: 1.78-5.13). Similar relationships were found between MMT and inpatient detoxification and residential rehabilitation (Table 5.12). Outpatient detoxification was the only treatment mode related to naltrexone, with those who had ever been on naltrexone (95%CI: 1.94-7.70) being three times more likely to have also (9%) been in an outpatient detoxification program compared to those who had never (3%) been on naltrexone (Table 5.12).

Table 5.12: Relationships between treatment modes (% and OR)

	MMT ever vs never	Counselling ever vs never	Inpat. Detox ever vs never	Outpat. Detox ever vs never	Resi rehab ever vs never
Counselling OR (95%CI)	35% vs 15% 3.02 (1.78-5.13)				
Inpat. Detox	31% vs 12% 3.23 (1.83-5.73)	41% vs 18% 3.09 (1.91-5.02)			
Outpat. Detox	21% vs 26% 1.25 (0.77-2.05)	41% vs 17% 3.37 (2.07-5.47)	41% vs 16% 3.08 (1.87-5.07)		
Resi rehab	23% vs 14% 2.49 (1.45-4.29)	40% vs 18% 2.98 (1.84-4.84)	49% vs 16% 4.85 (2.94-8.02)	38% vs 20% 2.43 (1.47-4.01)	
Naltrexone	4% vs 6% 0.59 (0.23-1.47)	7% vs 4% 1.96 (0.77-5.00)	8% vs 4% 2.38 (0.93-6.09)	9% vs 3% 3.03 (1.94-7.70)	7% vs 4% 1.91 (0.73-4.99)

5.8 Barriers to treatment

There were 142 (36%) participants who reported having ever tried to seek help to reduce their heroin use but were unable to (barrier to treatment). To determine differences between the two groups a logistic regression was conducted. The variables entered into the equation are given in Table 5.13. The only factor independently associated with experiencing a barrier to treatment was having previously been in treatment (Table 5.13), with those who had previously ever been in treatment being almost three times more likely to report experiencing a barrier to treatment (OR 2.95, 95%CI 1.43, 6.06).

Table 5.13: Characteristics of those who reported ever being unable to get help for heroin use (barrier) using multivariate logistic regression

Characteristic	No. participants	% reported a barrier	Adjusted odds ratio	95% CI	*P*
Age					
≤24	95	31	1.0		
25-29	86	37	1.26	0.65 – 2.44	.492
30-34	86	38	1.34	0.68 – 2.67	.399
35+	116	38	1.48	0.76 – 2.85	.247
Sex					
Males	249	35	1.0		
Females	146	36	1.14	0.70 – 1.86	.609
Country of birth					
Other	85	38	1.0		
Australia	312	35	0.92	0.53 – 1.58	.753
ATSI status					
ATSI	330	30	1.0		
Non-ATSI	69	38	1.50	0.80 – 2.83	.206
SDS score					
<4	21	19	1.0		
≥4	377	37	1.95	0.59 – 6.41	.274
Years of heroin use					
<3	34	3	1.0		
3-5	74	6	0.89	0.35 – 2.23	.796
6+	273	27	0.86	0.37 – 2.01	.722
Previous treatment					
No	66	17	1.0		
Yes	333	39	2.95	1.43 – 6.06	.003
Prison history					
Never	152	32	1.0		
Ever	245	38	1.39	0.85 – 2.28	.187
HCV status					
Negative	164	35	1.0		
Positive	235	36	0.80	0.50 – 1.28	.348

Treatments where participants had last experienced a barrier are shown in Figure 5.20. Barriers were most commonly experienced for MMT and inpatient detoxification. Non-MMT pharmacotherapies included buprenorphine (1 participant), LAAM (1 participant) and naltrexone (5 participants). In addition to outpatient and home detoxification, two participants wanted ultra rapid opioid detoxification, but were unable to obtain it. Other help wanted included medical help for co-morbid conditions (5%) and family support (1%).

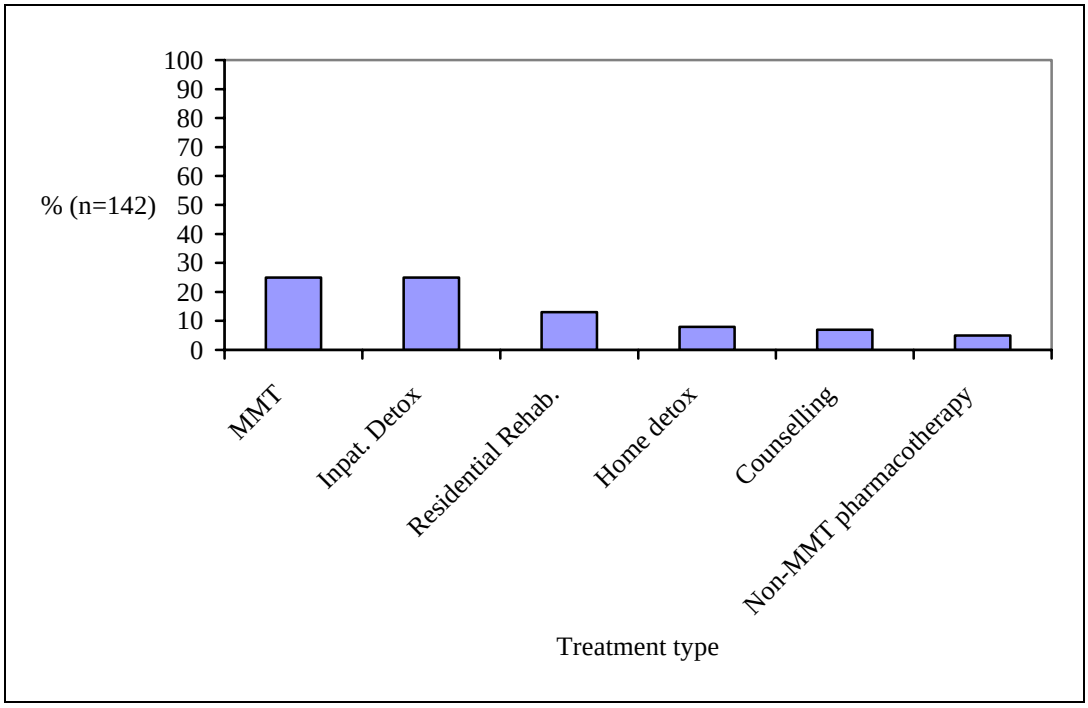

Figure 5.20: Treatment modes to which participants reported experiencing a barrier the last time

The most commonly reported barriers to treatment were unavailability of places (including waiting lists; 55%), entry criteria and eligibility (15%), cost (11%) and support (8%). Only two participants identified travel as a barrier, both of which were to MMT. Barriers to the different modes of treatment are shown in Figure 5.21. Unavailability was significantly more likely to be identified as a barrier for participants wanting inpatient detoxification (OR 5.84, 95%CI: 2.35, 14.52) compared to those wanting other treatments.

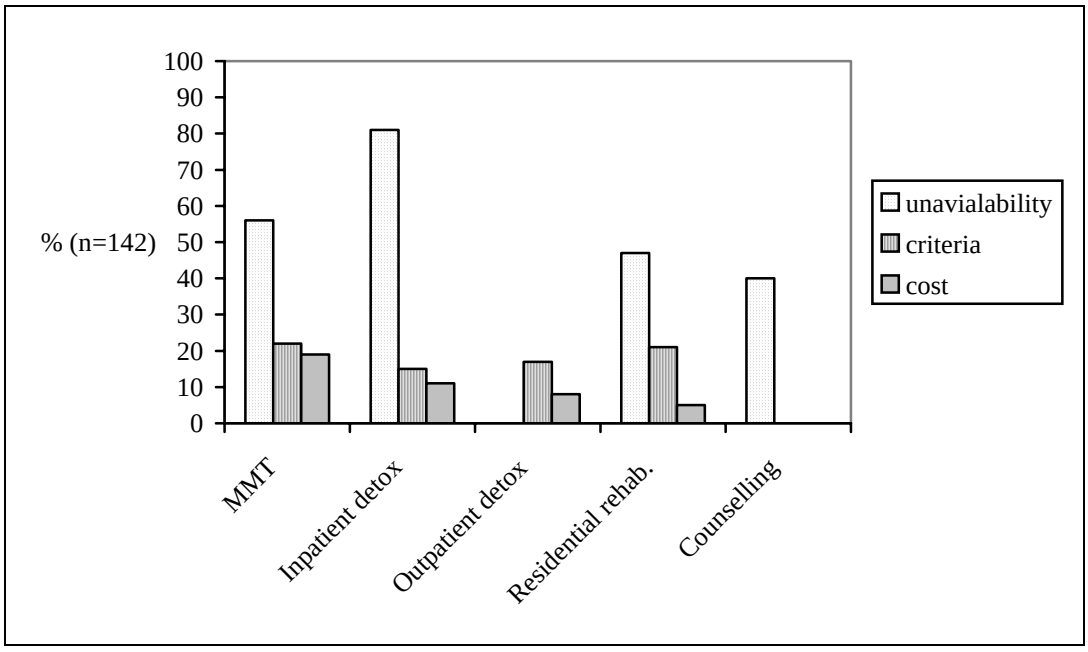

Figure 5.21: Barriers to treatment by treatment type

6. DISCUSSION

6.1 Major findings

The study found that the majority of heroin users interviewed were dependent according to the Severity of Dependence Scale (SDS) using a cut-off of four or more. The majority (88%) of heroin users in the current study reported having tried to stop or to reduce the amount of heroin they used at some time.

Three quarters of the sample had attempted to cease their heroin use without help. The most common method used to achieve this was by completely ceasing heroin use (cold turkey), with 79% having ever used this method. Half the sample had used other drugs to self medicate during their attempt(s) to reduce or cease heroin use. Benzodiazepines were most commonly used for self medication, with 68% of those reporting self medication using these. Moving away from the drug using scene and friends (geographical) was also reported by a large proportion of participants.

The study found that a range of professional services were used by participants to reduce their heroin use, the most common of which was general practioners (GP). Participants in the current study reported that GPs provided a range of services; methadone maintenance treatment (MMT) was the most common type of help provided to the participants by GPs.

The majority of participants had been engaged in a formal treatment program, of which MMT was the most common and naltrexone the least common. A substantial proportion of participants had also been in treatment in the preceding 12 months (70%), with MMT the most common; results were similar even when those currently enrolled in a program were excluded from analysis.

6.2 The sample

Demographically the sample was similar to other NSW studies of IDUs (see for e.g. Rutter et al., 1996), including a sentinel sample of IDUs (Darke et al., 2002). The sample was a marginally older (31 vs 29 years) than a national sample of IDUs attending needle and syringe programs (MacDonald et al., 1997). Aboriginal and Torres Strait Islander people were over-represented compared to the general population (Australian Bureau of Statistics, 1998), though this is similar to other Sydney recruited samples of IDUs (see for e.g. Rutter et al., 1996).

6.3 Reasons for entering and leaving treatment

Participants identified a range of reasons for entering treatment and these were largely consistent across treatment modes. The four most commonly reported reasons for entering treatment were: wanting to cease heroin use, no longer wanting to be part of the heroin using lifestyle, reasons associated with family and financial reasons. The only variation to this pattern was with residential rehabilitation, where legal reasons were more commonly reported than financial reasons. This suggests that heroin users generally enter treatment for similar reasons, irrespective of the treatment mode they choose.

There are two important caveats that need to be considered when interpreting these findings. Firstly, the data were collected retrospectively and participants' responses may

have been influenced by poor recall. For some participants the treatment episodes preceded the interview by many years. Secondly, the responses provided by participants may represent a generic set of reasons why heroin users enter treatment. Although specific events may trigger treatment entry the salience of the event as a trigger may be lost with time, while the broader more generic reasons, which do not change such as wanting a change of lifestyle, remain constant primers.

Treatment goals were similar across the different treatment modes, with the three main goals reported being change of lifestyle, abstinence and stability. The concordance between treatment goal and what was actually achieved by participants was generally low. The proportion of participants who reported attaining their treatment goal was greatest for those receiving MMT, where, with the exception of 'abstinence', 'getting out of the drug scene' and 'control over drug use', goals were achieved in 50 percent or more cases. Treatment goals were least likely to be met for outpatient detoxification and naltrexone; fewer than half the treatment goals nominated attained 50% concordance.

Once again, these results should be interpreted with caution; participants in this study were heroin users (or on MMT) as specified by the inclusion criteria, and therefore those participants who achieved goals may have been less likely to be recruited, especially those who achieved abstinence.

Participants reported various reasons for ceasing treatment. The most commonly reported reason for leaving MMT, outpatient detoxification and residential rehabilitation was because the participant believed that the treatment was not working, though this was reported by relatively small proportions of participants who received the treatments overall (25%, 20% and 16% respectively). A desire to recommence heroin use was the most commonly reported reason for ceasing abstinent based treatments (except residential rehabilitation), though again this group represents only a minority of those participants who received the treatments (naltrexone 26%, outpatient detoxification 20% and inpatient detoxification 19%).

Side effects were identified as a reason for ceasing treatment by more than a fifth of those who had ever been on MMT; suggesting opioid agonists such as buprenorphine could be beneficial to these participants. Only two of the 20 participants who had ever been on naltrexone reported ceasing treatment due to side effects.

6.4 Satisfaction with MMT

Participants who had ever been enrolled in MMT were typically satisfied with the service - more than half reported to be either 'very happy' or 'happy' with the service. Those who were currently in MMT were more likely to report satisfaction than those who were not currently enrolled in a program. However, two-thirds of participants who had ever been in MMT identified at least one problem with one or more aspect of MMT.

Participants born outside Australia were more likely to report problems with MMT than those born in Australia and those who have never been to prison were more likely to have reported a problem with MMT than those who had not. Older participants were also slightly more likely to report having a problem with MMT than younger participants. There were no differences between those reporting a problem with MMT in terms of past or current enrolment in a program, gender, ATSI status or hepatitis C status.

Participants who had ever been enrolled in MMT identified a problem with their prescriber, dispensing or methadone in general. Problems identified with methadone prescribers were with restrictions of takeaway doses; this was more likely to be reported by those currently enrolled in a program. Travel and opening hours were most commonly reported problems in terms of methadone dispensing. Whereas side effects related to methadone were reported by almost a quarter of participants who were either currently or had previously been on MMT. Once again, this highlights the need for more treatment options for those opting for agonist treatment.

6.5 Factors associated with treatment

Factors independently associated with having ever been in treatment were hepatitis C positive status and scoring above four on the SDS. While it is not surprising that those with higher SDS score were more likely to have ever been in treatment, it is unclear why those who believe themselves to be HCV positive are more likely to have ever entered treatment. Being HCV positive was independently associated with all treatment modes except outpatient detoxification and counselling, though counselling approached significance.

A possible explanation for this association is that being diagnosed with HCV is a significant event leading to drug treatment entry. However, few participants identified health related reasons (or indeed HCV specifically) as a reason for treatment entry. Though as discussed above, the milieu of daily drug use may serve as a constant or generic treatment primer while specific or idiosyncratic events, less easily recalled, may serve as the final trigger for treatment entry. Alternatively, it may be associated with receiving treatment for HCV; until recently current injecting drug users were excluded from interferon and combination therapy trials; this policy has since been changed. However, this was not identified as a reason for entering drug treatment by participants in this study.

Although HCV status is self-reported the prevalence is similar to that reported in other studies. The self-reported prevalence of HCV is similar to that reported by MacDonald et al. (2000), who reported a sero-prevalence of between 63% and 50% between 1995 and 1997 among NSP attendees.

The finding that women were more likely to be using counselling services than men is consistent with the 2001 COTSA census. Females in this study were found to be more likely to have ever entered MMT or counselling, independent of other factors, while no differences were found between males and females for the other treatment modes. There are a number of possible explanations for this. Access to drug treatment has been found to be difficult for women with children (Swift & Copeland, 1996). MMT and counselling may be easier services to manage for women with children than inpatient and residential services. Indeed a study of 267 Australian women in drug and alcohol treatment found that childcare considerations were identified as a barrier to help seeking by just over half the sample (Swift & Copeland, 1996).

Swift and Copeland (1996) also found that many of the women endorsed women-only treatment and 10% of the women interviewed who 'dropped out' of treatment previously would have stayed longer if there were fewer male clients. Substance abusing women have also been found to have a high prevalence of sexual abuse (Davis & Wood, 1999),

which may result in treatment modes which require minimal interaction with other clients being more desirable for women.

Ethnicity was another important factor associated with some treatment modes. Indigenous people were less likely to have ever been in a detoxification program (in or out patient) and less likely to have ever been in residential rehabilitation compared to other participants. The 2001 COTSA census found that Indigenous people were less likely to be in treatment with an opiate problem than others in the census (Shand & Mattick, 2002a). However, this study found no differences between the two groups in terms of MMT and counselling histories. One possible reason for this is that inpatient services may not be suitable for Indigenous clients, except for those that are culturally specific (Brady, 2000). Nevertheless, there is currently little known about Indigenous injecting drug use and opiate dependence, though given the proportion of Indigenous heroin users in this study, this finding clearly warrants further investigation.

Participants born in Australia were significantly more likely to have been in counselling compared to those born elsewhere and the figure approached significance for MMT. A notable minority (27%) of those born outside Australia were from South East Asia. Swift et al. (1999) found that Caucasian heroin users from South West Sydney were more likely to have previously been in treatment than a similar group Indochinese heroin users from the same area, which may partially explain these differences.

6.6 Barriers to treatment

Barriers to treatment were common, with a third of the sample reporting ever experiencing a barrier to treatment. It is perhaps not surprising that those who had previously been in treatment were more likely to report having experienced a barrier to treatment, as they are more likely to have attempted to seek treatment.

MMT and inpatient detoxification were the most commonly reported services with which participants had experienced barriers. The most common barriers experienced were regarding availability of placements, eligibility criteria. Cost was identified as a barrier by only a small proportion of participants (11%). The key barrier identified - availability of placements is amenable to change with appropriate treatment service planning and increased funding.

A number of inpatient beds have been closed and the number of methadone places has expanded following the 1999 NSW Drug Summit (New South Wales Government, 1999).One of the flaws with the data presented here is that it recorded lifetime experience of barriers to treatment, so it is not possible to determine from the available data whether these barriers were experienced recently or some years previous. It is difficult to determine to what degree the barriers identified in this study require further consideration.

6.7 Conclusion

These data suggest that heroin users seek help to reduce their heroin use from a variety of sources, both professional and otherwise. The data suggest that treatment is sought for similar reasons across the various treatment modes and that these may constitute a 'generic' set of reasons for treatment seeking. However, the factors independently associated with each of the treatment modes suggest some differences in terms of those

who utilise treatments. Finally, these data have suggested that a substantial minority of heroin users experience barriers to treatment at some time, many of which can be overcome through improved treatment service planning.

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