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TREATMENT RESEARCH MONOGRAPH

ALCOHOL, DRUGS AND ADDICTION

2002

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Assoc Prof Doug Sellman
Monograph Editor

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INTRODUCTION

This is the second New Zealand treatment research monograph. It documents current treatment-orientated research in the alcohol, drugs and addiction area in New Zealand. It is comprised of a series of short summaries of presentations made at the 2002 Cutting Edge Conference at Nelson 28-30 August 2002. This monograph was the vision of members of the Treatment Research Interest Group (Alcohol, Drugs & Addiction) (TRIG) and the National Centre for Treatment Development (Alcohol, Drugs & Addiction) (NCTD) prior to the Cutting Edge conference in 2001. Feedback about the usefulness of the first monograph has led to a repeat of the process this year.

The criteria for inclusion in the monograph were those papers presented during the Research Stream of the conference, with the addition of one research paper presented at the conference. The order of the papers in the monograph is the same order as the order of the presentations at the conference.

These mini-papers have not been formally peer-reviewed. At this early stage of the development of a New Zealand treatment research community in the alcohol, drugs and addiction field, it is considered important to be inclusive, in order to encourage and support young researchers and subsequently encourage a critical mass of clinical researchers to accumulate. From this collegial base, a greater quantity of higher quality work will develop in the future, which in time may drive the development of a peer-reviewed journal. Of particular note in this regard are firstly four summaries representing research project work of undergraduate students of the Wellington Institute of Technology (Christchurch Campus) under the supervision of Raine Berry. Secondly, five papers represent work directly related to PhD projects, which is particularly encouraging for the future health of the field.

This monograph is not purporting to document the entirety of treatment-orientated research in New Zealand at the current time. However, it does contain some of the key pieces of research work that have been undertaken in New Zealand recently.

Unlike last year there are no specific Maori or Pacific papers included this time. However, there is once again a range of topics addressed. Seven papers addressed alcohol and on other drugs generally with the remainder being alcohol (3), opioid (4), nicotine (1), and cannabis (1). Two further papers addressed comorbidity and pathological buying respectively.

Two research-orientated prizes have traditionally been awarded at Cutting Edge conferences: the John O'Hagan Prize for the best presentation by a person under 35 years; and the John Dobson Prize for the best opioid-related paper. The John O'Hagan Prize this year was awarded to Klare Braye (Wellington) for her paper titled "High Tea". The John Dobson Prize was awarded to Carina Walters and Grant Paton-Simpson (Auckland) for their paper titled "Amphetamine use in a Methadone Maintenance Client Population" (presented at the conference by Amanda Wheeler). Summaries of these two papers are included in the monograph. Previous winners of these prizes, and therefore ineligible this time around, who presented papers in the

Research Stream again this year and whose papers are included in this monograph are Simon Adamson, Meg Harvey and Daryle Deering from the NCTD.

It is likely the process will be repeated once again next year, with the publication of a further research monograph following the 2003 Cutting Edge Conference at Waitangi. It is hoped that in the not too distant future, this annual treatment research monograph may develop into a New Zealand based peer-reviewed journal of treatment research.

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ROLLING TELEPHONE SURVEY: 2000 - 2002 RESULTS

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The Rolling Telephone Survey (RTS) is an ongoing NCTD survey of alcohol and drug use by people presenting for alcohol and drug treatment in New Zealand. Its primary aim is to monitor drug use patterns over time, across the dedicated alcohol and drug treatment services of New Zealand. Over the past few years, evidence has been accumulating that there are increasing numbers of New Zealanders using psychostimulants recreationally. Whether this trend has begun to impact on New Zealand treatment services was of particular interest in this study. Two secondary aims of the RTS were to monitor the main substance use problem of people presenting for treatment as well as trends in the nature of the alcohol and drug treatment workforce. The survey has been undertaken annually since 2000. It involves the collection of data from alcohol and drug treatment workers (ADTWs) about clients they have recently assessed in which they were the main clinician responsible for the interview. An ADTW is defined as a person working clinically at least 70% of their time with people who have alcohol and drug problems. The sample is obtained by random selection of alcohol and drug treatment workers from a database that is updated every 12 months. The aim has been to interview 50 ADTWs in each year's wave. Each ADTW is asked about the drug use patterns of the last client they assessed who was presenting for a new episode of treatment, within the previous two weeks, as well as basic demographic data. They were then sent a copy of the questionnaire and asked to complete it for their next new presenting client who they would interview and then fax that data back to the NCTD. An alarming finding that emerged during the initial 2000 wave was the number of ADTWs identified from the random selection who were no longer at the alcohol and drug service where they had been working at the beginning of the year. Since the end of 2000, information about these leaving ADTWs has been additionally sought from the service and is presented below.

Part 1: Patterns of drug use

The number of ADTWs contacted during the last three years was 105 and the number of client assessments was 147. There have been no significant differences in age, gender or ethnicity of clients presenting at alcohol and drug treatment services over the past three years. The mean age of clients over this time has been 30.3 years (sd=11.1), the percentage of men has been 65.3 and the percentage of Maori 29.3. Further there are no differences between these demographic data and those of

the National Telephone Survey of 1997, the latter statistics being 30.9 years (sd=10.0), 59.8% and 27.8% respectively.

In terms of clients' main substance use problem, again there were no differences detected in the data spanning 2000 to 2002. The percentage of presenting clients whose main substance use problem was "mainly alcohol" across the three years 2000-2002 was 35.9%, for "mainly cannabis" was 15.7% and for "cannabis and alcohol" equally was 24.6%. However, compared with the 1997 data there has been a significant shift ($p<0.01$) towards cannabis use, in terms of use of cannabis and alcohol equally, away from mainly alcohol. The 1997 statistics were 45.1% for "mainly alcohol", 16.5% for "mainly cannabis" and 10.7% for "cannabis and alcohol equally". Although alcohol use remains the main drug problem presenting to New Zealand alcohol and drug services, the use of cannabis, particularly in combination with alcohol, needs increasing attention by clinicians and clinical researchers alike.

Regarding drug use patterns, there were no significant differences noted in any of the substances used (in the week prior to assessment), except nicotine, which rose from 29.3% in 2000, through 38.2% in 2001, to 61.8% in presenting clients in 2002 ($p<0.01$). This apparent rise in use is almost certainly a combination of increasing awareness of nicotine use by alcohol and drug patients in both ADTWs and the research assistants working on this project. Of note there was no change in the use of stimulants across the years 2000 – 2002. The averaged percentage of clients who have used stimulants (either orally, intravenously or combined) across the three years is 6.8%. Alcohol (at 60.5%), cannabis (at 42.9%) and nicotine (at 40.1%) remain the most used drugs in the previous week by presenting clients, followed by benzodiazepines (at 13.6%), opioids (at 10.9%) and stimulants (at 6.8%). Only 3.4% of clients have used hallucinogens, 0.7% inhalents and 0.7% "other".

Part 2: Leaving ADTWs

The percentage of ADTWs who have left their treatment service over the past three years has been 39.1% in 2000, 41.1% in 2001, 34.0% in 2002, yielding an average of 38.1%. When ADTW demographics are examined, leavers are younger (39.6 years) than stayers (45.5 years) ($p=0.002$), even though a number of leavers were retiring in their 60s. No significant differences in gender or ethnicity were found. In terms of where the leavers had gone, it was found that 10.6% had gone to another alcohol and drug treatment service, 10.6% had gone to a mental health service and 29.8% to "other". Details of nearly half (48.9%) were not able to be obtained from the service.

Dr David Chaplow, Director of Mental Health has recently written, "services 'bleeding' staff at 30% per annum are usually in big trouble". What does this mean for alcohol and drug treatment services that are "gushing" at 38.1% per annum?

It is suggested that retention of existing ADTWs be viewed as a fundamental priority for workforce development and perhaps introduced as a key measure of service manager adequacy. ADTWs' pay and conditions need to be urgently investigated and any discrepancies with other health workers with similar responsibilities highlighted. Finally, active encouragement of ADTWs by service managers to undertake relevant postgraduate training may be an important retention mechanism.

A Comparison Between Rural And Urban Alcohol Dependent Males in Residential Treatment

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Introduction

This was a 5-year retrospective study of 136 'first admission' residents at the Nova Lodge Alcohol & Drug Residential Treatment Programme, Christchurch.

Research setting

The Nova programme is a horticultural work-based programme based on the Canadian Bon Accord philosophy of minimal counselling. It caters for men and women over 30 years of age who have attended at least one other residential programme. Almost all residents have been contained under Section 8 or Section 9 of the Alcoholism & Drug Addiction Act (1966).

Study aims

The study was designed to explore rural and urban trends in age, diagnosed anxiety, depression, antisocial personality disorder, diabetes and peripheral neuropathy as well as documented drink driving related offences and relationship difficulties. The hypothesis was that rural men present for their first treatment at Nova Lodge at an older age with more complex problems than their urban counterparts.

Methodology

Nova records over the five-year period between 1 January 1996 and 30 December 2001 showed 514 admissions. After elimination of respite care, returnees, polyaddiction and female clients 136 subjects remained. Individual client records were used to determine place of residence at time of admission, age problem areas and Section 8 and Section 9 status. Data were collated into consecutive age groups of equal size and into relevant categories before being converted into straight percentages.

Clients who had shifted from one category to another in the 12 months prior to admission were classified according to where their records indicated they had spent 10 years or more of 'problem use time'.

The groups at either end of the sample were used to highlight trends.

Results

In the following table 'Group Y' refers to the youngest quarter of the surveyed group and 'Group O' refers to the oldest quarter. Group Y has a mean age of 33.5 years and Group O a mean average age of 59.5 years.

	Group Y Rural %	Group Y Urban %	Group O Rural %	Group O Urban %
Group Composition	38	62	50	50
Anxiety/Depression	38	24	18	30
A.S.P.D.	8	19	0	12
Diabetes/P.N.	0	0	18	6
Relationship Issues	15	57	54	48
Drink/drive Issues	54	43	36	24

Group composition findings show the hypothesis to be correct with regards to age at admission to Nova. Rural men or 40% of the total sample represent 50% of the older age group.

Anxiety and depression group composition show these disorders are more commonly reported amongst younger rural men. This trend is reversed in the older age group. Further division of these disorders into separate issues of concern is necessary to determine whether the trends in prevalence in this study are similar to those in other studies.

The overall composition for antisocial personality disorder, a disorder commonly associated with substance use disorders, shows findings similar to those in other literature, that this disorder abates with maturity. Comparison of the rural/urban age groups may show a difference in the frequency of diagnoses made by rural and urban clinicians.

The findings for diabetes and peripheral neuropathy, medical conditions often discussed in literature in relation to alcohol use and older adults reflect expectations. It is interesting to note the difference in the frequency of diagnoses amongst the rural/urban older group. Separation of these disorders is required to highlight trends in the prevalence rates overall.

Figures for drink driving related offences reflect findings by the Land Transport Authority that drink driving related offences decline with age and men from rural districts have a consistently high incidence of offending than their urban counterparts.

Relationship issues are reported less frequently amongst younger men from rural backgrounds. In the older group a relatively equal level of problems occur.

Clinical Implications

This comparison of rural and urban male 'chronic' alcoholic men in long-term residential treatment has highlighted some indicators that suggest possible trends amongst Nova residents and perhaps the wider alcohol and drug community.

It has also highlighted the necessity to re-evaluate the data gathered in relation to anxiety, depression, diabetes and peripheral neuropathy as separate issues of concern to determine the prevalence rates for each separate disorder. Detailed results will be made available when this research is published in full.

A practical implication of these findings is the need for other residential treatment programmes to:

- Actively determine whether these findings are reflected in their own data.
- Verify current concerns of professionals in regard to appropriate skills and training for clinicians working with substance use disorder clients.

It is apparent that the results of this work confirm only the part of the hypothesis relating to rural/urban ages at admission.

Initial comments from Nova staff suggest strongly that the rate of diagnosed co-existing disorders at admission are lower than those that become apparent during treatment. Whether this is a reflection of the possibility that clinicians tailor their applications to meet their perceived view of each individual residential programme may only be determined by further investigation.

Finally, whether the findings in this study are representative of the wider alcohol and drug treatment community, particularly other residential treatment programmes, also requires further investigation.

Acknowledgement

Special thanks to the staff of Nova Lodge, especially Doug Hendrie, for their co-operation and support of this study.

SMOKING CESSATION AND THE RELATIONSHIP TO DRUG PROBLEMS

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Introduction

This research investigated links between problematic use of specific psychoactive substances and the difficulties users experience giving up cigarette smoking.

There are indications in the literature of a high level of comorbidity between problematic alcohol use and cigarette smoking and that cigarette smoking is predominant in individuals entering alcohol and drug treatment. Smoking cigarettes has been associated with coping behaviours in individuals with alcohol and drug problems and cessation of smoking has been linked to relapse to other substances when attempted in early recovery. Nicotine has both stimulant and a depressant/anxiolytic effect, alcohol has depressant effects, and the comparisons appear to compliment one another, physiologically and physically.

On the basis of the existing research, it was hypothesised that there may be an association between certain problematic drug use, particularly depressant substances, and the difficulties in smoking cessation.

Methods

A questionnaire was designed in two parts, for current and past smokers. The sample were 23 current or ex-smoker Bachelor of Alcohol and Drug studies students from Wellington Institute of Technology, Christchurch Campus.

The questionnaire contained questions to elicit information about current smoking status, methods used to give up smoking, reasons for starting smoking, reasons for wanting to stop smoking, and specific past and problematic drug use.

Results

Of the 23 students sampled, 13 were current smokers. The results indicated that the main reason for starting smoking was related to social pressures followed by "experimental". Eleven out of the 13 current smokers cited "habit" as the main reason for continuing smoking; ten cited pleasure and relaxation, six to be sociable and three, depression. Health was highlighted as the main reason for attempting to stop smoking by over half of the sample (8 of 13). Ten of the current smokers and seven of the ex-smokers admitted to histories of problematic substance use. Ten of the smokers and five of the ex-smokers had past alcohol problems, four smokers and three ex-smokers had past cannabis problems and six smokers and three ex-smokers admitted to past opioid use problems.

Thirteen of the 23 sampled reported that they found cigarettes more difficult to give up than other substances, the majority of these (10), were current smokers. Reasons cited as to why cigarettes are more difficult to give up than other substances were: not illegal as some substances are, readily available, close as a dairy, not as shame-based as certain substances, cigarettes do not have as dramatic an effect on people's life style, and finally can be used more frequently than substances that are illegal and hard to obtain. Other reasons people gave suggested that smoking is acceptable, the harmful effects are not obvious for a time, people often believe they have time to stop before the consequences are obvious, behaviour changes were believed to not effect others and cigarettes are cheaper than other substances.

The most common and successful method reported of stopping smoking and staying stopped was acupuncture and hypnosis.

Discussion

The results from the sample indicating that acupuncture and hypnosis were the most common way of ceasing smoking successfully are interesting as these methods are not subsidised by the government, unlike nicotine replacement therapies, although the latter have stronger scientific backing. Although this sample was small, there maybe a place for more research around alternative methods of cessation relevant to individuals with histories of other substance dependence. There also appeared to be a relationship between past problematic use of alcohol and other substances and difficulty associated with giving up smoking. Another interesting finding was that the main reasons for ceasing or wanting to cease smoking were health concerns and the financial cost of smoking. Also worthy of note, was that with nicotine having depressant properties and the most used and problematic substance of choice being alcohol there may have been a link here with the two substances.

Treatment Implications

A history of specific problematic substance use may be a negative indicator in regard to successfully ceasing smoking. As suggested in the results, alternative methods of stopping smoking may have a better result than traditional methods. This suggests that support in early recovery with substance use and nicotine dependence may be a key to better treatment outcomes. In conclusion, if smoking is a coping behaviour when giving up substances, then there is room for further research in this area to investigate a way of treating and supporting cessation to nicotine and other substances.

WITNESSING INTERPARENTAL VIOLENCE IN THE CHILDHOODS OF ALCOHOL AND/OR DRUG DEPENDENT WOMEN

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Background

Domestic violence is increasing in New Zealand and many children are being exposed to behaviour that impacts on their future development psychologically, socially and spiritually. Research indicates that exposure to high levels of inter-parental violence during childhood may increase the risk of developing anxiety, depression, post-traumatic stress disorder, conduct disorder and problems with alcohol later in life. Long-term psychological consequences include low self-esteem, a sense of isolation, substance abuse, sexual problems, self-destructive acts and behavioural problems such as lying, stealing and underachievement. The effects may be internalised (anxiety, fear, somatic problems, depression and withdrawal) or externalised (aggression, disobedience and destructiveness) dependent on age and gender. Higher levels of anxiety have been found in both young men and women with women showing more depression and aggression. Exposure to violence impacts on the child's view of self and the world. As adults they may be less capable of recognising the emotional states of others, less empathetic, and poor on role enactment and social inference. Subtle symptoms that effect responses and attitudes about conflict resolution include difficulties in assigning responsibility for violence and a lack of skills in dealing with violent incidents.

Methodology

Data were used from the Community Alcohol and Drug Service Women's Study [Berry & Sellman, 2001]. These were entered into SPSS for statistical analysis. The present study compared women who reported witnessing violence in their first 15 years and those who did not. The Parental Bonding Instrument (PBI) was used to identify the degree of parental care and over protectiveness. Hopkins Symptom Checklist (SCL-90) was used to determine current psychiatric symptoms. DSM-IV criteria were used to measure Conduct Disorder, Anti-Social Personality Disorder and Lifetime Diagnosis of Major Depression and Social Phobia. A Childhood Adversity Questionnaire was used to measure Severe Childhood Physical Abuse, Severe Childhood Sexual Abuse and Severe Childhood Emotional Abuse and Suicide Attempts. The sample included 80 women consecutively admitted to treatment for alcohol and/or drug dependence. Their ages ranged from 18-73 years with a mean age of 31. Twenty percent of the sample were Maori , 76% non-Maori, 3% Pacific Island and 1% recorded as Other.

Results

The scores from the PBI of those women who had witnessed inter-parental violence indicated affectionless control. Maternal care was significantly lower in those

exposed to witnessing violence compared with those who had not. SCL-90 scores in those who had witnessed violence were high for the somatisation, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, anger/hostility and paranoid ideation sub-scales, suggestive that women who witness violence may be susceptible to psychiatric symptomology later in life. Those who had witnessed violence were also significantly more likely to have conduct disorder and social phobia, severe childhood physical abuse, severe childhood sexual abuse and severe childhood emotional abuse, than those who had not witnessed violence.

Discussion

The results of this study suggest that witnessing inter-parental violence in childhood may increase the risk of developing long-term adverse consequences. Those who had not witnessed violence had significantly lower maternal care scores and significantly higher maternal over protectiveness. The scores for paternal care and over protectiveness were similar overall suggesting that those who witness violence may experience being estranged from the natural bonding process and therefore may find difficulty in maintaining and nurturing relationships of their own in the future. The high level of current psychiatric symptomatology reported supports the suggestion that those who witness violence in childhood may be effected in the long-term. The group that witnessed violence reported increased somatic problems, obsessive compulsive behaviours, over sensitivity, depressed mood, more anxiety, increased anger/hostility and increased paranoid ideation. The results for conduct disorder were significant as were the percentage of anti-personality disorder compared to the group that had not witnessed violence. The increase in lifetime prevalence of social phobia in those who had witnessed violence may indicate that those that observe domestic violence are subject to higher rates of low self-esteem and self-worth. Those that witnessed inter-parental violence in childhood also reported a high level of exposure to severe childhood physical, sexual and emotional abuse. These women who had witnessed inter-parental violence in childhood are also likely to have been exposed to other adverse childhood abuse which may explain the overall social anxiety problems. Nevertheless, it is reasonable to suggest that witnessing violence in childhood may be as significant as other childhood adversity in regards to future development.

Treatment Implications

Historical indications of witnessing violence need to be explored thoroughly to determine the extent of any possible long-term effects either psychologically or socially. It is important to be aware of a woman's current emotional and mental state and that of any dependants she may have. If evidence of a continuing cycle of risk is occurring immediate crisis intervention may be required. Due to the high degree of anger and hostility predicted by the results of this study, and others, anger management strategies involving conflict resolution need to be administered. Incorporating skills that assist in identifying and expressing emotions in a healthy and safe way need to be included into the treatment plan. This needs to be complimented by cognitive behavioural techniques that explore negative core beliefs that have led to low self-esteem, isolation, the intolerance of feelings and self-destructive behavioural problems.

Summary

In summary the research suggests that those women who witnessed inter-parental violence in childhood appear to present with symptomatology that may impact on their lives and family relations in their futures. Studies have supported the hypothesis that violence begets violence and without adequate intervention these women may be at 'risk' of exposing their own children to domestic violence if the cycle continues. It needs to be highlighted that health and welfare professionals cannot intervene legally to protect children who witness extreme domestic violence unless there is evidence of physical or sexual child abuse occurring.

PERSONALITY TRAITS OF ALCOHOL AND DRUG DEPENDENT WOMEN IN RELATION TO ADOPTION AND CURRENT PSYCHIATRIC SYMPTOMS

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Introduction

The loss of cultural identity is often reported to be an etiological factor in the development of many mental disorders, from the increased suicide rate of the Irish living in England, to the drinking problems of Native Americans. In New Zealand, it is reported that for Mäori, the reclaiming of their cultural identity is a significant part of their recovery from alcohol and drug problems. Therefore, I considered whether a loss of cultural and personal identity would have a similar impact on adoptees who have developed alcohol and drug dependence, as adopted children in New Zealand typically grow up severed from all knowledge of their family of origin.

Methodology

To test this idea, data from a sample of 80 alcohol and/or drug dependent women who were consecutively admitted to the Community Alcohol and Drug Service in Christchurch during 1997 [Berry & Sellman 2001] was analysed. The women ranged in age from 18 to 73 years, and had all been asked to describe the circumstances of their upbringing for their first fifteen years. On the basis of these answers, the data were divided into three groups for the purpose of ascertaining any differences experienced by the adoptees.

The first group consisted of women who indicated that they had been adopted within their first year, and had been raised by both of their adopted parents for their first 15 years, (Adoptees, n = 10). The second group had all been raised by both of their biological parents for their first 15 years, (Biologicals, n = 43). The third group consisted of women who had been raised in a variety of settings, which included being raised by a single parent, foster parents, grandparents, or being brought up in an institution, (Others, n = 27).

The Hopkins Symptom Checklist, SCL-90, was employed to measure current psychiatric symptoms. The SCL-90 comprises of 90 self-report questions that reflect current psychiatric symptoms, and is divided into nine sub-scales consisting of Somatisation, Obsessive-compulsive, Interpersonal Sensitivity, Depression, Anxiety, Anger-hostility, Phobic Anxiety, Paranoid Ideation and Psychoticism. The SCL-90 is self-scored on a scale of 0 – 4, 0 being not at all and 4 meaning experienced extremely. Only scores indicating significant psychiatric symptomatology have been included in the results, and those scores have been expressed as a percentage to highlight the scoring differences between the groups.

The Temperament and Character Inventory, the TCI-144, was used to measure Personality problems and consists of 144 self-report true/false questions, divided into four dimensions of temperament: Novelty Seeking, Harm Avoidance, Reward Dependence, and Persistence, and three dimensions of character: Self-directedness, Co-operativeness and Self-transcendence. All data were analysed with SPSS software.

Results

The first result of note is that the Adoptees were over-represented in the sample at 12.5%, as in 1996, Adoptees only made up 2.3% of the general population.

The Adoptees' scores on the SCL-90 ranged between 37% - 54% higher than the Biological group. The Adoptees also had higher scores for significant psychiatric symptoms than either of the other two groups on six out of the nine SCL-90 sub-scales. The most significant differences in scores appeared in Paranoid Ideation, which was experienced by 80% of Adoptees, and 42% of Biologicals, Depression (70% of Adoptees and 44% of Biologicals), and Interpersonal Sensitivity (70% of Adoptees and 40% of Biologicals).

The Adoptees' TCI scores showed differences to the Biologicals in all of the TCI dimensions, being higher in Reward Dependence, Persistence and Self Transcendence than the Biologicals, and lower than the Biologicals in Novelty Seeking, Harm Avoidance, Self-directedness and Co-operation. The largest gap in the scores occurring in Reward Dependence and Self-Transcendence.

Discussion

The results of this study indicate that alcohol and/or drug dependent Adoptees do experience more current psychiatric symptoms and personality differences than reported by the Biologicals, which is significant in that both groups experienced being raised by two parents. It is also interesting that the Others, who did not have a two parent family in childhood, often reported less current psychiatric symptoms than the Adoptees.

As my hypothesis was that adoptees might experience difficulties through their loss of culture and personal identity, it is particularly interesting to note the Adoptees' high scores for Paranoid Ideation and Interpersonal Sensitivity. Paranoid Ideation describes a person who believes that they are talked about, watched, disadvantaged, and feels distrustful, and Interpersonal Sensitivity describes a person who feels very self conscious, inferior, disliked, misunderstood, shy, uneasy and critical of others.

These results may be consistent with a person suffering a loss of culture and personal identity, which is also reflected by the differing results of the TCI for the Adoptees. High Reward Dependence can contribute to sensitivity to social loss, which may pose problems for an adoptee with no knowledge of their personal and cultural identity and high Persistence can be viewed as perfectionist tendencies that may be about not making mistakes to avoid rejection. High Self-Transcendence indicates a person who is patient, creative and self-forgetful, which could also be seen as consistent with a person wanting to belong.

This study has shown that the Adoptees with alcohol and drug dependence do appear to experience unique, specific problems compared to the Biologicals, however further research is required to determine whether a loss of culture and personal identity is an etiological factor.

Treatment Implications

In gathering assessment information it may be important to specifically ask whether the client is adopted, as high levels of Interpersonal Sensitivity and Paranoid Ideation may mean that an adoptee may experience difficulty in engaging in treatment. It is also important for clinicians to be aware that an adoptee may have specific, unique problems involving their identity and culture, and may need to be encouraged to seek their own identity.

THE DEVELOPMENT AND VALIDATION OF THE AUSTRALASIAN AUDIT

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The rationale for screening and brief assessment is based on evidence that most people with alcohol misuse remain undetected. Primary care practitioners are not familiar with diagnosing alcohol misuse and as a result many people present with late stage complications. There is considerable opportunity to reduce alcohol-related harm through brief interventions, which requires the need for simple screening and brief assessment instruments. Identifying hazardous substance use before harm occurs is important, as there is substantial evidence for the effectiveness of brief interventions for hazardous alcohol consumption. A five-minute brief intervention among hazardous drinkers reduces alcohol intake by 30% over a two-year period.

The WHO Collaborative Studies on early intervention have gone through four phases:

Phase 1 Development of simple screening instruments to detect hazardous and harmful alcohol consumption (the "AUDIT" – Alcohol Use Disorders Identification Test)

Phase 2 Development and evaluation in a randomised controlled trial of simple methods of intervention

Phase 3 Assessment of current practices and perceptions of primary care professionals, and trialing of techniques for disseminating early intervention

Phase 4 Implementing country-wide screening and brief intervention in primary health care

The purpose of the AUDIT is as a screening and brief assessment instrument. It was developed to be used in primary care settings, health and other sectors primarily for early identification of people with hazardous and/or harmful alcohol use and alcohol abuse. It comprises 10 questions each scored 0-4, making a total possible score of 40. Characteristics of the AUDIT are that it is theoretically driven, applying the tri-dimensional concept of intake, drinking behaviour (dependence) and problems. It is also empirically based asking questions representative of conceptual domains and with good discriminant validity. The AUDIT is derived from data gathered in an international collaborative study from countries with different political and economic systems. All questions have high face validity and focus on events in the last 12 months, but includes a screen for previous problems. The AUDIT captures different levels and patterns of alcohol consumption and elicits different features of dependence, both behavioural and physiological, as well as different aspects of problems such as psychological, medical and trauma. Further, the AUDIT has an inbuilt screen for physiological dependence on alcohol.

The AUDIT is effective as a management tool because its interpretation is as simple or as complex as the user wishes and provides a total score and scores for subsets of

questions. It can be linked to a decision tree for management and offers a framework for therapy including feedback, advice and problem-solving.
Interpretation of the AUDIT score is as follows:

0		Abstainer
1-7	}	Non-hazardous
	}	"safe" drinking
8-12	}	Hazardous or harmful alcohol use
13+	}	Alcohol dependence

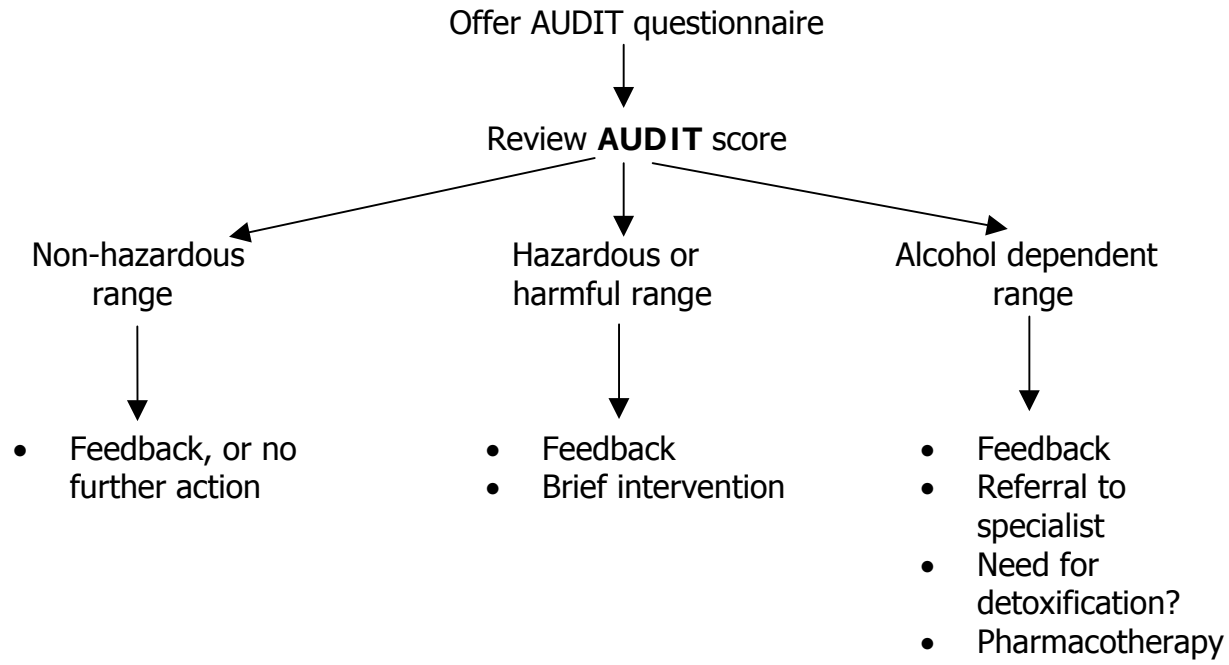
The international AUDIT has high sensitivity (80-95%) and specificity (70-90%) and has been shown to have good predictive validity.

The development of the AusAUDIT has followed on from the wide acceptance of the international AUDIT. A specific need arose to capture NH&MRC criteria for hazardous drinking. A review of the wording of the AUDIT and a re-examination of the cut-off scores was initiated.

The AusAUDIT was found to have high sensitivity but lower specificity (30-58%). The AusAUDIT is appropriate to screen for hazardous drinking prior to further questioning, but as a single-stage screening tool for the spectrum of alcohol misuse, the international AUDIT offers a greater degree of validity.

Finally, below is a clinically useful Decision Tree using the AUDIT questionnaire.

<u>Decision Tree</u>



COMPUTER-BASED APPROACHES TO THE SCREENING, ASSESSMENT AND TREATMENT OF ALCOHOL AND DRUG PROBLEMS

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The growth in popularity of the Internet has resulted in increased interest in using computers to deliver health assessments and interventions. The Internet is a popular medium for obtaining health information. For instance, in a recent American survey 68% of 15-24 year olds reported finding health information on the Internet (Kaiser Family Foundation, 2001). There are numerous anonymous questionnaires, self-help and health promotion information designed to reduce substance abuse, available on the Internet (Skinner et al., 2001).

There are many advantages of this approach over more traditional forms of delivery. Computerised instruments can be modified in real time, based on information obtained from the respondent. Individuals are asked only questions relevant to their experience, decreasing completion time and reducing frustration for the respondent. Responses can then be used to generate feedback with reference to client characteristics, a critical feature of brief interventions (Miller & Rollnick, 1991).

Use of multimedia can make assessment or intervention instruments more appealing by the inclusion of graphics, animation and sound. This is particularly important for engaging young people, a group resistant to traditional modes of delivery (Skinner et al., 2001). Multimedia offers other advantages, such as having items "spoken" to the participant using pre-recorded audio files, potentially avoiding literacy barriers while retaining the confidentiality of a self-report questionnaire (Watson et al., 2001).

These strengths allow the computerised approach to better mimic the behaviour of a clinician or interviewer than a pen-and-paper assessment. In some situations, it may even be preferable to face-to-face contact. For example, Turner et al. (1998) report that the use of a computerised audio interview with adolescents resulted in greater reporting of high-risk sexual behaviours and illicit drug use than the pen-and-paper method.

Computerised versions of assessment tools have been developed and applied with some success. For example, Skinner and Allen (1983) compared the use of a

computer-based assessment of alcohol, tobacco and other drug use with a pen-and-paper questionnaire and a face-to-face interview. Scores on the assessment instruments did not differ across formats. Although the computer-based assessment was rated as less friendly than the traditional formats, it was also perceived as shorter, more relaxing, more interesting and faster to complete.

More recently, Butler et al. (2001) developed a computer-based version of the Addiction Severity Index (ASI), an interview–format assessment tool. The authors report satisfactory test-retest reliability of a computer version and generally high correlations in specific domain scores across the two formats. Anecdotal reports and completion rates suggest high acceptance of this approach among clients.

These studies suggest that the scores obtained from computer-based assessments of drug and alcohol problems do not differ from those obtained with more traditional formats. Moreover, there appears to be an acceptance of this approach and, in some cases, participants reveal more sensitive information when being assessed by computer.

The computer could therefore be a useful tool for brief intervention. Brief intervention usually involves providing a client with feedback about their level of substance use, comparison with norms and estimates of risk if current substance use levels are not modified. Computer-based intervention tools could provide this feedback immediately upon completion of an assessment. The brief intervention approach has demonstrated efficacy when delivered face-to-face (see Moyer et al, 2002, for review) and with self-help materials (Cunningham et al., 2001; Heather et al., 1986). Evidence is lacking for the effectiveness of computer-based brief interventions. Although work is being conducted in this area (Cunningham et al., 2000; Dimeff & McNeely, 2002; Squires & Hester, in press), there are no reports in the scientific literature that provide quantitative data to assess the efficacy of computer-based interventions for drug and alcohol problems.

The IPRU is currently conducting a trial to examine the efficacy of a computer-based screening and brief intervention tool for hazardous drinking among tertiary students. Pre-testing in the student population suggested that students would be reluctant to discuss their alcohol use with a practitioner, but would be amenable to receiving personalised information and feedback by computer. Students attending the University of Otago's Student Health Service were invited to complete a short alcohol assessment by computer in the waiting area. Of those invited to participate, 88% consented to do so. The computer requested demographic information and details of alcohol use, including the AUDIT (Saunders et al., 1993). The criteria for screening positive were an AUDIT score $\geq$ 8, and a heavy drinking episode in the last four weeks, defined as six or more drinks per occasion for males, and four or more for females (ALAC, 1995). The computer randomly assigned participants who screened positive to intervention or control conditions. The control group received a leaflet about sensible upper limits for drinking. The intervention group was asked further questions concerning their drinking, alcohol-related problems and their perceptions of drinking norms. They were then presented with computer feedback including a summary of their drinking, assessment of risk levels and estimated blood-alcohol concentrations, comparisons with university and national norms, and a correction where they had over-estimated the occurrence of heavy episodic drinking and

vomiting. Six-week follow-up data were obtained for both the intervention and control conditions via a secure website. Six-month follow-up is currently underway.

The high levels of participation and interest from students in screening and brief intervention have been encouraging. The ability to administer the intervention with minimal disruption to service at the largest primary care facility for young people in New Zealand demonstrates the feasibility of this approach. A larger scale trial will commence in 2003. Outcome data from this pilot trial will be available in 2003.

AMPHETAMINE USE IN A METHADONE MAINTENANCE TREATMENT POPULATION

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Anecdotal reports of an amphetamine 'epidemic' appear to have been widespread throughout the New Zealand community in recent times. This study aimed to measure the reported use of amphetamine by clients of the Auckland Regional Methadone Service (ARMS), and to determine whether this use had changed with time.

Background

It would seem reasonable to expect that any increase in amphetamine use in the general population would be accompanied by a corresponding increase in use amongst methadone maintenance clients. The harms associated with amphetamine use are varied and relative to the route of use. Of concern is the information that intravenous use of amphetamines was found to be common, particularly among regular users, in one Australian study, and that 25% of those accessing Sydney needle exchanges in 2001 were primarily amphetamine users.

The Alcohol & Public Health Research Unit, National Surveys on Drug Use in New Zealand, showed an upward trend in the use of amphetamine type stimulants from 1990 to 2001. In 1990, the proportion of subjects who had ever tried stimulants was 5%, a figure which rose to 11.9% by 2001. Current stimulant use had also risen from 1.1% in 1990 to 3.7% in 2001.

Within the Regional Alcohol and Drug Service in Auckland, it was found that 15% of people triaged at Community Alcohol and Drug units in the 12 months from July 2001 to June 2002 were identified as having an amphetamine problem. This was defined by a Severity of Dependence Scale score of 4 or more. An average of 23% of clients across all age groups presenting to triage during the same period reported having used amphetamines within the last 6 months. This figure was higher for the under 30 age group, with 36% of women aged 20 or younger reporting amphetamine use within the last 6 months.

Method

Data collected from the regular assessment of clients of ARMS was analysed in order to measure reported rates of amphetamine use. This data is collected in the form of two surveys. The Opioid Treatment Index (OTI) is a survey which is completed on admission to Methadone Maintenance Treatment, and the Methadone Assessment Tool (MAT) is a survey which is completed on transferring of the client from the stabilisation phase to the maintenance phase of treatment, and at six monthly

intervals thereafter. Both surveys measure illicit drug use, sexual and injecting practises, social situation and general health.

Results

OTI (Admission Survey)

In the first six months of 1997, 12% of those completing the OTI answered yes to the question: "Have you used amphetamines in the last four weeks?" In the first six months of 2002, this figure had risen to 37%, having peaked in late 2000 at 50%. The increase from 1997 to 2002 was statistically significant.

MAT (Six Monthly Survey)

In the last six months of 1999, 5.5% of those completing the MAT answered yes to the question: "Have you used amphetamines in the last four weeks?" This figure steadily rose to 10.8% by early 2002. While this difference was not *quite* statistically significant, it is still of interest.

A comparison of the findings for the OTI and MAT data from late 1999 onwards showed a difference between those who were entering treatment (OTI) and those already in treatment (MAT). Those who entered treatment in the first six months of 2002, for example, appear to have been almost four times more likely to report amphetamine use in the preceding four weeks than those already in treatment.

Discussion

It appears that an increase in the incidence of amphetamine use has occurred within the Auckland Regional Methadone Services program over the last five years. This increase has been significant, especially for those entering treatment. Of note were the lower rates of reported use in those who had achieved stability in methadone maintenance treatment. While this may be accounted for by a lack of willingness of clients to self report illicit drug use, it should be considered in the context of a program which has an emphasis on self-report as a means of monitoring drug use, as opposed to urinalysis, and attempts to take a non-punitive approach where possible.

The risks inherent in the intravenous use of amphetamine are significant, and it is important to note that intravenous use is not the sole realm of the opiate user. It would seem highly likely that primary intravenous amphetamine users exist within the New Zealand community.

Limitations of the study include the fact that the MAT and OTI did not assess the route of administration of particular drugs, so that it was not possible to ascertain whether the amphetamine used was injected, smoked or otherwise. There was also a delay in data being entered, which may have impacted on the value of the data collected, as both casemanagers and clients were not able to see the value of collection.

For future studies, it would be of interest to investigate the relationship between reported amphetamine use and sexual and injecting practises. It would also be of interest to investigate whether a difference in general health exists between those who do and do not report amphetamine use.

CANNABIS AND ADOLESCENT COGNITIVE FUNCTIONING: PRELIMINARY RESULTS

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Drug and alcohol use by adolescents in New Zealand is on the increase. Particularly pertinent to this country is the use and abuse of cannabis. By the age of 21 years 70% of adolescents will have tried cannabis. Also by this age there is a 9% risk of developing a DSM-IV disorder for cannabis – 15% for Māori of the same age (Fergusson & Horwood, 2000). Around 30% of people presenting to A&D services are having problems with cannabis. Youth presenting for treatment are doing so primarily for alcohol and cannabis difficulties (Adamson et al, 2000). Cannabis is known to be a drug with acute cognitive effects (memory loss, time distortion) and has recognised long-term effects on cognition (Solowij, 1998). What is not known is the long-term effect cannabis is having on adolescent cognitive functioning. This is a preliminary report of a study designed to measure adolescent cognition in relation to cannabis use.

Briefly – the study measures adolescent drug use and frequency as well as mood, psychiatric functioning, personality, general functioning and demographics. In addition we are utilising a computer package developed in the United Kingdom, which through interactive tasks measures cognitive functioning and is able to distinguish very subtle deficits. Adolescents are being recruited from the Youth Specialty Service, which is an outpatient unit located at Hillmorton Hospital, Christchurch with a specific Alcohol & Drug stream. As well as the initial interview adolescents will be questioned at a 3-month follow-up to investigate any possible reversal of cognitive deficits noted at baseline. The majority of the interviews are conducted at the NCTD to maintain testing consistency. Data collection is now underway and this presentation reported the profiles of four early subjects.

The profiles of the adolescents interviewed showed the variation we expected. The four adolescents profiled ranged in age from 14 to 16 years, 3 were female and 1 male. Two lived with only their mother, one with mother and father and one was currently attending an inpatient facility. Three were presently attending high school, though one only part-time.

Adolescent alcohol and drug use is shown in Table 1. Experience with drugs was mixed. All adolescents used nicotine regularly and most used alcohol heavily at some point in time. Current cannabis use varied from occasional to daily use. Occasional or regular use of other drugs was diverse – one adolescent used only cannabis, alcohol and nicotine, while another has tried most drugs, including injected use of a substance she could not identify. The age of onset of use of most drugs was 10-years or older.

Table 1: Adolescent alcohol and drug use

Subject	14 year-old Female	16 year-old Female	15 year-old Female	15 year-old Male
Regular	Alcohol Cannabis Nicotine	Alcohol Cannabis Nicotine Hallucinogens Benzodiazepines	Cannabis Nicotine	Alcohol Cannabis Non injected - opioids Inhalents Nicotine
Occasional	Inhalents	Inhalents Non injected - stimulants Injected - "purple"	Alcohol Inhalents Hallucinogens	Non injected - benzodiazepines Non injected - stimulants Hallucinogens
Last Month	Alcohol Cannabis Nicotine	Alcohol Nicotine	Cannabis Nicotine	Cannabis Mescaline Inhalents Nicotine
Urine Analysis	Caffeine Nicotine	Caffeine Anti-depressant Cough lozenger	Cannabis	Mood stabiliser

Cognitive ability was likewise assorted. Adolescent cognitive functioning is shown in Table 2. IQs ranged from 77 (borderline) to 119 (high average). Rey Auditory Verbal Learning Task (RAVLT) scores were consistent at the average level aside from the 15-year-old male. Digit Span scores varied around the population average of 11. Symbol Digit Modalities Task (SDMT) results were a little more consistent. In Table 2 the CANTAB task results are given in percentiles. The fiftieth percentile is average with scores higher than 50 indicating better cognitive ability. Space limitations preclude extensive explanation of the CANTAB tasks. The predominant impression that these CANTAB scores portray is of the diverseness of ability both between and within subjects in all aspects of cognition. There was little individual consistency on any cognitive tests or CANTAB results and no pattern as yet emerges (understandably at this early stage) in terms of the relation to cannabis use.

There was also no uniformity in regard to the intervening variables. Socio-economic status and personality differed. Psychiatric functioning had some common elements such as depression and substance abuse and/or dependence, however variation occurred with the presence of anxiety disorders. Two adolescent females had conduct disorder with onset at ages 5 and 10-years. One of the adolescent females had ADHD as a child and received counselling for this. Measures of mood had

unexpected results. Beck Depression Inventory scores ranged from minimal to moderate. Hamilton Depression Rating Scale scores were all low. Current mood, as measured by a Visual Analogue Mood Scale, varied from 4 to 8 on a scale of 10. Interestingly the adolescent who was currently in an inpatient unit had the lowest depression scores and highest VAMS score.

Table 2: Adolescent cognitive functioning

Subject	**14 year-old Female**	**16 year-old Female**	**15 year-old Female**	**15 year-old Male**
IQ = 100	77	99	119	90
RAVLT (out of 15)	12	13	13	5
DIGIT SPAN (out of 28)	4	10	17	16
SDMT	29	36	36	30
CANTAB – IDED (attention)	50	63	95	63
CANTAB – PAL (learning)	38	50	90	50
CANTAB – RVP (attention)	63	18	8	<5
CANTAB – SSP (memory)	18	63	90	18
CANTAB – SWM (memory)	63	18	63	38

In summary, cannabis and other drug use, cognitive ability and intervening variables across the four adolescents profiled showed, even at this very early stage, the variation researchers were expecting to find. This variation will give statistical analysis of the relationship between cannabis and cognition more informative power. Further quantitative results from this project will be presented at Cutting Edge 2003.

"HIGH TEA"
DRINKING OPIUM FROM POPPY SEED TEA:
AN EMERGING ABUSE PHENOMENON

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Whilst 'poppy tea' per se is not a new phenomenon it is believed that 'poppy seed tea' use is an emerging New Zealand phenomenon. In recent years ADDOX clinicians have noted an increased prevalence of the use of poppy seed tea use amongst its opiate using clients.

The *papaver somniferum*, the opium poppy, is the only species of the *papaver*/poppy genus that contains opium. It is grown in as many as 108 countries in the world for its seed, for medicinal purposes and for its opium. There are a number of varieties, some of which can grow up to a metre in height and which flower in a range of reds and purples through spring and into summer. After it flowers, the petals drop leaving bulbous green capsules on the stalks. These pods contain the milky latex of the opium. A number of alkaloids exist in this opium including morphine - a pain killer, codeine – a cough suppressant/analgesic, papaverine – a muscle relaxant and the baine which has stimulatory properties. It appears that these concentrations come in different ratios pending the variety of papaver somniferum, the climate and the growing conditions. The seed itself is a tiny oily seed, of which there are between two to three and a half million in a kilo and coloured white through to black.

The opium poppy itself is not a new phenomenon. Its powers have been recognised as far back as 3400BC by the Sumerians where it was known as 'Hul Gil' the flower of joy. By the year 1000 it was widely used as a household remedy and for medicinal purposes by the Indians and the Chinese. Throughout the 1800's its use was widespread throughout Europe in the medicinal form of laudanum and more specifically in the Fennish region of England where the plant was boiled up in to a 'poppy tea' solution.

In New Zealand, the plant was recognised as a naturalised wild flower in 1883, and by 1975 was listed as a prohibited plant under the Misuse of Drugs Act. The 'poppy seed defence' has had an impact on workplace urine drug screens largely across the United States, with just 2 bagels topped with poppy seeds being sufficient to produce a positive opiate urine on the then standard cut off of 300ng/ml. This was one of the early signs that the poppy seeds actually contained a significant opiate concentration.

The tea is generally made by 'washing' or soaking the seeds in water in order to draw off the available opiate alkaloids. Additives include citric acid believed to 'turn'

the contents, increasing its intensity, and/or Raro, mainly to disguise the taste. On occasion this solution is being boiled down in order to reduce its content prior to being sieved and drunk. This process can take up to two hours.

Pilot study

During a preliminary period of study from January to August 2002, 51 opiate using clients were referred to ADDOX. Fourteen of these clients did not attend, 5 of who were known to be poppy seed tea users from previous presentations. Of the thirty-seven clients that did present, 13 left the service and were discharged prior to an assessment of poppy seed tea use.

Our sample group finally consisted of 3 males and 5 females. They were all diagnosed as opiate dependant, four were Hepatitis C positive and four had another psychiatric co-morbidity. Their use dated back to 1996 and ranged from being a once off to use on alternate days with morphine, to sole daily use commonly of a half kilo a time, but varied from 0.25 to 4 kgs at a cost of between $8.50 and $17 a kilo. Although serum morphine levels were taken this procedure was not standardised sufficiently to generalise from the data, although it was recognised that levels were in the normal range of those on regular prescribed pain relief. Clients generally reported that 0.5kg equated to 25-30 mg of IV morphine (bearing in mind the different bioavailability from different routes of administration); that an 'opiate type effect' comes on 15-20 minutes after ingestion and that it would 'hold' them for between 12 and 24 hours.

No clients had at the time reported either injection of the tea nor overdoses. Adverse effects commonly noted were those consistent with opiate use and withdrawal, and included constipation, scratching and appetite suppression. More specifically, stomach problems have been reported possibly related to the citric acid added by some users. There were concerns about the toxins, believed to be more detrimental than in other drugs of abuse, and the extensive nausea and vomiting that its use precipitates, along with vivid descriptions of its "disgusting" smell and taste.

It was clear from this preliminary work that poppy seed tea use has a number of implications. Poppy seed tea is clearly an opiate of abuse and whilst frequently used in conjunction with other opiates also causes and/or maintains dependency. There is also a significant role in the time and effort that goes into the production of the tea. It has been shown to be difficult to withdraw from and to titrate medication for, partially due to its apparent half-life but also due to the complications of poly opiate use and the impact of other narcotic alkaloids. From a wider perspective it is proving to be less harmful than IV use in terms of potential reduction of blood born viruses, reduced financial and criminal impact, no known overdoses and the encouragement and maintenance of 'activities of daily living'. There are concerns about its accessibility to non-IV and younger potential users, its ease of access to those who are trying to cease use and the impact on potential regulations of sales.

URGE TO SPLURGE - A REVIEW OF PATHOLOGICAL BUYING BEHAVIOUR

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Pathological buying (PB) is characterized by inappropriate shopping and spending which can lead to social, marital and occupational dysfunction, financial and legal problems, and personal distress. Under-recognized, it is predominantly a female problem with a prevalence of 1-8% and an age of onset of between 18 to 30 years. Despite its high frequency and its severe complications, it is rarely described in the psychiatric literature.

The earliest descriptions of PB were made by Emil Kraepelin and Eugen Bleuler who used the terms "buying mania" and "oniomania" respectively. Freud and Stekel (1924) reported buying behaviours, which were "out of character" and "peculiar". In the 1990s, as reports and studies on PB began to emerge, the terms compulsive buying, impulsive purchase, or uncontrolled buying were used to describe this phenomenon, all of which were unsatisfactory and reflected the dilemma in its conceptualization. More recently, PB has been raised as a possible behavioural addiction.

The directions of research on PB have been influenced by researchers' conceptualizations of the phenomenon. The debate has centred around whether uncontrollable buying should be considered as firstly, part of a linear continuum of a high level of normal buying, or an extreme case of a generalized urge to buy; and secondly, whether it should be regarded as a distinct disorder.

Most buying impulses are normal and occur in the absence of a psychiatric history and may lead to unplanned purchases. One third of the general population experience buying impulses and 27-62% of department store purchases are impulsive. At the severe end of the continuum, buying behaviour may become problematic. However, this interface has not always been easy to define and is further confounded by overlaps with other psychiatric co-morbid conditions.

PB has been variously conceptualized as a compulsive, an impulsive and an addictive disorder. Earlier conceptualization as an obsessive-compulsive spectrum disorder was based on the repetitiveness of the behaviour, the successful use of the anti-obsessional agent fluvoxamine and an association with hoarding and obsessive-compulsive disorder. The conceptualization of it as an impulsive disorder revolves around tension dysregulation, the association with other impulse control disorders and higher impulsivity scores amongst pathological buyers. In fact, PB is currently

classified in the DSM-IV as an impulse control disorder-not otherwise specified (ICD-NOS).

Thus far, there has been little research done to support PB as a possible form of behavioural addiction. Nevertheless it is associated with cardinal features of addiction such as preoccupation, dyscontrol, engagement with the activity despite knowledge of its adverse psychological, physical and social consequences, tolerance and withdrawal features. It is also associated with other chemical and behavioural addictive disorders. The so-called "impulses", "compulsivity" and "cravings/drives" may be terminologically different words describing similar underlying neuro-biological mechanisms.

We describe two cases of PB and provisionally conceptualize these cases as examples of addictive phenomenon based on a modified DSM-IV criteria for dependence.

Sally

Sally is a 58 year-old factory worker, separated from her husband and living with her children. She describes an onset of ongoing urges to buy things since her early forties. She buys erratically from malls, usually food items, which are either given away or concealed. There is no identifiable precipitant to her buying. Her longest abstinence lasts only two weeks. Typically she feels excited and high during her shopping but gets irritable, low in mood, frustrated and anxious when the shopping is reduced or stopped. She also reports diminished enjoyment or excitement if she shops at the same frequency. Once started, she finds it hard to stop and often ends up in debt, becoming physically exhausted and having marital difficulties. Despite these consequences she continues her shopping behaviour.

Sally has a son who has schizophrenia with alcohol related problems and excessive video games playing. Her daughter exercises excessively. Sally herself has a history of depression, generalized anxiety disorder, binge eating disorder and other associated addictive behaviour, namely pathological gambling and excessive eating.

Diana

Diana is a 58 year-old unemployed divorcee who lives alone. She describes an uncontrollable spending habit that started when she was fifteen. During these buying sprees she spends all the money buying gardening tools, groceries, paint, shoes, second-hand furniture and nursery items at different stores and using different discount cards. Her erratic buying goes way beyond what she can afford, leaving her with no money for food. Most of her purchases are either hidden, sold or given away. She feels her buying is related to stress, having no concept of what money can do for her, and having no sense of reality for what she needs. She also feels chronically unhappy and is low in her self-esteem.

Despite experiencing ongoing difficulties with schooling, work and interpersonal conflicts with people, she continues to engage in excessive buying. Typically she ends up with unplanned purchases once she starts and has tried numerous times to reduce or stop buying without any success. A great deal of time is spent on the shopping, enjoying it and recovering from it afterwards in place of other important social, occupational or recreational activities. She needs to increase the frequency of the

purchases in order to get the same excitement and experiences irritability, depressed mood, frustration, anxiety and poor sleep if she tries to reduce or stop buying.

Diana has a past history of depression, alcohol dependence, binge eating disorder, ongoing gambling addiction and excessive exercising behaviour. There is a family history of alcohol-related problems and depression. She also reports her sister having similar buying problems and two of her other siblings surf the internet excessively.

Conclusion

PB is a syndrome with complex phenomenology and associated disorders. The conceptualisation of PB is evolving and there is reasonably good evidence supporting its status as primarily an addictive disorder from a phenomenological perspective. The identification of PB adds to the established presence of pathological gambling as a behavioural addiction and to the increasing need to develop generic addiction services, which encompass both substance and behavioural addictions.

HOMOCYSTEINE LEVELS IN ALCOHOL DEPENDENT PATIENTS PRE AND POST DETOXIFICATION

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Raised homocysteine levels have been recognised as a risk factor for vascular disease over the last decade. More recently there has been evidence that a raised homocysteine level may also be linked to dementia.

Homocysteine is an amino acid produced as a normal bi-product of the breakdown of methionine, which is an essential amino acid acquired mostly from eating meat. Excess homocysteine levels are associated with the above-mentioned risks.

Homocysteine is cleared by two pathways. In one of these, homocysteine is converted to cysteine with Vitamin B6 as a co-factor. Homocysteine can also be metabolised by a separate pathway back to methionine via the enzyme methionine synthetase, which requires Vitamin B12 and folic acid as co-factors.

Thus to prevent the accumulation of homocysteine and raised blood levels, there needs to be adequate nutrition and levels of vitamin B6, vitamin B12 and folic acid.

At the current time homocysteine levels are being increasingly measured in patients with vascular disease, particularly those where no other obvious risk factors such as smoking, hypertension and raised cholesterol are present. It may be that a raised homocysteine level will carry a similar significance to raised total cholesterol levels with regard to the development of arterial disease. It is not yet clear just how homocysteine causes damage to arteries but it is likely to be due to oxidative damage to the vascular endothelial cells and proliferation of vascular smooth muscle cells.

As well as the above-mentioned nutritional deficiencies of vitamins B12, B6 and folic acid, a raised homocysteine level can occur with genetic defects with the enzymes concerned with homocysteine breakdown. For example, there is a rare inherited disorder called homocystinuria, which is associated with various abnormalities in children that have this disease. Interestingly, these children die prematurely of vascular disease. The original observations by Dr McCully in these children led to the subsequent exploration of homocysteine as a risk factor of vascular disease.

In addition, a number of medical disorders including renal failure, hypothyroidism and certain medications have been associated with raised homocysteine levels. With regard to alcohol, there have been a number of observations in the last 10 years regarding homocysteine levels in alcoholics beginning with Hultberg et al (1993) who

first found evidence of raised homocysteine in alcoholics admitted for detoxification and that these levels returned to normal after one or two weeks of hospitalisation. There have been no conclusions as to whether raised homocysteine levels are associated with lower levels of folate, B12 and B6, which are not frequently encountered in alcoholics because of their poor nutrition.

Over more recent years there have been a number of animal studies with regard to homocysteine and alcohol. These found that very high doses of alcohol were associated with raised homocysteine levels even when there was concomitant feeding of the animals with adequate doses of vitamin supplementation. There is other evidence suggesting that alcohol may directly inhibit the methionine synthetase enzyme.

Our study aimed to determine the prevalence of raised homocysteine levels in alcoholic patients and to explore nutritional associations in more detail. We also measured homocysteine levels at the end of the detoxification period.

Consecutive patients admitted for alcohol detoxification were venesected on arrival before any food or vitamin supplementation. Blood samples for the homocysteine levels were put on ice, centrifuged and frozen and subsequently analysed. Blood was also taken on admission for vitamin B12 and folate levels. All patients were assessed in detail by the Ward Dietician.

We report here on the first 36 alcohol dependent patients. There were 22 males and 14 females with an age range between 25 and 75. The normal range for a plasma homocysteine is 5-15 mmol/L (millimoles per litre). The mean admission level of homocysteine in these patients was 21.3 mmol/L with a range of 6.8 – 76.7. A post detoxification level was done at an interval of five days after admission and was 13.0 mmol/L with a range of 5.1 to 38.5 (P=0.001).

It was found that homocysteine levels were greater than 15 mmol/L in 17 of the 36 patients on admission. At the time of discharge, homocysteine levels were greater than 15 mmol/L in 11 of the 36 patients. No statistical correlation was found between homocysteine and the serum vitamin B12 and folate levels on admission. There was also no significant correlation between the homocysteine level and other indices of alcohol excess such as mean cell volume and liver enzymes.

The conclusion of this study to date is that increased homocysteine levels are common in alcohol dependent patients, and the levels fall quickly during alcohol abstinence during a detoxification admission. It does not appear that the raised homocysteine levels are adequately explained by deficiencies of vitamin B12 or folic acid. This would be further evidence to suspect that with alcohol excess, there is a direct effect of alcohol on the homocysteine metabolism, which is most likely to be at the methionine synthetase step.

It is interesting to speculate on the significance of the raised homocysteine level in alcoholics. One factor to consider is the well-known J-shape curve on the risk of coronary events relating to alcohol consumption. Although there is compelling evidence of a protective affect at low levels of regular alcohol consumption in older populations, there is also evidence that at higher alcohol consumption (beyond 70

grams of alcohol per day), that the risk of coronary events rises sharply. We have considered that alcohol induced raised homocysteine may contribute to this righthand side of the J-shape curve. At high levels of alcohol consumption, other factors relating to alcohol such as hypertension may also be contributing.

At the current time, it is increasingly recommended that patients from the general population who were found to have a raised homocysteine be treated with folic acid supplementation. There is evidence that folic acid supplementation, and B12 supplementation may be associated with reduced risks of vascular events. It is yet to be determined whether alcohol dependent patients who have raised homocysteine levels would benefit from folate or B12 supplementation.

MEASURING TREATMENT OUTCOMES FOR CLIENTS OF ALCOHOL AND OTHER DRUG TREATMENT SERVICES

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The NSW Health Department in partnership with the National Drug and Alcohol Research Centre (NDARC) has established the Monitoring and Outcomes Project (MOP). The major goals of this project are to establish a state-wide treatment data set, and following this, to introduce the regular assessment of treatment outcomes using a brief outcome measure.

Collection of the NSW Minimum Data Set for Clients of Alcohol and Other Drug Treatment Services, commenced on July 1, 2000. The data set being collected includes all of the data items agreed to nationally, which comprises the National Minimum Data Set for Clients of Alcohol and Other Drug Treatment Services, as well as additional items to describe the treatment services being provided.

The next phase of this project is the addition of an outcomes module to complement the data collection. This will be consistent with the format of the NSW data and will include amendments and additions as required. Many drug and alcohol agencies have used a variety of methods to measure the effectiveness of their interventions. However, this is the first time the NSW Department of Health has funded a major project to develop a uniform system of measuring outcomes across the state. A review of the existing treatment outcome measures and the literature on routine outcomes monitoring and the predictors of outcome has been written to complement the background work for this project.

The 1999 NSW Drug Summit highlighted the need to objectively measure treatment outcomes across alcohol and other drug treatment services in NSW, particularly in opioid maintenance pharmacotherapy services where substantial additional funding has been directed.

Methadone maintenance (MMT) is the most widely used and researched regime for the treatment of opioid dependence. There are approximately 15,000 individuals receiving methadone in New South Wales. Assessments of the effectiveness of MMT has largely depended on large, observational treatment outcome studies that have followed a representative sample over time to assess the outcome on drug use, crime and other measures. Controlled observational studies have generally shown that clients in MMT substantially decreased their heroin use and criminal activity while they remained in treatment. MMT reduced the transmission of HIV among injecting heroin

users by decreasing the frequency of injecting and needle sharing. The risk of opioid overdose death is also substantially reduced among those receiving MMT.

Buprenorphine, an opioid maintenance pharmaco-therapeutic agent, is increasingly being used as an alternative to methadone. Its principal advantages include its safety in overdose, amenability to thrice-weekly dosing and reduced withdrawal symptoms upon cessation of use. Buprenorphine has been shown to be as effective as MMT in retaining clients in treatment and reducing illicit opioid use.

A brief, multidimensional instrument has been designed to regularly assess opioid maintenance pharmacotherapy treatment outcomes. The Brief Treatment Outcome Measure (BTOM), is designed to be used in routine clinical practice in conjunction with client case management. It is intended to investigate the characteristics of persons entering treatment, capture the disability of the client population, and document treatment outcomes. The aggregated data will inform the planning and development of treatment services and aid quality assurance measure.

From November 1, 2000, the BTOM was trialed in selected NSW metropolitan and rural methadone services. Expansion of the BTOM methadone trial occurred in late 2001, results of which were used to further develop the instrument and report on NSW Drug Summit initiatives. In May 2002 the BTOM was mandated for implementation across all government funded opioid maintenance pharmacotherapy services in NSW.

The BTOM contains six scales that can be scored for each client. The sub-scales were derived from a principal components analysis with varimax rotation which was performed on the data from 350 completed questionnaires.

Results from the 18-month clinical trial and a pilot study conducted by the National Drug and Alcohol Research Centre (NDARC) are encouraging, indicating that the BTOM is a valid and reliable instrument, capable of measuring change in treatment outcome.

Once all agencies are collecting the BTOM in an electronic format, individual agencies will be able to examine their own aggregated client data, observe trends in the characteristics of clients entering into treatment and monitor treatment outcomes.

When fully implemented this will provide uniform state-wide data on the drug and alcohol services available, the utilisation of these services, client population profiles, treatment needs, the types of treatment delivered and outcomes achieved. This information will serve to facilitate increased awareness and improved responses to relevant issues by the government, treatment and other health agencies, and the broader community.

All agencies utilising the BTOM trial receive regular reports detailing analysis of their own aggregated, de-identified client data as well as a summary of state-wide aggregated data.

Additionally, BTOM has been extended to meet the needs for a brief, generic treatment instrument, to be administered across all Alcohol and Other Drug Treatment Services. Treatment specific sections have been developed for each of

the other main treatment types, detoxification, counselling and rehabilitation. Trialing commenced in these sectors from October 2001.

Future directions

As implementation of the BTOM occurs in all government funded opioid maintenance pharmacotherapy services in NSW greater attention must be paid to enhancing local business rules and practices to ensure that the administration of the BTOM is incorporated into routine clinical practice. Where this is yet to be achieved, 3-monthly review rates, notification of cessation of treatment and quality of data in general is not optimal. Consequently, the next phase of this project will involve close liaison with agency staff to improve the quality of data and ensure integration of the BTOM into clinical practice. This will involve data auditing, cross comparisons with client medical records and establishing benchmarks for client recruitment and 3 monthly reviews.

Approximately two thirds of MMT clients in NSW are being dosed in either private clinics or through community pharmacies. Given that any analysis of MMT treatment outcomes in would be incomplete without including these important sectors, the feasibility of expanding BTOM coverage into these sectors will be investigated.

Clinical trialing of the BTOM in counselling, detoxification and rehabilitation services will continue. Analysis of the data collected and an evaluation of the process involved in obtaining the data will inform recommendations on the implementation of the BTOM in these services.

Finally, an advisory group will be established to develop guidelines for the appropriate analysis of the BTOM data and to advise on the utility and limitations of BTOM data analysis.

HEALTH STATUS OF CLIENTS RECEIVING METHADONE TREATMENT

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The Practice Guidelines for Opioid Substitution Treatment in New Zealand (NZ) (Ministry of Health (MOH) 2002) specifies treatment objectives are to improve health by minimising the harms associated with the use of opioid drugs. More specifically, to contribute to improving health and aspects of personal and social functioning, to reduce mortality and morbidity and to reduce the spread of infectious diseases. Routinely checking-in with clients about their health and well-being is therefore important for a number of reasons. To actively involve clients (and wherever possible their significant others/whanau) in treatment planning, to provide an opportunity for health education, to guide individualised treatment and preventative interventions, and to evaluate client expectations and goal attainment, and treatment effectiveness.

SF-36 health survey

The SF-36 (Short-Form, 36 questions) is a widely used, standardised generic measure of self-reported health status/quality of life, covering role functioning, well-being and overall assessment of health (Ware et al 1993). The SF-36 measures eight dimensions of health and wellbeing: Physical functioning; Role limitations due to physical problems; Bodily pain; General health perceptions; Vitality; Social functioning; Role limitations due to emotional problems and; Mental health. Higher scores (range 0 – 100) indicate higher levels of self-reported health/well-being.

The SF-36 has been used within population and clinical settings. Ryan and White (1996) used the SF-36 to assess the health status of 100 heroin users at entry to an Australian Methadone Treatment Programme (MTP) and found that on average, MTP participant scores on all eight scales were significantly worse when compared with normative data. The SF-36 has also been used routinely within NZ MTP settings (Mackinnon & Paton-Simpson 2000). New Zealand population norms have been established (Scott et al 1999), although the cultural validity of the SF-36 has been questioned for Maori over 45 years and Pacific Peoples (Scott et al 2000).

As part of a Health Research Council of NZ funded project on the evaluation of MMT, participants were administered the SF-36, with the aim of describing the health status of a representative sample of clients receiving methadone treatment.

Participants

Participants were a randomly selected sample of Maori clients (N = 35) and non-Maori clients (N = 72) recruited from the Christchurch MTP.

The mean age of participants was 35 years, 52% were male and 54% were single. 55% had completed less than three years of high school education. Only 23% were employed (full or part time), the remainder were on some form of benefit, with 23% receiving a Domestic Purposes Benefit, indicating full-time parenting. 60% received a daily methadone dose of 60mgms or more. 33% were prescribed medication to treat a medical problem, 33% were prescribed medication to help with stress, emotional or psychiatric problems and 13% were prescribed medication for both medical and mental health related problems.

Results

On rating their overall health status, 21% percent of participants rated their health as very good or excellent, 35% as good and 44% as fair or poor. However, in comparison to NZ population norms, MTP participants on average had significantly poorer self-reported health across all eight health dimensions. This low rating of health remained when gender and ethnicity were examined specifically in relation to population norms.

Within the MTP participant group, increasing age was associated with decreasing Physical functioning sores. Taking age into account, there were no significant differences between participants on any of the health scales in relation to gender, ethnicity, marital status, duration of high school education, employment status, number of admissions to a MTP, duration of time on the MTP, or methadone dosage.

However, frequency of prescribed medication for a medical problem during the preceding month was negatively correlated with all 8 health dimension scores. Frequency of prescribed medication for a mental health problem was negatively related to scores on the General health, Social functioning and Mental health scales. In terms of recent drug use, frequency of tranquiliser use was negatively correlated with scores on the Bodily pain, Mental health, Role emotional and Social functioning scales. Frequency of marijuana use was negatively correlated with the Role emotional scale.

Conclusions and implications for service provision

1. While there was a range of scores on each health dimension and 56% of participants rated their health as good, very good or excellent, MTP clients on average have poorer self-reported health, compared with NZ population norms.
2. Apart from poorer reported physical health being associated with increasing age, there were no significant differences within the MTP participant sample on key demographic variables.

3. Frequency of taking medication for a medical problem was associated with poorer reported health across all eight health dimensions and frequency of taking medication for a mental health problem was associated with poorer mental health, general health and social functioning, indicating the impact of co-existing disorders on well-being and role and social functioning.
4. Frequency of tranquiliser use was associated with reported higher degree of bodily pain, poorer mental health, poorer day-to-day role functioning due to emotional problems and social functioning: Cannabis use was associated with poorer day to day role functioning due to emotional problems.

Results support the need to routinely check in with MTP clients about their health, role and social functioning and well-being, providing an opportunity for health promotion and a means to guide and monitor health related interventions, particularly for clients with co-existing physical and mental health disorders. While the SF-36 is a standardised generic consumer measure of health status and wellbeing, its lack of demonstrated cultural validity for older Maori and Pacific Peoples, together with the question of generic versus "disorder-specific" measures requires further discussion. In order to identify and/or develop meaningful health measures for use with clients receiving opioid substitution treatment, discussions must involve treatment providers, consumers, Maori and Pacific Islands representatives.

COMMUNITY OPIOID DETOXIFICATION: A RETROSPECTIVE REVIEW

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A low-budget retrospective review of the outpatient opiate detoxification service was planned. The aim was to find factors that positively correlated with successful community detoxification, using multivariate analysis.

The objective was to inform service development especially with regard to patient selection for best outcomes from detoxification. This plan proved difficult to achieve for a number of reasons, and the multivariate analysis could not be conducted as planned. The research process was analysed to determine the factors that had hampered progress.

This information shows that services can learn from research even when the results are "negative".

What is community detoxification (at our service)?

It is a short-term outpatient-based programme, abstinence-focussed and monitored by self-report and urinalysis. After patient assessment and contract, the protocol covers supportive counselling and fixed or flexible countdown over 3 months using a number of medication options: methadone, long acting morphine (Kapanol), clonidine, or less often a short-term hypnosedative. Relapse prevention counselling is offered after the countdown.

How did we intend to study this?

A retrospective case review was carried out. In order to keep the sample "pure" only those clients having methadone-assisted outpatient countdown were studied. Those counting down from methadone maintenance were excluded. Ethical approval was obtained. Records were audited retrospectively for factors predicting success with the detoxification. As a comparison group, records of alcohol detoxification clients were also examined.

Problems with the methodology

Selection of patients proved very difficult retrospectively. Existing documentation did not identify what clinic service(s) each client had received. It was necessary to examine patient records to discover who had received which drugs to assist

detoxification, and distinguish community-referred clients from those counting down from the methadone programme. This process also partially relied on staff memory, and was hampered by staff absences over the summer holidays. Retrospective data culling proved problematic since the predictive factor data were not recorded in a consistent manner and relevant data was sometimes missing (e.g. history of employment, specific information on past legal problems or debt, details on prior detoxification attempts). A successful detoxification was not readily defined. It was unclear if the service should regard this as completion of the prescribed countdown or attainment of abstinence by countdown, retention in counselling after countdown despite relapse or sustained abstinence. Follow-up data were unavailable since most clients failed to return to the service when their countdown was completed. Most had been unavailable through invalid addresses or phone contacts by that stage. Ethics and logistics of tracing patients prevented collection of follow-up data for the review. There were problems with timeframes. Changes in clinic staffing had influenced the delivery of the detoxification programme within the past year. The short research period available to the student researcher hampered the extent to which external data (Justice, GP, hospital records etc) could be sourced.

Results

Twenty-three recent methadone detoxification patients were identified. They were heterogenous; 39% sole opiate users, 83% intravenous users (but some of those used opiates both orally and intravenously), and 9% seeking detoxification from poppy tea. All stayed in the programme until countdown was completed, but most used opiates during that time. Thirty-five percent completed the detoxification without adding any extra opiates (their word was taken as urinalysis could not distinguish prescribed from illicit methadone). Nine percent went on to a residential rehabilitation programme.

Problems with results

The small numbers were a surprise and disappointment to staff. The clinic may have overestimated the numbers it was treating because these clients take a lot of time, multiple prescribing, intensive support and the same few clients had repeated presentations. There was no suitable comparison group. The methadone group itself was heterogeneous, patients within the group were not comparable. Low numbers and poor data for clients using other opiate detoxification modalities made that an impractical comparison. Alcohol detoxification patients were very different in many ways. Willingness to continue to engage once abstinent provided ample longer-term follow-up data for alcohol detoxification clients.

There was difficulty in choosing endpoints appropriate to determine treatment success. Programme completion was 100% to the end of countdown. Even those who did not manage to curtail use during the programme remained engaged until their prescriptions ceased. Follow-up data proved not to be a worthwhile endpoint for the purposes of this evaluation, because most clients in this sample did not attend for follow-up after countdown.

What did the service learn from this study?

In our small sample the results with methadone countdown seemed better than from some centres overseas, which report single figure abstinence. Nine percent of our

sample went on to residential programmes. However, the New Zealand illicit opiate scene isn't comparable to countries where heroin is more readily available. In New Zealand monitoring of methadone therapy and countdown by urinalysis is less reliable due to the prominence of methadone as an illicit opiate. Patient and clinic perspectives on detoxification differ. Understanding client motivation to change may help the staff to tailor the programme and modify their expectations. To some patients controlling use may be a more valued endpoint than abstinence. Engaging in detoxification may be just as important in completion since it results in personal experiential learning. In the constrained New Zealand illicit drug market environment, the provision of an opiate detoxification service may be an incentive for patients to overstate goals, especially in the presence of long waiting lists for methadone maintenance.

Improved patient selection might improve service "success" rates but there are risks of transforming the agenda to a clinic driven perspective. This might discourage ambivalent clients from an attempt at assisted withdrawal. The service should re-examine its treatment paradigm with regard to outpatient opiate detoxification; in particular to determine if the service should be abstinence-focussed or instead intended to provide an experience of controlled withdrawal.

CLINICAL PREDICTORS OF TREATMENT OUTCOME FOR ALCOHOL DEPENDENCE

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Prediction of treatment outcome in clinical settings is viewed as valuable in:

- Identifying under-served client groups
- Identifying areas to target in treatment
- Improving prognosis

The ability to develop an accurate prognosis is important as it allows clinicians to better inform the client and their family, plan appropriate treatment duration and intensity, and to set realistic treatment goals.

The aim of this study was to investigate the extent to which clinical predictors increased ability to predict outcome beyond the use of demographic measures or the measurement of baseline equivalents of those outcome measures (such as using baseline drinking frequency to predict drinking frequency at follow-up).

Methods

Baseline data were analysed for 122 clients participating in the Brief Treatment Programme for Alcohol Dependence, a randomised controlled trial undertaken to investigate the effectiveness of motivational enhancement therapy. Baseline data were used to predict outcome measured at a follow-up interview six-months after the six-week treatment phase. A wide range of demographic, drinking behaviour, diagnostic and psychological measures were used to predict outcome across four relatively independent drinking-related domains – drinking frequency (in the preceding six months), drinking intensity (average number of drinks per drinking day in that time), severity of dependence (Leeds Dependence Questionnaire, LDQ) and alcohol-related problems (Alcohol Problems Questionnaire, APQ).

Primary predictors were age, gender, employment, marital status, ethnicity, education, drinking frequency, drinking intensity, LDQ and APQ.

Clinical predictors were DSM-IV Axis I diagnoses plus conduct disorder and ASPD, AUDIT score, CUDIT score (cannabis), drinking goal, motivation (Readiness to

Change Questionnaire: RCQ), personality (Temperament and Character Inventory, TCI), drinking obsession/compulsion (Obsessive Compulsive Drinking Scale, OCDS), drinking control (Impaired Control Questionnaire, ICQ) and parental bonding in the first fifteen years of the participants life (Parental Bonding Instrument, PBI).

These variables were run through a series of linear regression analyses, first to develop a "primary model" and secondly to develop a "primary + clinical model". Predictive power is expressed as r^2, the percentage of variance accounted for by the prediction model.

Results

Table 1: The predictive power of primary variables and the increased prediction facilitated by the addition of clinical variables

			Regression model (Adjusted r^2)	
Dependent Measure	N	Primary variables *+ clinical variables*	Primary	Primary + Clinical
Drinking Frequency	86	Drinking frequency Age *RCQ-Action subscale* *Drinking goal* *Alcohol dependence onset age* *OCDS Obsession subscale*	.29	.38
Drinking Intensity	93	Drinking intensity *ICQ* *RCQ total* *CUDIT* *Problem gambling*	.20	.26
LDQ	73	LDQ *RCQ total* *PBI maternal care* *AUDIT*	.22	.39
APQ	75	APQ LDQ Drinking Intensity *Lifetime cannabis d/o* *PBI maternal care* *ICQ*	.34	.46

Table 1 shows the predictive power of primary variables only (variables left indented) and the increase in predictive power produces by adding clinical variables (italicised and indented).

Conclusions

Analysis of the BTP data revealed that demographic variables were poor predictors of treatment outcome, emphasising the need to look beyond simple demographics for the underlying factors predicting outcome. Most of the predictive power in the

primary models came from the baseline equivalents of the outcome measures, while clinical variables increase predictive power for all outcome measures.

No two dependent measures had the same profile of predictive variables. Variables that were predictive across several domains were motivation, drinking control, cannabis misuse, parental bonding, dependence severity, and drinking intensity.

The differing patterns of predictor variables across outcome measures highlights the fact that outcome is a multidimensional concept, even within the confines of drinking behaviour as shown here.

Two predictor variables that featured strongly were motivation and maternal care. The fact that motivation was an important predictor above and beyond drinking level and associated problems, as demonstrated by it remaining significant in a regression analysis with these other variables, highlights the fact that it is an important phenomena that is at least partly independent of these other factors. It can be argued therefore that motivation should be assessed directly rather than being assumed based on the extent of associated problems that a person is experiencing. The presence of "maternal care" across two of the outcome domains reinforces the concept of "breaking the cycle". Not only might we suppose that inadequate parenting might increase a person's risk of developing a drinking problem, but additionally this data suggests that even among those with a drinking problem engaged in treatment the extent of maternal care in childhood will predict that person's ability to benefit from that treatment.

PSYCHOPATHOLOGY AND SERVICE USE PATTERNS OF CLIENTS ATTENDING THE AUCKLAND COMMUNITY ALCOHOL AND DRUG SERVICES (CADS)

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Five CADS units, part of the larger Regional Alcohol and Drug Services (RADS), provide community-based outpatient alcohol and drug services to the wider Auckland region. Each unit is funded to provide a range of specialist alcohol and drug (A&D) interventions suited to a range of client groups - from those in the early stages of A&D abuse right through to the severely dependent. Based on these funding requirements the five CADS units adopted a standardised service delivery model in which all new clients are triaged, based on their level of need, into one of three treatment pathways:

- Minimal treatment pathway: 1-3 face-to-face sessions
- General treatment pathway: 2-10 face-to-face sessions
- Comprehensive treatment pathway: 6-20 face-to-face sessions

As the Minimal and General treatment pathways indicate, the CADS units primarily offer a brief intervention service. This reflects the greater mild-to-moderate A&D problem population in the community (as compared to the severe A&D problem population). Longer-term care for clients with more severe A&D issues is provided via the Comprehensive treatment pathway.

However, high levels of severe A&D dependence in new admissions (70%) and anecdotal reports of prevalent psychopathology amongst clients in all treatment pathways, indicated the CADS client population was less varied, and more 'complex', than expected. With a severely dependent, and possibly co-morbid (both A&D and mental health issues) client population, questions were raised as to how appropriately the CADS service was being apportioned according to the funding and structural expectations.

To address these questions funding was obtained to study the potential client/service mismatch. The primary research objectives were to establish:

- The level & type of psychopathology among the CADS client population
- The diversity of the CADS client population across a range of A&D, mental health, & risk factors
- How effectively the CADS triage system differentiates the client population

This paper reports on key findings from two of the studies conducted as part of this investigation; namely, a retrospective client file review of 3-months worth of consecutive new admissions to the CADS service (N = 536), and the administration

of a psychometric mental health screen - the Brief Symptom Inventory (BSI) - to a cross-section of CADS clients (N = 147).

Estimates of psychopathology varied by data source. Clinical records identified recent (defined as being within one-month of contacting CADS) mental health service contact or mental health concerns in 32 to 49% of new admissions. Eighty-eight percent of new admissions in the BSI sample, however, screened positive for a possible mental health issue, as did 79% of all clients presenting to the service on any given week. Available evidence suggested that only a minority of the BSI sample were in receipt of specialist mental health support.

In file records 'mood' related issues were reported more than twice as frequently as any other mental health issue type and made up 40% of all reported issue types. Besides mood and A&D related issues, other mental health issue types were not widely evidenced (anxiety next highest at 13%). The BSI data, however, suggested a much more varied 'issue profile' with 'psychoticism' and 'obsessive-compulsive' related symptoms featuring prominently alongside depressive related ones.

The BSI estimates identified here, in conjunction with the previously recorded rate of severe A&D dependence (70%), affirms the suspicion that the *actual* CADS population is more 'complex' and less varied than the *expected* population. It is estimated that for every 100 new admissions:

- 90% would present for their own A&D issues (10% significant others)
- 92% of clients presenting with their own A&D issues are likely to have severe A&D dependence and screen positive for a mental health issue (65%), positive mental health screen but not severely dependent (18%), severe A&D dependence only (5%).
- Only 8% would be neither severely dependent nor screen positive.

Regardless of grouping, the majority of all new clients (85%) are rated by clinicians as a low risk for harming themselves or others (only 3% rated as a high risk).

Despite the general severity of client issues, it appears, based on a range of clinical indicators, service use patterns and BSI scores, that the triage system is still able to meaningfully differentiate clients into more and less severe groupings.

Again, in spite of the general severity of client issues, it also appears that CADS primarily remains a brief intervention service. Sixty percent of a 3-month sample of consecutive new admissions physically presented to the service for only one (40%) or two (20%) face-to-face sessions. Regardless of the level of care deemed necessary by the triage assessment - the majority of all clients exited the CADS service having received fewer than five face-to-face counselling sessions. Only 9% of new admissions went on to attend more than ten face-to-face sessions.

This finding was tempered by two things: A) it would appear that the brief intervention patterns are primarily client rather than service controlled. That is, rather than completing prescribed treatment plans the majority of clients are exiting the service in an unplanned manner; B) the minority of clients that do exceed expected service use patterns have accumulated, over time, into a disproportionately large pool of longer-term clients. Over fifty-percent of clients attending the

comprehensive treatment pathway on a typical CADS week had exceeded 10 sessions and over a third had exceeded 20 sessions. Despite the fact that only 4% of clients referred to this pathway typically go on to attend more than 20 sessions.

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