

NEW ZEALAND

**ADDICTION TREATMENT
RESEARCH MONOGRAPH**

2005

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Dr Simon Adamson
Monograph Editor

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INTRODUCTION

Welcome to this, the fifth edition of the New Zealand Addiction Treatment Research Monograph. This monograph contains summaries of 18 research presentations from the 2005 Cutting Edge Conference, held in Dunedin, 8-10 September 2005, and is published jointly by the Addiction Treatment Research Interest Group (ATRIG), and the National Addiction Centre.

It should be noted however that in one respect this is in fact the first research monograph, as this year heralds a change in name of the incorporated society producing this monograph. The Treatment Research Interest Group, (Alcohol, Drugs, and Addiction) (TRIG) is now the Addiction Treatment Research Interest Group (ATRIG). The monograph has changed its name to align with this.

Two prizes for research presentations are awarded annually at Cutting Edge conferences. These are the John O'Hagan prize for the best research presentation by someone aged under 35 and the John Dobson Memorial Foundation prize for the best opioid presentation.

This year the John O'Hagan prize was awarded to Meg Harvey who presented her PhD work on cannabis and cognition in young people. This work, which is summarised in this monograph, represents years of perseverance by Meg to recruit, interview and follow-up a difficult population. The John Dobson Memorial Foundation prize went to David Mellor, while David Gilmour's research warranted an honourable mention. The topics of both David Mellor's (interim methadone prescribing) and David Gilmour's (benzodiazepine use by methadone maintenance patients) research are of great clinical relevance, with interim methadone prescribing being a development that appears to be growing nationally. That such clinical innovation is accompanied by active interest in evaluation of outcomes by participating clinicians is heartening. It is likely that the findings of David's research, and similar research undertaken in Christchurch and Whangarei, will be an important contributor to the likelihood of further development in this area.

Of note in this year's monograph is the fact that David Mellor's research is one of five submissions to report on treatment outcome, drawn from five independent outcome studies. These cover a range of populations: women (Cate Kearney), methadone (David Mellor), gambling (Dominic Lim), youth nicotine (Karen de Zwart) and alcohol/cannabis (Michael Baker). This is the largest number of outcome studies to appear in the monograph series to date and is a welcomed development. Also worth recognition is the diversity of authors, with the monograph containing research undertaken by academics, PhD and Masters students, full-time clinicians, managers, consumer advisors and clinically-based researchers. This range of contributors is a positive reflection of both the human capital distributed across our sector and the value placed on research.

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A 2004 PROFILE OF THE ALCOHOL AND DRUG TREATMENT POPULATION IN NEW ZEALAND

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In 1998 the National Addiction Centre undertook a national survey of the alcohol and other drug treatment workforce. This survey revealed for the first time the profile of AOD clients across New Zealand in a representative fashion (1). Since that time patterns of substance use have changed, with a marked increase in the use of amphetamine-type stimulants (2), and the reduction of the minimum legal alcohol purchase age. Furthermore, the health system has undergone substantial restructuring, and the AOD workforce has evolved (3). As part of the establishment of Matua Raki, the National Addiction Treatment Sector Workforce Development Programme, the NAC repeated the 1998 national survey, with data collection again including details of recent client contacts.

Methods

Dedicated Alcohol and Drug Treatment Workers (ADTWs) were defined as paid staff (full-time or part-time) undertaking therapeutic work with people who have alcohol and drug problems and in addition these staff must spend at least 70% of their clinical time working with people with alcohol and drug problems. ADTWs were randomly selected from a list of approximately 800 ADTWs. Identified ADTWs were phoned by a clinical psychology student who had their first name, initial of last name, and workplace details only.

The intention for the 2004 survey was to interview a total of 275 ADTWs. In total 410 names were randomly selected from the full list to be contacted for interview.

All alcohol and drug treatment workers taking part in the survey were first asked a number of questions relating to the most recent client they had assessed in the two weeks preceding their interview, and then for the most recent client they had seen for a follow-up session during the same period. Workers were also asked a range of questions relating the type and location of the service in which they were employed. Data are also presented from the 1998 survey results (1). Given the large number of comparisons made only differences with a p value of less than 0.01 are reported.

Results

Of the 410 names selected for contact, 85 proved to be ineligible (37 were not clinical staff or were unknown to the service, 36 had departed, one was deceased, and 11 were duplicate names). Of the remaining 325 a total of 288 were interviewed, a recruitment rate of 89%. Of the remainder, 19 refused to participate and 18 were not successfully recruited despite being confirmed as currently working clinically at the identified service – as a result of always being busy/unavailable at the times they were called. The recruitment rate for the 1998 survey was 97%.

There were 161 ADTWs who reported conducting an initial assessment in the 10 working days prior to the interview, and 221 who had conducted an individual follow-up session of a different client. Overall findings are summarised in Table 1.

Table 1: Characteristics of clients seen for treatment at dedicated alcohol and drug treatment services and location where seen in New Zealand, comparison of 1998 and 2004, and of assessment and follow-up clients (2004 only)

Variable	1998	2004		
	Total (n=291)	Total (n=383)	Assessment (n=161)	Follow-up (n=221)
<u>Age in years:</u>				
Mean (SD)	30.8 (10.1)	33.7 (11.1)**	31.9 (10.8)	35.1 (11.2)*
<u>Gender (male)</u>				
	58.8%	64.5%	72.3%	58.8%*
<u>Ethnicity</u>				
NZ Māori	27.3%	32.4%	42.9%	24.8%**
Caucasian	69.6%	60.8%*	49.7%	68.9%**
Pacific Islander	2.9%	5.3%	6.2%	5.0%
Asian	0%	0.5%	0.6%	0.5%
Other	0.3%	0.9%	0.6%	1.9%
<u>Main Substance</u>				
Alcohol Only	27.1%	27.1%	27.3%	27.3%
Mainly Alcohol	18.7%	20.2%	23.0%	18.2%
Alcohol & Cannabis	10.9%	9.5%	13.0%	6.8%
Mainly Cannabis	15.7%	14.3%	16.8%	12.7%
Mainly Opioids	17.1%	14.8%	7.5%	20.0%**
Mainly Amphetamines	0.3%	9.7%**	8.1%	10.9%
Mainly Benzodiazepines	6.0%	2.0%*	1.9%	1.8%
Other	4.3%	2.3%	2.5%	2.3%
<u>Setting</u>				
North Island	74.0%	72.0%	71.0%	72.9%
One of 5 Main Cities	64.6%	61.5%	57.1%	64.7%
District Health Board	60.4% ¹	71.8%*	67.9%	74.7%
Residential	28.0%	19.3% ^{1*}	17.4%	20.7% ¹
Detoxification	4.8%	6.5% ²	6.8%	6.3% ¹
Post-Detoxification	22.4%	13.4% ^{1*}	10.6%	14.4%
Kaupapa Māori service	-	16.4%	19.9%	14.0%

¹ Services were known as Crown Health Enterprises in 1998

² Includes two clients seen at services described as both

*p<.01, **p<.001

The five variables significantly distinguishing assessment and follow-up clients were entered into a forward conditional binary logistic regression. The three variables retained in the model were Caucasian ethnicity (Wald = 10.54, $p=.001$), opioid use as main drug (Wald = 7.52, $p=.008$), and gender (Wald = 5.96, $p=.015$).

Discussion

The client profile presented in the current data is broadly similar to the 1998 data. Alcohol remains the primary substance of misuse, the mean age remains early thirties, males predominate, and Māori are disproportionately represented. Services are primarily government-funded, outpatient and urban-based.

Despite these similarities a number of clear changes have occurred over the six years between the two surveys. The increased age of the sample may in part reflect a broader demographic shift, with the New Zealand population as a whole aging (4). The reduction in Caucasian clients may also reflect a broader demographic shift, with (non-significant) increases observed for all other ethnicity categories.

The dramatic increase in amphetamine-type stimulants as the main substance of misuse is not surprising given the much publicised rise in use of these substances amongst the wider community.

The setting in which clients were seen has also changed, with an increase in the proportion of DHB services and a decrease in post-detoxification residential treatment. The latter reflects the closure of a number of residential services in the past few years and an increasing focus on the funding of outpatient, methadone, and detoxification services at the expense of post-detoxification residential treatment. The reduction in non-DHB services was also a reflection of this same change, with all of the reduction in non-DHB clients occurring amongst residential clients.

The 2004 data was further analysed to explore differences between clients undergoing assessments, and those retained in follow-up treatment. This showed that clients attending follow-up were typically older, less likely to be male or Māori, and more likely to be opioid users. The higher number of opioid users in the follow-up sample is easily interpreted as a reflection of the long-term nature of opioid substitution treatment, while age appears to have been a consequence of its association with these other factors, since it was no longer significant in a regression analysis. Understanding the role of gender and ethnicity in the assessment-to-follow-up ratio is not so straightforward.

Broadly speaking, a reduced rate of a given group in the follow-up sample may be due either to failure to retain these clients in treatment, or due to planned treatment of a shorter duration. The largest difference between assessment and follow-up samples is for Māori/Caucasian. The current findings are not able to distinguish between these alternative explanations. Clearly one possibility is that our services are less able to retain Māori clients and male clients. Failure to retain male clients may reflect similar issues to those which lead to a lower rate of treatment-seeking amongst males with substance use problems (5). Such assertions are speculative, however, as the current data do not provide information as to the referral source, treatment needs, treatment plans, or actual reason for treatment termination of different client groups.

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THE OUTCOME OF 90 ALCOHOL AND/OR CANNABIS DEPENDENT CLIENTS FOLLOWING INTENSIVE RESIDENTIAL TREATMENT IN CANTERBURY

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Introduction

Intensive residential treatment was once the norm in the treatment of alcohol and drug dependence in New Zealand. Many such treatments were based upon a format that developed in the USA commonly termed the "Minnesota model". This approach typically used a multidisciplinary team of professionals that included recovering alcoholics and addicts as therapists, presented a programme comprised of lectures, groups and counselling, promoting a 12-step philosophy as well as the attendance of 12-step groups both during treatment and as aftercare. The primary goal of treatment was sobriety or abstinence. At the time of this study, there were 21 intensive residential A&D programmes for adults in NZ, of which 17 incorporated the 12-step philosophy into their treatment (ADA, 2002).

Part of a wider investigation into the influence of spirituality in traditional residential treatment (Baker, Sellman & Horn, in press), this report summarises the outcomes of 90 clients from three Canterbury treatment centres (Hanmer, Taha Māori and Christchurch Bridge) who went through intensive A&D treatment from May 2000 to March 2001.

Methods

The inclusion criteria for this study were to: (i) have a primary diagnosis of alcohol or cannabis dependence (DSM-IV), (ii) live within two hours drive from Christchurch, and (iii) be able to provide the name of someone who could be contacted and know the whereabouts of the participant if they had moved at follow-up. One hundred and seven clients meeting the selection criteria were consecutively approached in the first week of treatment. Ninety clients were recruited as follows: Bridge 38; Hanmer 22; and Taha Māori 30. This resulted in an 84% acceptance rate.

Participants were first interviewed within 10 days of starting treatment, using a structured survey covering: demographics (gender, age, ethnicity, relationship status and employment status, religious affiliation, and prior treatment), Leeds Dependence Questionnaire (LDQ), the first 3 items of the AUDIT and CUDIT, the Physical Component Score (PCS) and Mental Component Score (MCS) of the SF-12 Health Survey, Beck Depression Inventory (BDI), 12-step group affiliation and 12-step meeting attendance.

Participants were recontacted 6 months later for follow-up involving a related set of questions. By January 2002, 75 participants had been successfully followed up (83% follow-up rate). Twenty seven were interviewed, while 48 responded by post.

Results

The sample was 37% female, and the mean age was 36 years. The sample was comprised of 58% Pakeha, 37% Māori and 5% of other Pacific peoples. Forty eight percent of the participants were single, 31% were separated or divorced, 18% were full-time parents, and 55% were welfare beneficiaries. In the sample 35% had completed three or more years of secondary schooling, and 61% professed no religious affiliation. Ninety three percent of the participants had a current DSM-IV diagnosis of Alcohol Dependence, 63% Cannabis Dependence, 59% had diagnoses of Major Depressive Disorder, 28% had an anxiety disorder and 23% had a psychiatric disorder of another type; and 31% had had prior residential A&D treatment.

Fifty seven participants (63%) successfully completed treatment. Table 1 shows changes in various measures of outcome for all 75 participants completing the follow-up interview. There were significant improvements at follow-up with respect to measures of dependency (LDQ), alcohol and cannabis use (AUDIT and CUDIT), and depression (BDI). Mean component scores of the SF-12 Health Survey did not improve. At follow-up there was a significant increase in the rate of abstinence from alcohol and cannabis. Of those who were followed-up, 22 participants (29.3%) were completely abstinent from alcohol and cannabis.

Table 1: Changes in Outcome Measures in a Clinical Sample (n=75)

Measure	Baseline		Follow-up (6 mth)	
	Mean	(SD)	Mean	(SD)
LDQ alcohol	16.5	(9.8)	7.2	(8.6)***
LDQ cannabis	7.0	(8.4)	3.5	(5.9)***
LDQ combined	16.8	(7.8)	7.4	(7.8)***
AUDIT ^a	8.9	(3.6)	4.5	(4.4)***
CUDIT ^a	4.6	(4.9)	2.2	(3.4)***
BDI	10.8	(7.6)	6.1	(5.7)***
SF-12 physical	42.4	(7.2)	39.4	(5.5)*
SF-12 mental	42.9	(6.0)	42.1	(6.1)
Abstinence alcohol	6.7%		36.0%***	
Abstinence cannabis	40.0%		60.0%***	
Abstinence alcohol & cannabis	4.0%		29.3%***	
12-step membership	42.7%		37.3%	
12-step attendance ^b	5.6	(6.1)	4.6	(7.7)

*p<.05, ***p<.001

^a Total score of first three items

^b Attendance in past month

Table 2 shows a comparison of dependency, depression and 12-step attendance with respect to abstinence from alcohol and cannabis at follow-up, as well as variables that were predictors of abstinence.

Table 2: A Comparison of Outcomes and Predictors of Abstinent and Non-abstinent Participants at Follow-up

Measure	Abstinent (n=22)		Non-abstinent (n=53)	
<u>LDQ Combined</u>				
Baseline	15.0	(8.6)	17.5	(7.4)
Follow-up	1.6	(1.7)	9.8	(8.1)***
BDI				
Baseline	11.4	(8.8)	10.6	(7.1)
Follow-up	3.4	(4.1)	7.3	(6.0)**
<u>12-step Attendance^a</u>				
Baseline	7.6	(8.1)	4.7	(4.8)
Follow-up	9.8	(10.0)	2.5	(5.4)***
<u>Predictors of Abstinence</u>				
12-step Membership (Baseline)	63.6%		34.0%*	
Age (yrs)	41.2	(11.0)	35.6	(10.3)*
Prior Convictions	36.4%		83.0%***	
Prior Treatment	13.6%		41.5%*	

*p<.05, **p<.01, ***p<.001

^aAttendance in past month

While there was a general reduction in symptoms of dependence and depression, participants who were abstinent at follow-up showed significantly larger improvements. Abstinent participants tended to attend more 12-step meetings than those who were non-abstinent, and 12-step membership at baseline was a moderate predictor of abstinence at follow-up. Other predictors of abstinence were older age, fewer prior convictions, and less experience of prior treatment.

Conclusions

This study contributes to understanding the effectiveness of intensive residential treatment in New Zealand. There was a general reduction in alcohol and drug use, and symptoms of dependence and depression. Abstinence tended to be related to those who both considered themselves members of 12-step groups, and who attended more 12-step meetings. There was a high level of 12-step membership at the beginning of treatment, and this was not primarily due to prior treatment experience. Those who were least successful (i.e., did not achieve abstinence) tended to be younger and more antisocial. Interestingly, health as measured by the SF-12 showed no improvement over six months, which may indicate that stopping or reducing alcohol and drug use is only a start, and that recovery needs to be viewed over a longer time-frame.

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NALTREXONE - FROM HERE TO WHERE? A CLINICAL AUDIT OF NALTREXONE PRESCRIBING SINCE PHARMAC FUNDING IN JUNE 2003

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Introduction

In the past two decades, pharmacological approaches to the treatment of alcohol dependence have increased. Numerous research studies show varying efficacy. Following recent funding by Pharmac for Naltrexone, an opioid antagonist, effective in the management of alcohol dependence, Wellington CADS carried out a clinical audit of uptake and apparent efficacy in its first year. Funding began in June 04 under 'subsidy by special authority', listed as a 'treatment of alcohol dependence within a comprehensive treatment programme' with 'prescribing to be initiated by a specialist in alcohol and drug dependence management'.

Method

All referrals to the CADS' 'specialist doctors' for naltrexone were assessed for suitability and safety. Clients were provided with information on efficacy and side effects and advised on the value of compliance and engagement in therapeutic treatment. The doctor (or referring clinician, if within CADS) took basic demographic and diagnostic information, including AOD history. Outcome data was gathered at three weeks – to assess early outcomes; at three months – the time of doctor follow-up for a repeat application and prescription and at six months – the completion of the subsidised period of pharmacotherapy. Information gathered was on clients' and clinicians' perceptions of usefulness. Of note, no quantitative information (such as time to relapse, days drinking or drinks per drinking day) were systematically gathered.

Findings

The CADS medical specialist received 56 referrals for naltrexone prescribing from June 2004 to May 2005. Forty-four of these were in the first six months – 17 of which were in June and just one in the final month. They were 55% female, spread across the age range and were predominantly New Zealand European (2 Māori; 5 'other', 18 not specified). Fifty percent were received from within CADS, 34% from GPs, 11% from medical wards and 5% from Mental Health Teams.

Three distinct study groups were identified: those who never started naltrexone (n=12-21%); those who discontinued their prescribing regime/treatment (n=30-54%) and those who completed six months of continuous/repeat naltrexone treatment (n=14-25%). Study group comparisons, notably gender, referral source, Axis 1 diagnosis, adverse effects and engagement in therapeutic treatment are shown in Table 1.

Table 1: Study Group Comparisons

	Group 1 - never started n=12 (21%)	Group 2 - discontinued n=30 (54%)	Group 3 - 6 mth continuous prescribing n=14 (25%)
Female	7 (58%)	14 (47%)	11 (79%)
Referral Source			
GP	6 (50%)	12 (40%)	1 (7%)
CADS	3 (25%)	13 (43%)	12 (86%)
Medical Ward	3 (25%)	3 (10%)	0 (0%)
Mental Health Team	0 (0%)	2 (7%)	1 (7%)
Diagnosis			
Alcohol Dependence	10 (83%)	30 (100%)	14 (100%)
Other Mental Health Disorder	6 (54%)	24 (80%)	14 (100%)
Engaged in therapeutic tx			
Actively	8 (67%)	20 (66%)	13 (93%)
Referred on for therapy	0 (0%)	4 (13%)	1 (7%)
Nil identified	4 (33%)	6 (20%)	0 (0%)
Adverse effects	n/a	9 (30%)	0 (0%)

Of the 12 clients in study group 1 (those who never started), two chose not to be prescribed following the first Naltrexone assessment; ten did not start the medication following prescribing. Reasons cited included 'just not getting round to it' (3), 'deciding not to' (3), not returning for appointment/prescribing (3) and 'managing without' (1).

Of the 30 clients in study group 2 (those who discontinued their prescribing regime), n=4 (13%) did so within the first three weeks, n=15 (50%) discontinued between three months and six months. Adverse events (predominantly nausea) were reported in n=9 (30%) of these cases and were often cited as a reason for discontinuing. Compliance was questionable and was often reported as being poor at the time of discontinuation. Efficacy was reported as being good in 20 (67%) of these cases at three weeks (particularly in relation to reduced alcohol craving and use), but only reported as being good in 9 (30%) of these cases at three months.

Of the 14 clients in study group 3 (those who completed six months of continuous/repeat naltrexone treatment), no adverse effects were reported. Compliance was specifically reported as being 'good' in 9 (64%) of these cases at week three, 'intermittent' in 6 (43%) of these cases at three months and 'prn' in 6 (43%) of these cases at six months.

Discussion/Conclusions

This clinical audit on uptake and efficacy of Naltrexone raises a number of issues.

Demographic and diagnostic issues: Women did considerably better than men in terms of ongoing treatment compliance and reported efficacy. This suggests better engagement in services and commitment to change more generally, than gender specific medication efficacy. Approximately one third of those in the 20's, 40's and

50's each completed treatment. Although research suggests that older adults have better compliance and attendance rates, this audit suggests that efficacy certainly cannot be ruled out for the younger client group. Research to date of naltrexone use among clients with 'other' Axis 1 mental health disorders is limited. Forty-four (78%) of these clients had another Axis 1 mental health disorder and 100% of those who completed six months of naltrexone prescribing. This suggests that Axis 1 mental health disorders do not exclude naltrexone use or efficacy.

Referral Source: There was, generally, a poor uptake by health professionals in the Wellington area in accessing this approach to alcohol treatment. Many of the 56 referrals came from within CADS. No referrals were received from Wellington's other AOD agencies. Many of the GP referrals (50%) did not even start treatment. (It is worthy to note though that a further 32 patients were initiated onto naltrexone by Wellington's two other AOD medical specialists of which 4 (13%) were from GPs, 12 (38%) from NGOs and 16 (50%) from detox/medical wards). This raises questions about knowledge of pharmacotherapies as an adjunct to alcohol treatment, accessibility of AOD medical specialists, the referral/engagement process for GP and NGO clients, as well as the potential of GP prescribing and PHO supportive therapy and ongoing support after referral.

Adverse effects/Compliance/Dosing/Expectations: Research suggests that adverse effects are reported in 2-5% of cases. However, our clinical audit reports adverse effects in 9 (20%) of those who took the medication, all of who discontinued treatment and frequently within the first few weeks. Further consideration may be required in early dosing, initiating clients at 25mg rather than a standard 50mg, to try to alleviate these adverse effects, particularly as an adverse effect early on is highly likely to adversely effect ongoing compliance and thus possible efficacy. Conversely higher dosing may be considered in those that adhere to the prescribing regime but frequently relapse. Intra-muscular dosing may also be a consideration for the future. Of note, was the apparent efficacy of self controlled prn dosing in high risk or high desire to drink situations (distinguishable from intermittent use).

There can be little hope of efficacy without some level of compliance. What is not clear is whether those who comply would get better anyway, whether medication compliance facilitates therapy, or whether therapy facilitates adherence to medication regime. It remains unclear whether therapy needs to be psychotherapeutic in nature or merely supportive of compliance, which raises further issues of the role of counsellors and who can best facilitate this. This issue of expectations is also important. Measures in clinical studies and to some extent in our clinical audit were often based on abstinence. Naltrexone, however, shows greatest efficacy in reduction of craving and pleasurable effects of drinking.

Naltrexone is not considered to be a uniformly effective treatment to all patients and it cannot expect to be with the complexities of actions of ethanol and patient heterogeneity. However, on individual levels, with careful prescribing and support, it should be trialled as an adjunctive pharmacological treatment.

DEVELOPMENT AND TESTING OF THE SUBSTANCES AND CHOICES SCALE: RESULTS FROM STAGE 1 (DEVELOPMENT STAGE)

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Introduction

Although alcohol and other drug (AOD) problems are a significant health issue for young people in New Zealand (1), treatment services meet their needs poorly (2). One way to improve the delivery of substance use treatment is via the use of screening and outcome measurement instruments (3). Regular use of such instruments is likely to raise awareness of substance use problems and increase the focus on AOD interventions.(4). A number of AOD instruments have been designed for use in adolescent populations, however, these are mostly unsuitable for reasons such as length, cost and content. Our project involves developing a new and better adolescent AOD screening and outcome measurement instrument, which will be free-of-charge and readily available for use by services around New Zealand, Australia and the world. This instrument, the Substances and Choices Scale (or SACS) will be a self completed, youth-appropriate, reliable and valid questionnaire that will have a similar format to the Strengths and Difficulties Questionnaire (SDQ) (5) with the intention that they are used together. Together the SDQ and the SACS will assist in identifying young people at risk and assessing their needs at first presentation in order to determine best treatment options. Most importantly the combination of tools will measure outcomes as these young people progress through the treatment process.

Method

A literature review was undertaken to inform the design of the items for the SACS. Thirty items were created in the format of the SDQ and assembled in a preliminary questionnaire. Consultation around these items was undertaken via email with youth workers in the mental health, youth health and substance use treatment field. Consultation was also undertaken with seven young people (including Māori and Pacific Nation youth) attending substance use services via a researcher-administered questionnaire, which assessed the understandability, acceptability and face validity of each items. A similar process was also undertaken with a focus group of seven young people not in treatment. Following this the questionnaire was further modified and some items removed. The new modified instrument was then piloted in a community and clinical population (total sample 61) and an item analysis (using discriminant analysis) of their responses was carried out. Final adjustments to the questionnaire were made using these results.

Results

Throughout the consultation process, feedback about the SACS (the individual items and the instrument as a whole) overwhelmingly confirmed its general acceptability and relevance. Feedback from young people included that completing the questionnaire made them think more deeply about their substance use. The pilot testing showed that the individual SACS items correlated highly with the total score giving predictions with accuracies ranging from 59% to 80%. Correlation between the total scores of the SACS and an established youth instrument the CRAFFT was high (0.8).

Conclusions

The SACS appears to be highly acceptable and relevant to New Zealand clinicians and young people. The individual items in the SACS discriminate well and preliminary testing suggests that SACS will be valid. The development of the SACS is complete and Stage two of the project (validity and reliability testing of the final version of the SACS) will now go ahead.

Our vision is that the SACS will become an integral part of youth AOD and mental health service delivery. Its routine use will raise awareness of substance use problems in services and in the community and improve the delivery of AOD services to youth. In the future it may be used in other parts of the health sector and community including primary health care services and schools.

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NURSING IN ALCOHOL AND DRUG SERVICES: PRESENT AND FUTURE

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The provision of alcohol and drug treatment in New Zealand, as in other western countries, continues to be shaped by socio-political and economic influences on the broader health care system (1). Recent changes in New Zealand have been the positioning of Addiction services within the Mental Health Sector and an increased emphasis on greater integration of primary and secondary health care services and of health and other social service sectors (2). The goal of greater integration of service provision within the health care sector and with other sectors is to more effectively meet the health-related needs of people with mental illness and addiction. In addition, the Health Professional Competency Assurance (HPCA) Act of 2003 requires health professionals to have a defined scope of practice based on undergraduate preparation and registration and to meet competency requirements for ongoing registration. Alongside the introduction of competency-based practice has been an increased emphasis on clinical career pathways to encourage health professionals to remain in clinical practice. For nurses, the introduction of the credentialed Nurse Practitioner role, an advanced practice role, extends the clinical career opportunities available to nurses. The inclusion of prescribing rights for approved Nurse Practitioners within a defined scope of practice expands the role of nursing (3). The primary aims of introducing the Nurse Practitioner role in New Zealand were to increase access to health care and to improve health outcomes (4, 5).

In 2004, the National Addiction Centre conducted a telephone survey of a representative sample of alcohol and drug workers in New Zealand (n=288) (6). Of those surveyed, 16% identified as nurses, comprising the largest professional group, next to counsellors. Interviewers asked these nurses whether they would be willing to participate in a more in-depth follow-up interview.

The aims of this study were:

1. To describe the role of nurses working in alcohol and drug treatment services
2. To obtain nurses' views on future roles, including that of Nurse Practitioner
3. To identify barriers to working in the alcohol and drug treatment field and to undertaking post-graduate study.

This report presents survey results on the nurse participants views regarding the present and future roles of nursing in the provision of alcohol and other drug treatment, including that of Nurse Practitioner.

Methods

A researcher with a nursing background conducted the telephone interviews of approximately 30-40 minutes. Interviews were conducted between November 2004 and March 2005. Forty-two nurses who consented to the follow-up interview participated (two declined, one was unavailable on a number of occasions due to work pressures and two were from other disciplines). Participating nurses were assured of confidentiality and anonymity in results.

Results

The nurses surveyed had spent a median of seven years (range 0.1-35) working in the alcohol and drug field. Seventy-six percent were employed in a designated nursing position and 71% were working in an organisation that had, or was establishing, a clinical career pathway. Eighty-one percent were registered comprehensive or psychiatric nurses, reflecting the position of addiction treatment within the Mental Health Sector. Forty-five percent had a post-graduate qualification.

Responses to being asked "What interested you in working in the alcohol and drug field?" included:

- "I like the clients"
- "Interested in the different"
- "Fell into it and enjoyed it"
- "Personal experience"
- "Liked and respected the staff...way of working".

In their present role, nurses typically conducted or participated in initial assessments with clients presenting for treatment (79%), worked with individual clients (88%) and to a lesser extent with significant others/whanau (40%), or were involved in group work (26%). Thirty-three percent were involved in providing consultation/liaison. In terms of estimated competence, nurses felt most competent in screening/brief assessment, mental health assessment, brief interventions, managing emergencies, managing pharmacotherapy and clinical case management. Areas in which nurses felt relatively less competent were health promotion/education including pre-post HIV/hepatitis counselling, smoking reduction/cessation and physical health assessment.

Nurses identified the following skills that nursing brings to the addiction treatment workforce:

- Education on alcohol and drug related issues
- Assessment and therapeutic skills along the continuum from misuse to severe dependence
- Risk and crisis management
- Clinical case management
- Pharmacotherapy management
- Working with families and service users
- Working with clients/tangata whaiora with co-existing disorders

Nurses identified future roles for nursing in alcohol and other drug/addiction treatment in a number of areas. These included: 1) clinical leadership roles and leadership roles in service management and service development and in education/professional development; 2) developing and diversifying clinical and therapeutic nursing roles within a range of settings and across settings; 3) the opportunity for more autonomous nursing roles and; 4) providing advocacy and a voice for addiction services and for people with alcohol and drug related problems.

Specifically in relation to the Nurse Practitioner role, nurses considered that this role would benefit clients/tangata whaiora in the following ways:

- Improve access to treatment
- Improve continuity, co-ordination and consistency of care
- Improve quality of care and outcomes
- Increase choice
- More holistic/comprehensive treatment
- Add value with prescribing rights.

Conclusions

These results highlighted that the nurses surveyed enjoyed working in alcohol and drug treatment services and identified that they were involved in a range of therapeutic activities, demonstrating the breadth of nursing skills. Interestingly, perhaps reflecting the mental health context of addiction treatment in New Zealand, as a group the nurses surveyed felt relatively less competent in providing health promotion and in conducting physical health assessments, suggesting an area for professional development. In terms of the future, nurses indicated leadership roles for nursing across clinical and service management and development domains and in advocacy.

The views of these New Zealand nurses on the perceived benefits to clients of the introduction of the Nurse Practitioner role reflected those identified in an Australian survey of nurses and health professional peers, including medical officers, psychologists and social workers (7). Both groups surveyed considered that the Nurse Practitioner role can enhance existing services or provide services where they currently don't exist. Supporting the rationale for establishing this role i.e., increasing access and improving quality of care and health outcomes (5, 4). Finally, nurses emphasised that nursing skills are broader than counselling skills and that both clinical nursing skills and psycho-social therapeutic skills should remain core components of the nursing role in the provision of alcohol and drug treatment.

The results from this survey provided background information for the Matua Raki: Addiction Treatment Sector Workforce Development Programme 2005-15 Advanced Nursing Project (8).

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THE NATURAL HISTORY OF NICOTINE DEPENDENCE IN A YOUTH CLINICAL SAMPLE – A FOUR YEAR FOLLOW-UP

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Background

International smoking prevalence rates among adult patients with mental health problems (55-90%) are considerably higher than among the general population (30%). While daily smoking in the wider community of 14-19 year olds in New Zealand is estimated to be in the region of 11-20%, the specific rate of smoking in adolescent mental health populations has not been well identified. There are important clinical implications of neglecting regular tobacco use in adolescents with psychiatric problems. Smoking can decrease anxiety symptoms and cause tremor, and abstaining from smoking can initiate anxiety, insomnia, difficulty concentrating and decreased tremor (1). Smoking can also influence treatment outcomes by diminishing the therapeutic effects and exacerbating the side-effects of some psychoactive drugs (1). Additionally, by not identifying the smoking status of patients, a vital opportunity to administer effective cessation interventions is lost (1, 2) and a good entry point for discussing other drug use issues is missed.

Objective

The findings reported here represent part one of a study investigating the natural history of tobacco smoking and nicotine dependence in adolescents presenting for mental health treatment. In order to do this, two key questions were explored:

1. What is the prevalence of nicotine dependence at baseline (1998) and four years later (2002/2003) of a clinical sample of adolescents?
2. How does this pattern change over a four year period?

Method

Baseline face to face interviews were conducted with 93 patients (13-18 years) who underwent an intake assessment at the Youth Specialty Service (YSS), an adolescent outpatient mental health service in Christchurch, New Zealand in 1998. A 14-item questionnaire was administered to ascertain past and present smoking status in a cascading fashion. Smokers were defined as those who had smoked at least five cigarettes a day for at least one month in their lives and had smoked at least one cigarette in the seven days prior to interview. Non-smokers were those who had not reached this threshold in either case. The purpose of this definition was to develop a proxy measure of nicotine dependence by identifying a group who had engaged in a period of regular smoking at some point in their lives, who were continuing to smoke, as opposed to those who had either never smoked at all or who had tried

smoking and had not continued. Additional information was gathered from each patient's clinical file to determine a range of clinical and demographic data. All participants consented to recontact for follow-up interviews. Fifty-nine subjects (17-23 years) were successfully contacted four years later (2002/2003) with the follow-up rate being 65%. At follow-up a comprehensive questionnaire taking on average 90 minutes to administer explored current and past smoking status, sociodemographics, past and present drug use, past and present psychiatric disorders, and current general health status. Additionally, subjects were asked to rate the YSS in terms of assisting them with their mental health issues in 1998.

Results

At baseline, 39% of subjects reported current smoking. Of the 35 smokers identified in the sample, significantly more were Māori than non-Māori (22% and 78% respectively), $p=0.03$, and over twice as many females than males were nicotine dependent (70% and 30%).

Table 1 compares the smoking status (in a cascading fashion from ever smoked to current use) of 59 subjects interviewed in 1998 and again in 2002/2003. In 1998, 17% of the sample had never smoked either a whole or part of a cigarette and by 2002/2003 the percentage of never smokers had dropped to 10%. Of those who had tried smoking at baseline and follow-up (83% and 90% respectively), 39% of subjects at baseline and 68% at follow-up had smoked at least five cigarettes a day for at least a month and in the seven days prior to interview.

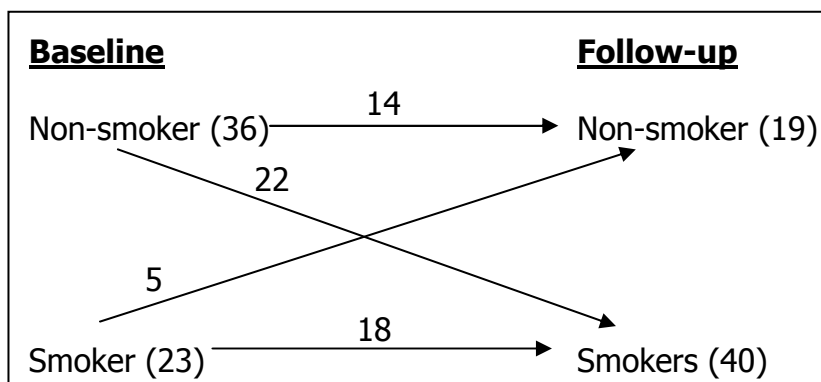
Table 1: Past and Present % Smoking Status of a Sample of Psychiatric Patients (n=59)

Description	Baseline	Follow-up
Never smoked a cigarette or part of a cigarette	17	10
Smoked five or more cigarettes in lifetime	68	80
Smoked five or more cigarettes a day for at least one month	42	76
Smoked at least one cigarette in the seven days prior to interview	51	68
Smoked five or more cigarettes a day for at least one month and smoked in the seven days prior to interview	39	68

Of the 40 smokers identified at follow-up, the seven who identified as being Māori were all smokers and despite the gender gap narrowing slightly from baseline, almost twice as many females than males were smokers (65% and 35% respectively).

Figure 1 illustrates the changes in smoking status over a four year period of 59 subjects interviewed at both baseline and follow-up. Of the 36 non-smoking subjects at baseline, 14 remained smoke free at follow-up and 22 had gone on to become smokers. Of the 23 smokers at baseline, five had quit smoking and 18 had remained smokers leaving a total of 40 smokers and 19 non-smokers at follow-up.

Figure 1: Changes in Smoking Status - Baseline Versus Follow-up (n=59)



Conclusions

The results from this sample indicate that not only is smoking highly prevalent in adolescents with psychiatric problems, but smoking rates continue to be high as these young people reach adulthood. Adolescents (13-18 years) with mental health problems are 2-3 times more likely to smoke regularly than adolescents in comparably aged community samples. Young people (17-23 years) with a current or past history of psychiatric problems are twice as likely to smoke regularly than young adults in the general population. Significantly more Māori than non-Māori smoked at baseline and follow-up and twice as many females as males were smokers at baseline and follow-up.

Where to from here?

This monograph reports on part one of a two part study aimed at exploring the prevalence of nicotine dependence at baseline and then to see if this pattern changed over a four year period. Part two of this research aims to investigate the potential factors and mechanisms underlying a possible association between smoking and mental health disorders in young people. In order to do this three key questions will be explored:

1. What are the demographic and clinical variables that determine changes in the pattern of tobacco use over a four year period?
2. What is the relationship between nicotine dependence and other psychiatric disorders at baseline and follow-up?
3. What are the demographic and clinical variables that determine clinical outcomes at four years post presentation?

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METHADONE AND BENZODIAZEPINES

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This presentation was prompted by a study done internally at Auckland Methadone Service by Justin Pulford (1). One of the findings was that Benzodiazepine (Bz) use was present for 50% of new entrants to the programme and, on later examination, use had dropped to a reported 20%. This prompted the question 'Why?', especially given that we do not directly target Bz use or offer any particular response in-house. Nor do we script Bz's often or refer externally to TRANX as much as we perhaps might.

Another big question for us was whether our finding was reflected elsewhere and if so had there been any evaluation as to why the decreased Bz use occurred? The third strand of inquiry was around the responses we made to those people who continued using/abusing Bz's and the appropriateness of treating, or not treating, Bz users on MMT programmes.

Methods

Justin Pulford looked at the evaluations completed by the last 434 clients coming on to the Auckland Methadone Service (AMS) programme between 1998 and 2003. Some of those people completed evaluations up to 9 times and the newest entrants only once. The last evaluation was the one used by Justin in making the before/after comparison. All of the responses by clients were written and were not verified by urinalysis or blood tests.

This led to a search for relevant articles and reports from other MMT programmes via the internet as well as a more general review of articles about the issue of MMT and Bz worldwide.

Findings

Our first question was whether our results were replicated around the world. This was clearly answered in the affirmative. There was a marked consistency from places as far apart as Israel, USA and the UK (2, 3, 4, 5). All of these programmes showed that approximately 50% of clients going on to MMT programmes were using Bz's. The lowest figure was 44% in New York and the highest 66% in Baltimore. The studies ranged from looking at as little as 50 people in (Baltimore) and as many as several thousand people (UK study). All of these studies also showed reductions in Bz use over time which were by no means variant from the results from AMS.

In Israel use over 1 year dropped from 50% on entry to 28% (2). In the USA ('a city in NE USA') results showed progressive reductions in Bz use over two years (42% at 1 month, 35% at 6 months, 29% at 1 year and 18% at 2 years) (3). The UK study

showed similar progressive reductions over 5 years as follows (19% using at 1 year, 17% at 2 years and 17% at 5 years) (5).

Discussion

Each of these studies used different measurements and had varied levels of validation, nonetheless all indicate clearly that entry to a MMT programme will have a positive outcome for reductions in Bz use. None of the studies indicated what measures, if any, were taken to actively target Bz use and this is an area which would benefit from further investigation.

Our experience in Auckland is that the greater stability brought about by being on the MMT programme brings about considerable changes. The Pulford study measured client experience of change in physical health, emotional health, drug use, needle use and criminal offences. Every area showed marked positive changes as reported by our clients. It would follow that with greater health, increased financial resources, less fear of arrest and generally improved outlook on life that Bz use will diminish; the forces driving recourse to Bz use are diminished and that this is true for a considerable percentage of our clients. It is not, however, true for all of our clients so who are they and what does this signify?

Figures for co-morbidity show that anxiety disorders are present in about 30% of drug-using clients (6). Bz's are a common medication of choice for anxiety disorders and some of our clients will therefore be appropriately medicated on Bz's. This is risky for people with addictive patterns of drug use; Bz's have a high addictive potential and also a high value as a substance of misuse. It is not surprising that some of our clients, therefore, who are appropriately medicated on Bz's will not be using them appropriately, although in fairness many will. There is another class of Bz user who will be using Bz's as a drug of choice rather than a drug of necessity and this is the client with Bz as their primary drug of dependence. A place on a MMT programme will not necessarily alter Bz use for them. Motivationally, the client may be in action on opiates, but wholly pre-contemplative on Bz's. Other drivers of Bz use are primarily the use of Bz's to boost the effect of Methadone and availability via lifestyle, which will also induce anxiety. These clients are 'hard basket' in terms of engagement, retention and outcomes. So, what to do(or not to)?.

Some programmes exclude all clients who use Bz's. Given the positive outcome for a considerable number of these clients, denying treatment to them seems to be an unnecessary response; for one thing our assessments are not so wonderful as to be able to predict outcomes. Excluding a group of people on the basis that some of them will not do well seems difficult to justify. So does the response of programmes that penalise clients who continue to use Bz's. This leads to case-managers acting in a policing role and clients to feel policed. It is very instructive to go to the Methadone Anonymous chat line (www.methadoneanonymous.org) or click on a link 'Methadone and Benzodiazepines are killing me....' To see the sort of discussions that consumers have amongst themselves about us. It does not make comfortable reading. Insisting that pre-contemplative clients move to action because we want them to be there does not work.

It is a difficult dilemma for treatment programmes to grapple with and it is fair to ask 'what harms are we reducing if we allow Bz use to continue?' It may well be that we

are not reducing many, if any, harms with some people. Research, however, shows that retention on MMT programmes is indicative of positive outcomes, but not necessarily at our pace. Exclusion or removal from programmes is much less likely to produce positive outcomes than simply hanging in there!

One interesting response in Chicago has been to treat Bz use as a symptom of under-dosing of Methadone. The results, for what we would certainly call 'hard basket' cases, are very positive.

This paper is designed to promote dialogue within the MMT world in New Zealand as to appropriate responses. Discussions around the advisability, or otherwise, of MMT programmes prescribing Bz's, possible substitution to differently acting Bz's from the more popular Bz's of abuse, gradual reduction and possible withdrawal are all medical/prescribing responses. Can we use CBT for issues of anxiety and Motivational Interviewing to shift thinking? Do acupuncture, stress management, homeopathy and other more alternative approaches bear greater consideration? It is hoped that this will stimulate a debate which leads to better outcomes for this particular sub-group within the Methadone world.

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ADOLESCENT CANNABIS USE AND COGNITION

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Cannabis is the most popular illegal drug in New Zealand (1). Around 30% of people presenting to AOD services are having problems with cannabis (2).

It appears that cannabis use in adolescents is also a growing concern. The Christchurch Health and Development study found that by the age of 21 years around 70% of adolescents had tried cannabis (3). Whilst the relationship between young and older adult cognitive functioning and cannabis has been explored (4-6), little attention has been given to this relationship in adolescents. Particular attention needs to be paid to the effects cannabis may or may not continue to have some time after the drug has been ingested.

The Project on Adolescent Cannabis use and Cognition (PACC) looked at the relationship between cannabis use and cognitive functioning in a sample of adolescents recruited from clinical and community settings. Intervening variables of psychiatric functioning, general functioning, demographics and other drug use were also measured to clarify the significance of any relationship between cannabis use and cognition.

Methods

Adolescents were referred from Youth Speciality Services at Hillmorton Hospital in Christchurch, two Christchurch High Schools and from answering a newspaper advertisement. Inclusion criteria were that adolescents were aged 13-18 years, without psychosis, and that there was written adolescent and parental consent. Adolescents completed the two hour interview (after a minimum 12 hours cannabis abstinence) at the location of their choosing, most typically the National Addiction Centre offices.

The Alcohol and Drug measures used were an outline of lifetime drug and alcohol use, and the Timeline Followback questionnaire (7) for drug use in the past 28 days. In addition, adolescents gave a urine sample at the time of the interview.

Intelligence was measured using the Wechsler Abbreviated Scale of Intelligence (WASI: 8), which can be applied to individuals aged six to eighty-nine years. The WASI is linked to the Wechsler Intelligence Scale for Children, third edition (9) and the Wechsler Adult Intelligence Scale, third edition (10). This standardised test produces verbal, performance and full scale IQ scores.

The cognitive test battery measured memory, attention, working memory and executive functioning using a combination of computerised tasks and pen and paper tests.

The Cambridge Neuropsychological Test Automated Battery (CANTAB:11) is a computerised test battery that utilises touch screen technology. The tests used were: Motor Screening - a training procedure and screening test for visual and movement problems; ID/ED shift - an attentional set shifting task; Paired Associates Learning - a form of delayed response procedure, which tests two different aspects of the ability to form visuo-spatial associations; Rapid Visual Information Processing - a test of sustained attention with a small working memory component; Spatial Span - a test of spatial memory span; and Spatial Working Memory - which requires the subject both to formulate a strategy and to remember which boxes have previously contained a counter.

The pen and paper cognitive tests applied were: Rey Auditory Verbal Learning Test (12) - a test of verbal declarative memory/learning with a working memory component; Digit Span (10) - a task of attention and working memory; and Symbol Digit Modalities Test (13) - a task of sustained attention.

Psychiatric functioning measures included: Visual Analogue Scale for Mood for present mood; Beck Depression Inventory II (14); Hamilton Depression Rating Scale (15); Conduct Disorder and Attention Deficit Hyperactivity Disorder (ADHD) (semi structured interviews based on DSM-IV criteria:16); Structured Clinical Interview for the DSM-IV (SCID-I) (17); and Global Assessment of Functioning Scale, Axis 5 of the DSM-IV (16).

Findings

The mean age of the sample was 16.2 years. Sixty percent were female and twenty-seven percent Māori. Nearly 60% were currently attending high school and the median number of high school years completed was two.

Days of cannabis use in the past 28 days correlated significantly with all other cannabis measures (e.g., days and quantity, $r = 0.76$, $p < 0.01$) and was therefore used as the standard cannabis measure in all cognitive analysis. The sample was divided on a median split (median = 4), which produced two groups of adolescents who used once a week or less (light) and those who used more than once a week (heavy).

The primary analyses were T-tests or Mann Whitney Us between the two groups and the major outcomes of the cognitive tests. Five of the cognitive tests had a significant relationship to cannabis use (see Table 1). Heavy cannabis users did worse on all these tasks.

Subsequently a series of ANCOVAs were carried out for each significant cognitive test with the fixed factor of cannabis days of use (median split) and the dependent measure as each cognitive test in turn and covarying for verbal IQ, age, depression, conduct disorder, median family income and alcohol use. Despite covarying for these intervening variables the five cognitive test remained significantly effected by cannabis use (see Table 1).

Table 1: Adolescent Cognitive Test and Cannabis Use Results Covarying for Verbal IQ, Age, Depression, Conduct Disorder, Median Family Income and Alcohol Use

Cognitive test	Use once a week or less	Use more than once a week	p<
Intra/Extra Dimensional shift (stages completed)	8.11	8.00	0.775
Rapid Visual Information Processing A'	0.90	0.85	0.023*
Rapid Visual Information Processing B'	0.97	0.90	0.146
Spatial Working Memory (total errors)	18.72	30.99	0.007**
Spatial Working Memory (strategy)	30.02	34.83	0.002**
Rey Auditory Verbal Learning Test A7	12.75	10.38	0.030*
Rey Auditory Verbal Learning Test A1-A6	69.01	61.84	0.034*
Digit span	14.64	13.76	0.491
Symbol Digit Modalities Test	50.35	52.59	0.532
PAL (first trial memory score)	15.78	15.58	0.837
PAL (mean trials to success)	1.41	1.62	0.379
SSP	6.71	6.53	0.729

* p<0.05, ** p<0.01

Discussion

From these findings it appears that aspects of cognitive function are closely related to the frequency of cannabis use despite intervening variables. The cognitive tests that had a significant relationship to cannabis use were primarily working memory as well as attention and learning.

Findings are in keeping with the adult cannabis and cognition literature (4-6) that has found heavy cannabis users to have problems with attention and memory. These results have implications for the memory of heavy adolescent cannabis users and their functioning in the school setting, as well as the information they will retain long-term from treatment sessions.

The present study has several limitation including small numbers, debatable effects of 12 hours abstinence and several other potentially confounding factors e.g., other drug use including nicotine.

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TREATMENT OUTCOMES FOR WOMEN IN SPECIALIST WOMEN'S AOD SERVICES

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The complexity of factors underpinning women's problematic alcohol and other drug use has gained increasing attention within the alcohol and drug research literature. In response to this changing awareness, dedicated women's alcohol and drug treatment services have emerged that offer gender-specific treatment to address the multiple issues associated with their substance use.

A New Zealand 2003/2004 study aimed to:

- Describe the characteristics of women attending dedicated women's alcohol and drug programmes, their rationale for choosing women's services, gender-specific treatment issues, their substance dependence, physical and psychological health, and treatment outcomes
- Investigate the degree of post-traumatic stress disorder (PTSD) and whether symptom severity influenced treatment retention.

Methods

Women entering four dedicated women's treatment services in Christchurch, New Zealand, were asked to participate in the study and also to complete a follow-up interview three months later. A range of standardised quantitative instruments and qualitative methods were used to collect and analyse data.

Thirty-two women completed the admission interview and 22 women (69%) completed a follow-up interview. Follow-up interviews were conducted 4 – 10 months later. Treatment outcomes were compared for the 22 participants that completed both interviews.

Admission Findings

The median age of participants (n=32) was 36 years. Participants had poor physical and mental health, were economically disadvantaged, were mainly unemployed; three-quarters were parents, and over half were single. Most were European (91%) and heterosexual (81%). Two-thirds of participants were prescribed psychotropic medications.

Chronic substance dependence and multiple drug use was the norm with alcohol the most common drug of choice, followed by cannabis. At admission, 50% of participants were severely dependent and 44% were moderately dependent on their first drug of choice. Half the participants used a second drug of choice, with 10% severely dependent and 34% mild to moderately dependent on their second drug.

Participant scores on each of the eight SF-36 scales were each below 50, indicative of poor physical and emotional health. The Role Emotional scale was particularly low, with the average score below 20, where a score of 100 indicates an absence of limitation. Overall, participant health scores when compared against New Zealand SF-36 population norms for similarly aged women were significantly poorer on all scales.

The Trauma Symptoms Inventory (TSI) measured dimensions of post traumatic stress symptomatology over ten clinical scales. At admission, almost half of all participants exhibited clinical distress on four of the ten dimensional measures of PTSD, with one-third of participants exhibiting clinical distress on the four measures that comprised the trauma subscale.

Treatment Outcomes

Twenty two participants completed the follow-up interview. There were no significant differences between those that were retained in the study and those that did not complete the follow-up interview, with participants being both treatment completers and those that were discharged or left through their own volition. The hypothesis that those with more severe post traumatic stress would not be retained in treatment was not upheld.

Over half of the 22 participants reported an absence of dependence on their first drug of choice; those with severe dependence reduced from 50% to 14%, and those with moderate dependence reduced from 44% to 32%. Thirty-six percent of participants reported an absence of dependence on their second drug; severe dependence was not endorsed at all, and mild to moderate dependence reduced from 35% to 14%.

There were significant improvements on four of the eight SF-36 scales although average scores were still below 50, indicative of an absence of limitation. At follow-up, there were significant improvements in trauma symptom severity on eight of the ten clinical TSI scales where a score of T65 or above indicated clinical impairment.

Table 1: SF-36 General and Emotional Health and TSI Trauma Symptoms Inventory Results: Comparison of Admission and Follow-up Ratings (n=22)

SF-36 Scale	Admission		Follow-up		p
	\bar{x}	Sd	\bar{x}	Sd	
Vitality	40.5	9.8	46.6	11.0	0.015*
Mental Health	34.6	12.9	44.6	11.2	0.003***
Social Functioning	29.6	11.4	41.7	14.2	0.001**
Role Emotional	20.5	16.0	36.8	19.2	0.006**
<u>TSI Clinical Scale</u>					
Intrusive Experiences	63.9	11.9	57.8	11.3	0.020*
Defensive Avoidance	63.3	8.0	55.9	8.8	0.000***
Dissociation	63.3	10.2	57.2	11.3	0.004**
Impaired Self-Reference	62.5	8.1	55.5	9.3	0.004**
Anxious Avoidance	62.4	11.6	54.6	10.3	0.002**
Depression	62.0	9.8	53.3	9.3	0.000***
Anger Irritability	59.4	8.9	52.7	8.2	0.002**
Tension Reduction Behaviour	59.4	10.9	54.2	12.2	0.008**
Sexual Concerns	55.0	11.9	52.7	12.4	0.44
Dysfunctional Sexual Behaviour	53.4	16.1	51.3	19.5	0.3

Levels of statistical significance: *p< 0.05, **p<0.01, ***p<0.001

Discussion

While high rates of co-existing physical and mental health issues added to the complexity of the participants' treatment needs, this study found that women who entered women's services and who were retained in the study had significant improvements across all outcome measures.

The finding of greatest importance was that gender-specific treatment led to highly significant improvement on substance dependence measures, with 50% of participants recording an absence of dependence on their primary drug.

There were significant improvements on four of the eight SF-36 general and emotional health scales although the average scores remained well below NZ population norms, highlighting the impact of alcohol and other drug disorders together with co-existing physical and mental health problems on the health of women with problematic substance misuse.

There were significant improvements on eight of the ten TSI scales, in part attributable to the increased rates of anti-psychotic medication prescribed during the treatment episode, which may have reduced symptom acuity. Meisler (1) stated that both substance users and PTSD sufferers are characterised by an avoidant coping style and, given that each of the four programmes focused on skills development, it may well be that adopting new coping skills also had a beneficial impact on PTSD symptoms.

Qualitative methods afforded insights into women's treatment processes unobtainable through traditional scientific methods. The qualitative data confirmed the need to include multiple aspects in gender-specific treatment and suggested further development was needed in the areas of relationships, mental health and budgeting and, to a lesser degree, sexual abuse and violence.

Conclusion

The study findings highlight the impact of alcohol and other drug disorders together with co-existing mental health problems on the health of women with problematic substance misuse. The use of a broad range of measurements allowed comprehensive appraisal of outcomes for women in specialist services and the quality of treatment offered in dedicated women's services.

Important for the New Zealand treatment sector is the knowledge that targeted gender-specific alcohol and other drug treatment is effective. Given the limited number of dedicated women services and the lack of new resources, it is likely the majority of women with problematic alcohol and other drug use will present to generalist services. Mainstream services can better serve women through a systematic and multi-faced treatment approach for women with substance misuse problems.

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THE EFFECT OF NALTREXONE ON THE CRAVING OF PEOPLE WITH PATHOLOGICAL GAMBLING

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Introduction

Pathological gambling (PG) can be conceptualised as an addictive disorder even though it is presently classified as an Impulse Control Disorder under the DSM-IV classification system. The support for its conceptualisation as an addictive disorder is based on a number of factors: its association with alcohol dependence and other co-existing addictions, which suggest common underlying vulnerability factors; clinical features of dyscontrol, salience, compulsion of use, tolerance and withdrawal phenomena; similar modality and principles of treatment to those of alcohol and drug dependence; and the presence of the phenomenon of craving.

The craving phenomenon is a popular subject in the addiction field. Defined as a "subjective/dependent state of mind of pre-disposed people with addiction problems with respect to their attempts to reduce, abstain or control their addiction or when these attempts fail" (1). It was dropped from DSM-IV criteria for substance use disorders, but remained in the ICD-10 classification system as a "strong desire or compulsion" to use a drug.

Naltrexone, an Opioid mu receptor antagonist, has been used as an anti-craving agent in alcohol dependence disorder. It mediates the alcohol-induced "high" by blocking the endogenous opioid system and modulating the craving and the reward and reinforcement dopamine pathways through the action of GABA. Naltrexone may act through the modulation GABA neuronal input to dopamine neurons in the mesolimbic pathways as well. Its efficacy in pathological gambling has been demonstrated in some earlier studies (2,3) subject to methodological limitations.

So far, there has been no study on the effect of naltrexone on craving in PG. We studied the effect of Naltrexone on the craving in people with severe pathological gambling.

Methods

Twenty eight participants with severe gambling problems were recruited. The inclusion criteria were: age 18-65, engagement with community treatment for problem gambling, a score of five or more on the South Oaks Gambling Screen (SOGS) and the DSM IV-PG criteria. Participants with concomitant major psychiatric comorbidity qualified as long as the illness was stably treated. No marked liver dysfunction could be present on pre-research screening. The exclusion criteria

included those with clinically significant medical conditions, a known allergy to naltrexone, those who are on opioid drugs and pregnant or nursing mothers.

The participants were trialled on a placebo-controlled, three-week single-blinded lead in (<0.05 mg of naltrexone), six-week double-blinded cross-over trial (either 50mg or 150 mg). It is note-worthy that this is an effectiveness study of Naltrexone in reducing craving for PG and not primarily an efficacy/outcome study of Naltrexone on PG treatment.

Data collected included: socio-demographics, baseline gambling severity, screening for other psychiatric disorders (SCID), physical disorders, other co-existing addictions and Global Assessment of Functioning (GAF) score. In addition, a variety of craving measurements were used: the Obsessive Compulsive Disorder Scale (OCDS-PG), Yale-Brown Obsessive Compulsive Scale (YBOCS-PG), Impaired Control Scale (ICS-PG), Gambling Urge Questionnaire (GUQ), Gambling Symptom Assessment Scale (G-SAS) and Gambling Craving Scale (Adapted from Penn Alcohol Craving Scale).

Results

Twenty-eight people entered the trial and 24 completed the study. Fourteen were male and 10 female. The mean age was 45.4 years (range: 26-61) and the mean years of formal education was 11.8. Three quarters of them were employed with the mean years of work of 9.1. The main presenting problem was that of debt (85%) and the mean annual income was NZ\$28,050.

In terms of gambling severity, the mean SOGS score was 12.7 (range:5-19) and the mean DSM-IV PG score 8.2 (range: 5-10). Twenty (83%) had concomitant psychiatric disorders: mainly depression (63%), followed by generalized anxiety disorder, eating disorders, dysthymia (all 21%), panic disorder and post traumatic stress disorder (both 12.5%). The mean debt level was \$1,035 (range: \$150-6,000) and the mean GAF score was 69.6 (range: 47.5-97.5), i.e., the participants experienced some difficulty psycho-socially.

In terms of statistical analysis, a two-stage stratification according to gender and presence of other addiction disorders was performed. The results were analysed using the General Linear model of analysis of variance (ANOVA), with the significance level set at <0.05.

The results from 24 completers showed a significant placebo effect. The reduction in the mean craving scores as measured by the Obsessive-Compulsive Gambling Scale (OCGS), the Gambling Urge Questionnaire (GUQ), the Gambling Craving Scale (GCS), the Gambling Symptom Assessment Scale (GSAS) and the Yale-Brown Obsessive Compulsive Gambling Scale (YBOC-PG) were all statistically significant for those scores taken when the participants were on placebo compared to when either 50mg or 150 mg of naltrexone was given. However, the changes in the craving scores between the participants on either 50mg or 150mg were not statistically significant. Neither gender nor the presence of other addictions was found to influence the reduction in craving scores. With naltrexone treatment, the reduction in the craving significantly correlated with the reduction of the SOGS and DSM-IV scores.

Conclusions

The reduction in craving for people with PG was significant with naltrexone as compared to the placebo, although one would need to consider the effect of time on the treatment response. Significant non-naltrexone (placebo) effect on the craving was demonstrated with the reduction of craving observed in a variety of craving measurements/scales. However, there was no significant difference between the craving reduction brought about by 50mg or 150mg of naltrexone. The reduction in craving corresponded to a reduction in the severity of gambling and the reduction in craving was independent of the gender and presence/absence of other addiction disorders.

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INTERIM METHADONE PROVISION PROGRAMME (IMPP) IN DUNEDIN - PRELIMINARY RESULTS

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Long waiting lists have become almost synonymous with Methadone Maintenance Treatment (MMT) in New Zealand as clients are forced to wait up to 12 months or more while the resources of a programme in their area become available, enabling assessment and monitoring of safe Methadone administration. A recent, consumer-led experience in Dunedin resulted in one client of the service being placed on a "one-off", GP prescribed regime after assessment and authorisation by CADS. This led to consideration of a more general interim programme with three aims: shortening the waiting time to first Methadone administration, increasing the interest and involvement of GP prescribers in preparation for later transfer of clients and maintaining positive harm-reduction outcomes.

The essential requirements for the current programme in Dunedin were that it be simple, require minimal resources, be based on existing evidence and that it would be evaluated. The features of the programme were: maximum dose 40mg, one nominated 7-day pharmacy, clients pay their own GP fees, no take-home doses, no mandatory urine toxicology, no prescribed Benzodiazepines or other drugs of abuse potential and re-referral to CADS if necessary. Dunn (2), reported the use of interim, GP prescribing of Methadone, which resulted in significant clinical gains in harm reduction over the first three months of the programme. The main difference between the present study and Dunn's is the maximum dose prescribed (40mg vs 60mg).

Preliminary GP Survey

The views of 123 GPs were sought in an informal survey that also proposed the interim programme and inquired about GPs interest and concerns. Seventeen replies were received, although this represented somewhat more GPs than the responses would suggest. Generally the respondents supported the idea of an interim programme although some wanted nothing to do with it and a few did not support any maintenance programme.

Advantages were seen as shortened waiting time, catching clients while motivated, strict guidelines and no takeaway doses. There were concerns expressed about failure to pay accounts, problem/demanding behaviours, creating yet another waiting list, doctor shopping, lack of incentive to withdraw from opioids, sufficient guidelines and training and "dumping" on GPs.

Method

All new clients presenting for MMT in Dunedin were assessed as usual by a CADS staff member to establish the presence of opioid dependence and, if suitable, were placed on the waiting list. In addition to the usual assessment, the Methadone Treatment Index (MTI: 2) was completed with each client. Clients on the MMT wait list were offered the option of IMPP (as described above) and invited to name a willing GP who was then contacted by a CADS staff member to confirm their agreement to prescribe and provide fuller details of the procedures and requirements of IMPP. It was made clear that, when a position became available, transfer back to CADS care for the full MMT programme would be automatic. A further MTI was completed when clients moved from IMPP to MMT. It is intended to complete one further MTI once clients have been on full MMT for six months.

Results

Between March and September 2005, 15 clients were placed on the waiting list and 12 of these commenced IMPP. Two of the remaining clients were unable to obtain GP agreement and one client was imprisoned during this period. Of the 12 who entered IMPP, six subsequently moved to the MMT when they reached the top of the waiting list. The remaining six will also be offered full MMT when a place becomes available.

Table 1: Waiting Time

	Waiting time for last 15 MMT clients	Waiting time to IMPP	Total Waiting time to MMT (via IMPP)
Mean	128 days	19 days	92 days
Range	91-207 days	0-73 days	32-167 days
n=	15	12	6

Table 2: MTI Pre and Post Scores

Subject ID	DDI (range=0-50)		SBFI (range=0-50)		GHI (range=0-50)		Total MTI (range=0-150)	
	T1	T2	T1	T2	T1	T2	T1	T2
1	28	11	20	12	*	*	*	*
2	4	6	9	5	23	17	36	27
4	12	12	8	4	*	*	*	*
5	25	7	3	4	28	15	56	23
8	9	6	12	7	39	27	60	41
9	16	19	5	5	23	18	44	28
Mean	15.6	10.1	9.5	6.1	28.2	19.2	49.0	29.7
Difference	5.5		3.3		9.0		19.3	

*GHI not completed

Conclusions

While only six months of the study has passed, most clients placed on the waiting list are receiving at least some Methadone much earlier than they were in the conditions existing prior to the introduction of IMPP. Informally, the involvement of GPs has been positive for clients, CADS and GPs. There have been no incidents of a high-risk nature to date that would indicate significant risk from the minimally monitored use of low Methadone doses.

The sample size is too small to consider statistical analysis, however, half of the DDI scores were improved, over half of the SBFI scores improved and all of the completed GHI and total MTI scores improved. This suggests that, even within the limited time clients were on IMPP, positive gains were made in substance abuse relevant measures.

It is planned to continue the study until at least all of the present clients have spent six months on the full MMT programme. The question of whether a higher dose (e.g., 60mg) would produce greater gains in terms of reduced harm with a similarly low incidence of accidental overdose is worthy of consideration once the current study is complete.

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THE CADS IV PROJECT: INJECTING CONFIDENCE AND KNOWLEDGE INTO THE CADS WORKFORCE

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Aims and Method

In October 2004 the Government introduced a needle swap system (one-for-one) through the Needle Exchange Programme (NEP) to combat the spread of blood-borne diseases. The Regional Manager and Regional Consumer Advisor felt this was an ideal time to assess, and if necessary strengthen, CADS' harm reduction message to injecting consumers.

Promotion of safer injecting practices is core business for CADS and is based on the following assumptionsⁱ:

- CADS has a primary responsibility to reduce the harms associated with IV (intravenous) drug use, not only the potential harm caused by the substance injected, but also that associated with IV administration
- All CADS staffⁱⁱ are IV literate (i.e., they know how drugs are injected, the associated risks, how risks can be minimised, can recognise physical harm/symptoms associated with IV drug use and respond appropriately, know how needle exchanges operate and what products are available, and can confidently discuss IV drug use and safe injecting with a consumer, family/friends, and others)
- All CADS staff regardless of their position approach IV drug use and IV drug users (IVDUs) in a non-judgemental and confident manner
- All CADS services have up to date reliable information on IV drug use available
- CADS has a responsibility to train staff about IV literacy
- All CADS services have a working relationship with the local needle exchanges.

In order to assess these assumptions, a total of 24 staff members across all CADS teams were questioned in a series of semi-structured interviews. Some staff members (e.g., triage clinicians) were selected because of their particular role; others were selected as representatives of particular teams (e.g., CADS Counselling clinicians, AMS case managers). Visits to some units allowed the Consumer Advisor to ascertain what resources were available to clients.

Findings

CADS had no coherent system of accessing resources from organisations like Auckland Drug Information Outreach (ADIO) or Needle Exchange NZ (NENZ): dated information was found in some units and some newer resources were not available.

Resources were not uniformly available: some units had IV resources in their reception areas (making it readily accessible to clients), while others held theirs in

the triage room or in their own filing cabinets. Some clinicians gave clients written information only when it was requested; others took a more pro-active approach, offering resources to IV using clients.

Those staff members with less knowledge and less confidence tended to rely on giving clients written rather than verbal information about safer injecting, but were themselves not familiar with the written information.

Some staff members believed clients who inject already know about safe injecting; one of the medical officers acknowledged this was an uninformed assumption and planned to alter his practice as a result of our discussion (as did a triage clinician). While limited, the perception still existed that opioid users are the only drug users who inject.

Concern was expressed by some detox and dual diagnosis team members about providing their clients with IV information; they felt that to do so was in contradiction with the goals of their service.

Confidence in raising the issues of IV drug use with clients, and requesting for example to look at injecting sites, depended mostly on the staff member's professional training and/or personal experience.

CADS medical officers did not have a routine response to clients presenting with nasty-looking or infected IV sites. Such clients were often referred to a GP or hospital, though several clinicians made the assertion that clients often expect a medical response from CADS and will self-medicate rather than attend the service to which they have been referred.

All teams routinely referred clients to ADIO with members of one team accompanying the client if this was deemed necessary. However, the relationship between CADS and ADIO appeared to be between individual staff members rather than between organisations.

There has been no regular training about blood-borne viruses and harm reduction strategies for CADS staff and all project participants (including those who feel 'really confident') said they would benefit from training in topics such as safe and unsafe IV sites; injecting equipment available; physical symptoms of harm; drug pharmacology and subsequent effects of injecting; locating 'user'-friendly GPs and pharmacies; and applied skills in raising the issue and discussing IV use with clients in a non-threatening and supportive way.

The units where staff are very comfortable with discussing IV drug use with clients (sometimes using a narrative style to elicit information) have IV literate senior staff and clinicians; IV drug use is a regular topic of discussion in the units and those with the knowledge share it openly with others.

Discussion

Talking with staff members had the immediate effect of highlighting issues around IV drug use and CADS' responsiveness to IVDUs.

Although reducing the harms associated with IV drug use is recognised as core business in most services, this project revealed CADS did not have a coherent approach to responding to IV drug use or to providing information to clients.

There are several possible reasons for this: CADS has not provided training for staff about IV drug use etc.; staff members sometimes think the issue is someone else's responsibility; knowledge is lost as staff move on; clinicians familiar with IV drug use etc. are not always utilised for their knowledge by other team members; assumptions are made that active IVDUs know what they are doing; and, according to several clinicians, very few IVDUs access the Counselling units so clinicians don't have the opportunity to implement what they know or have learned.

There is a correlation between one's level of knowledge of safe injecting and IVDUs and one's level of confidence in raising and discussing the issue with clients in appropriate ways.

Outcomes

In order to achieve greater IV literacy and a more coherent approach to promoting safer injecting, recommendations were made to senior management with the following outcomes:

- CADS has developed a sustainable and coherent approach to accessing resources and current and consistent information is now available across all CADS services. This will be monitored as part of the CADS' internal audit process thereby ensuring IV information remains current, accurate and easily accessible to clients
- Training re blood borne viruses (HCV, HIV/AIDS, etc.) will become mandatory for CADS staff in 2006 and will include training in applied skills. It will be facilitated by CADS staff and will include presentations from the Hepatitis C Support Group, ADIO and AIDS Foundation
- Reciprocal training is now occurring between CADS and ADIO leading to a significantly improved working relationship between the services and better service provision for clients of both services
- The addresses of appropriate websites will be included on CADS intranet, making it easier for staff to access information
- The Medical Officers are reviewing their current response to problematic IVDU client presentations
- The Detox service has reviewed its approach to IV information provision and information is now readily available and discussed with clients
- Leaders of the AIDS Foundation, Hepatitis C Resource Centre, ADIO, Auckland Methadone Service and the Regional Consumer Advisor plan to meet twice yearly and a commitment has been made to share information, and provide training and resources wherever possible.

With the support of management and senior staff, the implementation of the above recommendations has strengthened CADS' harm reduction message to injecting consumers and is contributing to greater IV literacy amongst CADS staff.

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- i Which align with CADS' mission statement: CADS is actively committed to reducing the harm caused by alcohol and drugs to affected people in the wider community and provide services dedicated to excellent practice and enhancing consumer wellness
 - ii Refers to 'dedicated AOD workers', those having direct client contact: AOD counsellors, medical officers, nurses, methadone case managers, social workers, etc.

INITIAL RESULTS FOR THE 2004/05 NATIONAL TELEPHONE SURVEY OF MĀORI ALCOHOL AND OTHER DRUG (AOD) TREATMENT WORKERS

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A national telephone survey of a random sample of the AOD treatment workforce has recently been completed for 2004/2005. This survey replicated a similar survey carried out in 1998 by the National Addiction Centre (NAC)¹, which included some questions about working with Māori and a brief description of the Māori workforce (1). The more recent survey was supplemented by an extended survey of Māori workers, which focused on training issues, integration of Māori elements of practice and working with whanau. The current paper draws on initial results from both the National Telephone Survey and the Māori Telephone Survey to provide a snapshot of the current Māori workforce.

Methods

The first National Telephone Survey was conducted in 1998 with 217 randomly selected Alcohol and Drug Treatment Workers (ADTWs) from throughout New Zealand. ADTWs were defined as paid staff (full time or part time) spending at least 70% of their clinical time working with people who have alcohol and other drug problems. The 2004 survey was carried out by NAC under the auspices of Matua Raki, the National Addiction Treatment Sector Workforce Development Programme. A sample of 288, randomly selected from approximately 800 dedicated ADTWs, were interviewed. The register from which the sample was drawn has been maintained and regularly updated by the NAC and was supplemented by the membership register of the Drug and Alcohol Practitioners Association of Aotearoa New Zealand (DAPAANZ).

Participants who self-identified as Māori in the National Telephone Survey were asked to take part in a follow up Māori Telephone Survey. All 57 Māori AOD treatment workers interviewed for the National Telephone Survey agreed to be contacted and were followed up by a Māori assistant research fellow who had their

¹ Then known as the National Centre for Treatment Development (NCTD)

first name, initial of last name, and workplace details only. On follow-up, three participants were found to be ineligible due to having left their service and one was unable to be contacted. Of the remaining 53 contacted, one person declined to take part, producing a response rate of 98%.

Results

Demographically, the Māori AOD treatment workforce is composed of an equal split of male and female workers. The mean age of Māori working in the field is 47 years and the average number of years working in the field is 7.5 years. All Māori AOD treatment workers interviewed identified their iwi and 83% identified their hapu.

The majority of the Māori AOD treatment workers interviewed selected "counsellor/therapist" as their professional identity, with a small number aligning with social work, nursing and psychology. A majority (77%) of those interviewed belonged to a professional body, with 62% indicating that they were members of DAPAANZ.

Table 1: Self-selected Professional Identity

Profession	
Counsellor/Therapist	77%
Social work	10%
Nursing	8%
Psychology	2%
Other	4%

In terms of highest academic qualification, 92% of the Māori AOD treatment workers interviewed had attained a tertiary qualification. 37% had completed an AOD-specific qualification, and 21% were currently engaged in AOD-related education. Over half of those interviewed (56%) were currently enrolled in some type of formal education and 31% stated that they were interested in gaining postgraduate qualifications in the future.

Table 2: Qualifications

Highest Qualification:	
Postgraduate	10%
Tertiary	83%
Secondary	8%
AOD-specific Qualifications	
Completed (any tertiary)	29%
Completed (postgraduate)	8%
None	64%
Currently undertaking formal AOD education	21%
Currently undertaking formal non-AOD education	35%

The majority of respondents (75%) reported working in a “city”, with 39% being located in one of the five main centres (Auckland, Hamilton, Wellington, Christchurch or Dunedin). About half were employed by District Health Boards, but only 21% were working in residential settings.

Table 3: Work Setting

DHB	54%
Residential	21%
North Island	73%
One of five main cities	39%
Identified work setting as “city”	75%

Te Whare Tapa Wha (60%) was the main Māori model used by Māori AOD treatment workers interviewed. Karakia, whakawhanaungatanga, providing kai and waiata were reported as being the main ways in which tikanga was included in clinical practice.

Table 4: Main Māori Models used in Clinical Practice

Te Whare Tapa Wha	60%
Powhiri Poutama	14%
Rangi Matrix	10%

Table 5: Main Ways in which Tikanga is Included in Practice

Karakia	62%
Whakawhanaungatanga	30%
Providing kai	25%
Waiata	25%
Mihimihi	19%
Using te reo	15%

Māori AOD treatment workers were asked about what Māori and western focused AOD skills/knowledge/training they would like to acquire/undertake in the future. A third (33%) expressed a desire to improve their reo, 23% wanted more training in western clinical models, 19% said they would like more training on the theory/nature of addiction and 17% indicated they would like more training on Māori based models. About a third (35%) of those interviewed said that they would like other specific Māori focused training, including Māori concepts/knowledge, working with rangatahi and children, whanau focused training and cultural supervision training.

I would like to learn about ‘out of the box’ Māori knowledge that works for Māori, for example, whakapapa, stories of creation, Māori role models.

My dream is to sit together with a group of elders and learn at their time and leisure all the wisdom they hold from the past.

Qualitative data collected during interviews indicated that passion and commitment to improving Māori health were key factors in respondents joining and staying in the AOD treatment field.

Passion, to see our own people get well.

I get a buzz from seeing people set free; to give others hope; to see families reunited.

Discussion

Initial consideration of the results of the Māori and National Telephone Surveys indicates that Māori kaimahi in the AOD treatment sector are strongly committed to their work and are wanting to further develop their expertise in the field. This is highlighted by the large proportion who have completed, or are currently engaged in, formal AOD-specific education. It is also promising that a significant portion of respondents are interested in pursuing a postgraduate qualification, implicating the importance to kaimahi of the need to continue upskilling and professional development.

It is also clear however that development (and integration) of both Māori and western knowledge and practice are considered important by a large number of kaimahi, as illustrated by the request for both Māori and western focused training by respondents. This reflects other research, which has identified a desire on the part of Māori to draw on both traditional and western knowledge bases in the treatment of addiction (2, 3). There is therefore a need to continue to develop specific training for kaimahi, which integrates Māori and western knowledge, skills and processes of learning. The results of the current surveys and other research indicate, however, that such training should be firmly located within the frameworks of Te Ao Māori.

The specifically Māori focused survey carried out in 2004/05 has, along with the results of the National Telephone Survey, provided the first systematic national profile of Māori kaimahi, particularly in relation to training needs. This information, along with data from other sources, will be important in guiding Māori focused developments within Matua Raki, the National Addiction Treatment Sector Workforce Development Programme.

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CLINICAL CHARACTERISTICS OF CLIENTS ENTERING THE ODYSSEY HOUSE, CHRISTCHURCH ADULT RESIDENTIAL THERAPEUTIC COMMUNITY

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Since 2001 Odyssey House Christchurch has been conducting an assessment of the Therapeutic Community (TC) run for males 17 years and over with severe substance dependence and other difficulties. An important aim of this audit is to determine the extent of health and social problems experienced by the men entering this TC. While the information generated is primarily for clinical purposes, it also provides an opportunity to monitor trends and improve the impact of treatment on this difficult to manage client group.

Odyssey House Christchurch is grounded in the general principles of the international Odyssey House organisation reflecting psychiatrically oriented, drug-free residential programmes whose methodology derives from the therapeutic community concept of mutual self help. The TC is composed of diverse individuals who choose to belong. Its primary goal is to foster change. The vehicle is a social learning process imposed mutually by a community of individuals committed to recovery. The "community", composed of all its members (staff and residents) serves as peer, therapist, teacher and role model in the complex change process called recovery. It is a highly structured and therefore, supportive environment with definite moral boundaries encompassing a code of behaviour and communal belief.

In this paper the baseline characteristics of the 164 residents who have entered this therapeutic community over the four year period from April 2001 to April 2005 are described.

Method

164 consecutive admissions to the Odyssey House Christchurch Adult Residential Programme completed a questionnaire comprising a range of instruments measuring demographics, current and lifetime substance use (Structured Clinical Interview for DSM-IV Axis I Disorders – SCID I: 1), personality (Temperament and Character Inventory – TCI-144: 2), psychiatric symptoms (Symptom Checklist-90 – SCL-90R: 3) and general health (SF-36 Health Survey: 4).

Questionnaires were completed within seven days of admission and were administered by one of three Odyssey House clinical staff trained in the use of the instruments. The first half of the questionnaire was conducted as a face to face interview (demographics and SCID I) while the remainder of the questionnaire was completed as a pencil and paper questionnaire. For those with literacy difficulties the whole questionnaire was completed as an interview.

Follow-up questionnaires were completed by all residents remaining in treatment at three, six, nine and 12 months following admission. Baseline data only are reported in this paper.

Results

The average age of residents was 28.1 years (SD = 7.9, range 17-50 years); 54% identified their ethnicity as European, 35% as Māori and 10% as other (Samoan, Irish, Jewish, Cook Island Māori, Kiwi). Eighty eight percent of residents had attend other alcohol and other drug treatment programmes prior to attending Odyssey House, Christchurch and 55% had had contact with other mental health services. A majority of the sample had a high rate of criminality with 64% having been convicted of a crime more than 20 times.

Using the SCID I as a measure of current (past month) and lifetime substance dependence the five most common substances of dependence among the residents were cannabis (87% lifetime, 26% current), alcohol (87% lifetime, 22% current), sedatives-hypnotics-anxiolytics (67% lifetime, 11% current), opioids (58% lifetime, 15% current), and stimulants (51% lifetime, 9% current).

Respondents indicated high levels of psychological distress on most of the symptom dimensions of the SCL-90R. The SCL-90R is comprised of 90 questions measuring a range of psychological symptoms reflecting nine dimensions of psychological function. Higher scores are representative of greater dysfunction, however, the presence of symptoms does not necessarily equate with psychological disorder (5). Odyssey residents were found to have elevated scores on the somatization, obsessive-compulsive, interpersonal sensitivity, anxiety, anger-hostility, paranoid ideation and psychoticism scales.

These levels of psychological distress were also reflected in the respondents' assessment of their physical and mental health and the impact of this on their life as measured by the SF-36 Health Survey. This survey, which has been designed to measure disease burden, rates eight health concepts on a scale of 0-100, with higher scores representing better self-perceived health. Compared to norms given by the Ministry of Health for New Zealand males (6) the Odyssey House residents scored lower on all eight scales.

Personality was measured using the TCI-144. This is a standardised instrument designed to measure various dimensions of temperament and character. These two aspects of personality are believed to interact to influence a persons response to life experiences and susceptibility to behavioural and emotional disorders (7). As a group clients at Odyssey scored high on the two temperament dimensions of novelty seeking and harm avoidance and low on reward dependence and persistence. They

also scored low on each of the three character dimensions of self-directedness, cooperativeness and self-transcendence.

Conclusions

Clients presenting to the Odyssey House Christchurch Adult Residential Programme over the last four years have come with a range of psychological, physical, social and emotional problems in addition to their substance use difficulties. Given this range of difficulties it seems necessary that clients with such multifaceted issues enter a treatment programme that incorporates a holistic approach, which allows clients to address multiple issues in their lives not just their AOD use.

It is also necessary to take into account this multiplicity of presenting problems when considering the possibilities for measuring outcomes for these clients and for programme evaluation as a whole. The data from this study suggest the need to employ an extensive range of outcome measures inclusive of, but not limited to AOD use, to adequately measure the benefits clients gain from engaging in treatment.

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ATTRIBUTIONS FOR ALCOHOL, DRUGS, AND INTERNET USE AMONG SOCIALLY ANXIOUS INDIVIDUALS IN A NONCLINICAL SAMPLE

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The aim of this study was to examine the self-medication hypothesis amongst socially anxious individuals in a university sample. The hypotheses were:

- Those who self-medicate with drugs or alcohol in social situations will have higher scores on the social phobia, depression and anxiety subscales compared to those who do not use drugs or alcohol in social situations
- Those who self-medicate with drugs or alcohol in social situations will have lower scores on the ego strength scale compared to those who do not self-medicate their social anxiety or related symptomatology.

Methods

The sample consisted of 141 university students (110 females and 31 males) aged between 18 and 54 years of age with a mean age of 26 (S.D. = 9.35). Most of the sample was single (n=116) and Caucasian (n=119). The student volunteers completed a questionnaire packet at their leisure. The questionnaire packet included:

- Social Interaction Anxiety Scale and Social Phobia Scale (SIAS/SPS)
- Hospital Anxiety and Depression Scale (HADS)
- Ego strength scale
- Attribution questions regarding alcohol and drug use
- Demographic questions: age, gender, student status, ethnic background, marital status.

Results

Alcohol Use Results

- 82% drank alcohol
- Mean amount of units per week =14.

Drug Use Results

- 18% took drugs more than once a week
- 15% were multi drug users
- The most popular drugs were: cannabis, cocaine and ecstasy.

Table 1 summarises the qualitative results from the attribution questionnaire. Tables 2 & 3 provides a few quotations describing self-medicating in social situations.

Table 1: Reasons for Alcohol and Drug Use

Attributions	Affirmative responses	Percentage
I need to drink to help me relax to attend a social event	21	15%
I need to drink alcohol to help me relax enough to be with someone I am attracted to	36	26%
I would not be able to cope with a social event if I could not drink alcohol beforehand	6	4%
I take drugs to feel at ease around people	17	12%
I take drugs to escape the feeling that people may not like me	8	11%
I take drugs to help me interact with someone I am attracted to	11	8%

Table 2: Reasons for Using Alcohol in Social Situations

'With regards to drinking, yes it is easier to talk to people you fancy, it gives you a little courage, but that doesn't necessarily mean your addicted to alcohol or dependent on it'

'Enables me to talk more easily. Helps me not to care what they think. Helps me to have confidence about myself'

'There are good and bad days. More alcohol needed for larger social groups'

'Alcohol makes me feel uninhibited and excited (I'm generally quite detached). I also worry less about their feelings towards me'

Table 3: Reasons for Using Drugs in Social Situations

'Makes me feel a bit more talkative and relaxed' (ecstasy & cocaine)

Cocaine helps me 'feel more confident'

'Decrease inhibitions' (ecstasy, cannabis, and cocaine)

Quantitative Data

To evaluate social reasons for drug and alcohol use those responding affirmatively to one or more of the attribution questions (see Table 1) to each respective substance (self-medicators) were compared with those not providing affirmative responses (non self-medicators) on the measures of social phobia, anxiety, depression, and ego strength with a series of Mann-Whitney U-tests. A nonparametric test was used due to the unequal sample sizes.

The affirmative alcohol group (n= 42) obtained significantly higher scores on both social phobia subscales (Mann Whitney U = 977.00 p <0.0005 and Mann Whitney U

= 954.000; $p < 0.0005$) and significantly lower scores on the ego strength scale (Mann Whitney $U = 1340.500$; $p < 0.02$).

The affirmative drug group obtained significantly higher scores on the social phobia subscale (Mann Whitney $U = 715.500$; $p < 0.03$) and anxiety subscale (Mann Whitney $U = 667.000$; $p < 0.01$) and significantly lower scores on the ego strength scale (Mann Whitney $U = 614.500$; $p < 0.01$).

Conclusion

Analysis of both quantitative and qualitative data provide support for the self-medication hypothesis. The group of individuals who self-medicated in social situations had significantly lower scores on the ego strength scale compared to those who did not self-medicate in social situations. Those who self-medicated with alcohol tended to ameliorate both fear of being observed by others as well as fear of interacting with others. Interestingly, these self-medicators did not seem to medicate other symptomatology such as anxiety and depression. In contrast, those who medicated with drugs in social situations also used drugs to alleviate general anxiety.

Despite support for the self-medication hypothesis, these findings should be viewed with caution. For instance, self-medicators in the alcohol group could also be self-medicators in the drug use group. Furthermore, it is difficult to make generalisations given the small number of commentaries, but the alcohol commentaries seem to provide a clearer description for social anxiety than the commentaries for drug use. Nonetheless, drug commentaries reflected using drugs to enhance feelings as well as ameliorating distress in a social situation, which is in line with the self-medication hypothesis. However, it was unclear in this study which drug provided what relief particularly if they suffered from social anxiety and related symptomatology. Clearly multi-substance use and the reasons for such use is a complex issue.

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AN IRRELEVANT ISSUE? AOD CLIENTS THAT PRESENT WITH GAMBLING ISSUES

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This study is part of an ongoing study to validate the EIGHT gambling screen (1), in alcohol & other drug treatment (AOD) services, Primary Health Organisations, and specialist problem gambling treatment services. One thousand clients/patients from each setting will be screened and compared with other screens or a semi-structured assessment. Focus groups will provide feedback on levels of acceptance of health professionals and their clients, barriers to adopting the EIGHT Screen, and perspectives of the importance of screening for problem gambling.

This paper reports on the findings from the AOD service arm of this study. The US Substance Abuse and Misuse Services Administration states, "The rate of co-occurrence of pathological gambling among people with substance use disorder has been reported as ranging from 9% to 30% (and substance abuse in pathological gamblers 25-63%)" (2).

The expectation was that a higher prevalence for problem gambling would be found with Pacific and Māori AOD clients, as is found in the general population.

Method

An intended goal of 1,000 clients of AOD services were to be screened with the EIGHT Screen upon presenting to three centres of AOD services in Auckland for alcohol and/or other drug issues. A score of four or more out of a maximum of eight indicated problematic gambling. Brief demographic information was provided.

All who scored two or more on the EIGHT Screen were asked to complete the longer, more established, South Oaks Gambling Screen (SOGS: 3). AOD practitioners were asked to provide information on drug screens and to provide feedback in a focus group on the project.

Results

At the time of reporting, 425 clients of the AOD services at CADS South (n=271), CADS Central (n=124) and, the most recent participant, CADS West (n=30) had participated. There were few refusals to participate reported.

Ethnicity composition of each centre's clients varied, with Māori comprising 32% of CADS South clients, 14% and 17% of CADS Central and West clients respectively. Pacific clients comprised 13% of CADS South, 9% of CADS Central and 17% of CADS

West. Pakeha comprised 37% of CADS South, 70% of CADS Central and 67% of CADS West clients.

Problem gambling, as identified by the EIGHT Screen, unexpectedly showed 10.7% of CADS South clients as positive, 15.3% of CADS Central clients and 20.0% of CADS West clients. Eighteen percent of Pacific clients participating in the screening were positive for problem gambling, compared with 15.7% of Māori, and 11.7% of Pakeha. Of all participating clients 12.7% were positive for problem gambling. CADS West screening is incomplete as yet and once finalized differences between ethnic groups will be analysed to ascertain if they are statistically different.

Two-thirds of all positive problem gambling AOD clients scored six or more out of a possible of eight on the EIGHT Screen. This compared with triage practitioners' perspectives that one-in-three clients were in their opinion affected by a serious gambling problem.

Although the majority of those who screened positive for problem gambling were presenting for both alcohol and other drug misuse (rather than alcohol alone), responses by AOD practitioners in supplying this information was too low to compare.

Ages of positive gambling AOD clients (range 18 to 63 years) were similar to all AOD clients screened (14 to 67 years), however, these similarities will be analysed statistically following completion of the data collection. To date there is an 80% correlation between the EIGHT Screen and SOGS screen scores.

Responses from AOD practitioners attending the focus groups were:

- "Definitely relevant (addressing both problem gambling and drug misuse)"
- "Some clients didn't see the relevance (of problem gambling screening) at their first appointment" and "perhaps screen later for gambling."
- "I thought the prevalence would be higher (amongst CADS clients)"
- "I would like us to be resourced and trained if we were going to screen for gambling and intervene"

Conclusions

SAMHSA describes between 9% and 30% as the range for comorbid AOD and pathological gambling disorder. The findings of this project to date fall within this range, albeit at the lower end (12.7%). From discussions with a triage counselor from CADS South it may have been that the screening process did not enhance identification of all problem gamblers attending that AOD Centre (through time constraints in a busy service that may have prioritized established screening processes), and may indicate the need for more training in the presentation of this screening within an AOD setting.

The high screen scores suggest, from previous research, that these clients were likely to meet pathological gambling disorder criteria and be affected by more adverse issues such as depression, financial and familial pressures, and heightened anxiety. The perception from AOD practitioners (and particularly those at CADS South) that their clients gambling issues were less than serious in two-thirds of the

cases (compared with two-thirds scoring in the 75th percentile) suggests further training may be warranted.

Generally the EIGHT Screen was accepted by clients and practitioners, in that there were few refusals (although some practitioners may have asked if the person gambled before offering the screen to those that acknowledged they did), while responses from practitioners were generally positive in the need, although some were concerned that time was at a premium for any new intervention.

It is estimated that possibly less than 8% of those with problem gambling seek help (Professor Petry plenary presentation at Cutting Edge 2005), with this initiative identifying about one in eight AOD clients as experiencing problem gambling. Further research may identify whether addressing problem gambling issues improves outcomes for AOD clients, while as the project continues, it may identify that the co-existence of problem gambling amongst AOD clients may be closer to 20% (CADS West) findings. Several other AOD centres both inside and outside of Auckland have signed up to participate in the screening project.

Findings are that the gambling problems are more likely to be at a late stage, and possibly identifies an important, but largely hidden, issue with uncertain implications for treatment amongst a substantial proportion of AOD clients.

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ALCOHOL AND OTHER DRUG SERVICE DELIVERY AT SIX CADS UNITS IN AUCKLAND - EVALUATING NEEDS, CHOICES AND OPTIONS

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Introduction

CADS Auckland is a DHB funded provider of specialist alcohol and drug services to the wider Auckland region with a population of approximately 1.3 million. The entire service has 117.6 contracted FTE positions and approximately 200 staff, 1,089 contracted methadone treatment places, a 10-bed in-patient detoxification unit, 17 sites (including 9 satellite sites) and annual revenue of approximately \$15 million. Between 3,000 and 3,500 clients are engaged with the service at any time (0.25% of the regional population). The CADS services provided 20,076 face-to-face contacts between January and June 2005.

The data used in this study are regularly collected as part of 6-monthly reports on the alcohol and other drug (AOD) services delivered by six local CADS units (community based clinics) situated in the greater Auckland metropolitan area. The data provide an overview of consumer contacts, demographics and profiles as well as patterns of service utilization during the 6 months of January to June 2005. The six local CADS teams referred to in this study were contacted by approximately 5,400 individuals during this period.

Objective

The aim of examining the data in this context was to identify patterns of service utilization and to reflect on some of the choices clinicians and managers are confronted with, especially when services operate waiting lists. Possible solutions and options are discussed in relation to practice models, longer-term use of AOD services and treatment provision in the form of groups.

Method

The data for this study were collected by the (clinical) staff of the Auckland CADS as part of their routine data entry procedures as prescribed by the quality systems of CADS and the wider organization, Waitemata District Health Board (WDHB). The electronic data systems used to generate the statistics are the PIMS (Patient Information Management System) WDHB database, the CADS TCI (Triage Contact Information) client contact record system and the CADS Call Centre database (845 1818 contact phone) record system. The raw data were transferred to tables that follow the six-monthly service reporting format, from which they were sourced for this study (1).

Results and Analysis²

Table 1: Type of Client Contact

	Contact Type*					Total
	Clinic	Fax	Phone	Referral	Walk-in	
No.	1037	267	4895	1533	1112	8844
%	12	3	55	17	13	100

* 'Contact type' total may exceed 'No. of individual client contacts' as the same client may contact via multiple methods.

The findings indicate that the majority of people contact the service by phone and never receive a face-to-face service. During the reporting period 8844 contacts (excluding contacts from existing clients) have been initiated in one form or the other by 5407 individuals. The number of new client contacts who attended at least one face-to-face appointment during the report period was 2011 (66% male, 34% female). This is a contact-to-attendance conversion rate of 37%. Ethnicity was 58% NZ European, 18% Māori, 9% Pacific Islands, 3% Asian, and 11% Other (1).

Of the 2011 new clients 1290 completed AOD screens (Audit, LDQ, SDS). The pattern of reported most problematic substance has not changed significantly in comparison to the previous two periods. Notably the percentage of clients listing amphetamines has fallen from 21% to 17% (see Table 2).

Table 2: Frequency of Positive AOD Screens by Screen Type

(n=1290)	Screen Type					
	Alcohol	Cannabis	Amphet.	Opiates	Benzo.	'Other'
No	832	390	213	83	25	51
% of overall screen sample	64	30	17	6	2	4

- The data in this table indicates which substances are most problematic to the CADS client base
- Individual clients could have multiple substances listed.

The number of closed treatment episodes in the reporting period was 1386. The reason for discharge entered by the clinicians show that 700 had completed treatment, but a large proportion (518 +154?) had left the service unplanned or spontaneously (see Table 3).

² Data analyses and Tables 1-4 and 6 by Justin Pulford, CADS Researcher, Auckland

Table 3: Client Discharge Information

Reason for client discharge	N	%
Admitted to hospital	0	0
Duplicate referral	1	<1
Inappropriate referral	0	0
Loss of contact	4	<1
Not specified	0	0
Patient current to service	0	0
Patient declined treatment	1	<1
Patient died	3	<1
Returned to referrer	0	0
Service no longer required	154	11
Transfer of contract	1	<1
Transferred to other team	4	<1
Treatment completed	700	51
Unplanned discharge	518	37
Wait list management closure	0	0
Total	1386	100

The attendance shows a clear pattern in so far that a large proportion of those who did attend face-to-face services did so for less than four sessions (see Table 4).

Table 4: Number of Appointments Attended at Time of Discharge

	Number Appointment Attended at Discharge				Total
	1-4	5-9	10-20	21+	
No.	899	255	171	61	1386
%	65	18	12	5	100

This table reports the number and percentage of clients who had attended the various 'appointment ranges' at the time of their discharge.

The group of those who attended on more occasions utilized a disproportionate amount of the available clinical resource (see Table 5).

Table 5: Analyses of Attendance Patterns

Attendance Pattern	Number of Clients	Number of Appointments	Percentage of Clients	Percentage of Appointments
1-4 (2)	899	1798	65 %	24 %
5-9 (7)	255	1785	18 %	23 %
10-20 (15)	171	2565	12 %	33 %
21+ (25)	61	1525	5 %	20 %
Total	1386	7673	100 %	100 %

From all appointments offered 29.3% are either unattended (12.2%) or cancelled (17.1%). The CADS Counselling pathway (i.e., planned one-to-one individual follow-up sessions) contributed disproportionately to the overall number of unattended sessions and cancellations (See Table 6).

Table 6: Did Not Attend (DNA) Rate (from 1386 Clients Discharged)

Appointment Status	CADS Service		
	Triage (n=2882)	CADS Counselling Pathway (n=7357)	IOP (n=1306)
Attended	2411	4767	988
Unattended	248	1007	148
Cancelled	223	1583	170

The overall trend for the service utilization over the past three six-month periods (2,3) shows a significant rise in face-to-face contacts in individual, and an even greater increase in group attendances (see Table 7).

Table 7: Trends in Face to Face Contact Numbers

Period	Individual F-F	Group Attendances	Total
January - June 2004	6484	2386	8870
July - December 2004	7249	2990	10239
January - June 2005	7448	4947	12395

Discussion

Apart from their statistical value, the above data highlight a number of issues related to the structure and design of out-patient AOD service provision. The uneven pattern of service uptake (Tables 4 and 5) immediately presents a dilemma as to where to best place a limited resource – towards fewer longer treatment episodes or towards more, but shorter ones. There are equally valid ethical and clinical objections to delaying or denying services to newly referred clients (i.e., running waitlists) in order to provide longer engagements for the fewer clients willing to attend them, or on the other hand to prematurely discharging clients seeking longer term engagement in order to make room to see the shorter term attendants. It is of interest here to note that the varying length of service uptake demand is not significantly proportionate to the severity of the issues presented (4). Other questions are: how to choose and administer the most effective treatment modality (e.g., one-to-one, groups, etc.), and how can the service structure best respond to the uptake pattern, when it is clear that this pattern is persistent and not unique to CADS Auckland or exclusive to AOD outpatient services (4). The relatively high cancellation and DNA rate in one-to-one appointments further adds to the resource cost of this modality.

Flexible service solutions cannot be planned in isolation from the backgrounds, competency and training levels of the workforce (e.g., in order to deliver psycho-

educational and therapeutic groups, staff need to be trained and confident in the provision of these). It will only be possible to a limited extent, if at all, to answer an increase in demand for services (Table 7) with increasing AOD service funding in an inflationary health cost environment (2,3). Then again restricting the AOD services to providing only for the upper end of severity (tertiary service) only means to shift the social cost of untreated issues to other areas (general medical, accidents, crime, benefits, etc.).

Conclusions

The provision of out-patient AOD services, in particular when under resource pressure, demands a service structure and delivery model that carefully balances a multiplicity of complex considerations. Such service requires flexible options to match various attendance patterns and consumer preferences as well as effective and efficient treatment modalities. The provision of groups presents options that are well suited to address some of these issues and are yet underutilized. The steady increase in service demand and social cost scenarios provide a strong argument for the strengthening of community-based specialist primary (i.e., as well as secondary and tertiary) AOD services.

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AN EVALUATION OF THE COGNITIVE FUNCTIONING IN INDIVIDUALS RECEIVING METHADONE MAINTENANCE TREATMENT AND THE INTERRELATION WITH TREATMENT COMPLIANCE

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The study's main aim is to examine the cognitive abilities (e.g., memory, attention, problem solving) of the present New Zealand population of people receiving Methadone Maintenance Treatment (MMT) in relation to their compliance to treatment. Numerous studies have highlighted higher levels of cognitive impairment in drug and alcohol populations, however, to date little research has examined whether or not these may be a causal factor in poor compliance and retention in treatment.

Method

All the present research participants have been recruited from Community Alcohol/Drug Service (CADS) in Hamilton, and are currently enrolled in the methadone program run by this service. Participants were recruited through information fliers posted at CADS and through information provided by staff to consumers of the service. The research was conducted on a voluntary basis and potential participants were made aware of this both verbally and via the provided information sheet.

All individuals were eligible to participate in the research if they had been enrolled in the methadone program at CADS Hamilton for at least three months and were over the age of 18 years. Individuals were to be excluded if they were intoxicated at the time of the interview (either alcohol or other substance induced) and if they had a current major mental illness (judged on a case by case basis). To date no individuals have been excluded based on these criteria.

Individuals who agreed to participate and arrived for the agreed interview were administered the Beck Anxiety Inventory (BAI), Beck Depression Inventory II (BDI),

National Adult Reading Test II (NART), Trail Making Test (TMT), Stroop Color and Word Test, Wisconsin Card Sorting Test-Abbreviated (WCST-A), Wechsler Memory Scale III – Abbreviated (WMS-III-A), Wechsler Individual Achievement Test II – Abbreviated (WIAT-II-A), Treatment Perceptions Questionnaire (TPQ) and a Demographics Questionnaire.

Findings

To date, 14 individuals, 8 males and 6 females, have been interviewed, with the majority identifying themselves as of New Zealand European ethnicity (n=11). Their ages ranged from 25 to 42 years (mean 35 years) at the time of interview. Their average length of time in this episode of treatment for opiate dependence was 6.2 years (range 3 months to 20 years) and their average daily dose was 87 mg (range 30mg to 150mg).

The findings to date show that these individuals have above average levels of anxiety and depression (as measured by the BAI and BDI respectively) in comparison to the general population. The mean BAI score is 19 on a 63 point scale (moderate anxiety) and the mean BDI score is 16 on a 63 point scale (depression in the mild range).

On the NART, a measure of premorbid intelligence, the participants have scored above average (100), but within one standard deviation (15) of this, with mean Verbal IQ = 112, mean Performance IQ = 112, and mean Full Scale IQ =111.

On measures of attention, visual search and motor functioning (TMT Part A) and cognitive flexibility (TMT Part B) participants scored within the normative range (range 13 – 43 with cut-off score at 40) although scores on Part B are approaching the cut-off range of 92 for severity (mean 86, SD 40, range 48 - 206).

Participants have also scored within the normative range (means 46 to 55) on the Stroop Color-Word Test which measures listening, attention, impulsively and inhibition.

Participants have scored below the normative range on the WCST-A, which measures abstract reasoning ability and problem solving ability. Eleven of the 14 participants have attempted this measure, with 10 of these completing it. Seven of the 10 individuals who completed this measure scored within the severe to moderate or moderate to severe range on all measures.

Participants performed in the low average range, although still within the normative range (mean 100, SD 15), on the measure of memory ability, WMS-III-A (Means: Immediate Memory = 88, Delayed Memory = 89, Total Memory = 88).

Participants completed the WIAT-II-A, a measure of academic ability, to assess their reading ability. All individuals scored above the 4th Form/Year 10 reading level needed to read information provided about methadone to enrolled individuals in this programme. Individuals performed below average on the measure of numerical operations (mean 84, SD 17, range 57 – 119) and in the average range on word reading (mean 106, SD 5.5, range 97 – 115) in comparison to the normative data (mean 100, SD 15).

Compliance to treatment is to be measured by attendance at scheduled doctors appointments although this has yet to be assessed. In addition to assessing cognitive functioning and compliance this research will examine satisfaction with treatment. As part of this, participants' perceptions of treatment were measured by the Treatment Perceptions Questionnaire (TPQ), a self-report measure that assesses satisfaction with treatment on an Likert type scale scored out of 40 with higher scores indicative of more satisfaction with treatment. Participant scores varied greatly (mean 24, SD 5.8, range 14 – 33) although general themes regarding the methadone program were evident from the personal opinion section included in the questionnaire. Participants felt that methadone as a treatment option resulted in a loss of freedom (e.g., required to consume their dose everyday), that they felt condemned for attempts to reduce illicit use as they were 'treated like children', and that consequences of not complying with treatment were inconsistent.

Discussion/Conclusions

The data are suggesting that individuals enrolled in the methadone program at CADS Hamilton do have difficulties with memory (with scores in the low average functioning range), problem solving and abstract reasoning ability, and possibly with cognitive flexibility (although more data is needed to examine this). By comparison, these individuals appear to have little problem with reading (all above a 4th Form level), attention, visual search and motor functioning; whilst listening, impulsivity, inhibition and premorbid IQ scores were all above average.

Data collection for this study has proven difficult as participants fail to attend scheduled appointments, so the reported results are very preliminary. More participants are being sought. With further data collection, the research will examine the link between cognitive functioning and compliance and further statistical analysis will be conducted.

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